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K-12 Teacher Quality: Issues and Legislative Action

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K-12 Teacher Quality: Issues and Legislative Action

Summary

The quality of elementary and secondary school teachers is increasingly recognized as a critical element in improving education. Policymakers seeking to address teacher quality face many serious challenges. Among these challenges are the lack of consensus on what makes a teacher effective, the vast size and decentralized organization of K-12 education, and problems with teacher supply and demand.

The federal government is not responsible for the preparation, hiring, and work life of teachers; these responsibilities rest with states and localities. Nevertheless, the federal government, primarily through the U.S. Department of Education, directs substantial resources to K-12 teachers.

Recently, the focus of federal support has expanded beyond in-service training to include teacher preparation, recruitment, and hiring. Further, the federal government is attempting to strengthen accountability for teacher quality. Interest in providing broad, flexible assistance coupled with accountability for outcomes is expected to remain keen in the new Congress.

The 107th Congress has completed work on reauthorizing the Elementary and Secondary Education Act. P.L. 107-110 (H.R. 1, No Child Left Behind Act of 2001, signed into law on January 8, 2002) replaces the current Eisenhower Professional Development program and the Class Size Reduction program with a single formula grant program supporting an array of activities to improve the elementary and secondary teaching force (the FY2002 U.S. Department of Education appropriation legislation provides \$2.85 billion). In addition, among other provisions, this legislation authorizes a separate program to improve math and science teaching, and continues the current program preparing prospective teachers to use technology. In other action, on July 31, 2001, the House approved H.R. 100 (National Science Education Act) and H.R. 1858 (National Mathematics and Science Partnerships Act). These bills would authorize the National Science Foundation (NSF) to administer various teacher-related programs and activities to improve math and science instruction. FY2002 appropriations legislation for the NSF provides \$160 million for math and science partnerships.

This report will track major legislative action as it occurs.

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K-12 Teacher Quality: Issues and Legislative Action

Since the early 1980s, educators and policymakers at all levels have sought to improve the quality of public K-12 education. Despite these efforts, many remain concerned about the performance of today's schools and students. Throughout this process, a recurrent objective has been improvement of the public K-12 teaching force. The attention being paid to teacher quality has risen dramatically in recent years. This was particularly true as the Congress considered reauthorization of the Elementary and Secondary Education Act (ESEA).

This report provides a brief overview of some of the most salient issues regarding the K-12 teaching force, describes the current federal role in this area, and tracks major legislative action by the Congress. It will be updated as major action occurs.

Recent Legislative Action

The 107th Congress has completed work on reauthorizing the Elementary and Secondary Education Act. P.L. 107-110 (H.R. 1, No Child Left Behind Act of 2001, signed into law on January 8, 2002) replaces the current Eisenhower Professional Development program and the Class Size Reduction (CSR) program with a single formula grant program supporting an array of activities to improve the elementary and secondary teaching force. The teacher-related provisions of this legislation are described in more detail later in this report. FY2002 appropriations legislation for the U.S. Department of Education (ED) provides \$2.85 billion for this program. In other action (on July 31, 2001), the House approved H.R. 100 (National Science Education Act) and H.R. 1858 (National Mathematics and Science Partnerships Act). These bills would authorize for administration by the National Science Foundation (NSF) various teacher-related programs and activities to improve math and science instruction. The FY2002 NSF appropriations legislation (VA, HUD and Independent Agencies Appropriation for FY2002) provides \$160 million to the NSF for math and science partnerships.

Teachers at the Center

Many education reformers have long recognized the importance of improving the K-12 teaching force while, concurrently, marshaling teachers' support for the process of reform. The increasing focus on teacher quality has been fueled by several recent analyses concluding that, among all school-based factors, teacher quality is the most important; that some teachers are much more effective than others with similar students; and that teacher quality may specially affect the achievement of disadvantaged students.

Challenges

Policymakers face many serious challenges in their efforts to improve teacher quality. Some of these challenges are considered briefly below.

Identifying What Makes a Teacher Effective. Although some research has found certain teacher attributes positively related to student achievement, such as verbal ability, subject matter knowledge, pedagogical knowledge, years of experience, and certification status, there is no consensus on what makes a teacher effective. Nevertheless, policymakers are focusing on improving certain of these attributes, particularly subject matter knowledge and certification status, in an effort to increase the likelihood that teachers will be effective with their students.

