



Ohio's Teacher Equity Plan

to ensure that poor and minority children are not being taught at higher rates than other children by inexperienced, unqualified and out-of-field teachers

August 2006

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PART I: The Message is Clear: High Quality Teachers Make a Difference in Student Learning

What Does the Research Tell Us?

If there is one clear message that has emerged from educational research, it is this: Teachers make a difference in student learning. Teachers matter most, and high quality teachers matter even more.

Research on the critical importance of teachers is not new. Over the last 10 years, major studies show that the single most important factor in determining how much students learn is how much their teachers know – their preparation and qualifications, content knowledge and teaching skill (The George Lucas Foundation, 2005). These high quality teachers have extensive teacher preparation, classroom experience, and in-depth knowledge of the subjects they teach. A 1999 review of policies in 50 states strongly suggests that the quality of teachers is directly related to improved student performance. In fact, students’ backgrounds – poverty level, language background and minority status – are less influential in predicting achievement levels than the quality of the teaching force (Darling-Hammond, 1999). Researchers say that while schools can have powerful effects on achievement, variation in teacher quality has the most effect on how much a student achieves (Hanushek et al., 1998).

The public agrees. In a 1998 poll, nine out of 10 Americans said the best way to improve student achievement is to provide a qualified teacher in every classroom (Haselkorn & Harris, 1998). A 2004 poll again confirmed that 91 percent of the American public and 90 percent of public school teachers believe teacher quality is most important – more than parental involvement, facilities, resources or the quality of school principals (Teaching Commission, 2004). Since the landmark 1996 report of the National Commission on Teaching & America’s Future, *What Matters Most: Teaching for America’s Future*, states and the public have been paying attention to the commission’s findings, including:

- What teachers know and can do is the most important influence on what students learn.
- Recruiting, preparing and retaining good teachers is the central strategy for improving our schools.
- School reform cannot succeed unless it focuses on creating the conditions in which teachers can teach, and teach well.

The commission challenged states to provide a competent, caring teacher in every classroom by 2006.

Since 2000, Ohio has steadily built a standards-based educational system that clarifies content standards in every subject and grade level, and which aligns curriculum, assessments and the accountability system to those standards. In addition, Ohio took steps to

strengthen teacher quality and close achievement gaps in student performance with the 2001 establishment of the Governor's Commission on Teaching Success (Governor's Commission on Teaching Success, 2003). The 46-member commission focused on four areas:

- Clarifying expectations for teachers and principals;
- Recruiting and retaining high-quality teachers and principals;
- Preparing teachers and principals to succeed; and
- Advancing the professional practice of teachers and principals.

When the historic *No Child Left Behind* Act became federal law in 2002, accountability for the performance of all groups of students and the issue of highly qualified teachers rose to the forefront of the nation's education agenda. States began to re-examine their policies and practices to ensure that all children are provided the opportunity to obtain a high quality education. Fortunately, Ohio was already well on its way to building a comprehensive educational system focused on two key areas: accountability and teacher quality.

Ohio's Dual Focus: Accountability and Teacher Quality

When we ask what our students should know and be able to do, we also must ask: What should our educators know and be able to do? Ohio's focus on accountability and teacher quality addresses both questions.

Within six months of the enactment of NCLB, Ohio's new accountability system merged the state system of rating school districts and schools based on student performance with the NCLB requirements, creating an accountability system that will allow the state to realize its vision: *Higher achievement for all* (Ohio Department of Education, 2004b). This accountability system rates Ohio school districts and schools as Excellent, Effective, Continuous Improvement, Academic Watch and Academic Emergency, merging the federal Adequate Yearly Progress standards for students in various demographic groups within this framework (Ohio Department of Education, 2005a).

Ohio's proactive efforts in the areas of accountability and teacher quality have not gone unnoticed. Education Week's annual *Quality Counts* report on standards-based education in the states has consistently recognized Ohio's standards and accountability system as one of the strongest in the nation (Education Week, 1996-2005). For the third year in a row, Ohio earned a grade of "B" for the quality of its teachers, ranking Ohio among the top 10 states in the country for the progress that has been made in improving the caliber of teachers. The report commended content testing requirements for middle and high school teachers, the use of the Praxis III entry-year program for new teachers, and accountability for teacher education programs (Education Week, 2006).

With the standards-based system in place, Ohio's students are achieving at higher levels than ever before, with increases in the average of students' scores on state tests and improved graduation rates for seven years in a row. And yet, annual state results show significant and troubling gaps in the achievement of all students, especially students of color and those from low-income communities (Ohio Department of Education, 2005b).

In 2003, the State Board of Education's Task Force on Closing Achievement Gaps recommended that the state set clear standards for teachers and administrators, improve professional development and the sharing of best practices, and address issues of quality teachers and principals in high-need, hard-to-staff schools (Ohio State Board of Education, 2003). In addition, the Governor's Commission on Teaching Success called for the establishment of an Educator Standards Board to develop standards for teachers, principals and professional development (Educator Standards Board, 2004). The teacher quality standards focus on:

- **Students:** Teachers understand student learning and development, and respect the diversity of the students they teach.
- **Content:** Teachers know and understand the content area for which they have instructional responsibility.
- **Assessment:** Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- **Instruction:** Teachers plan and deliver effective instruction that advances the learning of each individual student.
- **Learning Environment:** Teachers create learning environments that promote high levels of learning and achievement for all students.
- **Collaboration and Communication:** Teachers collaborate and communicate with other educators, administrators, students and parents and the community to support student learning.
- **Professional Responsibility and Growth:** Teachers assume responsibility for professional growth, performance, and involvement as an individual and as a member of a learning community.

Ohio now is in the process of implementing these new standards for teachers, as well as new standards for principals and for the professional development of all educators.

Closing in on the Goal: 100% Highly Qualified Teachers

Ohio's new standards for teachers, principals and professional development provide a solid framework for a coherent, aligned system to improve educator quality. Ohio's State Board of Education has shown its commitment to ensuring that all of Ohio's 120,000 classroom teachers, and the thousands of administrators in the state, have the knowledge and skills they need to help *every* student reach challenging academic standards. NCLB, as well, emphasizes the importance of teacher quality and requires that all teachers be highly qualified (HQT) by the 2006-07 school year.

Ohio is well positioned to meet this NCLB requirement. Across the state, 94.4 percent of core academic courses are taught by teachers who meet the federal definition of a highly qualified teacher. In addition, more than 53 percent of Ohio’s teachers have at least a master’s degree, and 98.4 percent are fully credentialed in the subject they teach.

But 94.4 percent isn’t good enough. Ohio’s goal is to have a highly qualified teacher in every classroom for every student – regardless of race or ethnicity, socioeconomic status, gender, disability or English language proficiency. To meet that goal, the state provides a variety of opportunities for Ohio teachers to meet the federal definition of highly qualified in the core subjects of mathematics, science, language arts/reading and social studies, including free online courses and college and university workshops. In addition, the state’s 16 Special Education Regional Resource Centers provide multiple resources for secondary special education teachers to become high qualified. The Ohio Department of Education also has formed partnerships with Ohio’s large urban school districts to produce in-house workshops, which are supported by Title I federal funds. These continuing efforts, as well as other initiatives including the 2006 summer workshops, will assist in ensuring all Ohio teachers meet federal requirements.

Ohio is on track to meet the NCLB requirement that 100 percent of its teachers be HQT by the 2006-07 school year. Now, Ohio is focusing on an additional new challenge – ensuring the equitable distribution of its best teachers.

The Key to Equitable Teacher Distribution: Coherent Policies and Aligned Strategies

There’s no question that Ohio has unacceptable gaps in student achievement, especially between blacks and whites as well as low-income and higher-income students. Unfortunately, Ohio’s own research shows that often the children in high-need schools who need the most experienced, most educated, most skilled teachers get the least effective educators (Levin, Driscoll & Fleeter, 2005). Ohio’s Teacher Equity Plan is focused on closing both the gaps in student achievement *and* the gaps in teacher quality.

Ohio’s research contributed to the basis for a national study on teaching inequality (Peske & Haycock, 2006). In 2004, Ohio, Illinois and Wisconsin partnered with The Education Trust to identify the extent of any inequitable distribution in teachers across each state. Over the course of this two-year project, Ohio conducted a comprehensive, multidimensional review of the distribution of teacher characteristics across different kinds of students and schools, with a focus on the distribution of teachers to low-performing, high-need schools and districts. This Teacher Equity Plan reports those results for Ohio, and the national report, *Teaching Inequality: How Poor and Minority Students Are Shortchanged on Teacher Quality*, gives a glimpse into the pervasiveness of inequitable distribution for poor and minority students in the Midwest (Peske & Haycock, 2006).

But there’s no single solution to the equitable distribution of the best teachers in Ohio and across our nation. As co-author Heather Peske says, “Accountability by itself doesn’t improve student achievement. Expectations and standards are important, but nothing is more important than the quality of the classroom teacher” (Peske & Haycock, 2006). Why the best and brightest teachers are not

teaching in our high-need schools is a highly complex problem that not only relates to how educators are recruited to the field and how they are prepared in teacher education colleges, but to the retention of those teachers in the classroom. According to the National Council for Accreditation of Teacher Education, almost a third of all new teachers leave the classroom after three years and close to 50 percent after five years (2003). Most leave because of low salaries and poor working conditions. Unfortunately, students in high-need school districts suffer the most. Teacher turnover, budget cuts and layoffs, and a shortage of teachers in mathematics, science and special education – all these factors affect high-needs schools and students in Ohio.

