

# ONCE & FOR ALL

**Placing a Highly Qualified Teacher  
In Every Philadelphia Classroom**



**WHAT WE KNOW** *and Need to Do*

A report from *Learning from Philadelphia's School Reform*

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Ruth Curran Neild

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This study was conducted by a group of scholars for **Research for Action** as part of *Learning from Philadelphia's School Reform*, a research and public awareness project that will assess the effectiveness of school improvement in Philadelphia. The four-year project will analyze key aspects of the state takeover, the multiple provider model, and reforms implemented by city- and state-appointed School District officials and make research findings available to educators, parents and community leaders who can monitor and guide school reform efforts.

**Research for Action**, a non-partisan, non-profit organization focused on providing sound research on school improvement efforts for a broad public, has followed school reform in Philadelphia since 1992. For this project, **Research for Action** has brought together a team of well-known scholars to develop a broad-based research agenda, with lead funding from the William Penn Foundation and additional support from The Pew Charitable Trusts, the Samuel S. Fels Fund and others.

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We also want to thank the 17 business leaders, district administrators, leaders of teacher preparation programs in area colleges and universities, and non-profit groups for allowing us to interview them for this report.

## **Data and Methods**

This report on trends in Philadelphia's teaching workforce drew primarily from several data sources: quantitative data sets, interviews, School District of Philadelphia documents and research reports, and participant observation. These included:

- A data set provided by the School District of Philadelphia and analyzed by the research team on selected characteristics of its entire full-time teaching workforce each October for the years 1999, 2000, 2001, and 2002. The district also provided the same data for June 2003 so that we could look at changes that occurred between October 2002 and June 2003. Teacher characteristics included school placement, date hired, certification status and college or university where certification was earned, subjects taught, age, race/ethnicity, and gender. These data will be further analyzed and updated in the coming year. The district is undertaking substantial efforts to improve its ability to track teacher quality. The data sets we used were obtained in August 2003 and reflected the most accurate information available.
- An analysis of data from the Schools and Staffing Survey (SASS) conducted especially for this study by Professor Richard M. Ingersoll at the Graduate School of Education at the University of Pennsylvania. These surveys have been conducted by the National Center for Education Statistics and are the largest studies of their kind of the nation's teacher workforce. The SASS surveys have been conducted over four different school years beginning in 1988-89. Ingersoll analyzed data for this report from the 1999-00 wave of data collection.
- A data set provided by the Pennsylvania Department of Education of the Praxis licensure test scores of all teachers employed by the School District of Philadelphia who took the tests during 2002-03 (N=1244). The great majority of these tests were taken by emergency-certified teachers.
- A monthly list of teacher vacancies broken down by school and subject area for the 2002-03 school year. These data were also made available to us by the School District of Philadelphia and analyzed by the research team.
- The New Teacher Survey administered to all new teachers attending a district-wide induction session for new teachers held after school, and analyzed by the research team in October 2002. A total of 366 teachers out of the approximately 598 (61 percent) who had been hired by that date filled out the survey. Survey questions focused on selected aspects of new teachers' hiring and school assignment experiences as well as on their appraisals of their induction and start-up, and their working conditions, at the school level. A second New Teacher Survey, administered in cooperation with the School District of Philadelphia, will be administered in September 2003.

- Seventeen individual interviews conducted by the research team between June and August 2003 with five district officials connected with the Office of Human Resources and the Campaign for Human Capital; four business leaders who were involved with the Campaign during 2002-03; five teacher education leaders in four local colleges and universities; an official of the Philadelphia Federation of Teachers; a leader of a non-profit organization who worked on the Campaign; and the local director of a major alternative certification program.
- Participant observation in the Campaign for Human Capital and University Partners meetings conducted by the School District of Philadelphia. Two of the researchers were tapped to be members of committees of the Campaign and two are members of the University Partners group that is regularly convened by the district.

*“Although research confirms that teachers matter, it’s less conclusive about which teacher characteristics are related to higher student achievement. ...But the grim truth is that no matter which characteristic you choose, students in high-poverty, high-minority, and low-achieving schools come up on the short end of the stick.”*

—Quality Counts 2003, Education Week

## INTRODUCTION

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The Philadelphia public schools—under pressure from the public, civic and education leaders, the 2001 state takeover of public schools, and new federal requirements to raise test scores dramatically—are at a crossroads. Either the district and community will find the right formula for school and student success, or there will be a growing lack of confidence in public education and an increasing exodus of students away from the city’s schools. Philadelphia schools have already been subject to strong outside intervention. As of the fall of 2002, 70 of the district’s 178 low-performing schools had undergone one of several radical interventions, ranging from privatization of their management to for-profit or non-profit organizations, assignment to “restructured” status in a sub-district of the system, or conversion to charter school status.<sup>1</sup>

However, despite these attempts at reorganization, bolstering results and increasing public satisfaction with schools will depend largely on what happens within the classrooms attended by Philadelphia’s 188,000 students—and this, in turn, depends on the quality of teachers in its schools. This study examines key dimensions of the teacher quality issue in the School District of Philadelphia and the steps taken by the administration of CEO Paul Vallas to break down the barriers to getting and keeping strong teachers for every Philadelphia classroom.

Like other major urban districts, Philadelphia faces daunting challenges in staffing—a smaller and less-qualified hiring pool, high levels of teacher turnover, and policies that abet the migration of experienced and certified teachers to more advantaged schools. The district has seen the percentage of certified teachers in its 11,700-member teaching workforce decline over the past three years and must address other issues, including high failure rates of emergency-certified teachers on state licensing exams and high teacher turnover that limits the capacity of schools to build a consistent learning program and generate continuous improvement.

At the highest-poverty middle and K-8th grade schools, less than half of the original 1999-00 staff were still teaching in these schools three years later. During 2002-03, some of the schools given to outside managers or slated to become charter schools experienced elevated levels of teacher turnover. Meanwhile, district procedures on the way teachers are assigned to schools have resulted in a situation where the lowest-performing schools have the least-qualified and least-experienced teachers.

The report also identifies where Philadelphia falls in comparison to other urban districts and neighboring districts, revealing that the challenges confronting the city are similar to—and in some cases more intense than—those experienced elsewhere.

**Like other major urban districts, Philadelphia faces daunting challenges in staffing—a smaller and less-qualified hiring pool, high levels of teacher turnover, and policies that abet the migration of experienced certified teachers to more advantaged schools.**



Chief Executive Officer Paul Vallas, hired by city- and state-appointed School Reform Commission (SRC) members in 2002 after the state takeover, has made the recruitment and retention of qualified teachers a priority in his administration, a push that dovetails with new federal requirements that a “highly qualified” teacher be placed in every one of the nation’s classrooms. The district, under the auspices of its Campaign for Human Capital led by Tomás Hanna, has put in place a number of incentives and initiatives that in just a few short months have helped boost the number of teachers applying for the 700 to 800 positions available in the city’s system for fall 2003.<sup>2</sup> These include stepped-up marketing efforts, a more streamlined hiring process, and support for high-quality alternate routes to teaching in partnership with local colleges and universities. Other new initiatives, such as summer training and year-long coaching for new teachers, tuition reimbursement for required postgraduate coursework, training for all principals in practices that retain teachers, and smaller class sizes in grades K-3 have the potential to stem the outflow of experienced teachers.

The district’s efforts have generated momentum for change and have led to promising preliminary results. In addressing long-ignored teacher staffing issues, the district also has reached out to civic, business, and higher education leaders. It is taking seriously the federal mandate to put a “highly qualified” teacher in every classroom, setting its own requirements for uncertified new teachers that go beyond state standards. These include requiring summer training for uncertified teachers and attempting to hire only individuals on Intern Certificates, including participants in national alternative route programs, who must enroll in a certification program at a local college or university.

Still, a great deal remains to be done to ensure that children have access to quality instruction. The efforts of the district to recruit teachers in the last year have been aided by the region’s rising unemployment rate and austerity budgets in surrounding districts. Districts around the country are reporting an easing of teacher shortages.<sup>3</sup> The city’s system, then, will need to develop strategies and programs to maintain high recruitment levels when job markets pick up.

District leaders must also initiate new policies that choose the very best candidates from the growing applicant pool and that guarantee the equitable distribution of teachers across all types of schools, particularly the highest-poverty schools. Such efforts will require that the district address institutional barriers that currently prevent it from moving quickly and flexibly to hire and deploy teachers. These barriers include the highly centralized hiring and school-assignment process and the seniority-based transfer system stipulated in the current collective bargaining agreement with teachers.

## WHAT WE KNOW ABOUT TEACHER QUALITY ISSUES IN PHILADELPHIA

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### The Problem of Underqualified Teachers

Stop a person on the street and ask them to tell you about their teachers. Almost everyone can tell you about a teacher who was caring, knowledgeable, and inspiring. And almost everyone can recall a teacher who was a disaster in the classroom. If your informant attended public school, the likelihood is that both the good teacher and the poor teacher were certified to teach. Most of us know from personal experience that being certified to teach is no guarantee that a teacher will do a good job with children, just as being licensed to practice medicine is not a complete assurance of quality patient care.

And yet, being certified to teach means something. At a minimum, it guarantees that the individual has been responsible for her own classroom, even if only for a few months under the supervision of a more senior teacher. It means that a teacher recently certified in Pennsylvania has passed a series of state tests of academic skills, content knowledge, and understanding of how children learn. She also probably has had some experience in diagnosing and teaching children with learning disabilities. Changes in Pennsylvania certification requirements mandate that newly certified teachers be more academically skilled than ever before. In 1999 and 2000, the State of Pennsylvania increased the number of required hours of liberal arts coursework in mathematics and English for prospective teachers, mandated a 3.0 grade-point average for entry into and exit from a teacher education program, and raised the minimum passing scores on many certification tests. As a result, Pennsylvania is now widely regarded as having some of the nation's highest standards for teaching certification.

Philadelphia teachers without certification have typically been “emergency-certified” teachers. Indeed, almost one-half of the new teachers hired between June and October 2002 were emergency-certified. While the common image of the emergency-certified teacher may be that of an individual whose rigorous undergraduate liberal arts education left no time for education courses or student teaching, in Philadelphia being an emergency-certified teacher generally implies something quite different. Such teachers often have weak academic backgrounds or college majors unrelated to the subject they are assigned to teach. As we show later in this section, *many of the emergency-certified teachers already teaching in Philadelphia classrooms during 2002-03 failed the state licensure exam in basic mathematics, reading, and/or writing.* Second, an emergency-certified teacher's inexperience heightens the probability that he will have difficulty managing a classroom, developing curriculum and assessments, and diagnosing learning difficulties. Worse yet, these emergency-certified teachers are most likely to work in schools whose neighborhoods are characterized by concentrated poverty, where students most need teachers with an extensive repertoire of classroom-management strategies, varied pedagogical skills, and diagnostic capabilities.

**Almost one-half of the new teachers hired between June and October 2002 were emergency-certified.**

**Declining certification rates**

During four consecutive school years (from 1999-00 to 2002-03), we took a snapshot of the teaching force on October 1.<sup>4</sup> Certification levels fell over the course of the four years (Table 1), declining more sharply at some grade levels than at others.

In October 1999, 93.3 percent of the district’s teachers were certified to teach in Pennsylvania. Just three years later, certification rates had fallen to 88.5 percent. The decline over the three years is consistent, suggesting that these data do not represent chance year-to-year fluctuations but rather a declining trend in the qualifications of Philadelphia’s public school teachers. A three-year decline of almost 5 percentage points in the overall certification rate is both substantial and rapid.

**Falling rates of certification occurred across all grade levels.**

Falling rates of certification occurred across all grade levels. At elementary schools, certification rates fell from 95 percent to 89 percent.<sup>5</sup> High schools experienced a decline in certification as well, from 93 to 89 percent. Middle schools, traditionally the most difficult grade configuration to staff, fell from 87 percent in October 1999 to 83 percent in October 2002. These certification rates mask substantial variation by school poverty level, so that at the highest-poverty middle schools, for example, 30 percent or more of the staff are not certified to teach.

**Table 1: Percent of fully certified teachers across years, for district and by school type**

School Type	N (02-03)	1999-00	2000-01	2001-02	2002-03
K-8	1707	96.2%	93.7%	92.0%	91.7%
Elementary	4550	94.8%	92.0%	90.1%	88.7%
Middle	1971	87.1%	83.5%	83.6%	83.3%
High School	2963	93.2%	91.2%	90.7%	89.4%
Other	399	97.4%	93.2%	90.0%	92.2%
<b>Entire District</b>	<b>12052*</b>	<b>93.3%</b>	<b>90.6%</b>	<b>89.4%</b>	<b>88.5%</b>

\*Numbers may not add up because teachers can be listed in the database without an accompanying school

At the high school level, certification rates vary considerably by subject area. Our analysis of data from the 1999-00 school year indicates that 94 percent of the English teachers were certified to teach, as were 96 percent of the social studies teachers, 89 percent of the math teachers, and 82 percent of the science teachers (Table 2). The great majority of the certified teachers were teaching in their field; that is, they were teaching a subject for which they had taken content-area courses and passed the state licensure test. Out-of-field teaching among certified teachers was most common in science, where, for example, a certified biology teacher might be called upon to teach a course in chemistry or physics.

These data indicate that Philadelphia does reasonably well at matching its certified teachers to appropriate subject-area courses in high school. Of more concern is the large number of emergency-certified teachers who may have little college preparation for the subject they are teaching. If we assume, for example, that each high school math teacher instructs 150 students a year, and 44 of those teachers are emergency-certified, then in 2002-03 almost 6,600 high school students had a math teacher whose subject-matter knowledge had not been proven.