K-12 Organization and Size. The organization and size of the public K-12 educational enterprise poses a significant challenge to teacher quality improvement. Over 2.8 million teachers are employed in more than 89,000 schools located in some 14,800 school districts. This is a decentralized system; states and localities have legal and administrative responsibility for K-12 education. The recruitment, hiring, compensation, and retention of teachers are matters typically controlled by districts and, in part, schools and states. Teacher preparation generally takes place in higher education institutions. Teacher assignments and evaluations are often the domain of schools. Teacher certification and tenure are the province of states.

Teacher Supply and Demand. It may be difficult in the coming decade to raise K-12 teacher quality when concerns about teacher quantity are growing. Warnings of a potential shortage of teachers abound, precipitated by projected increases in student enrollment and an anticipated surge in retirements. This has prompted states and localities to initiate many recruitment efforts.

Some analysts question whether a rising demand for teachers necessarily portends a shortage. They point out that teaching can draw from a large reserve pool (those who might be newly drawn into teaching and those who have taught but are no longer teaching), and that teacher preparation programs prepare more individuals for teaching than go into teaching. Also, many teachers leave the profession early in their careers. Efforts to stem this attrition may help address supply issues and raise teacher quality (reportedly leavers may be higher academic performers than stayers).

Certification Standards. State certification standards governing who can teach clearly contribute to the quality of the teaching force, as well as to the number of individuals available for teaching. Some critics of current certification practices call for a very substantial raising of standards, a call which some states have heeded. Other critics of current certification complain that raising the certification hurdles can impose unreasonable barriers to the entry of potentially high quality teachers, particularly mid-career changers, or may prompt districts to circumvent these requirements. Many observers assert that teacher quality *and* quantity may be served under well-designed alternatives to traditional certification, though some analysts warn that poorly designed alternative certification may create a “backdoor” into teaching for unprepared individuals.

Out-of-Field Assignments. Another major challenge for policymakers is reducing the extent to which teachers are currently teaching out-of-field, that is, teaching classes for which they have inadequate content knowledge. A fifth of secondary school teachers who teach core subject classes may be out-of-field in one or more of those classes; as a consequence, large numbers of students receive instruction in these subjects each day from out-of-field teachers. Out-of-field teaching assignments are a function of many local, primarily school-based, factors. How to change these practices and policies is an open question, as is the impact of such action on the supply of qualified teachers.

Teacher Preparation and Professional Development. Efforts to address the quality of the teaching force often look to the preservice training process and to professional development (i.e., in-service training) for current teachers. There is concern that graduates of teacher education institutions are inadequately prepared to teach to high standards. Some states are holding these institutions accountable for the quality of their graduates; these institutions are taking steps to strengthen their programs.

Traditionally, professional development has been delivered to current teachers in a sporadic and uncoordinated fashion. Efforts to improve professional development are being undertaken with the goal of remedying the academic and pedagogic deficiencies of current teachers, a daunting task given the magnitude of the teaching force.

Compensation. Reform of teacher compensation is a frequent element in initiatives to improve K-12 teacher quality (see CRS Report RL30217, *Performance-Based Pay for Teachers*). It is argued that highly qualified individuals are dissuaded from entering or staying in teaching because current compensation is not competitive and does not reward quality. Past compensation reforms have generally been short-lived, partly because it has proven difficult to address concerns about whether different pay schedules, particularly merit based pay systems, can be implemented objectively, fairly, and consistently. Some compensation reform may be particularly expensive as well.

Tenure. Some educators and policymakers see state tenure laws as a substantial challenge to teacher quality improvement. To its critics, tenure protects incompetent teachers, creating a dismissal process that is too costly and time consuming. To its defenders, tenure protects K-12 teachers from arbitrary, biased, and unfair dismissal, and may provide for a stable workforce. States have been reforming tenure by, for example, extending the period in which beginning teachers can be evaluated and dismissed, expanding the reasons for dismissal, and creating time limits for the dismissal process.

Unionization. The vast majority of teachers are members of teachers' unions. Critics have posited that the major teachers' unions have been substantially more interested in job protection and higher salaries than in improving the quality of the teaching force. Union proponents point to examples of cooperation with different reform efforts, including steps to assist underperforming teachers and to remove teachers who do not make necessary improvements. Nevertheless, as reform efforts

increasingly focus on teacher quality, the challenges to union policies and practices are likely to increase.