To more equitably distribute the best and brightest teachers, Ohio has developed this Teacher Equity Plan under the umbrella that all teachers should have access to a lifelong resource and support system from the time they enter teaching until they retire. The plan presents a comprehensive set of 68 strategies, organized around the following nine supportive elements, that clearly demonstrate Ohio's *good faith effort* to improve the distribution of its most effective teachers.

Element 1: Data and Reporting Systems

Element 2: Teacher Preparation

Element 3: Out-of-Field Teaching

Element 4: Recruitment and Retention of Experienced Teachers

Element 5: Professional Development

Element 6: Specialized Knowledge and Skills

Element 7: Working Conditions

Element 8: New Compensation Systems

Element 9: Policy Coherence

Developing policies and strategies, however, is not enough. Ohio is ready and poised to move from recommending strategies to taking action. The time is right for Ohio's educational system to provide every child with a competent, caring, and highly qualified teacher.

The plan is in place and the work is underway.

PART II: Examining the Data: Where, and to What Extent, do Inequities in Teacher Assignments Exist in Ohio?

Educators and policymakers at all levels of Ohio's educational system know that good data are needed to make good decisions. Before the state began developing a plan of action to improve the distribution of its most effective teachers, researchers were enlisted to conduct a comprehensive data review. Their charge? To answer one key question: **Where, and to what extent, do inequities in teacher assignments exist in Ohio?**

Ohio's Quantitative Data Analyses

Ohio researchers worked within the parameters established by the state's recently completed two-year partnership project with The Education Trust (see Appendix A). Over the course of the project, extensive district-level and school-level quantitative analyses of the distribution of teacher characteristics across different kinds of students were conducted, with a targeted focus on the distribution of teachers to the state's low-performing, high-need schools. The researchers examined several measures of teacher quality within every school: highly qualified status for all teachers, highly qualified status for mathematics and science teachers, inexperience and educational attainment. Teacher quality data were then compared to school demographic variables -- the percentage of low-income students and the percentage of minority students (Levin, Driscoll & Fleeter, 2005).¹

Major findings from district-level and school-level quantitative data analyses indicate that inequities in teacher assignments exist in Ohio, as summarized below.

Major Findings from Quantitative Data Analysis of District-Level Teacher, School and Student Characteristics

- Major urban, high poverty districts have significantly fewer highly qualified teachers than the state average
- Lower achieving districts employ fewer highly qualified teachers
- Districts with larger percentages of minority students employ fewer highly qualified teachers
- No significant differences were found at the district level with regard to "years of experience" of Ohio's teachers

¹ In Ohio, a "highly qualified" teacher must hold at least a bachelor's degree with a major or 30 semester hours of coursework in the core academic subject he/she is teaching; demonstrate subject-matter knowledge by passing the PRAXIS II subject area assessment; have a master's degree in the subject area or successfully complete the HOUSSE process; and be fully certified/licensed by the state.

Major Findings from Quantitative Data Analysis of School-Level Teacher, School and Student Characteristics

- A higher percentage of teachers who are *not* considered to be “Highly Qualified” is correlated with the following:
 - 1) Lower rating on School Report Card; particularly Academic Emergency schools
 - 2) Higher percentage of students in poverty in the school – particularly > 90%
 - 3) Lower percentage of students who are white or Asian – particularly < 20%
- Analysis of patterns of teacher experience found little relationship to school variables
- Contrary to conventional wisdom, the percentage of inexperienced teachers (3 years or less) does not appear to be correlated with school report card rating, percent poverty or student racial composition. In some cases, the relationship is the *opposite* of what might be expected.
- These patterns are apparent across Ohio’s elementary schools, middle schools, and high schools²

Case Study Data Analyses: Ohio’s Schools of Promise

Wherever the level of achievement of state standards differs among demographic groups, there is an achievement gap. In Ohio, gaps are evident in academic achievement based on race or ethnicity, socioeconomic status, gender, disability, and English language proficiency. However, gaps in academic achievement are less an indication of the characteristics or abilities of students than they are an indication of the quality of teaching and learning provided by schools. This can be said because there are schools in Ohio that are getting all demographic groups of students to achieve proficiency, even when the school has large percentages of students in poverty. These schools are called *Schools of Promise*. They prove that achievement gaps can be eliminated and that all students can achieve Ohio’s challenging academic standards.

Ohio’s Schools of Promise demonstrate high achievement in reading and mathematics for all groups of students, despite the fact that 40 percent or more of these students come from low-income backgrounds. Students in these schools met or exceeded the state standard of 75 percent passage in reading or mathematics, or both.

² Note: In schools with less than 10 percent of low-income students, only 1.5 percent of the teachers were not highly qualified as opposed to 11.9 percent in schools with 90-100 percent low-income students.

Note: The lowest performing high schools had more than six times as many teachers who were not highly qualified compared to the highest performing schools.

Note: In schools serving the lowest percentage of minority students, 2.1 percent of teachers were not highly qualified, compared to schools that had the highest number of minority students (90-100 percent) where six times as many (12.1 percent) of the teachers were not highly qualified.

In 2005, State Superintendent Susan Tave Zelman said “Our Schools of Promise prove that students can meet and exceed high standards and expectations, no matter where they live or how wealthy their families are. Good teaching, committed leadership and a positive school culture can help all students succeed.”

The Schools of Promise program promotes a variety of efforts to make schools and the general public aware of the potential of educators to close achievement gaps, including:

- Annually identifying schools that meet or exceed specific student performance and diversity criteria and awarding each school with a banner that identifies it as a School of Promise
- Conducting case-study research on the effective instructional practices and cultural qualities of Schools of Promise to assemble a compilation of the best practices of these successful schools
- Creating resources based upon findings from the research for educators and administrators who are interested in improving student achievement for all populations of students in their schools

The Ohio Department of Education continues to conduct case study analyses on the best practices in Schools of Promise to use in school improvement efforts and technical assistance to low-performing schools across the state. During the 2005-06 school year, a collaborative effort between Ohio’s Schools of Promise program and Ohio’s partnership project with The Education Trust resulted in a sub-set of case study research being focused on the analysis of teacher characteristics in eight Schools of Promise and the role that teachers play in these high-performing schools.

Major Findings from Case Study Analyses of Teacher Characteristics in Eight Schools of Promise

In the elementary Schools of Promise studied, preliminary findings show that a high percentage of teachers are *both* highly qualified and experienced (over 10 year of teaching experience). The average overall “years of experience” for teachers in all eight schools is 16.7, and more than half of the teachers hold master’s degrees. Researchers also found high levels of teacher commitment, leadership and collaboration. For example, teachers established strong relationships with colleagues and students, participated as teacher leaders in decision-making, and collaborated with one another on professional development. Researchers also found positive school cultures and climates in the eight Schools of Promise studied (Ohio Department of Education, 2006).

Case Study Analysis Findings: Elementary Schools of Promise (2004-2005 Data)

- In three of four of the elementary Schools of Promise studied, 100 percent of the teachers are highly qualified. In the fourth elementary school, 95 percent of the teachers are highly qualified
- The average overall “years of experience” of the teachers in the four elementary Schools of Promise is 16 years

Elementary Schools of Promise: Summary of Teacher Characteristics

2004-2005	Brickell	Conrad	Maple Leaf	Noble
Teachers	12	12	27	19
Percent of Highly Qualified Teachers	100%	95%	100%	100%
Teacher Attendance Rate	96.8%	97.6%	94.9%	96.5%
Average Years of Experience	16.7	13.7	14.0	20.3
Percent of Teachers with Master’s Degrees	70%	43%	84%	40%

Case Study Analysis Findings: Secondary Schools of Promise (2004-2005 Data)

- The average percentage of highly qualified teachers in the four secondary Schools of Promise is 85 percent
- The average overall “years of experience” of the teachers in the four secondary Schools of Promise is 17 years

Secondary Schools of Promise: Summary of Teacher Characteristics

2004-2005	Centennial	Meigs	Struthers	Withrow
Teachers	50	50	38	50
Percent of Highly Qualified Teachers	97%	77%	80%	87%
Teacher Attendance Rate	97%	95%	94%	95%
Average Years of Experience	19.2	22.0	18.0	9.6
Percent of Teachers with Master’s Degrees	77%	49%	66%	56%

PART III: Ohio's Strategies to Ensure that Poor and Minority Students are Not Being Taught at Higher Rates than Other Students by Inexperienced, Unqualified and Out-of-Field Teachers

Ohio's Teacher Equity Plan is built upon two *key strategies*. These strategies are based upon Ohio's quantitative and qualitative research findings, and targeted on identifying, correcting and monitoring any inequitable distribution of the state's highly qualified, experienced teachers:

Key Strategy 1: Increase the percentage of highly qualified teachers in Ohio to 100%

Key Strategy 2: Continuously monitor and improve the distribution patterns of Ohio's teachers to ensure that poor and minority students are not being taught at higher rates than other students by inexperienced, unqualified and out-of-field teachers

Supporting Ohio's two key strategies is a comprehensive set of 68 sub-strategies, organized around nine supportive elements, that clearly demonstrate Ohio's *good faith effort* to ensure that poor and minority students are not being taught at higher rates than other students by inexperienced, unqualified and out-of-field teachers. The 68 sub-strategies are the result of findings from Ohio's district- and school-level quantitative data analyses, Schools of Promise case study research, the expertise of the Ohio/Education Trust partnership project's working group and national research on teacher quality.