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**Table 2: In-field and out-of-field teachers at the high school level**

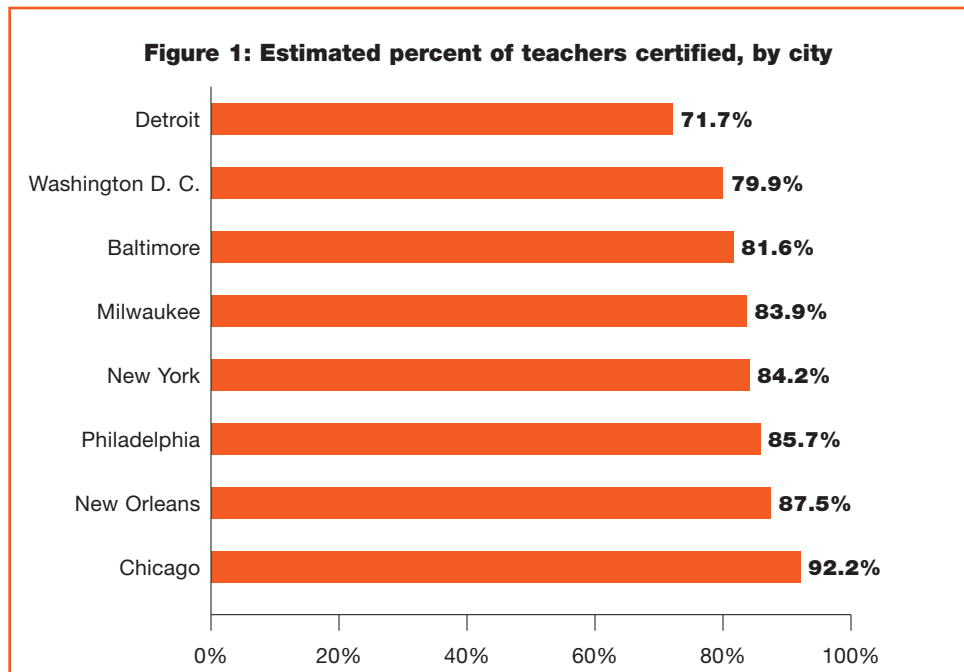
	English	Math	Science	Social studies	All core subjects
<b>In-field teachers</b>					
Certified, all courses in field	92.1%	88.1%	78.0%	93.4%	88.8%
<b>Out-of-field teachers</b>					
Certified, at least one course out-of-field	1.4%	0.8%	4.2%	2.8%	2.1%
Uncertified	6.4%	11.1%	17.8%	3.8%	9.1%
Total out-of-field	7.9%	11.9%	22.0%	6.6%	11.2%
<b>TOTAL</b>	100.0%	100.0%	100.0%	100.0%	100.0%
<b>N</b>	483	369	264	318	1434

Philadelphia is not alone in its struggle to attract and retain certified teachers. An analysis of data from the national 1999-2000 Schools and Staffing Survey (SASS), conducted for this report by Professor Richard Ingersoll at the University of Pennsylvania, shows that Philadelphia's certification rate was similar to that of a number of other large cities. Of the cities he examined, Chicago had the highest estimated certification rate (92 percent) and Detroit the lowest (72 percent).<sup>6</sup> Since these are estimates, one should not make too much of small differences in the percent of certified teachers.<sup>7</sup> Our point is that Philadelphia's experience is typical of other large urban districts. In some respects, Philadelphia has certain workforce

advantages compared to some other cities nationally—its cost of living is comparatively reasonable, it is not experiencing enrollment growth, and it is located in a state with a surplus of teachers.<sup>8</sup>

Despite the School District of Philadelphia’s discouraging recent history with attracting and retaining teachers, there is evidence that the 2003-04 school year may represent a major turning point. As of mid-August, the district appeared to have come close to meeting its goal of hiring only certified teachers or teachers on Intern Certificates from alternative certification programs, such as Teach for America or Transition to Teaching, which provide summer training and school-year support. The district also planned to “overhire” teachers in order to have excess staff to fill vacancies that occur when brand-new teachers either fail to show up for school or leave in a matter of days or weeks.<sup>9</sup>

**Despite the School District of Philadelphia's discouraging recent history with attracting and retaining teachers, there is evidence that the 2003-04 school year may represent a major turning point.**



**Poor performance of emergency-certified teachers on standardized licensure tests**

New teachers in Pennsylvania must pass a series of licensure tests—the Praxis exams—designed by the Educational Testing Service (ETS). The most basic battery of tests, known as the Pre-Professional Skills Tests, assesses prospective teachers’ basic knowledge of mathematics, reading and writing. This set of tests is used to screen out the weakest teaching candidates.<sup>10</sup> Prospective teachers at many Pennsylvania colleges and universities must pass each of these basic skills tests before being admitted to a traditional teacher certification program. Subsequently, prospective teachers must pass one or more challenging and specialized exams to earn their certification.

While Philadelphia’s estimated percent of teachers who are certified is similar to that of other large urban districts (Figure 1), in recent years Philadelphia has accepted teacher candidates who have not yet passed their Praxis exams. These teacher candidates, holding Emergency Certificates, are required to pass the exams within two to three years of their employment in the system. An analysis of Praxis data for emergency-certified teachers who took the tests while teaching in the district during the 2002-03 school year indicates that many did not score well. Less than half passed the basic mathematics test; just over two-thirds passed the reading test; and less than 60 percent passed the writing test (Table 3). In comparison, 2002-03 pass rates for graduates of teacher education programs at each of three local universities are considerably higher.<sup>11</sup>

**An analysis of data for emergency-certified teachers who took the licensure exams while teaching in the district during the 2002-03 school year indicates that many did not score well.**

**Table 3: Pass rates on the Praxis Pre-Professional Skills Tests, 2002-03**

	Emergency-certified Philadelphia teachers	Temple	West Chester	Drexel
Mathematics	49%	75%	80%	100%
Reading	67%	89%	96%	100%
Writing	58%	80%	82%	100%

Since the emergency-certified Philadelphia test-takers are a self-selected group, we do not know how their academic skills compare to those who left the district without taking the test. Nevertheless, the data make clear that students in Philadelphia have not been able to count on getting a teacher who has mastered basic academic skills. In addition, the low pass rates of emergency-certified teachers have contributed to high staff turnover, since those who can not pass the Praxis exam within a few years lose their teaching positions in the district.

The Vallas administration, in concert with the Pennsylvania Department of Education, is making a sustained effort to ensure that, if it becomes necessary to hire teachers with less than full certification, it will only hire those with an Intern Certificate that requires holders to pass the Praxis exams prior to teaching, rather than those with an Emergency Certificate, which has no such requirement. For 2003-04, those teachers who are still emergency-certified must pass the Praxis exams by the end of the school year. Around the same time, the state intends to stop issuing Emergency Certificates, replacing them with Intern Certificates.

**Finding ways to retain good teachers is another important task in providing Philadelphia's students with a quality education.**

**Major suppliers of teachers to School District of Philadelphia**

	Number of Hires, 99-00 to 02-03	% of those hired, 99-03, teaching in district in June 2003
Temple	1262	58.3%
West Chester	280	57.9%
Holy Family	220	68.2%
Penn State	213	63.9%
Cheyney	146	83.6%
Arcadia	144	70.8%
University of Pennsylvania	133	59.4%
LaSalle	130	63.9%
St. Joseph's	103	54.4%
Chestnut Hill	71	70.4%

Source: School District of Philadelphia

**High Attrition, Unstable Staffing, Recurring Vacancies**

**High attrition rates from the district**

Recruitment is the first step in providing qualified teachers for the city's schools. Finding ways to *retain* good teachers in the district, and especially at high-poverty schools, is a second important task in providing Philadelphia's students with a quality education.

Some turnover is often desirable in the workplace, since new hires can bring fresh energy and ideas. However, there are a number of reasons why any school district should pay attention to its teacher turnover rate. At the most basic level, there are costs to a school district associated with recruiting and hiring teachers. In addition, schools receive a reduced return on their investment in professional development when teachers leave the district.<sup>12</sup> Teachers also take away with them vital information about the students in their classes, knowledge that could have helped students' future teachers determine placement and solve behavior problems. Finally, high levels of turnover at individual schools impede the development of a coherent educational program, institutional memory, and staff cohesion.

Richard Ingersoll breaks teacher turnover into two categories in his analyses of SASS data and its supplement, the Teacher Follow-up Survey (TFS). He differentiates those who depart the profession entirely from those who remain in teaching but

switch to a different school. With these two categories combined, high-poverty public schools nationally have higher annual rates of teacher turnover (16 percent) than low-poverty schools (9 percent).<sup>13</sup>

From the perspective of the district, two kinds of teacher turnover are important. Each year, some teachers leave the district entirely; we call this “district-level turnover.” In addition, many teachers remain in the district but transfer to a new school. Departure from a school is referred to as “school-level turnover.”

Table 4 presents turnover at both the district and school levels in Philadelphia from 1999-00 to 2002-03. The table includes data for all of the district’s teachers and for the subset of those teachers who were in their first year of teaching in the district. The first two rows of the table show the percent of those teaching in 1999-00 who were *still in the district* during the following one, two, and three years. The second two rows show the percent *still at the same school* one, two, and three years later. The final set of rows compares district-level attrition rates for fully certified *new teachers* and their emergency-certified counterparts.

About 10 percent of all teachers active in 1999-00 departed the district by the following school year. Three years later, about one quarter of the teachers had left the district. For teachers *new* to the district in 1999-00, the attrition rate was much higher. More than 25 percent left the year after they started, and more than half had left the district three years later. Further, since the school district estimates that about 8 percent of new teachers hired in September leave by October, and since these early leavers are not represented in our data (which reports only on those employed by the district on October 1 of each year), the turnover figures we cite should be regarded as an *underestimate* of the actual new teacher turnover. As Ingersoll puts it, the teaching occupation has a revolving door but it revolves much faster for new teachers.

**High levels of turnover at individual schools impede the development of a coherent educational program, institutional memory, and staff cohesion.**

**Table 4: One-, two- and three-year district and school retention rates for teachers employed in fall 1999**

	N (1999-00)	1999-00	99-00 to 00-01	99-00 to 01-02	99-00 to 02-03
Percent remaining in district	12422	100.0%	90.4%	83.7%	76.8%
Percent of new teachers remaining in district	919	100.0%	73.2%	58.3%	48.6%
Percent at the same school	12346	100.0%	83.1%	74.7%	64.2%
Percent of new teachers at the same school	913	100.0%	60.8%	46.7%	34.4%
Percent of fully certified new teachers remaining in district	594	100.0%	73.6%	59.9%	51.8%
Percent of emergency-certified new teachers remaining in district	325	100.0%	72.6%	55.4%	42.8%



Why do new teachers have such a high attrition rate? In recent years, Philadelphia has relied on emergency-certified teachers to fill hiring gaps, virtually guaranteeing a high level of new teacher turnover.<sup>14</sup> Historically, emergency-certified teachers have been allowed to enter Philadelphia's classrooms with no prior training, not even a short summer course, and with college majors that were not always related to the subjects they were assigned to teach. Lacking basic preparation for urban classrooms, some emergency-certified teachers depart at the end of the school year—or before. Our data show that departure rates for emergency-certified teachers have been higher than for certified teachers; 43 percent of the emergency-certified newcomers hired for the 1999-00 year remained in the district three years later, in contrast to 52 percent of the new certified teachers.<sup>15</sup>

Although emergency-certified teachers are more likely to leave the district, there is clearly substantial attrition among the new teachers who *are* certified. Some new teachers discover that they are not cut out to be in a classroom and decide to leave the profession after a few months or years. Others leave for more appealing jobs in suburban schools.<sup>16</sup> A certain amount of departure from teaching is to be expected, since not everyone has the temperament, commitment, or academic skills to be a good teacher. But the high attrition rates for new teachers in Philadelphia and across the country suggest that either enormous numbers of new teachers have seriously misjudged their occupational skills and interests—which is unlikely—or something else is driving them from their first jobs.

**Teachers who remained in Philadelphia cited their principal sources of dissatisfaction: low salaries (60 percent); student misbehavior (52 percent); lack of tuition reimbursement (24 percent); and the city's wage tax (24 percent).**

Research conducted in Philadelphia and nationally attributes the high attrition rate of new teachers to dissatisfaction with compensation, working conditions, student discipline, and the leadership in their school buildings. High-poverty urban schools like those in Philadelphia are especially prone to these problems. Ingersoll's analyses of the SASS teacher data show that among new teachers who leave the profession after just one year because they were dissatisfied, more than three-fourths (78 percent) cite "poor salary" as the reason. Another 35 percent point to "student discipline problems," while 26 percent cite "poor administrative support."<sup>17</sup>

Other studies such as those from the Project on the Next Generation of Teachers at Harvard University support Ingersoll's findings and describe how poor working conditions—disorderly school climates, isolation from colleagues, insufficient mentoring, lack of curricular guidance, and inappropriate teaching assignments—contribute to new teachers' departure from their school or from the field entirely.<sup>18</sup>

A three-year, longitudinal study of a cohort of 60 new middle school teachers in Philadelphia echoes some of these national findings.<sup>19</sup> Those teachers who remained in Philadelphia for three years (1999-00 to 2001-02) cited principal sources of dissatisfaction similar to those reported nationally by those who left the profession: low salaries (60 percent); student misbehavior (52 percent); lack of tuition reimbursement for required coursework (24 percent); and the city's wage tax (24 percent).

