Head of the Class: A Quality Teacher in Every Pennsylvania Classroom

The Education Policy and Leadership Center

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Head of the Class: A Quality Teacher in Every Pennsylvania Classroom

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Introduction

A decade of standards-based education reform has led to the clear, inevitable, and perhaps obvious conclusion that the ultimate key to student achievement is quality teaching. Both state and national policymakers are increasingly focused on ensuring the tools and conditions necessary for students to achieve academic standards and demonstrate proficiency on state assessments of those standards. One of those conditions is the presence of a qualified teacher in every classroom at all times.

In order to help state, and to some degree local, policymakers ensure that Pennsylvania meets that vital condition, The Education Policy and Leadership Center (EPLC) undertook a 16-month Teacher Quality and Supply Project. EPLC convened a small planning group in September 2001 to begin this project, focused on Pennsylvania state policy affecting the preparation, recruitment, hiring, deployment, retention, and continuing professional development of classroom teachers. The planning group helped to establish in January of 2002 a 27-member study group (see appendix for list of members), representative of teachers, administrators, school boards, parents, teacher educators, and state policymakers, to assist EPLC in identifying and considering key issues and to react to possible policy recommendations. The study group held three two-day meetings and sponsored a two-day conference for a broader audience between January and December 2002 and conducted two final conference calls in January 2003. While the study group was instrumental in preparing this report, it is not intended to be a consensus document that necessarily represents in all respects the views of all its members. The report ultimately is EPLC’s product, for which it bears responsibility. Under the aegis of the Teacher Quality and Supply Project, EPLC surveyed 500 school superintendents and the education deans or chairs of the state’s 93 teacher preparation institutions. Responses were received from 22 percent of superintendents and 25 percent of deans and were helpful in the development of this report and its policy recommendations.

The project, as originally designed, was intended to consider issues of teacher supply in Pennsylvania and policies necessary to ensure an adequate supply into the future. To the degree that it is possible to agree upon definitions, it also was to consider issues of teacher quality. As the project was being planned, Congress passed and President Bush signed the federal No Child Left Behind Act. This legislation is having a direct impact on issues of teacher quality and supply and, therefore, was also considered in this project. By intention, the project was focused only on teachers. EPLC anticipates looking into administrator supply and quality issues as a separate activity.
Education Week’s 2003 Quality Counts report released in January 2003 focuses on the issue of teacher quality and state policies designed to enhance that quality. That focus will likely contribute to decisions made in state capitols across the country in the months ahead and provide interesting comparative information for policymakers to consider.

The purpose of EPLC’s Teacher Quality and Supply Project and the charge to the study group was straightforward:

*To make recommendations for the effective use of state policies to promote the presence of a qualified teacher in every Pennsylvania K-12 classroom at all times.*

This report examines teacher quality issues, current state policy, the increasing role of the federal government in generating state policy, and the availability of qualified teachers in Pennsylvania. It concludes with a series of state policy recommendations.

**Part I**

**Quality Teaching and Why it Matters**

Quality teaching matters — perhaps more than any other factor — in improving student academic achievement. Recent studies in Tennessee and Texas indicate that the effect of teacher quality on student performance outweighs other school variables and can outweigh student and family background characteristics as well. Having high quality teachers, especially consecutive high quality teachers, can close the achievement gap between disadvantaged and non-disadvantaged students. The strong and sustained gains in reading achievement in Connecticut and North Carolina over the past several years can be attributed largely to those states’ efforts to improve teacher quality.

What constitutes quality teaching? Where does it come from? How can it be found and nurtured throughout a career of service to children? Research is clear about some things and reports from educators are clear about others. Quality teachers have:

- A grasp of the subject matter they teach. States generally try to ensure this content knowledge by requiring secondary school teachers to have at least the equivalent of an academic major or minor in the fields in which they will teach.

- Knowledge and skills in conveying that content through a variety of strategies so that diverse students can learn it. States generally try to ensure this pedagogical knowledge and skill by requiring teacher candidates to complete teacher education programs and clinical experiences such as student teaching.
• Good verbal skills for conveying content and otherwise communicating with students. States generally try to ensure this verbal ability through state tests of verbal ability and through student teaching experiences.

• Successful experience. States generally try to ensure successful experience by supporting induction/mentoring programs for new teachers and continuing professional development opportunities throughout their careers.

In EPLC’s recent survey of school district superintendents, respondents virtually all noted that in hiring teachers they look for evidence of academic prowess and pedagogical skill. But a vast majority also look for a range of less tangible skills and attributes that they are convinced lead to success in the classroom, including creativity, problem-solving, verbal skills, flexibility, mental agility, teamwork, compassion, love of children, and the like. They look for what one superintendent referred to as “kid magnets.”

**Part II**

**Current State Policy**

To become a teacher in Pennsylvania, an applicant must obtain a state teaching certificate appropriate for the grade level and subject matter that the applicant will be teaching. Chapter 49 of State Board of Education regulations and Chapter 354 of Pennsylvania Department of Education (PDE) standards govern teacher preparation and certification.

**Preparation:** To obtain a certificate, an applicant must complete a bachelor’s or master’s degree in an approved teacher education program and receive the recommendation of the certification officer at the college or university.

In July of 1999, the State Board adopted revised regulations (Chapter 49) governing preparation of professional personnel. Changes in the regulations were designed to support Pennsylvania’s K-12 academic standards, strengthen teacher preparation programs, expand support for novice teachers, and expand state assessment of teacher candidates.

More detailed changes appear in Chapter 354 of PDE’s standards for the preparation of professional educators, approved by the State Board in 2000. The standards require aspiring teachers to complete at least three semesters of college-level liberal arts coursework with a minimum GPA of 3.0 before entering a teacher education program. Neither the three semester nor the minimum GPA requirement existed previously.12 The GPA requirement is being phased in as follows:

• Academic Year 2001-02: 2.6 GPA minimum
• Academic Year 2002-03: 2.8 GPA minimum
• Academic Year 2003-04: 3.0 GPA minimum
Prospective secondary school teachers will need to fulfill the same course requirements as their classmates majoring in the subject area to be taught. This requirement is new also.

Education majors also are required to take courses relating to professional and pedagogical knowledge and monitoring and assessment of student learning.