Ohio took a targeted and careful approach in developing this comprehensive set of strategies. Recognizing that too often states develop strategies that aren't refined enough to meet the real staffing and teacher quality distribution issues of their school districts, two key criteria guided the development of Ohio's Teacher Equity Plan:

Criteria 1: Ensure that the 68 strategies are *targeted* on improving the distribution of effective teachers in Ohio's *high-need schools*, and

Criteria 2: Ensure that the strategies are aligned with Ohio's long-term strategic education goals and policy environment.

<ul style="list-style-type: none"> ▪ Contrary to conventional wisdom, the percentage of inexperienced teachers (3 years or less) does not appear to be correlated with school report card rating, percent poverty or student racial composition. In some cases, the relationship is the <i>opposite</i> of what might be expected. ▪ These patterns are apparent across Ohio’s elementary schools, middle schools, and high schools 		<p>SEA Monitoring: Ohio’s data and reporting systems track teacher quality data over time for the purposes of analyzing supply and demand trends, demographics, distribution, mobility and experience; and informing the development of policies to address any inequities in the distribution patterns of teacher quality</p>
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Supporting Elements and Sub-Strategies

ELEMENT 1: Data and Reporting Systems

Evidence for the probable success of Element 1 sub-strategies to develop the teacher data and reporting systems needed to identify and correct any inequities in teacher distribution

State departments of education across the country are becoming increasingly aware of the importance of *high quality* data and reporting systems. Such systems provide the critical information educators at the state, district and school level need to make informed decisions about policies and practices that will lead to higher student achievement.

The analysis of data is one of the key components of the federal *No Child Left Behind* (NCLB) Act. This legislation requires every state to collect data on public schools and districts and to establish annual achievement goals based on that data. NCLB requires that state data systems provide information about the qualifications of teachers and the achievement levels of different groups of students to educators, parents and stakeholders. The legislation also requires states and school districts to publicly report on the distribution of highly qualified and experienced teachers.

Ohio has put into place the appropriate data and reporting systems to meet all federal legislative data requirements. In 2000, before NCLB became law, Ohio launched its Local Report Card system to give information to parents, educators, and the public about how well its schools are performing and to initiate dialogue on improving education. Feedback from educators around the state contributed to an enhanced accountability system in 2003 that combined state requirements with those of the federal *No Child Left Behind Act*. That same year, President Bush and the U.S. Secretary of Education recognized Ohio as one of five states that had won early approval

of an accountability plan aligned to federal goals. Education Week's *Quality Counts* report on standards-based education consistently has recognized Ohio's accountability system as one of the strongest in the nation.

Since 2003, Ohio has continued to make improvements to its data and reporting systems by streamlining the data exchange between schools and the state, establishing a system to track individual student progress over time, creating a comprehensive school district planning tool that links funding with school improvement goals and developing a statewide resource system so educators can make data-driven decisions to improve teaching and learning. A key upgrade to date is the development of value-added measurements that will give students, parent and educators a more in-depth understanding of the factors influencing student improvement.

Ohio's data systems collect and report information on a comprehensive set of data elements related to the characteristics of the state's teaching force, including the percentage of highly qualified teachers in every school. As a testament to the quality of this system, the U. S. Department of Education showcased Ohio's process for determining Highly Qualified Teacher (HQT) status, and for gathering and reporting HQT data, at four national meetings during the 2005-06 school year. Ohio's systems track educator data over time for the purpose of analyzing supply and demand trends, demographics, distribution, mobility and compensation; and to inform the development of appropriate policies to address any inequities in the distribution of teacher quality across the state.

Element 1: Ohio's Data and Reporting Systems Sub-Strategies

1. 1 Collect and publicly report data on the distribution of teacher talent including the percentage of highly qualified teachers in each core subject area and the percentage of highly qualified teachers in schools not meeting Adequate Yearly Progress (AYP)
1. 2 Collect data on teachers' certificates/licenses held; Enable educators, parents and other stakeholders to review up-to-date information on the credentials of their schools' teachers and leaders and the achievement levels of various groups of students through a web-based data system
1. 3 Collect and publicly report data that describe patterns of teacher turnover and mobility, specifically in high-need schools
1. 4 Advocate for the development of a data system that reports the number of teachers changing *schools* within their district, changing *positions* within their district, *moving* to other districts or into administration, or *leaving* the profession
1. 5 Collect data related to teachers' perceptions about working conditions associated with high teacher turnover including time, facilities and resources, leadership and professional development
1. 6 Monitor, on an ongoing basis, the specific staffing needs of Ohio's schools through the generation of data reports that identify subject and location area shortages
1. 7 Utilize and continuously improve a web-based recruitment system that matches districts' teaching vacancies with prospective teachers

1. 8 Develop and implement a data and reporting system that is able to link teacher qualifications to student achievement (value added data); Use the value-added data to reliably measure students' individual progress and to determine the impact of educational, instructional and program practices on student achievement. [Note: By the 2007-08 school year, Ohio will have a statewide information bank on value-added data.]

Ohio Spotlight Strategy

[Strategy 1.8] In 2006, the Ohio Accountability Task Force presented its recommendations to the State Board of Education regarding the growth standard for value-added measurement and the incorporation of value-added into Ohio's accountability system. These recommendations provide valuable input to the State Board of Education as rules are adopted during the 2006-07 school year for the implementation of value-added.

To prepare for the implementation of value-added as part of Ohio's accountability system, the Ohio Department of Education (ODE) secured a two-year contract with the SAS Institute to calculate the value-added measures and produce value-added reports for each school and district in Ohio. Partnering with Battelle for Kids, ODE sponsored a series of regional meetings to train and provide toolkits to each of the state's 80 Regional Value-Added Specialists. These individuals will provide training to district personnel on how to use the measure to improve student achievement.

ELEMENT 2: Teacher Preparation

Evidence for the probable success of Element 2 sub-strategies to build a pipeline of prospective teachers for high-poverty, low-performing schools

In 2002, Ohio's Governor's Commission on Teaching Success issued a report calling for the development of clear expectations for what teachers should know and be able to do. In response to that call, Ohio completed the development of new Standards for the Teaching Profession. These standards, adopted by the State Board of Education in 2006, define the skills educators need to diagnose and respond to the individual learning needs of the state's highly mobile students, students with minimal reading skills, students with limited parental support, students with limited proficiency in English, students with disabilities and the vast array of students with other specific learning needs.

All of Ohio's teacher preparation programs are required by law to align to these new teacher standards. The Ohio Department of Education's framework for reviewing, evaluating and accrediting teacher preparation programs is aligned with the standards for teachers and considers performance outcomes as well as the process standards that currently define the accreditation framework.

Because teachers require certain knowledge and skills to be effective in helping *all* students reach high academic standards, Ohio assesses every teacher candidate in both content knowledge and pedagogy skills. Research shows that fully prepared teachers with background knowledge of pedagogy are better able to recognize individual student needs and customize instruction to increase overall student achievement. Studies have consistently found positive effects of teachers' formal education training on supervisory ratings and student learning. The more methods course in a teacher's preparation program, the more likely the teacher is to emphasize conceptual understanding and hand-on learning techniques in the classroom (Ohio Department of Education, 2003).³

In addition to the incorporation of Ohio's new teacher standards into preparation programs, all institutions of higher education are required to do the following:

- Be accountable for the performance of their graduates
- Maintain strong, rigorous standards for teacher education that are aligned with Ohio's teacher standards and academic content standards
- Align their curriculum with the most recent scientifically-based research and scholarly study
- Assess progress and competencies for each teacher candidate
- Maintain strong standards for accreditation and high expectations for new teachers
- Focus on results and outcomes
- Conduct data analyses and use findings to improve their programs
- Identify the intervention strategies and instructional practices that will help candidates become successful new teachers
- Incorporate cultural competency in designing education programs as well as address the relational skills essential to working with students and families from the vast array of cultures and backgrounds represented in Ohio

Strengthening teacher education programs' accountability for the performance of their graduates has been a key component of Ohio's efforts to improve educator preparation. The Ohio Department of Education and the Ohio Board of Regents are working collaboratively with institutions of higher education to expand the performance measures contained in the annual Report on the Quality of Teacher Education in Ohio to ensure that the standards driving the state's teacher-education programs place more emphasis on results, not just on inputs.

³ Research also speaks to the importance of teachers' content knowledge which is further discussed under Element 3: Out-of-Field Teaching.