**Unstable staffing at the school level**

From a recruiting standpoint, district-level turnover is more relevant than school-level turnover. But individual schools are affected by both departures from the district and transfers within the district. School-level turnover rates are higher than system-wide rates because schools suffer losses from those who depart the profession, leave the school system, or transfer to another school in the same district.

As Table 4 shows, just 64 percent of Philadelphia teachers employed in 1999-00 remained at the same school three years later. Some teachers had left the district, while others had switched to new schools. However, school-level turnover varied—sometimes quite substantially—by grade configuration and the percent of low-income students.\* Middle schools experienced the most turnover, retaining only 59 percent of their 1999-00 teachers three years later (Table 5). With three-year retention rates of 67 and 68 percent, respectively, high schools and K-8<sup>th</sup> grade schools had the best track records for keeping teachers.<sup>20</sup>

**The highest-poverty schools had the hardest time retaining teachers.**

**Table 5: One-, two- and three-year teacher retention rates by school type, for teachers employed in fall 1999**

School Type	N (1999-00)	1999-00	99-00 to 00-01	99-00 to 01-02	99-00 to 02-03
K-8	1725	100.0%	83.7%	76.1%	67.7%
Elementary	4732	100.0%	82.7%	74.1%	63.8%
Middle	2188	100.0%	79.5%	71.9%	59.1%
High School	3080	100.0%	85.8%	77.4%	66.7%

The highest-poverty schools had the hardest time retaining teachers (Table 6). It is important to keep in mind that almost every Philadelphia public school enrolls a high proportion of low-income students. In 2002-03, for example, 11 percent of the district’s teachers taught in schools with at least 90 percent low-income students, and another 26 percent taught in schools at which between 80 and 89 percent of the students were low-income. While both groups of schools can be described appropriately as serving large numbers of poor students, our data in this and following sections show that the “poorest-of-the-poor” schools have a harder time than the “not-quite-as-poor” schools in attracting and retaining teachers.

\*Low-income students are defined as students who qualify for free or reduced-price lunch.

More than 20 percent of the 1999-00 teachers at schools with 90 percent or more low-income students had left their schools by the following year.<sup>21</sup> Fifty-six percent of the 1999-00 teachers at these schools remained three years later. In contrast, at schools with less than 80 percent low-income students, 70 percent of the teachers remained in 2002-03. National data show a similar pattern of higher teacher turnover at schools with more low-income students.<sup>22</sup> In Philadelphia, the disproportionate number of new teachers in the highest-poverty schools contributes to the high turnover rate, since new teachers are more likely to leave than veterans.

**Table 6: One-, two- and three-year retention rates by school poverty level, for teachers employed in fall 1999**

	N (1999-00)	1999-00	99-00 to 00-01	99-00 to 01-02	99-00 to 02-03
0% to 79% poverty	5929	100.0%	85.6%	78.5%	69.5%
80% to 89% poverty	4336	100.0%	81.2%	72.1%	60.3%
90% + poverty	1847	100.0%	78.8%	69.0%	56.4%

Teacher turnover is particularly dire in the highest-poverty middle and K-8<sup>th</sup> grade schools. Tables 7-10 show retention rates by school type and poverty level. At the highest-poverty middle and K-8<sup>th</sup> grade schools, less than half of the original 1999-00 staff were still at the same school three years later. At the lowest-poverty schools (less than 80 percent low-income), retention rates were roughly similar across the various school types.

**Table 7: Elementary schools: One-, two- and three-year retention rates by school poverty level, for teachers employed in fall 1999**

	N (1999-00)	1999-00	99-00 to 00-01	99-00 to 01-02	99-00 to 02-03
0% to 79% poverty	1419	100.0%	86.0%	79.5%	71.1%
80% to 89% poverty	1781	100.0%	82.7%	73.6%	62.9%
90% + poverty	1531	100.0%	79.8%	69.8%	58.1%

**Table 8: K-8 schools: One-, two- and three-year retention rates by school poverty level, for teachers employed in fall 1999**

	N (1999-00)	1999-00	99-00 to 00-01	99-00 to 01-02	99-00 to 02-03
0% to 79% poverty	1238	100.0%	85.3%	78.5%	72.0%
80% to 89% poverty	443	100.0%	80.6%	71.3%	58.0%
90% + poverty	44	100.0%	70.5%	54.5%	45.5%

**Teacher turnover is particularly dire in the highest-poverty middle and K-8th grade schools.**

**Table 9: Middle schools: One-, two- and three-year retention rates by school poverty level, for teachers employed in fall 1999**

	N (1999-00)	1999-00	99-00 to 00-01	99-00 to 01-02	99-00 to 02-03
0% to 79% poverty	799	100.0%	82.9%	77.0%	69.3%
80% to 89% poverty	1117	100.0%	78.3%	69.4%	54.3%
90% + poverty	272	100.0%	74.6%	66.9%	48.5%

**Table 10: High schools: One-, two- and three-year retention rates by school poverty level, for teachers employed in fall 1999**

	N (1999-00)	1999-00	99-00 to 00-01	99-00 to 01-02	99-00 to 02-03
0% to 79% poverty	2258	100.0%	86.3%	78.4%	67.4%
80% to 89% poverty	504	100.0%	84.6%	74.4%	64.5%
90% + poverty*					

\* There are no high schools in Philadelphia with a 90% + school poverty level

**Elevated levels of turnover at some privately managed schools**

The state takeover of the Philadelphia schools created a sense of uncertainty among teachers that was especially intense at many of the 70 low-performing schools designated for outside management or other interventions. This uncertainty led to a higher than usual number of teacher transfers out of some of these schools for the 2002-03 school year. Table 11 shows one-year retention rates at the “takeover schools” for the 2002-03 school year and each of the preceding two school years. Schools assigned to Edison Schools, Inc. or to charter conversion status saw the lowest percent of teachers remain at the schools and the most substantial decreases in retention compared to previous years. At schools managed or assisted by Foundations, the University of Pennsylvania, Universal, and Victory, teacher retention rates were lower than the previous year, but similar to—or even more favorable than—retention rates from two years before.

**If we assume that each of the 27 middle school teachers would have taught 150 students, then about 4,000 middle school students would have had no permanent teacher for at least one subject when school began.**

In one sense, the amount of teacher turnover at some of the schools made it more difficult to introduce a new educational program, since teacher departures created vacancies that were not all filled by September and many of the replacement teachers were new to the classroom. But some principals were more sanguine, believing that they had been given an opportunity to develop a staff that would not actively oppose changes at the school. It is unclear at this point whether the elevated turnover levels were a transition-year phenomenon, or whether teachers will continue to leave these schools in higher than usual numbers.

**Table 11: One-year teacher retention rates of 2002-03 "takeover" schools, fall 1999 to fall 2002**

Manager/Partner	N (01-02)	1999-00	99-00 to 00-01	00-01 to 01-02	01-02 to 02-03
Charter	193	100.0%	84.2%	83.4%	58.6%
Chancellor Beacon	279	100.0%	77.6%	83.7%	73.5%
Edison	849	100.0%	78.4%	82.2%	68.3%
Foundations	157	100.0%	73.5%	87.7%	80.9%
Penn	113	100.0%	80.0%	87.7%	81.4%
Restructured	794	100.0%	82.7%	85.9%	78.3%
Temple	156	100.0%	81.6%	88.4%	76.3%
Universal	53	100.0%	71.4%	88.9%	71.7%
Victory	197	100.0%	71.8%	85.6%	70.6%
TOTAL	2791	100.0%	79.3%	84.7%	72.9%

**A reduced number of teacher vacancies although some vacancy types persist**

The certification rates, experience, and Praxis scores of Philadelphia teachers do not tell the entire story of the quality of the city’s teaching force. Another key piece of information is the number of teaching positions that remain vacant. As a result of Philadelphia’s late hiring timeline and other disadvantages that make it difficult to compete for teachers in subject areas with shortages, school opens in September with teaching vacancies.

The number of vacancies declined substantially after 2001 when the Pennsylvania legislature abolished the city residency requirement for teachers, and when targeted recruitment efforts and specific hiring strategies for hard-to-fill subject areas were put in place by the district. The Literacy Intern program, created in 1998, also became a robust pipeline of new teachers. Vacancy rates during the 2002-03 school year, however, were still unacceptably high. As is the case across the state and nation, shortages of teachers are often most acute in certain fields, particularly bilingual/English as a Second Language, special education, mathematics, Spanish, and the physical sciences.

What happens to students and staff when there are teaching vacancies? Sometimes students are taught by a revolving door of substitutes. Other times students from the affected class are added temporarily or permanently to different classes, thereby increasing class size. When substitutes are not available, which is frequently the case, other teachers may be assigned to “cover” the class during their preparation periods, a practice which solves the immediate problem but has long-term consequences for staff morale and attendance when teachers become exhausted and frustrated. It is difficult to ask students to take their education seriously when their school appears incapable of providing them with a regular teacher.

Vacancy reports generated by the district around the 15<sup>th</sup> of each month show that there were 138 vacancies in mid-September 2002 (see Figure 2). The most common vacancy areas were special education (34 vacancies) and middle school classroom teacher (27 vacancies). While 138 vacancies may seem miniscule when one considers that there are about 11,700 teachers in the Philadelphia public schools, it is not minor from the perspective of the students without teachers. If we assume that each of the 27 middle school teachers would have taught 150 students, then about 4,000 middle school students would have had no permanent teacher for at least one subject when school began.

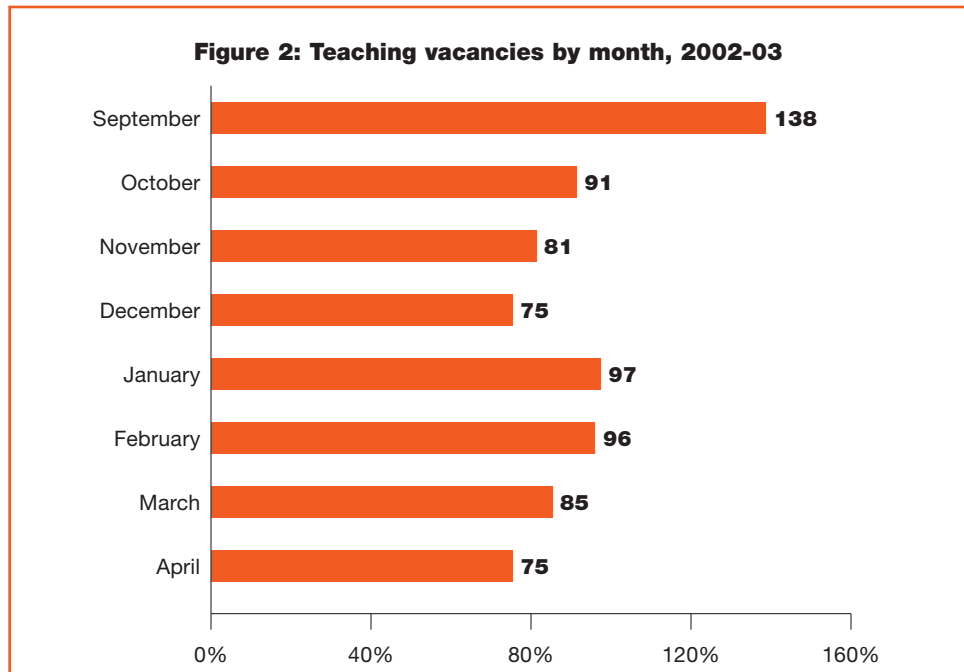
**It is difficult to ask students to take their education seriously when their school appears incapable of providing them with a regular teacher.**

**Table 12: Vacancies by school type, September and December 2002**

	September	December	Change
Elementary/K-8	37	29	-21.6%
Middle	52	29	-44.2%
High	49	17	-65.0%

The number of vacancies in 2002-03 fell between September and December, but the decline varied by school type. High school positions were easiest to fill, with the number of vacancies declining by 65 percent (see Table 12). In contrast, more than half of the initial number of middle and elementary school vacancies remained unfilled in December.

Historically, there is an uptick in vacancies in January, reflecting decisions by some teachers to resign after the winter break. This pattern held for 2002-03. Vacancies declined again after January 2003, but during no month of the year did the district have fewer than 70 vacancies.



Of the teachers employed by the district on June 16 of the past school year, 3.2 percent were hired on or after September 15, 2002. The highest-poverty schools are most likely to have teachers hired after the beginning of the school year (Table 13). The highest-poverty elementary, K-8<sup>th</sup> grade, and middle schools each had at least twice as many teachers hired after September 15 as their counterparts with less than 80 percent low-income students. The district reports that vacancies are concentrated in the same set of high-poverty schools year after year, a situation that is exacerbated by placing the least experienced teachers in these schools.

**Table 13: Percent of June 2003 teachers hired after the school year began, by school type and poverty level**

	N	0% to 79% poverty	80% to 89% poverty	90% + poverty
Elementary	4567	1.9%	3.0%	4.2%
K to 8	1722	2.5%	3.0%	9.3%
Middle	1966	2.0%	4.5%	5.4%
High School	2957	3.0%	3.7%	n/a
TOTAL	11,212	2.5%	3.5%	4.5%

## Inequitable Distribution of Qualified Teachers Across Philadelphia Schools

### Striking variations among school types in teachers' experience

With about seven percent of Philadelphia's teaching force brand-new in any given year, new teachers can be found in every school. But Philadelphia's school assignment process has the effect of concentrating new teachers disproportionately in positions where it takes the most grit and skill to succeed. New teachers are most likely to be found in the highest-poverty schools (Table 14). For example, in October 2002, 11 percent of the teachers at schools with at least 90 percent low-income students had less than one full-year of experience in the district, compared to five percent at schools at which less than 80 percent of the students were poor. At schools where 90 percent or more of the students are classified as low income, the average number of years in the district was 10, and about half of the teachers in these schools had five years or less of previous teaching experience in the district. In contrast, the lowest-poverty schools had an average experience level of 16 years, and only a quarter had five years or less of teaching experience in the district.