The PDE program standards require cooperation between liberal arts and education faculty in the design of teacher preparation programs; use of the K-12 academic standards as a basis for program design; opportunities for clinical experiences as early as the first semester and in a variety of communities; and support of novice teachers in collaboration with K-12 schools during the first year of teaching. In addition, successful completion of a teacher preparation program must be measured at least in part based upon mastery of the K-12 academic standards. Chapter 354 requires that programs be approved by PDE every five years through evaluation by a joint team of K-12 educators and college faculty. Finally, the standards require teacher preparation programs to integrate technology into their curricula and to ensure that future pre-service teachers graduate with technology integration skills and that teacher education faculty are prepared to use and integrate technology as well.

An applicant for certification also must pass a series of PRAXIS tests — state certification exams — administered by the Educational Testing Service. These exams test a student’s mathematics, reading, writing, and subject-area knowledge. Each state determines what will be accepted as a “passing” score. PDE has been increasing the passing scores on these exams in recent years.

**Certification:** PDE issues a Level I certificate to an applicant who completes a state-approved teacher education program, receives the recommendation of the institution’s teacher certification officer, and passes the appropriate PRAXIS exams. A Level I certificate is valid for six years of teaching in Pennsylvania public schools and can be converted to a Level II certificate (the final level of certification required for a classroom teacher) for any teacher who teaches for at least three years, earns 24 post-baccalaureate credits, completes a teacher induction program, and meets the Level II assessment requirements. If a teacher fails to meet these requirements within six years, the Level I certificate lapses, and he or she no longer is eligible to teach in the public schools; the Level I certificate may not be extended or renewed. The 24 credits required for Level II certification may be at the graduate or undergraduate level and may be earned only at a four-year college or university or through approved intermediate unit inservice courses. Teachers also may obtain a Letter of Master’s Equivalency, which only affects salary scale standing, upon verification of 36 graduate credits earned at a college or university that offers graduate programs or through approved intermediate unit inservice courses.

**National Board for Professional Teaching Standards:** Pennsylvania is one of only 11 states without any state policy supporting teachers’ efforts to become certi-
fied by the National Board for Professional Teaching Standards (NBPTS). Although NBPTS has had funds available to defray part of the application fee, PDE was not willing to accept and administer the funds. Instead, these non-state funds are managed by the Pennsylvania Association of Colleges and Teacher Educators (PAC-TE). Other states encourage such certification by paying the certification fees for candidates and/or funding salary increases or bonuses for those who gain NBPTS certification. Some states also connect national board certification to policies supporting career ladders. In Pennsylvania, education organizations and some districts encourage NBPTS certification (about 20 districts provide additional salary in their collective bargaining agreements). Currently, 78 Pennsylvania teachers have NBPTS certification.

**Hiring:** Prior to applying for a teaching position, an applicant must obtain both criminal history records (from the State Police or, in the case of out-of-state applicants or those who have lived in Pennsylvania for less than two years, from the FBI) and child abuse background checks (from the Department of Public Welfare). School districts may not employ anyone who has been convicted within the preceding five years of drug offenses, sex-related crimes, assaults, or founded cases of child abuse. While state policy plays an important role in determining who is (and is not) in the pool of potential school employees, it otherwise plays no role in which candidates actually are hired by local school districts. State law does not even require that school boards adopt hiring policies to guide their own practices.

“PA-Educator.net” is a consortium of school districts, universities, and other organizations, established in 1997 with foundation funding to permit teacher candidates to use the Internet to find potential employment and to permit school districts to search a large database of potential teacher applicants. The Allegheny Intermediate Unit now coordinates the system; there is no cost to individuals, and school districts pay annual membership fees based upon their size.

**Induction/Mentorship:** Pennsylvania is one of eight states that require but do not fund induction programs for first-year teachers. (Sixteen other states provide funding to support their mandates.) As part of its strategic plan, every school district is required to submit a plan for the induction of first-year teachers. These induction plans are submitted to PDE every six years but are not subject to state approval. The plans must include “a mentor relationship” between the first-year teacher and either an experienced teacher or an induction team. Each district may decide if new employees with prior teaching experience must also take part in the induction activities. According to the EPLC survey of superintendents, some districts train and pay their mentors, and some provide release time for mentors and inductees to meet and to observe each other’s teaching. Some have extended their programs to two years. In the absence of state support, however, the intensity of induction programs varies widely.
**Professional Development:** Under Act 48 of 1999, all teachers are required to complete at least 180 hours of continuing professional education every five years. The requirement can be completed by taking six college credits or six credits of continuing professional development courses or by a combination of college credits, professional development courses, or approved learning experiences. One college credit or one credit of continuing professional development courses is equal to 30 hours. School districts are required to submit continuing professional development plans to the Secretary of Education. These plans must assess the districts’ staff development needs and provide at least opportunities to study graduate-level coursework, obtain a professionally-related master’s degree, participate in PDE-approved in-service courses, take on curriculum development work, attend professional conferences, and observe the classrooms of other professional employees.

PDE has contracted for the development of a series of online professional development courses related to state academic standards. They are available for Act 48 credit at no charge to Pennsylvania teachers, and to date about 10,000 have taken one or more of these offerings. The state also offers several Governor’s Institutes and Academies for Educators. These are intensive, residential, content-focused summer programs serving about 2,500 educators from across the state annually.

The State System of Higher Education’s Academy for the Profession of Teaching and Learning has established several K-16 Councils to support collaborative school-university efforts to enhance both teacher preparation and professional development. The councils have been supported primarily by federal and foundation grants.

During 2001, PDE began to implement its Professional Development Assistance Program (PDAP). The program will test all practicing academic teachers in every school district over a period of five years. Teachers are administered online math and reading exams to test their knowledge of the content of state standards at the appropriate grade level. Results of the exams are intended to remain confidential — to be used to improve professional development programs. District-level results are available on PDE’s Web site.

**Career Ladders:** Pennsylvania has no policy regarding career ladders other than the need to move from Level I to Level II certification within the first six years of teaching.