Federal Role

The federal government is not responsible for preparing, recruiting, certifying, compensating, testing, tenuring, and structuring the working conditions of K-12 teachers; these responsibilities rest with states and localities. Traditionally, these areas have been viewed as largely outside the reach of the federal government. Nevertheless, over the past several years, the federal government has become increasingly involved in issues of teacher quality and quantity.

Current Status. The federal government funds many programs supporting K-12 teaching. Some of these are explicitly targeted to teachers; others with a broader focus nevertheless support such activities as teacher training. Over the past several years, the Congress has been redefining the federal role relative to targeted support of K-12 teachers.

Although federal aid in this area comes from multiple federal agencies, ED is the primary source. Over \$3 billion of the Department's FY2002 appropriation is for activities directed specifically to K-12 teachers. This funding includes \$2.85 billion for the new Principal and Teacher Training and Recruiting Fund added to the ESEA by P.L. 107-110 (described below), \$53 million for the Troops-to-Teachers and Transition to Teaching programs (described below), \$62.5 million for the Preparing Tomorrow's Teachers to Use Technology program (transferred by P.L. 107-110 to the Higher Education Act, described below), and \$90 million for the Higher Education Act's Teacher Quality Enhancement program (a program to improve training for teacher candidates and strengthen recruitment). Significant levels of funding also support teachers under other programs that are not targeted to teachers (e.g., the ESEA Title I program).

Immediately prior to the 105th Congress, federal aid for K-12 teaching was largely focused on in-service training, with limited funding for preservice training and recruitment. The 105th Congress began a shift in this focus by enacting amendments in 1998 to the Higher Education Act (HEA) that included the Teacher Quality Enhancement program. Significantly, these amendments also had broad-based accountability requirements for teacher education programs. Funded states and their higher education institutions are now required to report publicly on teacher preparation, including the pass rates of graduates on certification assessments. These states are required to establish procedures to identify low-performing teacher preparation programs; institutions whose teacher education programs lose state approval or financing due to designation as low-performing cannot receive professional development funding from ED and cannot accept or enroll any HEA-aided student in their teacher education programs.

In an effort to improve student performance, the 105th Congress also appropriated funding for the general hiring of new, qualified teachers to reduce class size (\$1.2 billion for FY1999, continued by the 106th Congress with \$1.3 billion for FY2000 and \$1.623 billion for FY2001) (see CRS Report RS20447, *Class Size Reduction Program: Background and Status*). This program marked new ground

with its explicit and primary focus on federal support for the hiring of teachers. Further, until enactment of the No Child Left Behind Act, this program and the Eisenhower Professional Development program (Title II of the ESEA under prior law, FY2001 appropriation of \$440 million, excluding \$45 million for non-teacher activities) had been the two largest federal initiatives targeting support to K-12 teachers and teaching. The new Teacher and Principal Training and Recruiting Fund in the reauthorized ESEA replaces those two programs and is the largest single source of federal support directed to K-12 teaching.

The 106th Congress continued this redefinition of the federal role in this area. For FY2001, the Congress specified that appropriated amounts for the Eisenhower program above the FY2000 level (\$335 million) were to be spent on such activities as reducing the percentage of teachers without certification or with emergency or provisional certification, the percentage teaching out of field, or the percentage lacking requisite content knowledge. These excess funds could also be directed to such other activities as mentoring for new teachers, multi-week institutes providing professional development, and retention efforts for teachers with a record of increasing low-income students' academic achievement. Among other new money for teachers approved in the FY2001 appropriations for ED was \$3 million for the Troops-to-Teachers program (supporting entry of former military personnel into teaching), available for transfer from ED to the Department of Defense;¹ and \$31 million for new teacher recruitment activities targeting mid-career professionals in other occupations and highly qualified recent college graduates with BAs in fields other than education.

107th Congress — Issues and Action

The 107th Congress has continued the expansion of the federal role in issues of teacher quality and quantity. On January 8, 2002, H.R. 1 (No Child Left Behind Act of 2001) was signed into law (P.L. 107-110). In amending and reauthorizing the ESEA (see CRS Issue Brief IB10066, *Elementary and Secondary Education: Reconsideration of the Federal Role by the 107th Congress*), this legislation authorizes federal support for a broad array of activities to improve K-12 teaching, ranging from recruitment to hiring to retention. It also more firmly focuses federal interest on teacher quality. Separately, the House has passed legislation authorizing NSF programs to improve math and science teaching.