**New teachers are most likely to be found in the highest-poverty schools.**

**Table 14: Teacher experience by school poverty level, fall 2002**

School Type	N	Avg. yrs of exp.	Less than 1 full year	1-5 yrs	6-10 yrs	11-20 yrs	21-30 yrs	31+ yrs
0% to 79% poverty	5839	16.3	5.3%	20%	14%	21.9%	2.8%	10.8%
80% to 89% poverty	3972	11.6	8.3%	33.1%	16.2%	21.6%	16.4%	4.4%
90% + poverty	1732	9.6	11%	40.1%	14.5%	19.6%	11.8%	3.0%



Philadelphia teachers have taught in the system for an average of 13.8 years, approximately the same length of service as teachers in surrounding counties. Average years of experience vary by school level (Table 15). High school teachers, on average, have the longest tenure in the district (almost 17 years).

**Table 15: Teacher experience by school type, fall 2002**

School Type	N	Avg. yrs of exp.	Less than 1 full year	1-5 yrs	6-10 yrs	11-20 yrs	21-30 yrs	31+ yrs
K-8	1707	14.3	4.3%	26.7%	14.9%	24.3%	21.7%	8.1%
Elementary	4550	12.5	7.6%	30.4%	14.3%	24.4%	17.7%	5.5%
Middle	1971	11.4	9.3%	31.7%	16.3%	23.3%	15.2%	4.2%
High School	2963	16.6	6.7%	21.5%	14.1%	14.7%	31.1%	11.9%
Other	399	15.3	7.3%	21.8%	17.3%	16.8%	27.1%	9.8%
Entire District	12052*	13.8	7.1%	27.4%	14.7%	21.4%	22.0%	7.4%

\* Numbers may not add up because teachers can be listed in the database without an accompanying school

The situation is particularly dire at the city’s middle schools. It is not uncommon for 20 percent of the staff at the highest-poverty middle schools to have experienced less than a full year of teaching in the district. Their “senior” colleagues may only have a few years’ more experience than the newcomers. The concentration of new teachers in particular schools presents an enormous challenge for mentoring efforts: there are simply not enough veteran teachers to go around. Further, many of the new teachers at middle schools have no experience in the middle grades and had little interest in teaching those grades when they applied to the district. In one recent study of staffing in Philadelphia schools, nearly three-fourths of the certified new middle school teachers reported that their student teaching experience had been in grades K-5. Only 14 percent had student taught in grades 7 or 8.<sup>23</sup> Middle school teachers are much less likely than elementary and high school teachers to report that they are teaching a grade and/or subject for which they are best qualified.

These disparities in teacher experience occur in part because of school transfer rules that provide the first pick of jobs to teachers with the most seniority. A School District of Philadelphia study concluded that the general pattern is for teachers to transfer from higher-poverty schools to those with lower-poverty.<sup>24</sup> The longer a teacher is employed by the system, the more opportunities arise to transfer to a lower-poverty school.

**Variation in certification among school types**

Since new teachers are more likely to be found in high-poverty schools, and new teachers are less likely to be fully certified, it follows that schools with higher percentages of low-income students also have higher percentages of emergency-certified teachers. During the 2002-03 school year, 83 percent of the teachers at the highest-poverty schools (defined here as 90 percent or more low-income) were certified to teach, compared to 92 percent at schools with the lowest rates of student poverty (less than 80 percent low-income). While this inequity is evident in each of the years we examined, the disparity between highest- and lowest-poverty schools has intensified over the three years since 1999-00 (Table 16). A 5.6 percentage point gap in 1999-00 rose to about 8 points in 2000-01 and 2001-02, and 9.1 points in 2002-03. The inequity has grown in part because, while certification rates declined across school poverty levels, the highest-poverty schools experienced a larger drop, falling from about 90 percent certified in 1999-00 to 83 percent three years later. In contrast, at the lowest-poverty schools, certification fell 3.4 percentage points, from 95.5 percent to about 92 percent.

**Since new teachers are more likely to be found in high-poverty schools, and new teachers are less likely to be fully certified, it follows that schools with more low-income students also have more emergency-certified teachers.**

**Table 16: Teacher certification by school poverty level, fall 1999 to fall 2002**

Poverty level	N (02-03)	1999-00	2000-01	2001-02	2002-03
0% to 79% poverty	5838	95.5%	93.6%	92.6%	92.1%
80% to 89% poverty	3972	91.8%	88.5%	87.0%	85.5%
90% + poverty	1732	89.9%	85.6%	84.7%	83.0%
Total	12052*	93.3%	90.6%	89.4%	88.5%

\* Numbers may not add up because teachers can be listed in the database without an accompanying school

**The percentage of certified teachers at a school declines as the percent of minority students increases.**

Philadelphia's highest-poverty schools also tend to have high percentages of minority students. Our data show that the percent of certified teachers at a school declines as the percent of minority students increases (Table 17). In 2002-03, 96 percent of the teachers at schools at which less than half of the students were minority were certified, compared to 86 percent at schools with 90 percent or more minority students. The contrast is even more striking at middle schools (Table 18). From 1999-00 to 2002-03, schools with the lowest minority enrollment maintained roughly equivalent levels of teacher certification, while schools with high-minority populations saw their teacher certification levels drop. By fall 2002, almost every teacher in the low-minority middle schools was certified, while 20 percent of those in high-minority schools were teaching without full certification.

**Table 17: Teacher certification by school percent minority, fall 1999 to fall 2002**

Percent minority	N (02-03)	1999-00	2000-01	2001-02	2002-03
<50%	1467	98.3%	97.1%	95.7%	95.8%
50%-89%	3375	95.5%	93.3%	92.2%	90.8%
90% +	6874	91.3%	87.9%	86.7%	85.6%
Total	12052*	93.3%	90.6%	89.4%	88.5%

\* Numbers may not add up because teachers can be listed in the database without an accompanying school

**Table 18: Teacher certification by school percent minority for middle schools, fall 1999 to fall 2002**

Percent minority	N (02-03)	1999-00	2000-01	2001-02	2002-03
<50%	70	97.2%	97.1%	95.7%	98.6%
50%-89%	603	94.3%	92.6%	91.3%	89.1%
90% +	1298	83.5%	79.0%	79.6%	79.8%
Total	1971	87.1%	83.5%	83.6%	83.3%

In each of the years we examined, students at the city's middle schools were less likely to have certified teachers than students at any other type of school, reflecting the difficulty of attracting and retaining qualified teachers for the middle grades (see Table 1). In 2002-03, only 84 percent of the teachers at middle schools were certified to teach. At the opposite end of the spectrum, K-8<sup>th</sup> grade schools had the highest certification rates (93 percent). High schools and elementary schools fell in the middle, with 90 percent and 89 percent certified, respectively. These figures are averages across school types; schools with multiple recruitment and retention disadvantages, like high-poverty schools serving middle grades students, had even lower certification rates.

## Barriers to Hiring, Induction, and Retention

### A highly centralized and delayed hiring and school assignment process

Philadelphia has a highly centralized hiring and school placement process that is prescribed by the rules of the collective bargaining agreement with teachers. Except in the 31 schools where teachers have voted in favor of hiring new staff themselves from a pre-qualified pool, all hiring and school assignment is done by the district's Office of Human Resources. Applicants are hired after an evaluation of a writing sample, an interview (the Martin Haberman Urban Teacher Selection Interview), and reference checks. Eligibility lists by teaching area rank candidates based on their interview score, with additional points for student teaching or being a long-term substitute in the district, for service in the Armed Forces, and for completing Philadelphia's Urban Seminar at Indiana University of Pennsylvania.

**Few districts across the country have a hiring and school assignment process as centralized as Philadelphia's.**

Successful candidates, in order of their rank on a subject-area list, are then asked to come to hiring sessions to select from a list of schools that have vacancies on that particular day. These candidates often know little about schools on the list and, in effect, have little control over their school assignment. A newly hired teacher often has no contact with the principal or other staff members at their school before the first day of orientation. Although significant progress was achieved during the administration of Superintendent David W. Hornbeck in making the recruitment process more efficient and user friendly, new recruits have continued to complain about the cumbersome, haphazard, and impersonal way in which they are assigned to schools.

The actual school selection process in Philadelphia has long been the stuff of legend. Forced to make a decision within minutes and knowing next to nothing about the options that face them, many new hires choose blindly. Without information on the school's climate, staff morale, educational philosophy, special initiatives, or quality of leadership, a successful match between teacher and school is usually just the result of chance. At the same time, existing staff at a school cannot exercise formal authority over the qualities of teachers who enter their school.

Few districts across the country have a hiring and school assignment process as centralized as Philadelphia's. A four-state study by the Harvard Project on the Next Generation of Teachers found that only 12 percent of new teachers are both hired centrally and then placed in a school by a district's central office. Hiring systems are typically more decentralized, with districts screening the applicants and leaving schools to select the teachers.<sup>25</sup>

Like those of a number of other urban districts, the hiring and school assignment timelines in the district are notoriously late. Philadelphia's job offers and school placements come after those of most other districts in the metropolitan region, placing the district at a competitive disadvantage for the best candidates, who often are offered jobs in a particular district and school in the late spring or early summer.<sup>26</sup> Late hiring and school placement in Philadelphia is a function of budgetary uncertainties and stipulations in the teacher's union contract that require the processing of veteran teacher transfers (both voluntary and forced) before new teachers are assigned to schools.<sup>27</sup> It is also caused by the late summer "melt" of new and veteran teachers who accept last-minute job offers from suburban districts.

Hiring for the opening of school typically goes down to the wire—and frequently beyond the wire. An October 2002 survey of Philadelphia's new teachers conducted for this study showed that only 44 percent reported being hired four or more weeks before school began and 24 percent were hired after school started. More than half (56 percent) said they did not know where they would be teaching until one week or less before the beginning of school. Nearly two-fifths (38 percent) reported that they did not know what subject they would be teaching until after school began.

#### **A rocky induction for new teachers**

Once hired, new teachers in Philadelphia often experience a rough start to the school year. For new teachers, late hiring and school placement mean that they have little time to learn about their school or the neighborhood it serves, meet their colleagues, set up their classrooms, evaluate the teaching materials available to them, or plan appropriate lessons. Those who arrive after school starts sometimes face students who have been taught by a series of substitutes, a situation that often creates a classroom culture of disorder that is difficult to change.

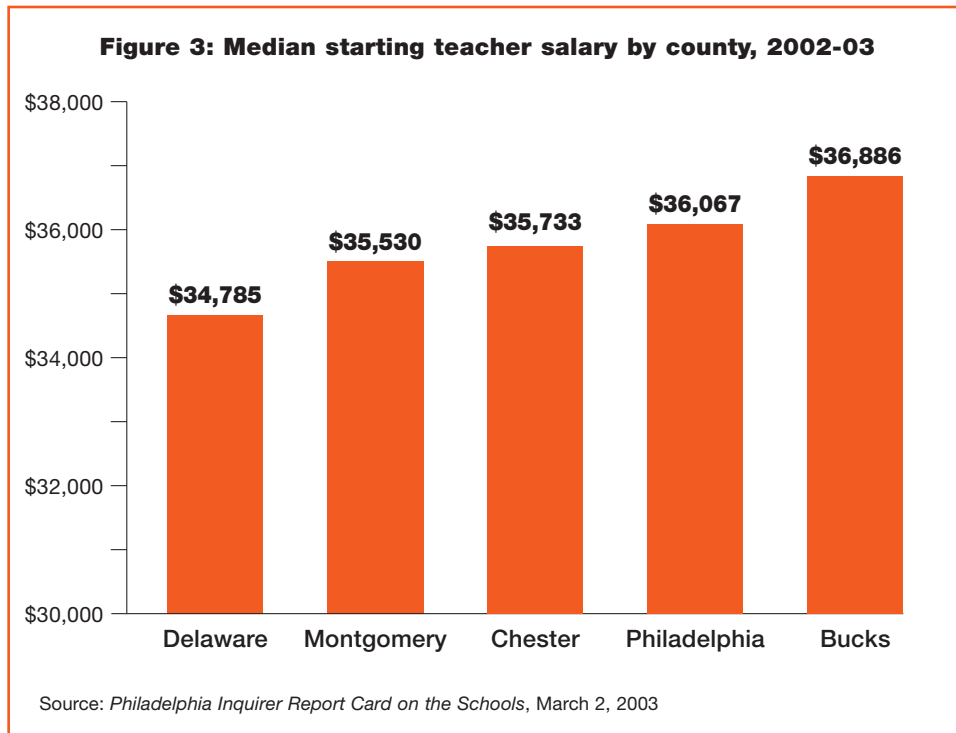
While some school principals do an exemplary job with new teacher induction, high percentages of the respondents to the October 2002 New Teacher Survey reported that they finished their first week at the school without basic supports and information from administrators. During this period, two-thirds were not given the district's Curriculum Scope and Sequence for their courses; nearly three-fourths were not given student forms such as hall passes; a third were not given a staff handbook, and only half were told who their union building representative was. Although each new teacher is typically assigned a senior teacher mentor, 39 percent reported that they had not met with their mentor by late October. Focus group research indicates that high school teachers receive less assistance than teachers at other school levels.<sup>28</sup>

On the plus side, new teachers generally reported in the New Teacher Survey in October 2002 that they felt safe in their schools, that hallway chaos during class time was not a problem, and that their buildings were clean and attractive. There were, however, some significant differences in their responses on these and other items by school level. For example, elementary school teachers were more likely than others to say they felt safe in their buildings, and substantially higher proportions of new high school teachers reported that their buildings were not clean (39 percent) and that students were added or removed from their classes on a daily basis (45 percent).