**Post-Retirement Teaching:** Retired teachers who wish to return to teaching can do so for up to 95 days per year without losing their monthly state retirement benefits as long as:

- The district determines that a shortage of non-retired teachers creates an emergency situation requiring the employment of retirees.

- The district, after making a “good faith” effort to hire a non-retired teacher, cannot find another individual certified in a certain subject area because of a shortage of subject-certified teachers.
After 95 days of teaching, a penalty is assessed against monthly retirement benefits. Additionally, those who retire and immediately begin working under an “emergency” or “shortage” exception are seen as not really retiring and may have their pensions “frozen.” Unless they teach for at least three years after their initial retirement, they ultimately receive two separate pensions (the “frozen” initial pension and another for the post-retirement service) which total less than they would have received without the intervening retirement. With nearly three percent of teachers retiring annually, these experienced educators could be a pool from which to draw — at least on a short-term basis — for hard-to-fill positions. Periodically, the General Assembly enacts early retirement incentives, and the number of retirees tends to increase in the years those incentives are in effect.

**Alternate Certification Routes:** Individuals who do not hold a valid Pennsylvania teaching certificate may obtain alternative certification for a secondary school or K-12 teaching position by entering into a collaborative agreement with a school district and a teacher preparation program. The candidate must have a bachelor’s degree with at least a 3.0 grade point average and must pass reading, writing, mathematics, and subject exams (if appropriate) to begin the certification process. Once the exams are successfully completed, an individual educational plan is drawn up among the candidate, the school district, and the teacher preparation institution. Before entering the classroom, the candidate must complete a two-week six-credit summer seminar. The candidate also is assigned a mentor from the school and a supervisor from the teacher preparation institution. The educational plan must be completed within 15 months, at which point a regular instructional certificate is issued by PDE. To date, only three candidates have taken advantage of this route since its establishment in 1999.

A more popular approach is the “intern certificate.” This is issued to a candidate with a bachelor’s degree and the same minimum grade point average required for all other teacher candidates. To enter an intern program, a candidate must pass all but the pedagogy-related PRAXIS exams. There are 37 teacher preparation institutions offering intern certification programs; a candidate must be continuously enrolled until the program is completed and may teach for up to three years on an intern certificate. In 2001-02, there were 241 teachers who completed the intern certification program.¹⁶

Teaching candidates from outside Pennsylvania who are certified by the NBPTS are issued an Instructional II certificate without having to take state PRAXIS exams.

**Emergency Permits:** When there are no applicants with certification, school districts must sometimes use “emergency permits” to fill positions. The most common forms of emergency permits are:

- To fill vacant positions for which districts cannot find certified applicants.
  These are issued by PDE for a period of one year and are renewable for three
years if the permit holder completes at least nine credits per year in pursuing studies to attain a regular certificate.

- To fill long-term substitute positions. These are issued by PDE for a period of one year. They may be renewed if the permit holder is pursuing studies to obtain a regular certificate, but this is very unusual (76 of 2,147 such permits issued in 2001-0217).

- To fill day-to-day substitute positions. These may be issued by the local school superintendent for a period of up to 15 cumulative school days in any certificate endorsement area.

Emergency permits are issued to college graduates regardless of whether they have had any preparation in teaching techniques or the specific content to be taught.

**Teacher Evaluation:** PDE recently revised the state teacher evaluation forms so that they reflect the widely respected work of Charlotte Danielson.18 The forms focus on teacher performance through planning and preparation of instruction, maintaining a classroom environment conducive to learning, delivering instruction effectively, and contributing to the profession of teaching. Districts must use the new state form to evaluate teachers being recommended to move from Level I to Level II certification. They may use the other forms or a locally developed instrument to evaluate other teachers. To date, PDE has not provided training to teachers or administrators in the use of these instruments.

## Part III

**An Expanding Federal Role — No Child Left Behind and Title II of the Higher Education Act**

Until Congress passed the No Child Left Behind (NCLB) Act, which President Bush signed in January 2002, national K-12 education policy was almost exclusively focused on specific groups of students — those who are economically disadvantaged, those with disabilities, those studying vocational education, those borrowing money for college. NCLB is much more ambitious, setting national policy for all children, all teachers, and all schools and requiring states to implement national policy in order to qualify for federal funding. Among the key provisions of NCLB are requirements that states establish academic standards, test all children in grades 3-8 annually, and ensure that all children achieve proficiency on state standards within 12 years.

NCLB also requires that all teachers — including current practitioners — be “highly qualified” by the end of the 2005-06 school year. This means they must be fully certified by the state and must not have had any certification requirements waived on an emer-
gency basis. For elementary school teachers this also requires a bachelor’s degree and passing scores on a rigorous state test of reading, writing, math, and other basic parts of the elementary curriculum. For middle and high school teachers this also requires a bachelor’s degree and passing scores on a core content area test or an academic major or equivalent coursework. Current Pennsylvania teachers meet these criteria except those teaching on emergency certificates, those teaching in fields for which they are not certified (e.g., a physics teacher who teaches chemistry), and seventh and eighth grade teachers who do not have a content area certificate.

PDE and the State Board have adopted policy to implement these federal requirements with respect to teaching in core academic areas:

- Teachers can add areas of certification by passing content area tests (this is aimed primarily at the needs of seventh and eighth grade teachers who now have elementary certificates but could impact upon the decline of dually-certified personnel needed by rural districts).

- Intern certification should continue to be used to accelerate pedagogical training for teacher candidates with content area expertise, but institutions would have to provide intensive supervision during the first year of teaching.

- Student teaching is to be structured to assess pedagogical skills in lieu of the Principles of Learning and Teaching Test.

- Teachers certified in other states with three years of satisfactory teaching in the past seven years and passing scores on subject area tests are eligible to be certified in Pennsylvania.

- Teachers who have completed national training programs — Teach for America, the American Board for Certification of Teacher Excellence of the National Council on Teacher Quality and the Education Leaders Council, and others subsequently approved by the State Board — are eligible to be certified in Pennsylvania.