P.L. 107-110 (H.R. 1, No Child Left Behind Act). In amending and reauthorizing the ESEA, P.L. 107-110 continued ESEA Title II as the primary title for teacher programs. The major teacher-related provisions in Title II and elsewhere in the reauthorized ESEA are described in this section.

Requirement That All Teachers Be Highly Qualified. Each state educational agency (SEA) receiving ESEA Title I, Part A funding (compensatory education of disadvantaged students) must have a plan to ensure that all teachers

¹P.L. 106-65 (National Defense Authorization Act for FY2000), signed on October 5, 1999, transferred the Troops to Teachers program from the Defense and Transportation Departments to the Education Department.

teaching in core academic subjects within the state meet the definition of *highly qualified* no later than the end of the 2005-2006 school year.

To be highly qualified, a **public elementary or secondary school teacher** must meet the following requirements:

- **Any public elementary or secondary school teacher** must have full state certification (a charter school teacher must meet the requirements in the state charter school law) and must not have had any certification requirements waived on an emergency, temporary, or provisional basis.
- **A new public elementary school teacher** must also have at least a BA and have passed a test demonstrating subject knowledge and teaching skills in reading, writing, math, and other basic elementary school curricular areas (such tests may include state certification exams in these areas).
- **A new public middle or secondary school teacher** must also have at least a BA and have either demonstrated a high level of competency in all subjects taught by passing rigorous state academic tests in those subjects (may include state certification exams in those subjects), or completed an academic major (or equivalent course work), graduate degree, or advanced certification in each subject taught.
- **An experienced public elementary, middle, or secondary school teacher** must also either meet the requirements just described for a new teacher (depending upon his or her level of instruction) or demonstrate competency in all subjects taught using a state evaluation standard. Among other requirements, such a standard must provide objective information about the teacher's content knowledge in subjects taught and considers, but is not primarily based on, time teaching those subjects.

In addition, as part of this plan, each Title I-funded state must establish annual measurable objectives for each local educational agency (LEA) and school that, at a minimum, include annual increases in the percentage of highly qualified teachers at each LEA and school to ensure that the 2005-2006 deadline is met, and an annual increase in the percentage of teachers receiving high quality professional development.

Also, each LEA receiving Title I Part A funding must have a plan to ensure that all of its teachers are highly qualified by the 2005-2006 deadline. States and LEAs must publicly issue annual reports describing progress on the state-set objectives. In addition, any LEA receiving Title I funding must ensure that all teachers hired after enactment of H.R. 1 who are teaching in Title I-supported programs are highly qualified.

Teacher and Principal Training and Recruiting Fund. ESEA Title II, Part A replaces the Eisenhower and CSR programs with a new state formula grant program authorized at \$3.175 billion for FY2002 and such sums as may be necessary for the 5 succeeding fiscal years. The FY2002 appropriation is \$2.85 billion.

State Allocation Formula. The allocation formula for Title II Part A provides each state with a base guarantee of funding equal to the amount it received for FY2001 under the Eisenhower and CSR programs. Any excess funding is allocated by formula among the states based 35% on school-aged population (5-17) and 65%

on school-aged population in poverty. Each state is assured 0.5% of this excess. At the state level, 95% of the state grant is to be distributed as subgrants to LEAs, 2.5% for local partnerships (the Secretary calculates an alternative percentage if 2.5% of the state grant would generate a total for all states in excess of \$125 million for partnerships), and the remainder for state activities.

LEA Subgrants. LEA subgrant funding is distributed first as a base guarantee of the FY2001 Eisenhower and CSR grants to individual districts, with the remainder distributed by formula based 20% on school-aged population and 80% on school-aged population in poverty.