Element 2: Ohio's Teacher Preparation Sub-Strategies

2. 1 Create new teacher standards and ensure that the new standards serve as the foundation for preparing all of Ohio's teachers
2. 2 Develop an annual report on the quality of teacher education in Ohio that provides data on passing rates and the number and specialization of teachers produced by each institution of higher education; Expand the performance measures contained in the annual report
2. 3 Strengthen the collaboration between the Ohio Department of Education and the Ohio Board of Regents to address the over-supply and under-supply of teachers in certain subject areas and types of districts; Explore imposing ceiling caps to manage the over-supply of teachers in some areas and the possible use of financial incentives to colleges and universities that recruit, graduate and place teachers in shortage areas
2. 4 Advocate for the establishment of goals for each institution of higher education related to the number of graduates in high-need subjects and based on the staffing needs of Ohio's high-need schools
2. 5 Expand the number of Ohio's Charter Colleges of Education that are based on an apprenticeship approach to teacher preparation and designed to meet the specific staffing shortages of partnering high-need school districts
2. 6 Advocate for the establishment of state college loan forgiveness programs to channel prospective teachers toward schools that have difficulty attracting sufficient numbers of qualified teachers; Provide up-to-date information on available federal loan forgiveness programs to prospective teachers
2. 7 Require teacher preparation programs to include *cultural competence* in their curriculum to help new teachers understand and appreciate the students, families and communities that they serve
2. 8 Conduct research on the link between teacher preparation and student performance. Use student achievement data to systematically identify what works in teacher preparation and how to improve the state's teacher preparation programs

Ohio Spotlight Strategy

[Strategy 2. 8] Launched in 2003, Ohio's Teacher Quality Partnership is a comprehensive, longitudinal study of the preparation, in-school support and effectiveness of Ohio teachers. As a research consortium of Ohio's 50 colleges and universities providing teacher preparation programs, the partnership is identifying how the preparation and development of new teachers affect their success in the classroom as measured by the academic performance of their students. In Ohio, value-added assessment of student learning gains is becoming well established, and the legislature recently passed a law requiring these academic growth measures to be part of the state's school performance index by 2007. Ohio's two teacher unions, the OEA and OFT support the goals of the Teacher Quality Partnership, which will not report on individual districts, teachers or programs.

ELEMENT 3: Out-of-Field Teaching

Evidence for the probable success of Element 3 sub-strategies to reduce the incidence of out-of-field teaching (particularly in mathematics, science, special education & bilingual education/English as a Second Language) in high-poverty, low-performing schools

According to the National Commission on Teaching & America's Future, national statistics indicate that more than one-fourth of teachers have entered the profession without having fully met state licensing standards. Twelve percent of new teachers held no license at all while another 15 percent worked under temporary, provisional or emergency licenses (National Commission on Teaching & America's Future, 1996).

Furthermore, about a third of America's teachers each year teach at least one class a day for which they have not been trained. These teachers are teaching "out-of-field." The problem with out-of-field teaching, according to Richard Ingersoll, is that it is more likely to be found in schools with high-poverty rates, high minority populations, and low-achieving students (Ingersoll, 1996).

Consider these national statistics:

- Just 41 percent of eighth-grade math teachers majored in math in college. That's 30 percentage points lower than the international average
- In English, one-fifth of all public school students in grades seven through twelve were taught by teachers who did not have at least a minor in English literature, communications or journalism
- In history and physical science, more than half of America's students are being taught by a teacher who has never studied the subject in any concentrated way
- More than four million students in physics, chemistry and history classes are taught every day by teachers lacking preparation for teaching their subjects

Source: United States Department of Education web site, 2006

Strong content knowledge has been consistently identified by researchers as an essential element of effective teaching. Students perform better when teachers have majored in the subject area they are teaching. Teachers with a major or minor in a content area are associated with higher student achievement, especially in areas of secondary science and mathematics. Several studies have indicated that teachers with greater subject matter knowledge use high-level questioning, engage students more in discovery and have more student centered classrooms (Ohio Department of Education, 2003).

Ohio has implemented a variety of strategies to monitor, publicly report and reduce the incidence of out-of-field teaching, especially in high-poverty, low-performing schools including eliminating temporary licenses, expanding alternative routes into teaching, developing a database to track out-of-field teachers, and providing professional development opportunities for teachers to achieve highly qualified teacher status.

A key goal of the Ohio Department of Education's current strategic plan is to remove barriers into the teaching profession. To meet that goal, the state encourages mid-career professionals to seek alternative teacher certification and licensure in high-need areas and has expanded accelerated, intensive licensure programs for those education professionals seeking to teach high-need subjects. Research shows that alternative pathways represent a valuable resource for expanding the pool of prospective teachers, especially in mathematics and science. The use of alternative pathways into the teaching profession has grown each year with an estimated 80,000 people across the country having become licensed to teach through such pathways (The Pew Charitable Trusts & Education Week, 2000a).

Ohio has established a Credential Review Board (CRB) to assess alternative-route candidates' – as well as out-of-state teachers' – attainment of Ohio's teaching standards. The CRB also helps teacher candidates develop individualized plans for acquiring the knowledge and skills they need to earn licensure in Ohio.

Regardless of the route an individual takes to enter a classroom, *Ohio's position is clear*. Established state standards for performance must be met and all candidates must pass the same assessments, such as Praxis II and Praxis III, before they are licensed to teach.

Element 3: Ohio's Out-of-Field Teaching Sub-Strategies

- 3.1 End the temporary licensing of teachers in Ohio
- 3.2 Publicly report up-to-date information on teachers' certificates/licenses held; Notify districts when teachers are not properly credentialed in the subjects they are assigned to teach
- 3.3 Develop and implement a Revised HQT Plan that outlines Ohio's initiatives to ensure that 100% of its teachers will be highly qualified by the 2006-07 school year; Provide a variety of professional development opportunities for teachers to become highly qualified
- 3.4 Expand high-quality alternative routes into the profession to allow individuals with relevant expertise in hard-to-fill subjects to enter the profession; Ensure that *all* routes into teaching and the principalship are high quality and standards based
- 3.5 Streamline licensing and certification procedures
- 3.6 Provide stipends to teachers for teaching mathematics, science or special education in schools that have been identified as hard-to-staff

3. 7 Provide funds to school districts to contract with institutions of higher education to provide instruction in mathematics, science and foreign language
3. 8 Develop and fund partnerships with institutions of higher education to train already licensed teachers to become certified in high-need subject areas
3. 9 Support the development of partnerships between institutions of higher education and high-need school districts to provide professional development for teachers in the hard-to-staff subject areas of mathematics and science
3. 10 Provide technical assistance to hard-to-staff school personnel to help them fully utilize all of the features of the state's web-based recruitment system
3. 11 Promote partnerships that help districts recruit and hire qualified international teachers of hard-to-fill subjects and specializations
3. 12 Utilize a Credential Review Board to review the licensure applications of alternative route and out-of-state candidates

Ohio Spotlight Successes

[May 2005-May 2006]

- Ohio replaced temporary teaching licenses for teachers and administrators with more rigorous alternative routes that meet Highly Qualified requirements.
- Math and Science Partnership grants were awarded to 10 partnerships between the science, technology, engineering and mathematics faculty in institutions of higher education and high-need school districts. The purpose of these projects was to increase the academic achievement of students in mathematics and science by enhancing the content knowledge and teaching skills of classroom teachers.
- In Ohio, data show that the need for intervention specialists is high among school districts across the state. The Ohio Department of Education is responding by working with university partners to develop alternative training programs that will increase the supply of intervention specialists for Ohio schools. These programs utilize online courses, intensive summer courses and weekend sessions to enable teachers to continue teaching full-time while earning intervention specialist licensure within one year. The goal is to have more than 200 fully licensed intervention specialists by the summer of 2007 and 350 by the fall of 2007.

- Ohio has provided, in both the 2004-05 and the 2005-06 school year, 16 regional grants of \$200,000 each to Special Education Regional Resource Centers to offer professional development in the Core Academic Content areas as defined by *No Child Left Behind*. These trainings included the Ohio Academic Content Standards, Ohio's Instructional Model Lesson Plans (IMS), as well as the academic discipline subject matter. These professional development opportunities were offered to fully licensed special education teachers who did not meet the HQT standards in the content area. Participation levels were high with over 2,560 participants.
- Fifteen of Ohio's colleges and universities received grants to provide summer professional development for teachers who still need to meet federal Highly Qualified Teacher requirements. Content-focused professional development was available at no charge for approximately 2,000 teachers.
- After reviewing the licensure systems of other nations, Ohio's Educator Standards Board endorsed the concept of a content-specific license for grades four through 12. This will increase the content expertise of middle school teachers and will provide school districts with increased flexibility in assigning teachers across a wider range of grade levels. Efforts are currently underway to identify several institutions of higher education willing to pilot such a licensure program.
- Ohio signed memorandums of understanding with Spain, China and Taiwan to establish visiting teacher programs. Ohio is recruiting teachers from Spain and China to teach in Ohio schools in the 2006-07 school year. Ohio teachers also are being recruited to teach English in Taiwan for the 2006-07 school year.

ELEMENT 4: Recruitment and Retention of Experienced Teachers

Evidence for the probable success of Element 4 sub-strategies to build a mass of qualified experienced teachers willing to work in high-need schools

With the landmark NCLB legislation bringing teacher quality to the forefront of the nation's education agenda, states across the country have been searching for new and innovative ways to recruit the best teacher candidates. But states are quickly coming to realize that recruiting an adequate supply of effective teachers for their schools is only half the battle...keeping them there is the other half. And, school district personnel clearly understand that recruiting and keeping *highly qualified and experienced teachers in high-need schools* presents the greatest challenge of all.