The role of federal policy in the preparation and certification of teachers began to take on a more proactive cast five years ago. Title II of the federal Higher Education Act was amended in 1998 to require states and higher education institutions to report annually on the status of teacher preparation. States must submit annual report cards that include a description of certification assessments and standards that must be met for initial certification, a description of how certification requirements are aligned with state academic standards, the percentage of teaching candidates who passed each certification assessment and the passing score required by the state, the number of teachers granted emergency teaching credentials and the prevalence of these credentials in high and low-poverty school districts and among subject areas, a description of
the state’s alternative certification programs and the percentage of teachers certified through these programs who pass state certification assessments, state criteria for assessing teacher preparation programs, and information about how prospective teachers are assessed for subject matter knowledge. States must also develop criteria for identifying and assisting low-performing teacher preparation programs and provide the federal government with a list of low-performing and at-risk programs. Higher education institutions must also report on the number of students enrolled in teacher preparation, the average number of hours of supervised student teaching, and the faculty-student ratio in student teaching, as well as whether the program is accredited or designated as low-performing by the state. The Higher Education Act is likely to be reviewed and reauthorized by Congress during 2003 or 2004.

Part IV

Availability of Qualified Teachers in Pennsylvania

Does Pennsylvania have or face a shortage of qualified teachers? The state clearly has not experienced the type of crisis felt by rapidly growing states such as California, Texas, and Nevada, where increasing student enrollments, impending retirements of baby boom generation teachers, and teacher turnover are combining to create serious shortfalls. What Pennsylvania does face are some shortage areas and at least anecdotal evidence of worsening shortages, some disturbing trends, and the likelihood of increased competition from states that are in crisis.

Pennsylvania’s shortages include:

- Qualified teachers for urban districts and, to a lesser degree, rural districts.
- Teachers of physics, chemistry, biology, mathematics (especially for higher level math courses), general science, world languages, special education, technology education (formerly industrial arts).
- Racial/ethnic minority candidates.

These problems exist despite the fact that the state’s 93 teacher preparation institutions continue to certify many more teachers every year than the schools in Pennsylvania hire. In 2001-02, PDE issued about 10,500 Level I certificates; 9,000 of those candidates were prepared in Pennsylvania institutions. But Pennsylvania school districts only hire about 4,000 new teachers every year.19

Interestingly, in 1999-00, the state issued 2,088 Instructional I certificates for special education teachers, and school districts the next year hired only 967 new special education teachers; in chemistry, 190 certificates were issued and 118 new teachers hired; in mathematics, 655 certificates were issued and 667 new teachers were hired.20

So why is there a problem?
First, there is a geographic imbalance, primarily affecting urban districts such as Philadelphia, York, Harrisburg, and Reading. Most new teachers are graduates of institutions located in rural and suburban communities, and anecdotal evidence suggests many candidates grew up in rural and suburban communities. Deans responding to EPLC’s survey indicated a major reason graduates of teacher preparation programs do not enter the profession (in addition to attending graduate school, seeking more lucrative employment, and starting families) is that they do not want to relocate where the jobs are — largely in urban districts.

Second, teaching is a high turnover profession (although in Pennsylvania it is less of a problem than in the nation as a whole — almost 13 percent in 2000-01 compared with 16 percent nationwide), and teachers leave the profession early in their careers — one-third of Pennsylvania teachers within three years and half within five. National data indicate that the primary reasons for turnover are poor salaries, lack of administrative support, lack of student discipline, lack of faculty influence in setting school policy, and poor student motivation.

The disturbing trends in Pennsylvania include a reduction in certificates issued, an increase in teachers leaving their districts, and an increase in the number of emergency permits issued by PDE. The number of new Level I certificates issued in 2001-02 was seven percent lower than the year before. The following table displays the number of Level I and Level II certificates issued in various fields over the past six years:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>480</td>
<td>528</td>
<td>477</td>
<td>473</td>
<td>483</td>
<td>484</td>
<td>+ 0.8%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>203</td>
<td>245</td>
<td>190</td>
<td>190</td>
<td>161</td>
<td>170</td>
<td>- 16.3%</td>
</tr>
<tr>
<td>Physics</td>
<td>144</td>
<td>169</td>
<td>139</td>
<td>119</td>
<td>121</td>
<td>100</td>
<td>- 30.6%</td>
</tr>
<tr>
<td>General Science</td>
<td>415</td>
<td>476</td>
<td>438</td>
<td>421</td>
<td>412</td>
<td>364</td>
<td>- 12.3%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>946</td>
<td>857</td>
<td>798</td>
<td>655</td>
<td>612</td>
<td>697</td>
<td>- 26.3%</td>
</tr>
<tr>
<td>World Languages</td>
<td>597</td>
<td>598</td>
<td>491</td>
<td>397</td>
<td>461</td>
<td>400</td>
<td>- 33.0%</td>
</tr>
<tr>
<td>Mentally/Physically Hand.</td>
<td>2,284</td>
<td>2,463</td>
<td>2,183</td>
<td>2,088</td>
<td>2,142</td>
<td>2,195</td>
<td>- 3.9%</td>
</tr>
<tr>
<td>All Others</td>
<td>18,332</td>
<td>17,909</td>
<td>17,418</td>
<td>15,084</td>
<td>15,551</td>
<td>15,139</td>
<td>- 17.4%</td>
</tr>
<tr>
<td>Total Instructional</td>
<td>23,401</td>
<td>23,245</td>
<td>22,134</td>
<td>19,427</td>
<td>19,943</td>
<td>19,549</td>
<td>- 16.5%</td>
</tr>
</tbody>
</table>

Table 1
Superintendents who indicated in EPLC’s survey that they had difficulty filling positions for the 2002-03 school year listed chemistry, physics, general science, math, world languages, and special education among the areas hardest to fill. In all, 16 percent of respondents indicated an insufficient number of candidates, and another 39 percent said there were not enough quality candidates.

In addition to the reduction in numbers of certificates issued in recent years, there also has been an increase in the number of teachers leaving their districts. While some of these teachers went to work in other districts, the turnover still created vacancies to be filled in districts they left.