LEAs are authorized to use their funding for one or more of various specified activities. Among the authorized activities are the following: assistance to schools in the recruitment and retention of highly qualified teachers (see definition above), principals, and, under certain conditions, pupil services personnel; assistance in recruiting and hiring highly qualified teachers through such means as scholarships and signing bonuses; use of these teachers to reduce class sizes; initiatives to increase retention of highly qualified teachers and principals, particularly in schools with high percentages of low-achieving students, through mentoring, induction services during the initial 3 years of service, and financial incentives for those effectively serving all students; professional development, including professional development that involves technology in teaching and curriculum and professional development delivered through technology; improvement of the quality of the teaching force through such activities as tenure reform, merit pay, and teacher testing in their subject areas; and professional development for principals and superintendents.

Partnership Subgrants. These funds are awarded competitively to partnerships that must include a higher education institution and its division preparing teachers and principals; a higher education school of arts and sciences; and a high need LEA (defined as one with at least 10,000 poor children or a child poverty rate of at least 20% which, in addition, has either a high percentage of out-of-field teachers or a high percentage of teachers with emergency, provisional, or temporary certificates). Other entities, such as charter schools or another LEA, may be part of these partnerships. Partnerships must use their funds for professional development in the core academic subjects for teachers, highly qualified paraprofessionals, and principals.

State Activities. States must use their funding for one or more of several specified activities. Among these activities are the following: teacher and principal certification reform; mentoring and intensive professional development for teachers and principals, including those new to their careers; assistance to LEAs and schools in the recruitment and retention of highly qualified teachers, principals, and, under certain conditions, pupil services personnel; tenure reform; subject matter testing for teachers; projects to promote teacher and principal certification reciprocity across states; training to help teachers integrate technology into the curriculum and instruction; assistance to help teachers become highly qualified by the end of the fourth year of state funding; and a clearinghouse for teacher recruitment and placement.

Accountability. If, after the second year of the plan to ensure that all teachers are highly qualified (see above), an LEA has failed to make progress toward the annual objectives in such plan, it must develop an improvement plan. Failure after the third year coupled with failure to make *adequate yearly progress*² for 3 consecutive years requires the SEA to identify the professional development the LEA will use and, generally, precludes use of Title I Part A funds for paraprofessionals. In addition, the SEA provides funding directly to schools in the LEA to enable their teachers to choose their own professional development activities.

National Activities. The Secretary of Education is authorized to use national activities funding for several specific activities. These funds are authorized at such sums as may be necessary for FY2002 and the 5 succeeding fiscal years. (The FY2002 appropriations conference report indicates that there is \$10 million for the National Board for Professional Teaching Standards, \$15 million for early childhood educator professional development, and \$10 million for principal recruitment.) Authorized activities include a national teacher recruitment campaign, which may include activities through a national teacher recruitment clearinghouse, to help high need LEAs recruit and train teachers and to conduct a national public service campaign about the resources and routes into teaching; a national principal recruitment program of competitive grants to help high need LEAs; support for advanced certification of teachers, including grants to entities to develop teacher standards, and to encourage teachers to pursue advanced certification by the National Board for Professional Teaching Standards or the National Council on Teacher Quality, among others; a grant to the University of Northern Colorado to help other higher education institutions train special education teachers; a program to support professional development of early childhood educators; and a national panel on teacher mobility to study ways of facilitating the mobility of highly qualified teachers.

Mathematics and Science Partnerships. Title II Part B authorizes funding for partnerships to improve math and science instruction. An eligible partnership must include an SEA (if funds are awarded competitively), the engineering, mathematics, or science department of a higher education institution, and a high need LEA. Other entities such as LEAs and charter schools may be included as well. The annual authorization of appropriations is \$450 million for FY2002 and such sums as may be necessary for the next 5 fiscal years. The FY2002 appropriation is \$12.5 million. When the annual appropriation is less than \$100 million, the program's 3-year grants are awarded competitively; otherwise, funds are awarded to SEAs based on school-aged population in poverty with a 0.5% small state minimum.

Partnerships must use their grants for one or more of several specific activities. Among them are the following: professional development to improve math and science teachers' subject knowledge; activities to promote strong teaching skills among these teachers and teacher educators; math and science summer workshops or institutes with academic year followup; recruitment of math, science, or engineering majors to teaching through signing and performance incentives, stipends for

²For information on *adequate yearly progress* under the reauthorized ESEA, see CRS Issue Brief IB10029, *Education for the Disadvantaged: ESEA Title I Reauthorization Issues*, by Wayne Riddle.

alternative certification, and scholarships for advanced course work; development or redesign of more rigorous, standards-aligned math and science curricula; distance learning programs for math and science teachers; and opportunities for math and science teachers to have contact with working mathematicians, scientists, and engineers.