Data show that overall, Ohio has enough teachers to meet the current number of school district vacancies. However, the state continues to have teacher shortages in some subject areas and some types of school districts. For example, a 2005-06 survey of Ohio

school personnel showed that 17 percent of vacancies are in special education; 9.3 percent are in English; 7.4 percent are in mathematics; and 6.9 percent are in science. Not surprisingly, the areas of the state that most typically have difficulty attracting new teachers are large urban school districts and small, isolated rural districts – very often districts with high levels of family poverty and low levels of student performance (Ohio Department of Education, 2004a).

A key strategy for keeping good teachers in high-need schools is the provision of high quality induction that helps new teachers acquire the knowledge and skills that they need to succeed. National research shows that comprehensive induction programs can cut teacher attrition rates in half (Center for Teaching Quality, 2006). Nationally, the attrition rate for teachers within their first five years is over 50%, while in Ohio it is 28% over the first five years of teaching as illustrated in the table below.

Percentage of Ohio’s Teachers Employed in a Base Year Still Employed After One to Five Years							
Base Year	1998	1999	2000	2001	2002	2003	2004
After 1 year	93%	93%	92%	93%	93%	88%	91%
After 2 years	88%	87%	88%	88%	84%	83%	
After 3 years	82%	82%	83%	81%	79%		
After 4 years	78%	78%	77%	76%			
After 5 years	74%	73%	72%				

Source: Ohio Department of Education: Condition of Teacher Supply and Demand in Ohio, 2004

Ohio has invested heavily in supporting new teachers and administrators as they enter the profession and in helping them develop into high-quality educators who can increase achievement for all students. Since 2002, Ohio has implemented and funded the Entry Year Programs for Teachers and Principals, which have grown steadily and supported more than 4,700 new teachers and more than 300 new principals during the 2005-06 school year.

To address the challenge of recruiting and retaining teachers in high-need schools, the Ohio Department of Education identified “teacher quality in high-need schools” as one of its *main priorities* in its 2006-07 strategic plan. Currently, the state implements a number of innovative strategies to recruit and retain highly qualified, experienced teachers for those schools. One such example is the state’s targeted funding support to National Board certification candidates who teach in regions with large numbers of high-need schools. Ohio is a leader in the support of National Board teachers and ranks fifth in the nation with more than 2,500 National Board Certified teachers. An additional 159 Ohio teachers achieved the rigorous National Board Certification during the 2005-06 school year, bringing Ohio’s total to more than 2,500 teachers certified by the National Board for Professional Teaching Standards.

Education leaders in Ohio understand that numerous factors influence teacher retention, and that many of these factors lie beyond the control of the Ohio Department of Education and local school districts. However, Ohio is committed to building a mass of qualified, experienced teachers in the state’s high-need schools by implementing the following sub-strategies.

Element 4: Ohio’s Recruitment and Retention of Experienced Teachers Sub-Strategies

4. 1 Require and fund high-quality induction experiences for all new teachers and principals, including those who enter the profession through alternative routes; Advocate for funds to prioritize induction in high-need schools by providing three years of structured mentoring designed to support teachers and principals
4. 2 Provide mentor training to experienced teachers to assist them in mentoring entry-year teachers
4. 3 Improve state-level data systems to reduce the time it takes to issue educator licenses
4. 4 Provide incentives to highly qualified, experienced teachers to teach in high-need schools
4. 5 Advocate for collecting data on the number of teachers changing *schools* within their district, changing *positions* within their district, *moving* to other districts or into administration, or *leaving* the profession; Conduct exit interviews to identify the factors influencing teacher mobility
4. 6 Target support to National Board certification candidates who teach in regions with high numbers of high-need schools and provide incentives so they stay
4. 7 Explore providing an opportunity for “high value added” teachers in high-need schools to apply for incentives and rewards to encourage them to stay

Surveying the Source

What do Ohio’s Teachers Say? During the 2005-06 school year, the Ohio Department of Education (ODE) surveyed entry-year program participants. Some 78 percent of Ohio’s entry-year teachers report that their mentors are assigned based upon the grade level or content area. In addition, 76 percent of entry-year teachers are satisfied or slightly satisfied with the opportunities to meet with their mentors, and 69 percent are satisfied or slightly satisfied with the opportunities to work with their mentors. ODE will be identifying and promoting best practice models for entry-year programs and will use these survey findings to improve Ohio’s entry-year programs.

ELEMENT 5: Professional Development

Evidence for the probable success of Element 5 sub-strategies to strengthen the skills, knowledge and qualifications of teachers already working in high-poverty, low-performing schools

High-quality, research-based professional development is crucial to the success of Ohio's aligned system of standards and assessments. The Mid-continent Research for Education and Learning (McREL) organization recently completed a study on the essential characteristics of high-quality professional development (2006). Researchers found that high-quality professional development

- Is sustained over time;
- Focuses on specific content areas or instructional strategies;
- Supports the collective learning of most, if not all, teachers in a school;
- Aligns with school and teacher goals; and
- Provides opportunities for teachers to practice and apply new knowledge.

All teachers need ongoing training and support, but especially those working in high-need schools. Ohio is committed to providing high quality professional development to educators over the entire continuum of their careers. The foundation for Ohio's system of professional development is the state's new professional development standards. These new standards, adopted by the State Board of Education in 2005, are aligned with the findings of national research and consistent with the definition of high-quality professional development contained in the *No Child Left Behind* (NCLB) Act. NCLB requires the Ohio Department of Education to annually report the percentage of teachers who have participated in High Quality Professional Development (HQPD) as defined in Title IX, Section 9101 (34). Ohio has developed the appropriate reporting mechanisms to meet those requirements.

Ohio's professional development standards are not minimal expectations. Schools that successfully implement these standards should expect to see higher quality teaching and increased student achievement. These standards will be used to inform the types of professional development that Ohio teachers should include as part of their career growth. To accomplish this, the state will promote research-based professional development that demonstrates improved student achievement and is tied to school improvement efforts.

Another recent accomplishment in Ohio involves the reconfiguration of the state's professional development delivery system. This redesigned system is comprised of 12 regional service areas and *targets professional development to low-performing schools*. Each service area is guided by a Regional School Improvement Team (RSIT). Members of the RSIT work collaboratively to provide a variety of services to school districts, especially districts with buildings in "School Improvement" status (those not meeting AYP).

This system makes available aligned resources, information, tools, professional development and technical assistance, with a focus on expanding the use of technology, to support teachers' professional growth. During the 2006-07 school year and beyond, professional development activities will be developed based on data analysis findings and deployed strategically to *districts most in need*.

Element 5: Ohio's Professional Development Sub-Strategies

5. 1 Develop and implement new professional development standards; Target funds to support only those professional development activities that are aligned with Ohio's new professional development standards and the NCLB definition of high-quality professional development
5. 2 Require low-performing school districts as well as districts with unacceptably wide achievement gaps to demonstrate compliance with the state's professional development standards through their Comprehensive Continuous Improvement Plans
5. 3 Implement a statewide technical assistance support system that provides targeted assistance to low-performing districts and schools
5. 4 Target additional high-quality professional development on the analysis and use of data to help districts identify achievement gaps and raise the academic performance of all students
5. 5 Create Local Professional Development Regional Support Sites to ensure that Ohio's new professional development standards will be used by all educators to guide the development of their own plans for professional growth
5. 6 Develop professional development academies focused on the specific needs of teachers in the state's Appalachian region
5. 7 Expand the use of technology to support teachers' professional growth including more opportunities for online mentoring support and the use of digital tools
5. 8 Provide training to school district personnel in value-added growth models

Ohio Spotlight Strategies

[5.7] In collaboration with the Ohio Board of Regents, OARnet, eTech Ohio and the Management Council of the Ohio Educational Computer Network, the Ohio Department of Education connected the first two school districts to the Third Frontier Network (TFN). The TFN is the most advanced high-speed K-12 network in the country and will become the technical foundation for applications, such as the D3A2 and videoconferencing for professional development and instructional delivery. By September 30, 2006, Ohio's 23 Information Technology Centers and the state's large urban districts will be connected to the TFN.

[5.8] Value-Added Growth will be included on Ohio's 2007-08 State and Local Report Cards. Superintendents can begin preparing for this progress measure and its use for school improvement. Each school district has the opportunity to identify two education professionals who will be

trained on the value-added measure during the 2006-07 school year. Training in the value-added growth measure is provided through a partnership between Battelle for Kids and the Ohio Department of Education.

ELEMENT 6: Specialized Knowledge and Skills

Evidence for the probable success of Element 6 sub-strategies to ensure that teachers have the specialized knowledge and skills they need to be effective with the populations of students typically served in high-poverty, low-performing schools

Ask veteran teachers to describe their first few years in a classroom and you will probably hear words like “difficult,” “challenging,” or “overwhelming.” And, there may be good reasons why teachers choose these and similar expressions. There is often a wide gap between how well teachers feel they are prepared for the challenges they face in today’s classrooms, especially in hard-to-staff schools. Adding to that is the fact that the student population in schools across America is becoming increasingly diverse. Consider this: Between 2030 and 2040, racial and ethnic minorities are expected to make up more than half of the nation’s students (The Pew Charitable Trusts and Education Week, 2000b).