### Table 2

<table>
<thead>
<tr>
<th>Certification Area</th>
<th>Leaving in 1997-98</th>
<th>Leaving in 2000-01</th>
<th>Change in Number Leaving</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>121</td>
<td>175</td>
<td>+ 54</td>
<td>+ 44.6%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>56</td>
<td>81</td>
<td>+ 25</td>
<td>+ 44.6%</td>
</tr>
<tr>
<td>Physics</td>
<td>43</td>
<td>37</td>
<td>- 6</td>
<td>- 14.0%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>424</td>
<td>496</td>
<td>+ 72</td>
<td>+ 17.0%</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>128</td>
<td>146</td>
<td>+ 18</td>
<td>+14.1%</td>
</tr>
<tr>
<td>Mentally/Physically Hand.</td>
<td>751</td>
<td>944</td>
<td>+ 193</td>
<td>+ 25.7%</td>
</tr>
</tbody>
</table>

During 2001-02, about 16,800 emergency permits were issued; more than half of these were for day-to-day substitute positions (evidence of the difficulty districts have finding certificated substitute teachers). Of the remainder, 5,174 were to fill vacant full-time positions for which districts could not find properly qualified candidates (referred to as O1 emergency permits). Slightly over half of these were in the Philadelphia School District; another 20 percent were in six other urban districts.
NCLB requires that districts notify low-income parents (those whose children qualify for Title I services) if their children are being taught for four or more weeks by anyone who is not highly qualified, including those teaching on emergency certificates and those teaching out-of-field.

Racial and ethnic minorities are substantially under-represented in the public school teaching force in Pennsylvania, accounting for a total of only 6.3 percent of all classroom teachers.

The state’s teacher preparation institutions annually certify more potential teachers than the state’s public schools hire. Some of the others teach in private schools, go to graduate school, choose other occupations, or decide to raise families. For several years, Pennsylvania has been a net exporter of teachers. Many Pennsylvania graduates are recruited to teach in other states, such as Virginia, North and South Carolina, and Texas. As NCLB increases the pressure on all states to staff their schools only with highly qualified teachers, recruitment by growing states and from those that produce fewer teachers is likely to increase.
Part V

Recapping the Teacher Quality and Supply Issues

In order to ensure that every Pennsylvania child has a real opportunity to obtain a quality education, the state must ensure an adequate supply of “highly qualified” teachers who also are high quality teachers as demonstrated by their effectiveness in the classroom. What is clear is that even if the overall statewide supply is adequate, there are areas of shortage, trends that suggest additional difficulties, and imbalances that deny many children the opportunity to achieve high academic standards.

Teacher quality remains something of an elusive, albeit critical, concept. In recent years, policymakers in Pennsylvania have addressed the issue of teacher quality by focusing primarily on qualifications — requiring minimum grade point averages to enter and exit teacher preparation programs; increasing the content knowledge requirements (equivalence to academic majors) for certification; increasing the range and sequence of pre-certification clinical experiences; requiring continuing professional development throughout a teacher’s career; and testing current teachers in basic skills areas (PDAP).

Superintendents responding to EPLC’s survey about their hiring practices virtually all look for evidence of academic prowess and pedagogical skill. But a vast majority also look for a range of less tangible skills and attributes that they are convinced lead to success in the classroom. These include creativity, problem-solving, verbal skills, flexibility, mental agility, teamwork, compassion, love of children, and the like. These are not easily amenable to public policy, but policy should not interfere with their development or with their effect on hiring decisions.

Many of the teacher preparation deans responding to EPLC’s survey are concerned about potentially negative consequences of some recent state policies designed to improve teacher quality. While 57 percent think the new GPA requirements are improving the academic quality of teacher preparation candidates, 43 percent report they are doing so by reducing the total candidate pool. And several of the disciplines most affected — especially math and science — are those in which districts already are having difficulty. In addition, several deans expressed concern that candidates who possess the less tangible attributes sought by superintendents may be screened out of teaching because they cannot achieve the required GPA, especially by the time they would declare a major in education. Finally, they note that the requirement of completing an academic major will make it difficult if not impossible for future teachers to graduate with dual certification (e.g., physics and chemistry or physics and math). This is likely to exacerbate the hiring problems in small (predominantly rural) high schools that need a chemistry or physics teacher for only one or two courses a year.

While 91 percent of superintendents in EPLC’s survey rated new teachers as good or excellent, many continue to express concern that new teachers lack critical skills in key areas:
• Understanding state standards and using them as the basis for instruction.
• Integrating technology into curriculum and instruction.
• Working effectively with special needs students.
• For elementary school teachers — teaching reading effectively to all students.

Part VI

Recommendations

How can state policy promote the presence of a qualified teacher in every Pennsylvania K-12 classroom at all times? The Education Policy and Leadership Center (EPLC) recommends policy action in four areas as a result of its year-long review of teacher quality and supply issues:

• Promoting and professionalizing teaching in Pennsylvania.
• Enhancing the preparation of future teachers and monitoring recent reforms.
• Addressing specific staffing problems.
• Improving the collection, integration, and utilization of data.

Specific recommendations in each of these four areas are presented below. But EPLC first notes that policymakers have two impending opportunities that establish the context within which many of the following recommendations should be considered:

• During 2003, the State Board of Education will review Chapter 49 of its regulations, and the Pennsylvania Department of Education will review Chapter 354 of its standards. These regulations and standards are central policies affecting the preparation and certification of teachers; several specific recommendations that follow require changes in those regulations and standards. In conducting these reviews, the Board and the Department should think strategically about the integration of teacher preparation and certification policies with other state policies supporting the standards-based reforms of recent years.

• In many instances, a district’s ability to provide a qualified teacher in every classroom is limited by available financial resources. A more adequate and equitable statewide system of education finance is imperative to increase the ability of many districts now experiencing staffing problems to compete for highly qualified teachers.

Most of the recommendations that follow are addressed to specific state policymakers, but some also have implications for school districts and teacher preparation institutions.
Recommendations

Promoting and Professionalizing Teaching in Pennsylvania

In order to attract an adequate supply of high quality candidates to the profession and in order to retain the best and brightest of current teachers, the profession must be recognized, valued, and honored. In addition, teachers need to be able to build careers that provide opportunities for varied assignments and increasing responsibility that recognize their classroom accomplishments without forcing them to leave the classroom altogether.