The Secretary is to consult and coordinate activities with the Director of the NSF, particularly regarding the appropriate roles of the two entities in workshops, institutes, and partnerships.

Each partnership must have an evaluation and accountability plan that includes objectives measuring the impact of the funded activities. Among these objectives must be improvement of student achievement on state math and science assessments.

FY2002 Appropriation for Mathematics and Science Partnerships. As noted above, the FY2002 appropriation is \$12.5 million for the Mathematics and Science Partnerships authorized in the amended ESEA. Some in the business, and math and science education, communities are concerned that this signals a sharp reduction in funding for math and science instruction improvement.³ In response, others have noted that, under the new program for teachers that replaced the Eisenhower Professional Development program and Class Size Reduction program (see above), states and localities can continue to support such math and science activities if they choose. The combined FY2001 funding for the Eisenhower and Class Size Reduction programs was approximately \$2.1 billion; the FY2002 appropriation for the new teacher program is \$2.85 billion.

Prior to enactment of the No Child Left Behind Act, the ESEA authorized the Eisenhower Professional Development program with a funding reservation targeted to professional development for math and science teachers. This reservation was added to the program in 1994 when its focus was expanded beyond math and science to include other core academic subjects. It required, in part, that when the annual appropriation exceeded \$250 million, “[s]tate and local shares of the first \$250 million of appropriated funds must be expended on professional development in mathematics and science.”⁴ As implemented, the reservation did not dedicate a full \$250 million to math and science professional development.⁵ Further, the funding reservation was waived for some states and districts in some years under various ESEA and other waiver authorities. Complete, conclusive data on the amount of Eisenhower funds actually supporting math and science professional development do not appear to be

³Hoff, David J. Math and Science Could Be Big Losers Under New Law. *Education Week*, January 16, 2002. (Hereafter cited as Hoff, *Math and Science*.)

⁴U.S. Department of Education. *Guidance for Title II, Part B*, p. 6-7.

⁵The proportion of the SEA, LEA and state agency for higher education (SAHE) funds required to be spent on math and science professional development was based on the total appropriation, but certain funds (SEA and SAHE administrative funds, and national evaluation funds) were subsequently excluded from the actual implementation of the reservation requirement.

available. An ED official is cited in a recent article as stating that \$375 million of the FY2001 appropriation for the Eisenhower program was spent on math and science.⁶

Some would argue that the Mathematics and Science Partnerships were to continue the focus on math and science originally supported under the Eisenhower program, but that the FY2002 appropriations and ESEA reauthorization processes, which overlapped extensively, failed to do so. The House-passed version of the ESEA reauthorization legislation did not include a separate authority for Mathematics and Science Partnerships; rather, it provided a funding reservation in the new teacher program directing funds to such partnerships. The Senate-passed version of the ESEA legislation included the Mathematics and Science Partnership program as a separate authority. The House- and Senate-passed FY2002 appropriations legislation reflected this different treatment of the partnerships. The House had no separate appropriation for the partnerships,⁷ while the Senate appropriated \$25 million for the partnerships. The final agreement on the No Child Left Behind Act followed the Senate approach of a separately authorized program; the FY2002 appropriations legislation enacted into law provided \$12.5 million for the program.⁸ The appropriation conferees acknowledged that under prior law the Eisenhower program provided significant levels of support for math and science and that high-quality math and science instruction is critical. As a result, they “strongly urge the Secretary [of Education] and the States to continue to fund math and science activities within the Teacher Quality Grant program [i.e., the new program for teachers] at a comparable level in fiscal year 2002.”⁹

Other Programs and Activities. P.L. 107-110 authorizes a number of other programs and activities targeting K-12 teachers and teaching. Some of these are highlighted below.

Troops-to-Teachers. Title II Part C, Subpart 1, Chapter A authorizes funding and administration of the Troops-to-Teachers program, an effort to facilitate the movement of members of the armed forces into K-12 teaching. This legislation authorizes the Secretary of Education to enter into a memorandum of agreement with the Department of Defense for the actual administration of the program, which was first enacted in the FY1993 Defense Authorization Act. The program assists eligible members of the armed forces to become certified as elementary or secondary school teachers or vocational technical teachers. A single authorization of appropriations of \$150 million for FY2002 and such sums as may be necessary for the next 5 fiscal years is provided for the Troops-to-Teachers program and the Transition to Teaching program (see below), of which the Secretary is to reserve not more than \$30 million

⁶Hoff, *Math and Science*.