Preparing teachers to work with diverse populations of students in diverse settings is a key component of Ohio’s new teacher standards. New teachers need to understand their subject matter and curriculum, need to know how students learn and develop, and need to know how to teach the subject so it can be understood by diverse learners (Darling-Hammond, 2005). Ohio’s new teacher standards go far beyond the academic content that teachers must master in order to teach Ohio’s students well. They define the skills teachers need to diagnose and respond to the individual learning needs of highly mobile students, students with minimal reading skills, students with minimal parental support, students with limited proficiency in English, students with disabilities and the vast array of students with other specific learning needs. To ensure that beginning teachers have the knowledge and skills they need to be successful, Ohio requires new teachers to demonstrate, through the Praxis III assessment, their ability to teach diverse learners.

Ohio recognizes that building the knowledge and skills of veteran teachers, particularly those already working in high-need schools, is a key strategy to ensuring that all students have access to good teachers. Ohio has a strong support system in place for teachers. Ohio’s newly-configured regional professional development delivery system targets professional development to low-performing schools and includes the deployment of on-site professional development by trained coaches, especially in the subject areas of reading and mathematics.

Ohio also provides a variety of professional opportunities for administrators working in high-need schools. The State Action for Educational Leadership Program offers professional development for leaders in Ohio’s eight urban districts focused on shared leadership, using data to inform instructional decisions and preparing principals for leadership in urban districts. In addition, the Ohio

Department of Education recently published *A Guide for School Leaders*, a companion to *Standards-Based Instruction for All Learners: A Treasure Chest for Principal-Led Building Teams in Improving Results for Learners Most At-Risk*. This professional development resource assists in building the capacity of school leaders and in applying lessons learned from Ohio's *Schools of Promise* on how to design and deliver standards-based instruction.

Element 6: Ohio's Specialized Knowledge and Skills Sub-Strategies

6. 1 Require new teachers to demonstrate, through the Praxis III assessment, their ability to teach diverse learners
6. 2 Place subject specialists/coaches in high-need schools; Provide targeted coaching to teachers who teach reading and mathematics
6. 3 Develop and promote research-based coaching models
6. 4 Make a major investment in preparing principals for the unique challenges of high-need schools (e.g., how to promote student learning, how to hire effective teachers)
6. 5 Study the school organization, culture, instructional practices and characteristics of teachers in high-poverty, high-minority schools that significantly raise student achievement (Schools of Promise)

Ohio Spotlight Strategies

[6.2] In February 2006, the State Board of Education approved the P-6 Mathematics Specialist credential. In FY06, the Ohio Department of Education (ODE) placed mathematics coaches (i.e. specialists) in 34 elementary schools that are in School Improvement status. The initiative will expand to 60 coaches in FY07. These coaches provide continuous, on-site professional development in mathematics to the teachers of a specific building to deepen the teachers' understanding of the mathematics they are teaching and to familiarize them with effective ways of communicating mathematics to young students. The coaches are supported and directed by a team of mathematics education faculty and facilitators from The Ohio State University. The Ohio State University and ODE collaborated to pilot the Math Specialist program in 34 schools in Ohio. This project will help to build quality coaching capacity in schools throughout the state.

[6.5] Ohio's *Schools of Promise* program recognizes schools that demonstrate high achievement in reading and mathematics for all groups of students, despite the fact that 40 percent or more of these students come from low-income backgrounds. Students in Schools of Promise met or exceeded the state standard of 75 percent passage in reading or mathematics, or both. This year, a sub-set of case study research focused on the analysis of teacher characteristics in eight Schools of Promise and the role that teachers play in these high-performing schools. Preliminary case study findings, based on 2004-05 data, show that a high percentage of teachers in the sub-set of elementary schools are *both* highly qualified and experienced (over 10 years of teaching experience) and that the average years of experience for teachers in the sub-set of secondary schools is 17 years. These findings confirm the importance of teacher quality, especially in serving high-minority, high-poverty populations of students.

ELEMENT 7: Working Conditions

Evidence for the probable success of Element 7 sub-strategies to improve the working conditions in high-need schools that contribute to excessively high rates of teacher turnover (particularly high quality leadership)

Working conditions that support teaching and learning help to keep highly qualified, experienced teachers teaching in high-need schools. Ohio has instituted a multi-dimensional approach to increasing teacher retention by focusing on strategies that directly address school culture and the working conditions within which teachers teach and students learn.

The Ohio Department of Education completed a case study of districts during the 2005-06 school year to determine some of the reasons for teacher attrition. Teachers cited several common themes, including leadership, the amount of change occurring in the school or district, culture and collegiality. Ohio has also joined a national project – the Working Conditions Survey – to gain insight into the factors that impact teacher attrition. The state piloted the survey in spring of 2005 with 30 schools and offered the survey statewide again in the spring of 2006.

National research shows that one of the most important things that can be done to attract and retain effective teachers in high-need schools is to develop strong school leaders. In fact, one of the most common reasons given by teachers for leaving certain schools is weak leadership and lack of administrative support. When high-need schools have strong leaders, they are more likely to keep good teachers, improve achievement and close achievement gaps.

If the coming decade is similar to the past, more than 40 percent of current principals will leave their jobs. Ohio, like other states, faces retooling current principals while preparing a new generation of school leaders to take their place. Ohio recently adopted three sets of aligned standards: the Ohio Standards for the Teaching Profession, the Ohio Standards for Principals and the Ohio Standards for Professional Development. The Ohio Standards for Principals play an important role in Ohio's standards-based system by clearly defining the traits and skills of effective leaders. These standards will promote the most effective leadership practices among Ohio's principals.

To further strengthen Ohio's cadre of school leaders, the state replaced temporary administrator licenses with more rigorous alternative routes. The alternative route for principals, superintendents and central office administrators provides additional flexibility to candidates while maintaining high standards. Toolkits were developed and disseminated, and four pilot sites have been created for implementation of the alternative route for administrators. In addition, Ohio aligns the Praxis III, the Praxis administrator exams, and the state's entry-year programs to the new teacher and principal standards. Because the standards outline expectations for knowledge and skills, they also will serve as a tool for mentors in the entry-year programs to work more effectively with new principals. Since

2002, Ohio has implemented and funded the entry-year programs for principals, which have grown steadily and will support more than 300 new principals this year.

On another front, Ohio recently adopted *School Climate Guidelines* that describe how schools can create environments where every student feels welcomed, respected and motivated to learn. Ohio is committed to ensuring that all students go to school in safe, clean and modern buildings that offer an environment that promotes quality teaching and high levels of student learning. For this reason, the state works closely with the Ohio School Facilities Commission (OSFC) and its ongoing efforts to help school districts provide appropriate learning environments and safe school facilities through its funding, management oversight and technical assistance initiatives.

Element 7: Ohio's Working Conditions Sub-Strategies

7. 1 Strengthen school leadership through the development and implementation of new principal standards
7. 2 Increase the pool of high quality principals through alternative administrator preparation programs
7. 3 Require and fund high-quality induction experiences for all new principals, including those who enter the profession through alternative routes
7. 4 Develop a framework of essential criteria for school districts to follow when creating locally determined evaluation systems to assess the performance of principals
7. 5 Collect data related to teachers' perceptions about working conditions associated with high teacher turnover including time, facilities and resources, leadership and professional development
7. 6 Keep good teachers where they are needed most by providing tools and resources for improving the working conditions in high-need schools
7. 7 Adopt School Climate Guidelines to provide physically safe and emotionally secure environments for all students and staff:
Adopt a Substance Abuse and Violence Prevention Policy
7. 8 Create smaller schools and/or smaller units within schools
7. 9 Prioritize funds for the renovation of high-need school facilities and construct new facilities based on need

Ohio Spotlight Successes

[May 2005-May 2006]

- A \$3.6 million, three-year grant from the Wallace Foundation was renewed for the period of January 1, 2006 through June 30, 2007. The State Action for Educational Leadership Program provides professional development for school leaders in Ohio's eight urban districts focused on shared leadership, using data to inform instructional decisions and preparing principals for leadership in urban districts.
- Ohio is one of two states selected for the three-year Harvard Leadership Initiative, funded by the Wallace Foundation. The program provides coaching and professional development for teams from the state and high-need school districts by faculty from Harvard's schools of business, education and government. The program will focus on building educators' knowledge and skills in systematic thinking and alignment, adaptive leadership and team building and leadership for instructional improvement.
- The Ohio Department of Education (ODE) published *A Guide for School Leaders*, a companion to *Standards-Based Instruction for All Learners: A Treasure Chest for Principal-Led Building Teams in Improving Results for Learners Most At-Risk*. This professional development resource assists in building the capacity of school leaders and in applying lessons learned from Ohio *Schools of Promise* on how to design and deliver standards-based instruction.
- The working conditions survey, now titled the "Teaching and Learning Conditions Survey," was implemented on a pilot basis and is now available statewide to all school districts through an online format. Tools and resources are available to districts participating in the survey to enable them to analyze and utilize survey results.
- The State Board of Education adopted School Climate Guidelines to provide physically safe and emotionally secure environments for all students and staff. Ohio's State Board defines a positive climate as one which evokes non-violence, cooperation, teamwork, understanding, and acceptance.
- The State Board adopted a Substance Abuse and Violence Prevention Policy in March 2006 that encourages districts to adopt policies and programs at the local level. The policy charges the State Board with developing a budget to support state and local implementation of prevention efforts. In addition, ODE is providing guidance to districts on the content for prevention programs and appropriate data for determining their effectiveness.