1. Policymakers, political leaders, and educators themselves must genuinely and consistently treat teachers as a key part of Pennsylvania’s efforts to strengthen public education and to improve student achievement. Leaders need to use their “bully pulpit” to make clear that there is an important public interest to be served by the recruitment to the teaching profession of exceptionally talented individuals, that teachers are appreciated for their contributions, and that young people should aspire to careers as teachers. They need to “market” teaching as a valued career.

2. This does not mean that poor teaching should be tolerated. In this regard, PDE’s new teacher evaluation forms appear to be an excellent approach to evaluating performance, targeting professional development, and documenting those teachers who should not continue in their careers. The General Assembly should require the use of those forms or of locally-developed models based on the same standards and approved by PDE. In addition, PDE should promote the use of these forms for the design of professional development and should provide training in their use for school administrators.

3. The Professional Development Assistance Program (PDAP) is designed to provide information to improve professional development programs, but the abuse of the PDAP data in the media, the lack of use of PDAP data by PDE in developing its own professional development offerings, and the reports from superintendents that the information is not especially useful all suggest the need for a new model. PDE’s new teacher evaluation instruments, if used effectively by properly trained administrators, can yield richer and more focused information for professional development planning. The General Assembly should terminate the PDAP program and use its funds to support training in the use of the new evaluation forms.

4. The state should support National Board for Professional Teaching Standards certification. The General Assembly should appropriate funds to pay the application fee for all successful applicants, and PDE should convene and assist
regional support groups of National Board candidates and mentor teachers who already are National Board-certified. The teacher unions and school boards should continue to promote National Board certification and encourage teachers to seek it.

5. The State Board should modify school district planning requirements so that the current Act 48 and induction plans are integrated into a single teacher retention, support and leadership development plan that is itself integrated into the district’s strategic plan. The State Board should require this comprehensive strategic plan be subject to PDE approval by teams of practitioners and PDE staff.

6. These more inclusive district strategic plans should specifically address the differential needs of educators at different stages in their careers, including the need for mentorship and lighter teaching loads during the first year or two; the ability to grow into positions as student teacher supervisors, mentors for inductees, and participants in school decision-making based upon their demonstrated performance and interest in assuming such roles. Most of this will require changes in local school district (rather than state) policy, and while school districts will incur costs in developing differentiated staffing patterns as recommended here, they will save money by retaining teachers (reduced costs of recruitment, hiring, training, and initial support) and potentially save federal funds by ensuring compliance with the highly qualified teachers requirement of the federal No Child Left Behind (NCLB) Act.

7. The General Assembly should revise state law with regard to induction to require that induction for new teachers be extended to two years. In addition, the General Assembly should provide some funding to districts for compensation of, or release time for, mentors; training of mentors; and school-university collaboration.

8. The School Code sets the minimum teacher salary at $18,500 per year — a level established in 1988-89; some districts still pay this statutory entry salary to beginning teachers. In order to reduce teacher turnover and enhance the attractiveness of the profession to high school and college students and recent college graduates, this is an issue to be considered for adjustment by the General Assembly, as it has done from time to time in the past.

9. While Act 48 is clear about the need for professional development to address the needs of schools as well as teachers, anecdotal evidence suggests that there is close to an “anything goes” attitude in some districts. It is important for student achievement and for the reputation of the profession that Act 48 professional development activities be approved only when they do meet school needs. School districts and other professional development providers have the responsibility of enforcing this existing state policy.
10. A key to teacher retention is the work environment in schools. For most teachers, this encompasses principal leadership and support, participation in school-based decision-making, collaborative problem-solving, appropriate student-discipline, and a focus on teaching and learning (such as minimizing classroom interruptions). School districts must address these issues in the previously recommended teacher retention and support and leadership development plan.

**Recommendations**

**Enhancing the Preparation of Future Teachers and Monitoring Recent Reforms**

The state has implemented a number of policy revisions in recent years aimed at strengthening teacher preparation programs and improving the knowledge and skills of new teacher candidates. While these reforms are just beginning to be fully implemented, superintendents in EPLC’s survey continue to express concern about the ability of all new teachers to teach to the state’s academic standards, to integrate technology effectively, and to teach students with special needs. At the same time, 91 percent of respondents rated new teacher candidates as “good” or “excellent,” but both superintendents and deans fear that some of the recent reforms could screen out of teaching some potentially excellent teachers with less than 3.0 grade point averages or high enough PRAXIS test scores. Policymakers should explore ways to reinforce existing quality initiatives and to monitor their progress to ensure that the desired results are achieved without significant unintended consequences.

1. During 2003, the State Board of Education will review Chapter 49, and PDE will review Chapter 354. In conducting those reviews, the Board and Department should survey both teacher preparation institutions and districts to determine if the reforms enacted in recent years are having the desired effect of improving the quality of teaching candidates and to ensure they are not having unintended or undesirable consequences in terms of potentially excellent teachers being screened out of the profession.

2. In reviewing its teacher preparation program approval standards and procedures, PDE should ensure that they are integrated with other state policies supporting the achievement of K-12 academic standards. In addition, PDE should seriously consider and integrate whenever appropriate standards and procedures used by national accrediting bodies. The purpose of this review should be to ensure that PDE program approval is as rigorous, objective, and standards-based as possible.

3. PDE historically has had difficulty in recruiting K-12 practitioners (especially classroom teachers) to participate on program approval teams. The General
Assembly should provide funding to districts for substitute teachers to encourage more participation of K-12 teachers in teacher preparation institutional reviews. This participation is critical for assessing standards alignment, technology integration skills, and the like. This is another example of the type of differentiated staffing recommended previously.

Recommendations

Addressing Specific Staffing Problems

As noted previously, Pennsylvania does have problems — albeit not universal ones — in staffing its schools. Policy attention needs to be paid to these specific staffing problems if the state is to ensure the presence of a qualified teacher in every Pennsylvania classroom at all times and if the state is to meet its federal obligations under NCLB. Three recommendations at the conclusion of this section of recommendations are designed to guard against the potential for more general statewide teacher shortages or further problems with the distribution of teacher candidates.

1. The General Assembly should enact a highly targeted teacher recruitment program focused on districts determined by actual data to be having significant difficulty in filling teaching positions with qualified candidates. These districts should have access through an application process to state funds earmarked to assist in recruitment and hiring through a scholarship or loan forgiveness program; an alternative certification program that incorporates both content and pedagogy and that is jointly developed by the districts and one or more teacher preparation institutions (for which PDE currently has two federal grants); K-16 council activities that link districts and universities to encourage and support future teachers; middle and high school recruitment of potential future teachers, along with counseling, and academic support.