⁷At the FY2002 House-passed appropriation level for the House-passed version of the teacher program in the No Child Left Behind legislation, roughly \$450 million, at least, might have been directed to the partnerships.

⁸As noted earlier, the Congress also provided \$160 million in FY2002 funding to the National Science Foundation for a Mathematics and Science Partnership program.

⁹U.S. House of Representatives. Conference Report to Accompany H.R. 3061, H.Rept. 107-342, p. 121.

in FY2002 for the Troops-to-Teachers program. The FY2002 appropriation provides \$18 million for this program.

Transition to Teaching. This is a continuation of a program to recruit mid-career professionals and others to teaching that was first initiated through the Consolidated Appropriations Act of 2001. Under this ESEA authority (Title II Part C, Subpart 1, Chapter B), the Secretary of Education may competitively award 5-year grants to SEAs, high need LEAs, higher education institutions in partnership with SEAs or high need LEAs, among others, for the establishment of state and local “teacher corps” projects. These projects are to recruit highly qualified mid-career professionals, highly qualified paraprofessionals, and recent college graduates to teach in high need schools. Among the activities these programs can support are financial incentives effective at retaining teachers in high need schools in high need LEAs; pre- and post-placement support such as mentoring; payments for the costs of hiring these teachers or subsidies to participants; and state or regional clearinghouses for recruitment and placement. Participating teachers are to be placed in high need schools in high need LEAs with a priority on schools in areas with the highest percentages of low-income students. Participants have a 3-year service commitment. Projects failing to make substantial progress by the end of their third year toward goals and objectives established in their applications have their grants revoked. The FY2002 appropriations legislation provides \$35 million for this program.

Preparing Tomorrow’s Teachers to Use Technology. The new legislation amends and reauthorizes the Preparing Tomorrow’s Teachers to Use Technology program, moving it to Title II of the Higher Education Act. This program is intended to support the training of prospective teachers to use advanced technology in their teaching. It authorizes the Secretary of Education to fund consortia, each including at least one higher education institution that prepares individuals for teaching, one SEA or LEA, and one or more of other entities, such as higher education institutions, higher education schools of education, higher education schools of arts and sciences, museums, foundations, etc. Federal funds are provided in the form of matching grants. There are authorized to be appropriated such sums as may be necessary for FY2002 and for FY2003. The FY2002 appropriation is \$62.5 million.

Teacher Liability. P.L. 107-110 includes the Paul D. Coverdell Teacher Protection Act of 2001, which provides liability protection to school employees (including teachers, administrators, and school board members) acting to control, discipline, expel, or suspend a student or to maintain order in the classroom or school.

Math and Science Legislation Outside of the ESEA. Separate from the ESEA reauthorization legislation, the House has approved legislation that would authorize several new programs at the NSF in order to improve math and science instruction. In other action, the 107th Congress provided the NSF with an FY2002 appropriation that includes \$160 million for math and science partnerships.

H.R. 100 as Passed by the House. Passed by the House on July 31, 2001, H.R. 100 (National Science Education Act) would require, among other activities, that the NSF implement a math and science master teacher program. From an initial authorization of \$50 million for FY2002, competitive awards would be made to

higher education institutions for the recruitment and training of math and science master teachers.

H.R. 1858 as Passed by the House. Passed by the House on July 31, 2001, H.R. 1858 (National Mathematics and Science Partnerships Act) would authorize funding for a wide variety of programs to improve math and science instruction. Among these programs are the following: (1) a math and science partnership program (initial authorization of \$200 million for FY2002) involving higher education institutions or nonprofit organizations working in partnership with local education agencies to support such activities as summer or academic year workshops for math and science teachers, instruction in the use of technology to teach math and science, and K-12 teacher preparation and certification programs for mathematicians, scientists, and engineers; (2) a scholarship program to support research opportunities for K-12 math and science teachers (initial authorization of \$15 million for FY2002); and a scholarship program to recruit and train outstanding college juniors and seniors majoring in math, science, and engineering to become K-12 math and science teachers (initial authorization of \$20 million for FY2002).