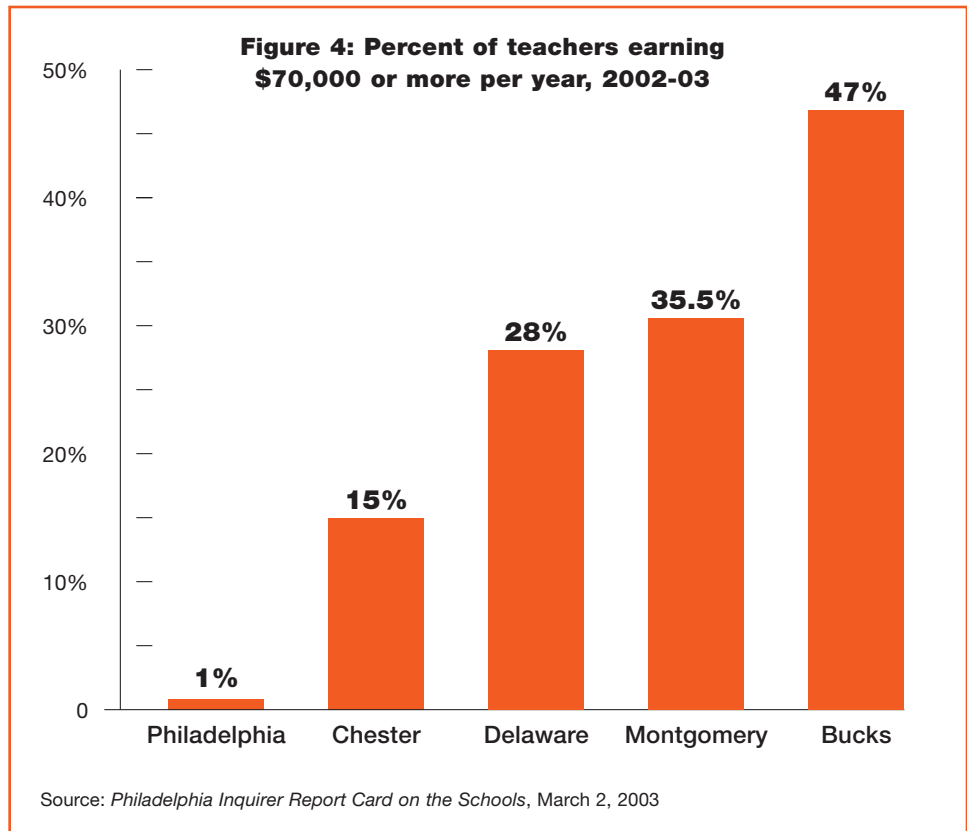
**Salary disadvantages for teachers who stay**

A longitudinal study of new Philadelphia teachers showed that their concerns about low salaries escalated over the three-year period of their employment as financial realities began to hit home.<sup>29</sup> Data from the 2002-03 school year, reported in the *Philadelphia Inquirer's* annual *Report Card on the Schools*, show that while Philadelphia's starting salary is not the most generous in the region, it is in line with many surrounding districts and exceeds the median starting salary in Delaware, Montgomery, and Chester counties (Figure 3). However, the longer a teacher remains in the Philadelphia schools, the larger the salary disadvantage relative to surrounding districts and the greater the incentive to leave.

**The longer a teacher stays in the Philadelphia schools, the larger the salary disadvantage relative to surrounding districts and the greater the incentive to leave.**



Despite more challenging working conditions, senior Philadelphia teachers earn less than their suburban counterparts. A county comparison of the percent of public school teachers earning more than \$70,000 annually shows that Philadelphia trails Chester, Delaware, Montgomery, and Bucks counties by a wide margin (Figure 4). Whereas only one percent of Philadelphia teachers earn more than \$70,000, more than 30 percent of Montgomery County teachers and almost 50 percent of Bucks County teachers earn at that level. The disparity in the salary distribution is not a function of Philadelphia teachers having substantially less experience; the average Philadelphia teacher has logged about the same number of years as those in other counties.



**Other sources of teacher dissatisfaction**

Teachers in high-poverty schools such as those in Philadelphia face more difficult working conditions than teachers in other settings. An analysis of 1999-00 data from the U.S. Department of Education's Schools and Staffing Survey (SASS) conducted for *Education Week* showed that teachers in such schools are significantly more dissatisfied than others with their salaries, student behavior in class, student attitudes, and parent support. They also report greater levels of school violence and crime and higher rates of student tardiness. Added to that is the greater likelihood of having insufficient classroom materials, texts, and equipment such as copying machines.<sup>30</sup>

A survey of Philadelphia teachers conducted in 1999 by the Consortium for Policy Research in Education as part of the evaluation of *Children Achieving*, the package of reforms initiated by former Superintendent David W. Hornbeck from 1994-2000, highlighted teachers' concerns about student behaviors that interfered with learning. More than two-thirds of the Philadelphia teachers (68 percent) said that student misbehavior in the school hindered their teaching.<sup>31</sup> Middle school teachers were more likely than teachers in other school types to report high levels of misbehavior in the school and classroom. In addition, nearly all middle school teachers responding to the survey felt that students' lack of basic skills, lack of motivation, poor study habits, and low involvement of their parents or guardians were hindrances to learning. The teachers also pointed to students' poor attendance and high mobility in and out of the school as barriers to their academic success.

A subsequent district survey conducted in 2003 and completed by 70 percent of the system's teaching staff identified the changes they most wanted to see: reduced class size (76 percent); assistance with paperwork (59 percent); improved facilities (59 percent); swifter discipline (58 percent); more textbooks and materials (43 percent).<sup>32</sup>

**Teachers identified the changes they most wanted to see: reduced class size (76 percent); assistance with paperwork (59 percent); improved facilities (59 percent); swifter discipline (58 percent); more textbooks and materials (43 percent).**



## WHY IS IT IMPORTANT TO ADDRESS TEACHER QUALITY?

### The Connection Between Teacher Quality and Student Learning

Parents and the general public have long believed that students learn more from some teachers than others. Now a growing body of research confirms that teacher quality, perhaps more than any other single factor, affects the size of students' learning gains.<sup>33</sup>

Pinpointing the dimensions of teacher quality that systematically affect how much students learn has proved daunting for researchers. Teacher qualities that appear to be related to higher rates of student growth in learning, such as teachers' ability to monitor student performance closely or to explain complex material clearly, are only now the subject of sophisticated investigations.<sup>34</sup> Even teacher background characteristics that have been studied extensively and are more easily measured—such as type of certification and content knowledge in the subject area—are sometimes defined differently by researchers, making generalizations tricky.<sup>35</sup>

The weight of the evidence on such background variables, however, supports the view that students learn more from teachers who have a solid grasp of both their subject matter and of teaching practices, who score higher on proficiency and other tests of abilities, and who have completed either a formal certification program or a high-quality alternative certification program that includes extensive coursework in education prior to entering the classroom and a period of supervised practice teaching.<sup>36</sup>

Teacher knowledge of subject matter content in the subject(s) they teach affects student performance, especially in secondary mathematics, where greater knowledge of math, determined by degrees or course work, leads to comparatively higher gains in student performance.<sup>37</sup> The evidence in other subject areas is less conclusive. Greater agreement exists among researchers that students learn more from teachers who attend highly rated colleges and who score well on tests of achievement and/or ability.<sup>38</sup>

Knowledge of subject matter is important, but there is strong evidence that content knowledge alone is not sufficient. Good teachers are also able to reconfigure knowledge in ways that students understand and to draw on a wide repertoire of teaching strategies that best fit diverse topics, classes, and students.<sup>39</sup> Training in content-specific pedagogy combined with content knowledge appears to increase student achievement, particularly in mathematics and science.<sup>40</sup> Teachers with such training are more skilled at working with diverse student groups, developing students' higher-order thinking skills, and using hands-on learning strategies.<sup>41</sup>

Vigorous arguments exist about the “value added” of traditional certification programs on student learning.<sup>42</sup> Requirements for certification vary among states, as does the quality of specific programs. Certification in traditional programs, however, typically includes completion of an academic major or its equivalent as well as

**The preponderance of the evidence points to higher learning gains among students if their teachers have completed either a certification program or one of the few alternate route programs with similar requirements.**

course work in pedagogy; supervised practice teaching; and passage of one or more state licensure tests of basic skills in literacy and math, content knowledge of the certifying field, and general principles of pedagogy. Licensure tests for certification assure minimum competence in areas that can be measured by paper-and-pencil tests.

Although some studies challenge the value of certification, the preponderance of the evidence points to higher learning gains among students if their teachers have completed either a certification program or one of the few alternate route programs that have requirements similar to formal certification programs.<sup>43</sup> The relationship is best documented in secondary mathematics and science.<sup>44</sup> Of particular importance is the finding that teachers who begin teaching with certification are not only more likely to boost students' learning but are also more likely to stay in teaching longer than those who enter the profession with Emergency Certificates or through alternate route programs.<sup>45</sup>

### **New Federal and State Requirements for Teacher Quality**

The federal No Child Left Behind (NCLB) Act of 2001, a sweeping reauthorization of the Elementary and Secondary Education Act, substantially upgrades requirements for teacher qualifications. The law mandates that all public school teachers of core academic subjects be "highly qualified" by the end of the 2005-06 school year.<sup>46</sup> All new teachers in schools receiving federal Title I funds (all Philadelphia schools are so classified) were required to be "highly qualified" by the beginning of the 2002-03 academic year.<sup>47</sup>

According to NCLB, "highly qualified" teachers must be licensed by the state in which they teach, hold at least a bachelor's degree, and demonstrate competence in their subject area. Teachers *new* to the profession must pass rigorous tests in the content area in which they will teach.<sup>48</sup> Teachers can be designated "highly qualified" either by obtaining full state certification, including certification obtained through alternative route programs, *or* by passing the teaching licensing examination to teach in the state.<sup>49</sup> Individuals enrolled in alternate route programs, many of which permit them to begin teaching without prior course work in education or a student teaching experience, can be considered "highly qualified" as long as they are making satisfactory progress toward full certification.<sup>50</sup>

NCLB's support of alternative route programs is a pragmatic way to meet the current shortage of teachers in certain subject areas (e.g. special education) and in districts or regions of the country with chronic teacher shortages. The promotion of alternative certification programs in NCLB also reflects the belief of the current leadership of the U.S. Department of Education that requirements for teacher certification need to be based more on teachers' verbal ability and content knowledge than on traditionally required coursework in pedagogy and the student teaching experience.<sup>51</sup>

**The federal No Child Left Behind Act of 2001 substantially upgrades requirements for teacher qualifications.**

**To its credit, Philadelphia has chosen to move beyond federal and state requirements by requiring some training of new teachers who are less than fully certified prior to the opening of school.**

To comply with the NCLB requirements for “highly qualified” teachers, the Pennsylvania Department of Education in May 2003 published “Requirements of Highly Qualified Teachers in Pennsylvania.” The Pennsylvania definition differs slightly from the NCLB version. Pennsylvania requires that teachers at all grade levels have a bachelor’s degree and either a teaching certificate—acquired after completion of an approved teacher education program and all the required Praxis tests—or a Teacher Intern Certificate. The latter allows the holder three years to complete the requirements for certification, provided that the candidate has enrolled in a state-approved certification program that includes intensive supervision during the first year of teaching and has passed all but the pedagogy-related Praxis exams.<sup>52</sup>

### **Philadelphia Guidelines for Teacher Quality**

To its credit, Philadelphia has chosen to move beyond federal and state requirements by requiring some training of new teachers who are less than fully certified prior to the opening of school. For the first time, newly hired emergency- and intern-certified teachers were scheduled to participate in a district-run, four-week summer program in July and August, which included classroom observations and teaching in summer school as well as workshops in pedagogy. By mid-July, however, it became apparent that the district would hire so few new teachers with Emergency Certificates or Intern Certificates and no prior summer training—a result of both the district’s aggressive recruitment program and the heightened attractiveness of teaching in a generally weak economy—that the initial two weeks of training for them was cancelled.

All new teachers, regardless of certification, participated in two weeks of paid mandatory orientation to the district, held in August, as well as three days of orientation to their school and to the system’s new core curriculum.<sup>53</sup> By allocating funds and other resources to this required summer training and school-year coaching, the Vallas administration has signaled the depth of its commitment to teacher quality and teacher retention. The days of throwing completely untrained people into exceptionally difficult teaching environments appear, at least for now, to be coming to an end.

## WHAT IS BEING DONE: THE DISTRICT RESPONDS

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A blizzard of initiatives was launched under the auspices of CEO Paul Vallas' Campaign for Human Capital, begun in the fall of 2002, which aimed to expand the pool of prospective teachers and retain experienced teachers.

Although the district had made significant improvements in its human resources operations and outreach (e.g. a hiring bonus of \$4,500)<sup>54</sup> since the mid-1990s, the need to accelerate change was apparent when Vallas arrived in the summer of 2002. He found a highly centralized and non-automated system whose flexibility and nimbleness was hamstrung by contractual agreements with the teachers' union, an under-resourced marketing effort, and the absence of some key financial hiring incentives.