2. These districts should be required, as a condition of receiving state funds, to adopt school board policies on recruitment and hiring that commit them to actively seeking and supporting qualified teachers; to use an online recruiting tool (proposed at the beginning of these recommendations); and to modify its teacher retention and support and leadership development plan (recommended previously) to incorporate the activities to be undertaken using state funds.

3. PDE should consult with districts that are having particular difficulty recruiting and hiring qualified candidates to determine if the Department could effectively conduct a recruiting campaign on behalf of those districts, individually or collectively.

4. A growing number of districts have experienced difficulty filling certain types of teaching positions — especially in the sciences, math, and special education.
If these trends persist, PDE and the State Board should review Chapters 49 and 354 to determine if further policy revision could reverse those trends, and districts and their teacher unions should consider using salary incentives for difficult-to-fill positions.

5. Increasing the number of qualified minority teachers must be a state goal. Suggested state policies promoting this goal include state recruitment of Pennsylvania residents graduating from historically black colleges and universities (HBCUs) outside Pennsylvania; PDE promotion of urban community college curricula that articulate with approved teacher preparation programs; PDE support for K-16 council activities that link districts and universities to encourage and support future teachers; school district recruitment in middle and high schools of potential future teachers, along with counseling and academic support for them. PDE and districts also should work with community-based organizations to encourage young people to consider careers in teaching. PDE should consider expanding the current Governor’s School for Teaching at Millersville University to one or more urban sites as well. The General Assembly should provide grants to support establishment of magnet schools for future teachers in urban districts. Teacher preparation institutions should review their own records on retention to graduation and modify internal policies and practices to ensure adequate support for minority candidates with the potential to be good teachers. In addition, school boards should develop policies and practices that support recruitment of certified minority teaching candidates.

6. Filling substitute teaching positions has become a ubiquitous problem. Several partners in Allegheny County are coordinating efforts to rethink this issue and establish a reserve teacher corps. PDE should review these efforts to determine if a statewide initiative along these lines would be helpful for other districts.

7. The General Assembly should revise the law that limits retirees to 95 days per year of teaching service and increase the limit to 190, which would permit a retiree to teach an entire school year and participate in several days of professional development. The emergency circumstances under which a school district could hire a retired teacher would remain as provided in current law.

8. Recent action by PDE and the State Board to require elementary-certified seventh and eighth grade teachers to pass subject area tests in order to comply with NCLB requirements is a step in the right direction. PDE must ensure that those tests adequately measure skills needed for teaching middle school subjects including algebra, which for eighth graders is a “gatekeeper” course that largely determines their future access to high-level coursework.
9. PDE and the State Board should revise its recently established NCLB highly qualified teaching policy that now permits anyone completing national training programs — Teach for America, the American Board for Certification of Teacher Excellence, or others subsequently approved — to be certified automatically in Pennsylvania. The policy should require enrollment in a Pennsylvania intern certification program and should be limited to national training programs with at least a two-year track record.

10. In their upcoming review of Chapters 49 and 354, the State Board and PDE should consider ways of strengthening the preparation for teaching of reading in the early grades. Potential approaches should include requiring elementary education majors who teach in kindergarten through third grade to be certified in early childhood education as well to increase their understanding of child development; requiring a specified minimum amount of reading instruction for all elementary education candidates; and requiring specific reading courses in the early childhood education program standards.

11. In order to help implement Act 48, PDE should be strategic in providing for professional development courses offered online without charge to teachers or districts so that other educational policy objectives of the state relative to standards-based reforms and high achievement by all students are served. For instance, such courses might focus on the needs of urban teachers, working with special needs students, and addressing standards that many students are failing to achieve.

The following three recommendations are designed to guard against the potential for exacerbating the state’s current teaching shortages and problems with the distribution of teaching candidates.

12. In any future proposals to enact early retirement incentives for teachers, the General Assembly should consider the likely impact on school districts’ efforts to meet the highly qualified teacher requirements of NCLB, particularly with respect to the supply of highly qualified teachers in hard-to-staff schools.

13. Pennsylvania should continue its participation in the Mid-Atlantic Regional Teachers Project in order to explore and promote multi-state regional efforts to improve teacher quality.

14. Districts and potential teachers would benefit from more information about job openings and the qualifications of candidates. PDE should either operate or provide support for a statewide online application and recruiting service that would operate at no cost to districts or teaching candidates.
Recommendations

Improving the Collection, Integration, and Utilization of Data

While PDE personnel were cooperative in supporting EPLC’s teacher quality and supply project, it was very difficult to obtain consistent and accurate data on which to reach conclusions and base recommendations.

1. PDE should continue to implement the integration of its teacher certification and professional personnel databases and work with policymakers and other data users to design regular reports that are easily accessible and that support future policymaking.

2. PDE should conduct and report a comprehensive census of the state’s teacher corps every five years to help inform future policy development.

3. School districts should be more careful and vigilant in reporting professional personnel data to PDE annually.
Notes


2. Public law 107-110 (January 8, 2002).


5. William Sanders and June Rivers. “Cumulative and Residual Effects of Teachers on Future Student Academic Achievement.” University of Tennessee Value-Added Research and Assessment Center, 1996.


12. Under the provisions of Chapter 354, a student may be admitted to an initial certification program without meeting the 3.0 GPA requirement if he or she has a 2.8 GPA and qualifying scores on the appropriate PRAXIS exams; or a 2.8 GPA and scores of at least 500 on both the mathematics and verbal SAT subtests; or a 2.8 GPA and scores of at least 20 on the ACT assessment and 23 on the ACT English subtest. A student may be admitted to an advanced certification program without meeting the 3.0 GPA requirement if the preparing institution chooses to admit up to 10 percent of the students into its program who do not meet the GPA requirement; or if the institution's passing rate on professional knowledge and subject area PRAXIS tests exceeds 90 percent and a different GPA requirement has been developed in coordination with PDE.


20. ibid.