ELEMENT 8: New Compensation Systems

Evidence for the probable success of Element 8 sub-strategies to develop and implement new compensations systems

One of the ways that Ohio is working to improve its ability to recruit and retain high-quality teachers and principals is through the development and implementation of new compensation systems. As a long-term strategic goal, Ohio is reviewing how to pay teachers and principals differently using a “pay-for quality” approach that rewards people for what they do and what they accomplish. The state is exploring systems that link compensation to credible, standards-based evaluation systems that include options for tiered career paths. The traditional salary schedule of linking teachers’ pay increases exclusively to number of years of service, coursework and degrees is not well aligned with the goal of building teaching capacity to ensure achievement for all students.

Recently, Ohio has been working with The Teaching Commission to pilot the Teacher Advancement Program (TAP). TAP is a knowledge and skills-based compensation system which provides teachers with performance pay based on knowledge and skills; performance pay based on student achievement at the classroom and school levels; and differentiated pay based on career ladders. Four schools in Ohio implemented the Teacher Advancement Program (TAP) during the 2005-06 school year. Eight additional schools will implement TAP in 2006-2007.

Another strategy that can be implemented to provide more opportunities for teachers to advance in their profession is the implementation of career ladder systems. Since the 1980s, policy makers in several states, including Ohio, have been implementing teacher career ladders. One of the key purposes of career ladders is to respond to the lack of career advancement opportunities in teaching, where often the responsibilities on the first day are the same as those on the last day before retirement. Without career ladders, teachers seeking advancement have the options of moving into school administration or leaving the field of education. Career ladders are designed to provide teachers with the opportunity to grow professionally and advance within their careers while remaining in the classroom.

Element 8: Ohio’s New Compensation Systems Sub-Strategies

- 8.1 Implement new compensation systems that recognize challenging schools; are linked to value added data; and allow for tiered career paths
- 8.2 Provide monetary incentives to encourage highly qualified, experienced teachers who teach in high-need schools to stay

- 8.3 Apply for Teacher Incentive Funding to develop innovative compensation plans that reward teachers who demonstrate success in improving student achievement and closing achievement gaps
- 8.4 Develop career advancement structures to raise compensation for master or mentor teachers
- 8.5 Assist school districts in developing locally determined evaluation systems to assess the performance of teachers
- 8.6 Pay teachers who earn National Board certification an annual stipend in addition to their regular salary

Ohio Spotlight Strategy

[8.1] During the past year, four Ohio schools implemented the Teacher Advancement Program (TAP) developed by the Milken Family Foundation. The TAP program includes differentiated compensation for teachers, a career ladder, intensive job-embedded professional development and accountability for student achievement. A state-level TAP director was employed through funding provided by the Foundation, and Ohio anticipates adding eight new TAP schools next year. This work will lay the foundation for Ohio’s application for the federal *Teacher Incentive Funding*.

ELEMENT 9: Policy Coherence

Evidence for the probable success of Element 9 sub-strategies to improve internal processes or revise state policies that may inadvertently contribute to local staffing inequities

Ohio’s vision for its educational system is to ensure that *all* students succeed. This vision can be accomplished if stakeholders, educators and parents work together to coordinate and leverage resources and push their thinking about how to strengthen the linkages between existing initiatives to better impact student achievement, especially in high-need schools.

Taken together as a whole, the strategies outlined in Ohio’s Teacher Equity Plan provide a solid framework for ensuring that poor and minority students are not being taught at higher rates than other students by unqualified, inexperienced and out-of-field teachers. This coherent and aligned set of strategies addresses two key goals: (1) Improve the quality of *all* of Ohio’s teachers, and (2) Improve the distribution of the state’s most effective teachers.

Element 9: Ohio’s Policy Coherence Sub-Strategies

- 9.1 Combine the action plan required of the state’s partnership project with The Education Trust with the NCLB required state teacher equity plan to produce *one aligned state plan* (Ohio’s Teacher Equity Plan); Ensure that the state plan evidences

coherent policies and aligned strategies that are targeted on improving the distribution of Ohio's highly qualified, experienced teachers

9. 2 Ensure that Ohio's policies related to equitable teacher distribution are grounded in data analyses findings and are aligned with the state's long-term strategic goals and policy environment
9. 3 Ensure that state testing policies and systems of rewards and sanctions do not inadvertently drive teachers and principals away from high-need schools
9. 4 Build and nurture national- and state-level strategic partnerships that promote policy coherence and strategy alignment
9. 5 Develop strong working relationships between the Ohio Department of Education and Ohio's General Assembly

Ohio Spotlight Successes

[May 2005-May 2006]

- To enhance communication between the State Board of Education and the Ohio General Assembly, the Ohio Department of Education (ODE) coordinated meetings between the State Board president and vice president, and the chairs of both the House and Senate Education committees. As a result, the House Education Committee chair sponsored a meeting for the entire House Education Committee, and 16 of the 21 committee members attended. They discussed the Board's priorities, and committee members asked questions about the Board's general direction.
- ODE held seminars and workshops for Ohio General Assembly staff members, including sessions on special education, teacher quality, student transportation, achievement testing and school finance. ODE staff also provided educational sessions for staff in the Office of Budget and Management.
- Twenty of the State Board's 2005 Legislative Recommendations became law through House Bill 66 and House Bill 530.
- Monthly Performance Council sessions held throughout the 2005-06 school year allowed ODE staff to review data on the effectiveness of initiatives and hold focused discussions on the vision of higher achievement for all students.
- In March 2006, ODE began competing to work with national partners including the Council of Chief State School Officers, Asia Society, and National Institute for School Leadership as part of the State Alliance for High Performance. This alliance represents the best national and international research in education reform. Educators from the four states that are chosen to participate will take part in international benchmarking studies, learn about instructional best practices and materials, and engage in leadership training. A main focus of the partnership will include working with many of Ohio's 21 urban districts to close achievement gaps.

PART IV: Ohio's Plan to Conduct State-Level Monitoring of Teacher Distribution Patterns in Local Education Agencies

Ohio tracks teacher-related data over time for the purpose of analyzing supply and demand trends, demographics, distribution, mobility and compensation; and for informing the development of appropriate policies to address any inequities in the distribution of teacher quality.

Ohio's strategies for monitoring teacher distribution patterns in local education agencies (LEAs) include

- Collect and publicly report data on the distribution of teacher talent including the percentage of highly qualified teachers in each core subject area and the percentage of highly qualified teachers in schools not meeting Adequate Yearly Progress (AYP)
- Collect data on teachers' certificates/licenses held; Enable educators, parents and other stakeholders to review up-to-date information on the credentials of their school's teachers and leaders and the achievement levels of various groups of students through a web-based data system
- Collect and publicly report data that describes patterns of teacher turnover and mobility, specifically in high-need schools
- Advocate for the development of a data system that reports the number of teachers changing *schools* within their district, changing *positions* within their district, *moving* to other districts or into administration, or *leaving* the profession
- Monitor, on an ongoing basis, the specific staffing needs of Ohio's schools through the generation of data reports that identify subject and location area shortages
- Utilize and continuously improve a web-based data recruitment system that matches districts' teaching vacancies with prospective educators
- Require each school district to analyze Highly Qualified Teacher (HQT) data in order to meet staffing and professional development needs

Ohio's data and reporting systems collect information on a comprehensive set of data elements related to the characteristics of the state's teaching force, including the percentage of highly qualified teachers in every school. As a testament to the quality of this system, the U. S. Department of Education showcased Ohio's process for determining HQT status, and for gathering and reporting HQT data, at four national meetings during the 2005-06 school year.

The state's Comprehensive Continuous Improvement Plan (CCIP) requires each LEA to analyze HQT data. This data provides a foundation for the development of state-level policies and strategies targeted to meet the staffing and professional development needs of Ohio's schools, especially those not meeting Adequate Yearly Progress (AYP). The CCIP District Agency Plan requires the LEA to include strategies that support goals and performance measures targeting ongoing training and professional development.

The Ohio Department of Education HQT Monitoring and Notification Process

The Ohio Department of Education notifies each district of its progress toward reaching the goal of 100 percent of teachers teaching within the school district being highly qualified. The federal *No Child Left Behind Act* calls for all teachers teaching in core academic subjects (English, reading or language arts, math, science, foreign languages, civics and government, economics, arts, history, and geography) to become highly qualified. Section 1119(a)(3) requires that every local educational agency (LEA) “develop a plan to ensure that all teachers teaching within the school district served by the local educational agency are highly qualified not later than the end of the 2005-2006 school year.”