After his appointment as CEO, Vallas quickly made both the recruitment and retention of teachers a priority in his administration. The Campaign for Human Capital, spearheaded by Tomás Hanna, Vallas' special assistant for recruitment and retention, brought together business and civic leaders, higher education partners, and key players in the district to identify and develop a set of initiatives to increase the numbers of qualified teachers applying for positions in the city's public schools, and to retain veterans. The effort has been aided by the recently enhanced data gathering and analysis capacity within the Office of Human Resources. District officials now have much more reliable and timely information on the status and flows of the hiring pool and the teaching workforce. By the end of the summer of 2003, the following initiatives were already underway.

### Incentives for Those Interested in Pursuing Teaching Careers in Philadelphia

#### Incentives for student teachers and their Cooperating Teachers

The district hopes to place 1,000 student teachers a year in Philadelphia classrooms. Because approximately half of the student teachers in recent years have subsequently been hired by the district as full-time teachers (and receive preferential treatment in hiring), the Vallas administration is putting in place new incentives to attract more student teachers to the city's schools and to sign on experienced teachers to supervise student teachers in their classrooms. These incentives, the most attractive of any district in the Philadelphia area, include:

- A stipend of \$1,000 for student teachers;
- A \$1,000 stipend to the student teacher's Cooperating Teacher in the school if the student teacher is subsequently hired by the district;
- An amount of \$100 for materials for the Cooperating Teacher to pay for supplies for the student teacher;
- Reimbursement of \$250 to student teachers (if hired by the district) to help defray the cost of taking the Praxis exams.

**The Campaign for Human Capital brought together business and civic leaders, higher education partners, and key players in the district to identify and develop a set of initiatives to increase the numbers of qualified teachers applying for positions in the city's public schools, and to retain veterans.**

**Tuition reimbursement for all teachers**

CEO Vallas announced early in his administration that he would initiate tuition reimbursement for teachers, a benefit already widely adopted in surrounding districts. The current plan is for teachers to receive \$1,000 per year in tuition support after completion of one year on the job. The size and swiftness of implementation of the new benefit was cited by a number of interviewees for this study as one of the most important of Vallas' new recruitment and retention incentives.

This move addresses one of teachers' longstanding complaints about teaching in Philadelphia. In order to receive their permanent teaching certification in Pennsylvania, new teachers must earn 24 post-baccalaureate course credits within their first six years of teaching. At an average of four credits per year, the annual tuition bill, even at state schools like Temple, can be \$1,700—not small change for someone whose starting salary is just over \$36,000 a year and who may also be trying to repay substantial student loans. The state's requirements for continuing education until retirement can also saddle teachers with additional expenses. The tuition reimbursement benefit will also apply to intern- and emergency-certified teachers who are taking courses for their initial license.

**Expanded Outreach and Marketing Efforts**

The Vallas administration has continued and heightened the efforts of the preceding administration to advertise the School District of Philadelphia and the city itself as good places to “live, learn, and teach.” The turbulence associated with the state's takeover of the district in 2001 and the widespread public perception of the system's chronic financial problems, large classes, old facilities, and under-performing students—characteristics of most large urban districts—have long diminished its pool of qualified prospective teachers. Previous administrations had not made human resource efforts a top priority and had not allocated significant additional sums of money to beef up marketing efforts or to utilize new technologies in the employment process.

The School District of Philadelphia began several new initiatives to market itself more effectively during 2002 and 2003:

- A newly designed district *Web site*, complete with jazz music in the background, is user friendly and informative. For the first time, the Web site also lists actual teacher vacancies in schools, information that is updated regularly.
- A *Teacher Ambassador Program* pays a “finders fee” of \$1,000 to Philadelphia teachers for every additional teacher they recruit in a “hard-to-fill area” and \$500 for other positions. In addition, about 10-15 Lead Teacher Ambassadors (classroom teachers given some release time) are forming partnerships with specific college campuses, particularly those that historically have supplied new teachers to the district.
- A *Teacher Welcome Center*, “offering quality services to teachers and teacher recruits using a holistic approach” was opened in June 2003. It provides attractive spaces for obtaining information, applying on line, and access to Human Resources staff members. The Welcome Center enables prospective teachers to learn about

teaching opportunities in Philadelphia and to complete the application procedure in what the district advertises as “one-stop shopping,” a significant improvement over what had been a fragmented and frustrating process.

- *Open houses* for new recruits and *information sessions* for student teachers were held.

## **Changes in the Hiring Process**

The district is developing an automated applicant tracking system and an on-line application process. This work has experienced delays in implementation for a variety of technical reasons.

The district attempted to speed up the hiring and school placement timeline so that all new teachers could participate in summer training. The original plan for accelerating the hiring process for new teachers fell apart due to budgetary changes that affected schools' allocation of faculty positions along with the need to adhere to seniority-based transfer rules in the teachers' contract.

## **Intense Focus on Addressing Areas of Teacher Shortage**

Much of the effort of the Campaign for Human Capital has targeted recruitment for hard-to-staff schools or subject areas. These efforts build on Hornbeck-era initiatives that included a five-year, \$2,000 annual bonus for teachers in 19 schools that have had a history of high staff turnover and low student performance; a five-year, \$1,500 bonus for teaching in certain subject areas; and a collaborative effort with Temple University and the Philadelphia Education Fund to develop a pre-service middle grades education program.

### **Continuing initiatives**

- *Literacy Intern program:* An important Hornbeck-era initiative that has been continued in modified form is the Literacy Intern program, which has become the district's most significant alternate route to teaching. The program is heavily subsidized by the district and run in partnership with the non-profit Philadelphia Education Fund. Since 1999-00, the Literacy Intern program has placed about 1,530 emergency-certified college graduates in primary-grade classrooms for two years, where they co-teach with a veteran teacher, get special mentoring from an adjunct teacher (often a retired teacher), participate in mandatory intensive summer training (with credits from St. Joseph's University) and school-year training, and enroll in a formal certification program with a local college or university. Graduates from this program have had sustained “real world” experience in urban elementary classrooms, learning the craft of teaching from veterans and working with a limited number of students over the school year.

The grow-your-own strategy of the Literacy Intern program has created a bumper crop of well-trained prospective teachers for the system. As of the fall of 2003, close to 500 former Literacy Interns are employed as stand-alone teachers with their own classrooms (274 for the fall of 2003 alone). For 2003-04, 180 new Literacy Interns have been hired to co-teach in grades K-3.<sup>55</sup> The success of the Literacy Intern pro-

gram in producing teachers for the early elementary grades suggests that expanding the program to include the middle grades could help to alleviate the chronic teacher shortages in middle schools.

- *International recruitment:* The district is continuing its successful recruitment of teachers from India, Spain, Ghana, and Kenya to teach Spanish, math, and the sciences.

#### **New initiatives**

- *Accelerated Certification for Teachers (ACT):* ACT is a state-funded effort to help Philadelphia and two other districts in Pennsylvania mount high-quality programs in which prospective teachers earn full certification in 12 to 18 months. ACT funds in Philadelphia will provide full funding for about 75 teachers per year to become certified in high-need fields—biology, chemistry, math, physics, English as a Second Language and special education. The state has awarded ACT grants to Holy Family College, Cheney University, and a consortium of three colleges: Eastern University, Gwynned Mercy, and Chestnut Hill. The district has a formal partnership with these universities because teachers certified with ACT monies are already or will be district employees. In 2003-04, the ACT program will fund many individuals already teaching in the district on Emergency Certificates in these high-need fields.

- *Transition to Teaching programs:* Drexel University has started a federally funded one-year certification program for 35 math and science teachers who will commit to teaching for 3 years in Philadelphia middle or high schools. This effort is similar to another Transition to Teaching program begun by the non-profit Philadelphia Education Fund for 39 middle and high school science and math teachers during the prior administration, and which continues through 2004.

- *Teach for America (TFA):* The district has contracted with Teach for America , a highly selective national program for new college graduates, to place 128 participants for the 2003-04 school year. Many of the participants have been placed in high-need schools (mainly middle schools) and in almost all subject areas, including special education. Participants, who sign on for a two-year commitment, participate in an intensive five-week summer training run by TFA and an additional two-week induction program run by the district. Members enroll in local certification programs and, (with the possible exception of those assigned to special education classrooms), teach with Intern Certificates. TFA is raising \$8,200 per participant from local foundations and businesses to cover the cost of the training and other expenses. Exceptionally close coordination between the program and the district exists in part because Philadelphia's TFA office is located in the district's Office of Human Resources.

- *Troops to Teachers:* As of August 2003, about six to ten recruits from the federally funded Troops to Teachers program, an alternative certification program for retired military personnel, were expected to teach in Philadelphia. Most Troops to Teachers recruits teach science or mathematics courses. The district had hoped for higher numbers but several factors, including the personnel demands of the war in Iraq, kept the numbers lower.<sup>56</sup>

## Teacher Retention: Enhanced Preparation and Mentoring for New Teachers and Additional Training for All Teachers and Principals

As with recruitment, the Vallas administration has made teacher *retention* a high-priority issue.<sup>57</sup> As part of the School District of Philadelphia's Campaign for Human Capital, an impressive set of new policies and supports for teachers is being rolled out for the 2003-04 school year. District officials, university partners, and civic leaders interviewed for this report are cautiously optimistic that these initiatives will boost retention of both new and experienced teachers. Chief among these initiatives are:

**Paid summer training for all new teachers**, including certified, and intern- and emergency-certified, teachers and a revamping of the school-year new teacher induction sessions. Teachers were paid \$250 per week for mandatory August training. Catch-up sessions in late August and early September were scheduled for teachers who were hired too late for the summer training. A newly designed year-long series of induction sessions will provide follow-up support to new teachers.

**New Teacher Coaches** hired specifically to mentor new teachers (and with no other tasks) at a ratio of 10 new teachers to each coach. Consultants from Teachers College, Columbia University, have designed and coordinated key components of the training for new teacher coaches.

**Implementation of a system-wide core curriculum** in mathematics and literacy for grades pre-K through 9 (with other subjects to follow), a change that will greatly strengthen the instructional guidance given to new teachers.

**New supports for teaching and learning at the school and classroom level:** new books to support the new core curriculum; school-based Content Leaders in math and literacy to assist teachers; and a half day set aside during school hours twice a month for professional development.

**A leadership development program for principals**, starting with two weeks of summer training in 2003. Three days of that training, favorably evaluated by the principals, focused on improving methods of teacher induction and retention. Principals developed a teacher retention plan for their schools and will be expected to execute its provisions.

In the coming year, this research project will track the success of the wave of new initiatives to improve teacher recruitment and retention.

**An impressive set of new policies and supports for teachers is being rolled out for the 2003-04 school year.**



## **Improvements in Working Conditions**

CEO Vallas has moved swiftly since his arrival in July 2002 to respond to the some of the working conditions that have been a factor in discouraging teachers from coming to and staying in the district. His initiatives include the following:

**Class sizes are being reduced in Grades K-3** to a maximum 22 students per room. Philadelphia's contractually stipulated class-size limits (30 in grades K-3; 33 in all other grades) have been significantly larger than those in surrounding districts and have made teaching and learning far more difficult for staff and students.

**Disciplinary policies have been tightened up**, with larger numbers of disruptive pupils being assigned to alternative schools rather than being transferred to another school.

**An aggressive facilities improvement program has begun:** the School Reform Commission, at Vallas' urging, has authorized a bond sale to fund the district's first phase of a five-year capital improvement plan of school building construction and renovations. The bond sale will cover construction costs for five new high schools and major renovations at nine others. At the elementary and middle grade levels, five new schools will be built and eight will benefit from substantial renovations. Additional construction will take place as funds become available.

**Initiatives to Improve Teacher Quality and Quality Teaching**

	Continuing (Pre-2002)	New (Aug 2002->)	New (Pending)
<b>SOURCES OF HIGH-QUALITY TEACHERS</b>			
<b>Student Teachers</b>			
Stipend		X	
\$ for Materials		X	
<i>If student teacher is hired:</i>			
Partial payment for Praxis		X	
Bonus for Cooperating Teacher		X	
<b>Literacy Interns (K-2)</b>	X		
Expansion to Grade 3		X	
<b>Teacher Recruitment from Other Countries</b>	X		
<b>Partnerships with Universities and Non-profits</b>			
Transition to Teaching (math, science)- Temple, PEF	X		
Transition to Teaching (math, science)- Drexel		X	
ACT Intern Certificate Program		X	
(Grant for full tuition in six areas of high need)			
<b>Partnerships with National Programs</b>			
Teach for America		X	
Troops to Teachers		X	
<b>RECRUITMENT</b>			
<b>New District Web site</b>			
(Lists vacancies by school)		X	
<b>Teacher Ambassador Program</b>			
(\$1,000 "finder's fee" for hard-to-fill positions)		X	
<b>Open Houses for Recruits</b>			
		X	
<b>Information Sessions for Student Teachers</b>			
		X	
<b>Automated Tracking System</b>			
			X
<b>Online Application Process</b>			
			X
<b>BONUSES</b>			
<b>\$4,500 Hiring Bonus</b>	X		
<b>\$2,000 Annual Bonus</b>	X		
(For teaching in high-need schools)			
<b>\$1,500 Bonus</b>	X		
(For teaching in high-need subjects)			
<b>TEACHER RETENTION/TRAINING</b>			
<b>New Teacher Training</b>			
(2 weeks paid)		X	
<b>New Teacher Coaches</b>			
(Hired to mentor new teachers, 10 teachers/coach)		X	
<b>Content Leaders in Math and Literacy</b>			
		X	
<b>Principal Leadership Training</b>			
(2 weeks, including 3 days on induction and retention)		X	
<b>TUITION REIMBURSEMENT</b>			
<b>\$1,000/year following one year of teaching</b>			
(For initial certification and continuing coursework)		X	

## REMAINING CHALLENGES

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### Site Selection of Teachers

Most of the Vallas-led initiatives have focused on increasing the pool of qualified teacher applicants and on retaining teachers rather than on finding ways to make sure that high-poverty schools—especially middle schools in low-income neighborhoods—have their fair share of experienced and certified teachers. One promising way to help solve the inequitable distribution of teacher quality is for schools to select their teachers to fill new and vacant positions from a pool that is pre-qualified by the district’s Office of Human Resources, a process referred to as site-based or school-based teacher selection.