21. ibid.


27. Based on PDE enrollment and professional personnel reports for 2001-02 and U.S. Census Bureau Census 2000 data.
APPENDIX I

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APPENDIX II

Superintendents Survey

In responding to this survey, please consider only the actual experience of your own school district without regard to experiences of your colleagues in other districts or general discussions of these issues in the media. If your district has an assistant superintendent for personnel or an HR director, you may have that person complete the survey for your district.

1. In getting ready to open school this fall, did you experience difficulty in filling teaching positions? (If you answer “no,” please skip to question 4.)
   - Yes, not enough applicants _____
   - Yes, not enough quality applicants _____
   - Please list specific teaching fields with problems:
     - No _____

2. If you are having difficulty, do you notice any trends?
   - Problems are worse than 5 years ago _____
   - Problems are not as great as 5 years ago _____
   - No change _____

3. What do you think are the causes of your staffing problems?

4. Does every first year teacher have a mentor?
   - Yes _____  No _____

5. Do mentors receive:
   - Release time _____
   - Compensation _____
   - Both _____
   - Neither _____

6. What is the primary focus of the induction program?
   - Instructional technique _____
   - Curriculum content _____
   - School rules, procedures, culture _____
   - Discipline, classroom management _____
   - Other _____
   - Please provide a brief summary of your induction program:
7. During the last school year, about how much did your district spend on professional development? Please rank the categories of spending (1=highest percentage).

   Professional development spending: $______
   As percentage of district budget: _____%
   Ranking of expenditure categories:
   _____ Tuition reimbursement to teachers
   _____ Payments for college and university programs
   _____ Payments for intermediate unit programs
   _____ Payments to other vendors
   _____ Inservice provided in district schools

8. How would you rank recent graduates of teacher preparation programs applying for teaching positions in your district?

   Excellent _____
   Good _____
   Adequate _____
   Poor _____

9. When hiring teachers, do you give preference to candidates who have substituted in your schools?

   Yes _____  No _____

10. When hiring teachers, do you give preference to candidates who have grown up in your community?

    Yes _____  No _____

11. What are the principal criteria or characteristics you look for in a candidate for a teaching position?

12. Do these factors differ for new and experienced teachers?

    Yes _____  No _____  If yes, please explain:

13. Does your district have a written board policy on hiring practices?

    Yes _____  No _____  If yes, please summarize it:

14. What district personnel are involved in your teacher hiring process?

15. How can state policy increase the quality and, if necessary, the supply of K-12 teachers?
Deans Survey

Please complete this survey with your own institution in mind, regardless of the experiences of colleagues elsewhere.

1. Do you track the employment status of your education graduates? (If so, please answer questions 2-6; if not, please skip to question 7):
   Yes_____  No_____

2. In your latest survey, what percentage of respondents left teaching
   at the end of their first year _____%
   within their first five years _____%

3. What were the most common reasons given for leaving the profession?

4. How many of your 2000-01 graduates took teaching positions in other states in 2001-02? What percentage of your graduates was this? How many of these were residents of other states?
   Number _____
   Percentage ____%
   Number of out-of-state residents _____

5. How many of your 2000-01 graduates did not enter the teaching profession in 2001-02? What percentage of your graduates was this?
   Number _____
   Percentage ____%

6. What were the most common reasons given for not entering the profession?

7. Do you have a continuing relationship with your graduates once they start teaching? If so, please give a brief description.
   Yes _____  No _____
   Description:

8. Does your institution participate in teacher induction programs either with your own graduates or generally with schools in the region? If so, please give a brief description.
   Yes, for our graduates _____
   Yes, for schools in the region _____
   No _____
   Description:
9. Act 48 of 1999 requires all K-12 professional educators to participate in professional development courses or activities. What impact has Act 48 had on your institution during the past three years?

   Teacher participation in professional development:
   Increased ______ Decreased ______  No Change______

   Content-related professional development:
   Increased ______ Decreased ______  No Change______

   Pedagogy-related professional development:
   Increased ______ Decreased ______  No Change______

   Quality of professional development offerings:
   Increased ______ Decreased ______  No Change______

   Involvement in professional development offered in K-12 schools:
   Increased ______ Decreased ______  No Change______

   Comments on the effectiveness of Act 48:

10. Revisions of Chapters 49 and 354 are currently being implemented. For each of the revisions below, please indicate the impact on your institution’s teacher preparation programs:

   INCREASED GPA:
   Number of candidates: Increased ___ Decreased ___  No Change ___
   Quality of candidates: Increased ___ Decreased ___  No Change ___
   Minority candidates: Increased ___ Decreased ___  No Change ___

   Teaching fields most affected:

   Comments on the effectiveness of the increased GPA requirements:

   COURSEWORK EQUIVALENT TO MAJORS:
   Number of candidates: Increased ___ Decreased ___  No Change ___
   Quality of candidates: Increased ___ Decreased ___  No Change ___
   Minority candidates: Increased ___ Decreased ___  No Change ___

   Teaching fields most affected:

   Comments on the effectiveness of the increased coursework requirements:

   INCREASED TESTING:
   Number of candidates: Increased ___ Decreased ___  No Change ___
   Quality of candidates: Increased ___ Decreased ___  No Change ___
   Minority candidates: Increased ___ Decreased ___  No Change ___

   Teaching fields most affected:

   Comments on the effectiveness of the increased testing requirements:

11. How can state policy increase the quality and, if necessary, the supply of K-12 teachers?
The Education Policy and Leadership Center is an independent, non-partisan and not-for-profit organization established in 1998 and based in Harrisburg, Pennsylvania.

The mission of The Education Policy and Leadership Center is to encourage and support the use of more effective state-level education policies to improve student learning in grades K-12, increase the effective operation of schools, and enhance educational opportunities for citizens of all ages.

The Education Policy and Leadership Center has developed and implements three discrete but complementary core strategies to support its mission. These strategies are to:

- Link relevant and reliable research and other information to state-level education policymakers and others and to provide assistance with policy analysis and policy development.

- Develop awareness and capacity among policymakers, educators and community leaders to serve as advocates and champions for significant education policy issues.

- Promote a public climate that expects and rewards policymakers to act to improve education policy.

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