The Ohio Department of Education’s procedure for monitoring whether LEAs attain 100% HQT is outlined below:

Using the November 2004 data (from the 2003-2004 school year) on percent of courses taught by highly qualified teachers, ODE determined and notified districts of their district annual objectives for the years 2004-2005 and 2005-2006 that would reasonably ensure the district meets the goal of 100% highly qualified teachers by the beginning of the 2006-2007 school year. ODE will then use data submitted in November 2005, 2006, and 2007 to determine if the measurable objects were met. The timeline follows:

Data Source	School Year from which data is taken	Action to be Taken	Deadline for action
November, 2004	2003-2004	Determine district HQT objectives and report to them	October, 2005
November, 2005	2004-2005	Determine HQT “met” or “not met” status for meeting objectives and report status to districts.	January, 2006
November, 2006	2005-2006	Determine HQT “met” or “not met” status for meeting objectives and report status to districts.	January, 2007
November, 2007	2006-2007	Determine HQT “met” or “not met” status for meeting objectives and report status to districts.	January, 2008
November, 2008	2007-2008	Determine HQT “met” or “not met” status for meeting goal of 100% and report status to districts.	January, 2009
Subsequent year	Subsequent fiscal year	Continue annual process	Subsequent year

Ohio's HQT Benchmark Notification to Districts (Sample Template)

An analysis of data regarding highly qualified teachers that your LEA has submitted to ODE over the past two years indicates that during the 2003-2004 school year, [XX] percent of core courses were taught by highly qualified teachers. During the 2004-2005 school year, this percentage was [XX]. In order to reach the goal of 100 percent of core courses being taught by highly qualified teachers by the end of the 2005-2006 school year, your LEA should have reached a benchmark of [XX] percent during the 2004-2005 school year. Therefore, according to these data, your LEA did not meet the benchmark and is not on track to meet the 100 percent requirement by the end of this school year.

PART V: Appendices

Appendix A: A Proactive Partnership: Ohio and The Education Trust

On April 13, 2004, the Joyce Foundation approved a grant to The Education Trust to collaborate with key state and local education leaders in Ohio, Illinois, and Wisconsin, in partnership with the Cleveland Municipal School District, Chicago Public Schools, and Milwaukee Public Schools. The project called on the partner states and districts to take a comprehensive approach to improving the distribution of effective teachers to low-income, minority and low-performing students.

In Ohio, the project was conducted and directed by two working groups of key education stakeholders, one at the state level and one focusing on the large urban partner school district (Cleveland Municipal School District). The working groups consisted of representatives from the different branches of government and both K-12 and higher education, with additional participation by teacher unions, and business and community leaders.

Phase I of the partnership project involved a multidimensional review of the distribution of key teacher characteristics across different kinds of students and schools, with a focus on the distribution of teachers to Ohio's low-performing, low-income and minority students. During Phase II of the project, researchers conducted case studies in Ohio's Schools of Promise, where low-income and high minority students are achieving at high levels. This phase included data collection from administrators, teachers, parents, students and community members regarding teacher quality and the role of teachers in these high-performing schools.

The project's final phase, Phase III, called for the development of an Action Plan outlining policies and strategies to improve the distribution of effective teachers in Ohio. As work continued on the development of this Action Plan, it became apparent that two separate but parallel initiatives were unfolding -- The Education Trust project and the United States Department of Education's requirement that each state submit a plan to address the equitable teacher distribution provisions of *No Child Left Behind* (NCLB).

The common goal shared by The Education Trust project and the NCLB provisions presented a timely opportunity for Ohio to align two powerful initiatives and, with the support of leaders at The Education Trust, develop *one state plan*.

Ohio's Teacher Equity Plan addresses the NCLB requirement that each state demonstrate *a good faith effort* to ensure that poor and minority students are not being taught at higher rates than other students by inexperienced, unqualified and out-of-field teachers. The strategies included in Ohio's plan are the result of findings from extensive data analyses, the expertise of the project's working group, and national research on teacher quality.

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John Bryant	[Cincinnati, Ohio]	Alicia Pagan	[Dayton, Ohio]
Charles Hancock	[The Ohio State University]	C. J. Prentiss	[Ohio Senate]
Jean Harper	[Springfield City Schools]	Mark Real	[KidsOhio.org]
Denise Hewitt	[Cincinnati Federation of Teachers]	Arlene Setzer	[Ohio House of Representatives]
Kaye Jeter	[Central State University]	Sylvester Small	[Akron City School]
Thomas Lasley	[The University of Dayton]	Richard Stoff	[Ohio Business Roundtable]
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Appendix B: References

- Center for Teaching Quality. (2006). Why Mentoring and Induction Matters and What Must Be Done for New Teachers. *Teaching Quality Across the Nation: Best Practices & Policies*, 5, 2.
- Darling-Hammond, L. (1999). Teacher Quality and Student Achievement: A Review of State Policy Evidence. *Education Policy Analysis Archives*, 8, 1. Retrieved June 14, 2006, from <http://epaa.asu.edu/aepaa/v8n1>
- Darling-Hammond, L and Baratz-Snowden, J. (2005). *A Good Teacher in Every Classroom: Preparing the Highly Qualified Teachers Our Children Deserve*. Sponsored by The National Academy of Education.
- Education Week. (1996-2005). *Quality Counts Reports*. Retrieved June 14, 2006, from <http://www.edweek.org/rc/articles/2004/10/15/qc-archive.html>
- Education Week. (2006). *Quality Counts at 10: A Decade of Standards-Based Education*. Retrieved June 14, 2006, from www.edweek.org/rc/articles/2004/10/15/qc-archive.html
- Educator Standards Board. (2004). *Fact Sheet*. Retrieved June 14, 2006, from <http://esb.ode.state.oh.us/PDF/Revised%20Fact%20Sheet%203-9-06%20in%20PDF.pdf>
- The George Lucas Foundation. (2005). [Interview with Linda Darling-Hammond; an expert on education and teaching]. *Edutopia Online*, 1-3. Retrieved June 14, 2006, from http://www.edutopia.org/php/print.php?id=Art_832&template=printinterview.php
- The Governor's Commission on Teaching Success. (2003). *Achieving More: Quality Teaching, School Leadership, Student Success*. Retrieved June 14, 2006, from www.teaching-success.org
- Hanushek, E.A., Kain, J.F., Rivkin, S.G. (1998). *Teachers, Schools and Academic Achievement: National Bureau of Economic Research, working paper no. W6691*. Retrieved June 14, 2006, <http://ssrn.com/abstract+122569>
- Haselkorn, D. & Harris, L. (1998). *The Essential Profession: A National Survey of Public Attitudes toward Teaching, Educational Opportunity and School Reform*. Retrieved June 14, 2006, from <http://www.rnt.org>

- Ingersoll, R. (1996). *Out of Field Teaching and Educational Equality*. U.S. Department of Education. National Center for Education Statistics. Retrieved June 14, 2006, from <http://www.ed.gov/nclb/methods/teachers/teachers.html>
- Levin R., Driscoll, W. & Fleeter, H. (2005). *Key Findings from the Ohio Distribution of Teacher Characteristics Study*: Ohio Department of Education.
- Mid-continent Research for Education and Learning. (2006). *New McREL research affirms link between high-quality teacher professional development and improved student achievement*. Retrieved July 3, 2006, from http://www.mcrel.org/newsroom/pr_ProfessionalDevelopmentAnalysis.asp
- National Commission on Teaching & America's Future. (1996). *What Matters Most: Teaching for America's Future*. New York, New York
- National Council for Accreditation of Teacher Education. (2003). *No Dream Denied: A Pledge to America's Children*. Retrieved June 14, 2006, from www.nctaf.org/article/?c=4&sc=16
- The Ohio Department of Education. (2003). *Highly Qualified Teacher Rubric*. [Brochure]. Columbus, OH
- The Ohio Department of Education. Condition of Teacher Supply and Demand in Ohio. (2004a). Condition of Teacher Supply and Demand in Ohio 2004. Retrieved July 3, 2006, from http://www.ode.state.oh.us/teachingprofession/pdf/S_D_Revised_final.pdf
- The Ohio Department of Education. (2004b). *Strategic Plan*. Retrieved June 14, 2006, from www.ode.state.oh.us/centers/strategic_plan.asp
- The Ohio Department of Education. (2005a). *Guide for Ohio's Report Card System 2004-2005*. Retrieved June 14, 2006, from www.ode.state.oh.us/reportcard/pdf/0405guide.pdf
- The Ohio Department of Education. (2005b). *Annual Report on Educational Progress in Ohio*. Retrieved June 14, 2006, from www.ode.state.oh.us/reportcard/state_report_card/SRC2005.pdf
- The Ohio Department of Education (2006). *Schools of Promise Case Studies 2005-2006*. Draft in progress.

Ohio State Board of Education. (2003). *Toward High Achievement for All Students: the Report of the State Board of Education Closing Achievement Gaps Task Force*. Retrieved June 14, 2006, from www.ode.state.oh.us/achievement_gaps/closing_achievement_gaps_task_force/AG_task_force_report.pdf

The United States Department of Education web site. Retrieved June 29 from <http://www.ed.gov/nclb/methods/teachers/teachers.html>

Peske, H. & Haycock, K. (2006). *Teaching Inequality: How Poor and Minority Students Are Shortchanged on Teacher Quality*. Retrieved June 14, 2006, from <http://www2.edtrust.org/NR/rdonlyres/010DBD9F-CED8-4D2B-9E0D-91B446746ED3/0/TQReportJune2006.pdf>

The Pew Charitable Trusts & Education Week. (2000a). *Quality Counts 2000: Who Should Teach?*, 14.

The Pew Charitable Trusts & Education Week. (2000b). *Quality Counts 2000: Who Should Teach? Education Week Analysis of U. S. Census Bureau's 1992-1999 Current Population Survey – March Supplement*, 13

The Teaching Commission. (2004). *Teaching at Risk: A Call to Action*. Retrieved June 14, 2006, from http://www.theteachingcommission.org/press/FINAL_Report.pdf