As it is now, seniority automatically confers transfer rights to teachers, and they tend to transfer to schools with lower percentages of poor and minority children and with higher test scores, exacerbating staffing inequities.<sup>58</sup> Principals and their teachers have little formal control over which teachers are assigned to their buildings. Without such authority, some principals have long resorted to inventive informal means bordering on “creative insubordination” to control staff selection.

In a 2003 survey of principals by the district, 61 percent of Philadelphia’s principals expressed their support for site selection, choosing it as one of the two most-needed changes from a list of eight possible reforms.<sup>59</sup> Business leaders participating in the district’s Campaign for Human Capital typically are surprised to discover that principals and their staffs have little say over who teaches in their buildings.

Site selection would likely improve teacher qualifications in hard-to-staff schools but could also lead to other improvements in the district’s hiring process:

#### **Attracting teachers to high-poverty schools**

Schools and prospective teachers could choose each other, thereby forging a more rational and less haphazard employment match. Schools in high-poverty areas that typically have difficulty attracting teachers could actively advertise and “sell” the advantages of working there. New teacher retention should increase since novice teachers consciously choose schools that fit their strengths and expectations.

#### **Closer scrutiny of qualifications**

Candidates’ credentials and qualifications could receive much closer scrutiny by school personnel committees than they currently do in the district’s Human Resources office. This would allow the system to select the most-qualified teachers from the candidate pool by assessing relevant skills and experiences not adequately picked up by the current screening system. With site-selection of teachers, hiring could operate much more like it does in suburban districts, where prospective teachers are asked about their interests, skills, and experiences and are sometimes asked to teach a demonstration lesson.

#### **Expedited hiring**

The district’s delayed hiring timeline could be greatly expedited. Site-selection schools could choose staff from a pre-qualified applicant pool that typically would include their student teachers or Literacy Interns, veterans in other district schools,

and new teachers. Under the current system, schools are required to fill vacancies first with transferring teachers and then can fill vacancies with new recruits. Potential recruits who might have gone elsewhere because of the district's delays in hiring would be more likely to sign on for a Philadelphia school. New teachers would have time to familiarize themselves with the school in the summer and to participate in summer induction programs run by the district.

**Principal accountability**

Once school leaders have some control over who works in their buildings, district administrators and parents can more defensibly hold these leaders accountable for student performance. Principals can logically argue now that their lack of control over staffing makes it unfair for them to be held accountable for student results.

For the last three years, the Philadelphia teachers' union contract has enabled schools to conduct site-based selection. Some 31 of the district's 260-plus schools are implementing site-based hiring for the fall 2003 hiring season. The teachers union contract requires an annual vote on the site selection approved by a two-thirds vote of a school's faculty. However, even if the faculty votes for site selection, it does not operate year-round, so site-selection schools cannot fill vacancies as they occur in mid-to-late summer or during the school year.

Evidence from the 2002 New Teacher Survey showed that new teachers in Philadelphia's site-selection schools were more likely than other new teachers to be hired four or more weeks before school started, to know what school they would be teaching in, and to know the exact grade of their assignment. For example, 77 percent of teachers in the 29 elementary and middle schools utilizing site-based hiring knew prior to the opening of school what grade and/or courses they would be teaching compared to 59 percent of new teachers who were assigned to schools by the district.<sup>60</sup>

For the moment, site selection in Philadelphia is a mere niche innovation. The required two-thirds annual vote, which must be conducted before the end of December, has prevented this contractual option from flourishing across the system. In addition, the Philadelphia Federation of Teachers (PFT) has been a strong supporter of the right of veteran teachers to transfer to schools of their choice based on seniority, and it has lobbied hard to restrict the implementation of school-based hiring. In some schools, teachers have voted against site selection out of fear that principals will misuse their authority and stack the hiring committee with teachers who will do the principal's bidding.<sup>61</sup>

CEO Vallas is on record in support of placing authority for staff selection in the hands of the schools and he worked in such a system in Chicago. So far, he has not actively promoted site selection in Philadelphia, preferring instead to defer action on the issue until the teachers' contract is renegotiated in 2004. The tension in these negotiations will be between the PFT's commitment to maintaining teacher transfer rights based on seniority on the one hand, and the preference of many principals and the Vallas team for greater school authority over the selection of their staffs on the other.

**In a 2003 survey of principals by the district, 61 percent of Philadelphia's principals expressed their support for site selection, choosing it as one of the two most-needed changes from a list of eight possible reforms.**

The negative impact of current contractual seniority regulations is greatly magnified by the sheer number of transferring teachers and new hires being processed as batches by the Office of Human Resources. This is where the district's size, the nation's seventh largest with 11,700 teachers, places it at a serious competitive disadvantage in the recruitment of qualified new teachers. Unless the district can hire teachers well before the opening of school, it will continue to have serious problems recruiting teachers with strong qualifications, particularly for hard-to-staff schools.

**Alternative certification programs particularly ill-serve special education students who need well-prepared specialists, not newcomers who are less than fully trained, no matter how well meaning they may be.**

### **The Limits of Alternative Certification Initiatives**

The speed with which the district has moved to implement an array of alternative certification programs in high-need areas (e.g. Teach for America, Transition to Teaching, and ACT programs) has been impressive. But some caution is in order. While these alternative certification programs are helping to fill critical staffing gaps, these teachers are new to the profession and enter the classroom without a full student teaching experience or much, if any, coursework in pedagogy or in child/adolescent development. Alternative certification programs particularly ill-serve special education students who need well-prepared specialists, not newcomers who are less than fully trained, no matter how well meaning they may be. Students in the district's higher-poverty and lower-performing schools are more likely to have alternatively certified teachers.

Further, for all individuals hired under alternative certification options, the combination of teaching full-time and taking college courses is a heavy load for new teachers, a challenge acknowledged by several program coordinators.

### **Additional Incentives for Teaching in Hard-to-Staff Schools and Subjects**

While the district pays modest annual bonuses to teachers in selected hard-to-staff schools and subject areas, it has not taken aggressive steps to steer certified and experienced teachers to high-poverty, high-minority schools. Even if the system adopts site selection of teachers in coming years, these schools may have more difficulty attracting an equitable proportion of qualified teachers and achieving low rates of turnover. The same is true for certain subject areas where there are chronic shortages, such as special education or mathematics. If Philadelphia is to comply with the requirements of *No Child Left Behind* to place a "highly qualified" teacher in every classroom, district administrators may need to add targeted financial or workload incentives to attract teachers to these fields as well as to high-need schools. District staff should continue to poll and interview teachers to find out why they leave and plan programs targeting the main areas of complaint.

## CONCLUSION

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As we have spent years analyzing teacher staffing problems in Philadelphia, we were not surprised by the disturbing results from these new rounds of data on trends in the city's teacher workforce. What did surprise us was the breadth and speed of the initiatives launched by CEO Paul Vallas to implement his commitment to improving teacher recruitment and retention. Equally surprising was the district's aggressive effort to include civic and higher education partners in designing and carrying out solutions through the School District of Philadelphia's Campaign for Human Capital.

These actions show what can be accomplished when energy and resources are directed to solving a problem. In this case, federal and state pressures and supports associated with compliance with the *No Child Left Behind* legislation helped galvanize district action. The regional and national drop in the demand for teachers aided district recruitment efforts as well, but the district is now better positioned to maintain an ample applicant pool once the job market improves.

It is too early to tell, of course, how far these human resource efforts will go toward placing a "highly qualified" teacher in every classroom, but the initial results of the Vallas-led efforts are encouraging. For the first time in years, nearly all of the district's newly hired teachers will be certified or will be participants in high-quality alternative certification programs. And by requiring summer training for all new teachers, the district's standards will surpass those required by new federal and state regulations.

If teacher staffing problems are to be solved "once and for all," however, the School Reform Commission, the Vallas administration, and, indeed the Mayor and civic leaders, will have to take on some politically freighted challenges. The deployment of an equitable share of qualified teachers to high-poverty schools will depend in part on changing the district's collective bargaining agreement with teachers in 2004. The fairer distribution of teachers, a speeded-up hiring timeline, and a more thorough review of teachers' qualifications are unlikely ever to become institutionalized unless school personnel committees can select their own teachers. Equitable staffing across schools will also depend on targeted strategies such as salary enhancements or other incentives to attract teachers to the hardest-to-staff schools.

The site-selection issue raises the question of the influence of civic leaders on the outcome of collective bargaining negotiations in 2004. The vehement protest of Philadelphia parents, community organizations, and advocacy groups against the state takeover and partial privatization efforts took state policymakers and school privatization advocates by surprise in 2002. The question is whether teacher staffing issues will also rouse these constituencies, along with business leaders, to the point that they have a *de facto* place at the bargaining table.

**Equitable staffing across schools will also depend on targeted strategies and incentives to attract teachers to the hardest-to-staff schools.**

## Endnotes

<sup>1</sup> In August 2003, an additional 16 schools were assigned by the district's School Reform Commission (3 of whose 5 members are appointed by the governor) to formal partnerships with one of eight additional organizations that included 6 institutions of higher education, The Franklin Institute (science museum), and a private educational management organization.

<sup>2</sup> The Campaign for Human Capital included 32 private-sector executives and independent corporate consultants, 12 deans and administrators from area colleges and universities with teacher preparation programs, 16 leaders of non-profit organizations, and 7 government officials. They were joined by 12 Philadelphia teachers, 11 administrators, and 6 representatives from employee unions.

<sup>3</sup> American Association for Employment in Education. (2003). *Today's Job Market: Educator Supply and Demand in the U.S.* Columbus, Ohio; and (2002). *Educator Supply and Demand in the United States*. According to these reports, the market for teachers peaked in 2001 and has softened in 2002 and 2003.

<sup>4</sup> The snapshot includes all teachers teaching in the Philadelphia public schools on October 1 of each year. Teachers who resigned before October 1, or who were not hired until October 2, are not included in the analysis. It is critical that year-to-year comparisons be made on the same date, since certification levels can fluctuate throughout the year according to the availability of certified teachers. None of the tables in this report include Literacy Interns, who are generally not responsible for their own classrooms.

<sup>5</sup> Certification rates do not include Literacy Interns unless the Literacy Intern is in charge of his or her own classroom. Literacy Interns are emergency-certified teachers who serve as classroom co-teachers at the elementary level while earning their teaching certification.

<sup>6</sup> Data provided by the Chicago Public Schools confirms the 92 percent certification rate for its teachers.

<sup>7</sup> Richard M. Ingersoll of the University of Pennsylvania conducted the analysis of SASS data for this report. These studies are the largest national representative surveys of their kind of the nation's teaching workforce. SASS includes a random sample of approximately 55,000 teachers. To date, four independent cycles of SASS have been conducted: 1987-88; 1990-91; 1993-94; and 1999-00. The SASS data set was not designed specifically to estimate district-level certification rates. However, in each of the districts for which we show data, no fewer than 50 teachers were surveyed. Generally, an N of 30 per unit (i.e. district) is considered the minimum number for reliable estimates. Since there is no other data readily available for these districts and the point of our analysis is not comparisons between districts but rather a general sense of large-districts' struggles to attract and retain certified teachers, the SASS data are appropriate for our purposes.

The estimated certification rate for Philadelphia on the SASS is lower than the rate we calculated based on a census of all teachers in the district. The percent certified for Philadelphia estimated from SASS data could be lower than the percent we calculated from district records because 1) samples always vary to some extent from

the “true” figure and 2) the time of year when the sample was taken could have affected certification rates. As vacancies are filled during the year (often with emergency-certified teachers), the certification rate usually declines.

<sup>8</sup> The Education Policy and Leadership Center. (2003). *Head of the Class: A Quality Teacher in Every Pennsylvania Classroom*. Harrisburg, PA; Murphy, P. J. & DeArmond, M. M. (2003). *From the Headlines to the Front Lines: The Teacher Shortage and Its Implications for Recruitment Policy*. Seattle: Center on Reinventing Public Education, University of Washington.

<sup>9</sup> Traditionally, a number of teachers who have been hired by the district for the upcoming school year either take jobs at the last minute in other districts or leave their classrooms in the first weeks of the school year.

<sup>10</sup> Sample questions from the basic reading, writing, and mathematics Praxis exams are available on the ETS Web site:

Reading: <http://www.ets.org/praxis/taags/0710index.html>

Writing: <http://www.ets.org/praxis/taags/0720index.html>

Mathematics: <http://www.ets.org/praxis/taags/0730index.html>

<sup>11</sup> Colleges and universities are required to report their pass rates on the Praxis exams to the federal government. Data on pass rates by institution are available at [www.title2.org](http://www.title2.org).

<sup>12</sup> Useem, E.L. (2003). The Retention and Qualifications of New Teachers in Philadelphia’s High-Poverty Middle Schools: A Three-Year Cohort Study. Paper presented at the Annual Meeting of the Eastern Sociological Society, Philadelphia.

<sup>13</sup> Ingersoll, R.M. (2002). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.

<sup>14</sup> Campaign for Human Capital, School District of Philadelphia. (2003). *The Three R’s: Retention, Recruitment, and Renewal. A Blueprint for Action*. Philadelphia.

<sup>15</sup> Some emergency-certified teachers view teaching as a temporary occupation rather than a career and do not even bother to take licensure tests or take required coursework; others have a commitment to children but not to the organizational and classroom-management skills that might have been honed in a teacher preparation program; some who flounder are encouraged by their principals to leave; and others do not pass the state licensure exams and are required to leave the district.

<sup>16</sup> Useem, E.L. (2003). *op. cit.* In a population of all teachers new to the district in 1999-00 in seven high-poverty middle schools (60 teachers), after just three years 43 percent had resigned or been terminated, 32 percent remained in their original school, and 25 percent moved to another school in the system.

<sup>17</sup> Ingersoll, R.M. & Smith, T.M. (2003). The wrong solution to the teacher shortage. *Educational Leadership*, 60(8), 30-33.



18 Johnson, S.M. & Birkeland, S.E. (2003). The schools that teachers choose. *Education Leadership* 60(8), 20-24.; Kardos, S.M. (2003). Integrated Professional Culture: Exploring New Teachers' Experiences in Four States. Project of the Next Generation of Teachers, Harvard University Graduate School of Education. Paper Presented at the Annual Meeting of the American Educational Research Association, Chicago; Liu, E. & Kardos, S.M. (2002). Hiring and Professional Culture in New Jersey Schools. Cambridge, MA: Project on the Next Generation of Teachers, Harvard University Graduate School of Education; Liu, E. *et al.* (2000). Barely Breaking Even: Incentives, Rewards, and the High Costs of Choosing to Teach. Cambridge, MA: Project on the Next Generation of Teachers, Harvard University Graduate School of Education.

19 Useem, E.L. (2003). *op. cit.*

20 K-8<sup>th</sup> grade schools tend to serve fewer low-income students. Since retention rates are higher at schools with fewer poor students, one should not conclude on the basis of this evidence that the K-8 configuration is especially attractive to teachers. When broken down by school poverty level, K-8<sup>th</sup> grade and middle schools have similar retention rates, and elementary schools have more favorable retention rates, than K-8<sup>th</sup> grade schools.

21 In 2002-03, Philadelphia schools ranged from 39 percent to 96 percent low-income. Although almost any way of categorizing the schools by family income level would show the relationship between the percent low-income and access to highly qualified teachers, we chose to emphasize the differences in teacher characteristics that exist even between schools with relatively small differences in the percent of low-income students. We used three categories (less than 80 percent, 80-89 percent, and at least 90 percent low-income) in order to make our point about inequitable distribution as parsimoniously as possible.

22 Ingersoll, R.M. (2001). *op. cit.*

23 Useem, E.L. (2001). New teacher staffing and comprehensive middle school reform: Philadelphia's experience. In V. Anfara (ed.) *Issues in Middle Level Education*. Greenwich, CT: Information Age Publishing, Inc., 143-160.

24 Chester, M.D., Offenber, R.M. & Xu, M.D. (2002). Urban Teacher Transfer: A Three-year Cohort Study of the School District of Philadelphia Faculty. Philadelphia, PA: Office of Accountability and Assessment, School District of Philadelphia, Paper presented at the Annual Meeting of the American Educational Research Association, Seattle.

25 Liu, E. (2003). New Teachers' Experiences of Hiring: Preliminary Findings from a Four-State Study. Project on the Next Generation of Teachers, Harvard Graduate School of Education. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago.

26 Murphy, P.J. & DeArmond, M.M. (2003). *op. cit.*

<sup>27</sup> “Quality Counts 2003: If I Can’t Learn From You ...Ensuring A Highly Qualified Teacher for Every Classroom,” *Education Week*, 12 January 2003, pp. 43-44; Liu, E. (2003). *op cit.*

The PFT Contract - Section XVIII.C reads:

In order for a teacher to transfer voluntarily from one school to another within the district, the teacher must have worked at least three years at their current school and hold a teacher rating of at least satisfactory. Eligible teachers then must file transfer applications between February 1 and May 1 of the year preceding the year in which the transfer will take place. On this transfer application, teachers list up to ten schools in order of preference. Transfer requests are considered during a four-week period in June and July, and teachers are granted selection priority on the basis of their location seniority, or number of years worked at their current school.

Not all transfer requests are granted. First, transfer requests must be made on time. After the four-week summer selection period, no voluntary transfers are granted except for open positions resulting from administrative actions. Second, racial balance remains a strong priority. No voluntary transfer is permitted from any school if the transfer will create racial imbalance in the receiving school. Finally, the transfer process is suspended for all schools that have implemented school-based selection of teachers. Teachers wishing to transfer to site-selection schools must follow the hiring process established by the school.

<sup>28</sup> Useem, E.L. (1997, 1998). *Reports on Recruitment, Hiring, and Induction of Teachers in the School District of Philadelphia*. Philadelphia: Philadelphia Education Fund.

<sup>29</sup> Useem, E.L. (2003). *op. cit.*

<sup>30</sup> *Quality Counts 2003, op. cit.*, pp. 17-18.

<sup>31</sup> Christman, J.B. (2001). *Powerful Ideas, Modest Gains: Five Years of Systemic Reform in Philadelphia Middle Schools*. Philadelphia: Consortium for Policy Research in Education, University of Pennsylvania.

<sup>32</sup> Campaign for Human Capital. School District of Philadelphia. (2003). *op. cit.*

<sup>33</sup> See Ferguson, R.F., & Brown, J. (2000). Certification test scores, teacher quality, and student achievement. In D.W. Grissmer & J.M. Ross (Eds.), *Analytic Issues in the Assessment of Student Achievement*. Washington, DC: U.S. Department of Education; Monk, D.H. (1994). Subject area preparation of secondary mathematics and science teachers and student achievement. *Economics of Education Review*, 13(2), 125-145; Olson, L. (2003). *Quality Counts 2003*. Washington, DC: Editorial Projects in Education, pp. 9-16; Rowan, B., Correnti, R., & Miller, R.J. (2002). *What Large-scale, Survey Research Tells Us About Teacher Effects on Student Achievement: Insights from the Prospects Study of Elementary Schools*. Philadelphia: University of Pennsylvania, Consortium for Policy Research in Education; Sanders, W. (1998). Value-added assessment. *The School Administrator*, 15(11), 24-32; Wayne, A. J., & Youngs, P. (2003). Teacher characteristics and student achievement gains: A review. *Review of Educational Research*, 73(1), 89-114.

<sup>34</sup> Rowan, B., Correnti, R., & Miller, R.J. (2002). *op cit.*; for Philadelphia students' perspectives on what makes an effective teacher, see Wilson, B.L. & Corbett, H.D. (2001). *Listening to Urban Kids*. Albany: SUNY Press.

<sup>35</sup> For example, states have different types of tests and different cut-off scores on the same tests of subject matter knowledge and definitions of teacher certification, and certification requirements differ across states and also have changed within states over time. See Darling-Hammond *et al.* (2001). Does teaching certification matter? Evaluating the evidence. *Educational Evaluation and Policy Analysis*, 23, 57-77; Goldhaber, D. & Brewer, D. (2001). Evaluating the evidence on teacher certification: A rejoinder. *Educational Evaluation and Policy Analysis*, 23, 79-86.

<sup>36</sup> Darling-Hammond, L. & Youngs, P. (2002). Defining highly qualified teachers: What does scientifically based research actually tell us? *Educational Researcher*, 913-25; Kaplan, L. & Owings, W. (2003). No Child Left Behind: The politics of teacher quality. *Phi Delta Kappan*, 84, 687-692.; Miller, J., *et al.* (1998). A comparison of alternatively and traditionally certified teachers. *Journal of Teacher Education*, 49(3), 165-176; Wayne, A.J., & Youngs, P. (2003). *op cit.*

<sup>37</sup> Wayne, A.J. & Youngs, P. (2003). *op. cit.*

<sup>38</sup> Wayne, A.J. & Youngs, P. (2003). *op. cit.*

<sup>39</sup> Saphier, J. & Gower, R. (1997). *The Skillful Teacher: Building Your Teaching Skills*. Acton, MA: Research for Better Teaching; Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22; Wenglinsky, H. (2000). *How Teaching Matters: Bringing the Classroom Back into Discussions of Teacher Quality*. Princeton, NJ: Millken Family Foundation & Educational Testing Service.

<sup>40</sup> Wayne, A.J. & Youngs, P. (2003). *op. cit.*

<sup>41</sup> Darling-Hammond, L. & Youngs, P. (2002). *op. cit.*; Monk, D.H. (1994). *op. cit.*; Wenglinsky, H. (2000) *op. cit.*

<sup>42</sup> Hess, F. (2002). *Advocacy in the Guise of Research*. Washington, D.C.: Progressive Policy Institute, 21<sup>st</sup> Century School Project; Paige, R. (2002). *Meeting the Qualified Teacher Challenge: The Secretary's Annual Report on Teacher Quality*. Washington: U.S. Department of Education.; Walsh, K. (2001). *Teacher Certification Reconsidered: Stumbling Block for Quality*. Baltimore, MD: Abell Foundation.

<sup>43</sup> Darling-Hammond, L. (2001). *Research and Rhetoric on Teacher Certification: A Response to Teacher Certification Reconsidered*. New York: National Commission on Teaching and America's Future; Darling-Hammond, L. & Youngs, P. (2002). *op. cit.*

<sup>44</sup> Wayne, A.J. & Youngs, P. (2003). *op. cit.*

<sup>45</sup> Darling-Hammond, L. & Youngs, P. (2002). *op. cit.*; Shen, J. (2003). New Teacher Certification Status and Attrition Pattern: A Survival Analysis Using B&B: 1993-1997. College of Education, Western Michigan University. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago.

<sup>46</sup> English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history and geography

<sup>47</sup> NCLB: Summary of Teacher Quality Draft Guidance. (2002). Washington, DC: National Governor's Association for Best Practices.

<sup>48</sup> Elementary teachers must demonstrate content knowledge and teaching skills in reading, writing, mathematics and other areas of the elementary curriculum through state tests. Middle school and secondary teachers must demonstrate competence in each of the subjects they will teach, either by passing the academic subject test(s) required by the state OR by having completed an academic major or graduate degree in the subject, or their equivalent. U.S. Department of Education, Title IX—General Provisions, Part A Definitions, "Highly Qualified," (2002), p. 3; National Governor's Association for Best Practices. (2002). *op. cit.*

<sup>49</sup> U.S. Department of Education. (2002). *Ibid.*

<sup>50</sup> National Governor's Association for Best Practices. (2002). *op. cit.*

<sup>51</sup> Paige, R. (2002). *op. cit.*

<sup>52</sup> To be a "highly qualified elementary teacher" (K-6), an individual must pass the state (Praxis) tests in reading, writing, math, and other basic parts of the elementary curriculum. To be a "highly qualified middle school teacher," (grades 7-9) an individual must pass the core (Praxis) middle-level content test(s) in the subject areas to be taught. To be a "highly qualified middle/secondary teacher" (grades 7-12), an individual must also pass the core (Praxis) content tests(s) in the subject areas to be taught. Other than teachers certified in Elementary Education who teach in grades 7 or 8, current holders of PA Instructional I or II certificates, whose teaching assignment is the same as their certificate area, are "highly qualified." State Board of Education 32 Pa B. 6030, *Approval of Standards of the Department of Education Necessary to Comply with the No Child Left Behind Act of 2001*. Pennsylvania also allows teachers successfully completing other national teacher-training programs such as the American Board and Teach for America (TFA) be certified to teach in the state without meeting further academic and testing requirements. The School District of Philadelphia, however, requires TFA participants to enroll in a certification program at a local college or university.

<sup>53</sup> New Teacher Coaches, a newly created full-time position in the district, coordinated the summer orientation program.

<sup>54</sup> New teachers receive \$1,500 of the bonus after their fifth month on the job; the remaining \$3,000 is paid after their 37th month of employment with the district.

<sup>55</sup> The Literacy Intern program is being modified for 2003-04 by the Vallas administration. Most interns will share a classroom with two separate teachers rather than one. The future of the program beyond the coming year is in doubt despite evidence that Literacy Intern teachers have higher retention rates in the system than other new teachers.

<sup>56</sup> According to district sources, several reasons accounted for the low number of Troops to Teachers participants in Philadelphia: the deployment of some potential candidates to Iraq; their desire to find a placement in a district closer to their homes; and their decision not to retire yet from the military.

<sup>57</sup> Campaign for Human Capital, School District of Philadelphia. (2003). *op. cit.*

<sup>58</sup> Chester, M., Offenber, R., & Xu, M. D. (2001). *op. cit.*

<sup>59</sup> Weinles, D. (2003). Summary of Findings from the District-Wide Principal Survey. Office of Research and Evaluation, School District of Philadelphia.

<sup>60</sup> Since site-based processes were cut off after July 15<sup>th</sup> and because some of those hired in this way ultimately took jobs elsewhere before school opened in September, some of the respondents to the survey in the site-based schools were hired centrally, thereby accounting for the percentage in that group who reported late hiring and late knowledge of their grade and subject assignment.

<sup>61</sup> In some other AFT districts, teachers overwhelmingly support site selection, partly because procedural guarantees exist about the composition and operations of the site-based personnel committee.