



The Alliance Project

Headquarters

Peabody College, Box 160
Hill Student Center, Rm. 101
(615) 343-5610
1-800-831-6134
Fax (615) 343-5611
alliance@vanderbilt.edu

Washington, DC Metropolitan Office

10860 Hampton Road
Fairfax Station, VA 22039
(703) 239-1557
Fax (703) 503-8627
Email: judysd@gte.net

July 1999

Special Education Teachers: National Trends in Demand and Shortage

This paper describes the trends in demand for teachers, the extent of teacher shortages in both quantity and qualifications, and the teacher shortage as it pertains to specific age groups. It reports in part on work conducted by Erling Boe, Ph.D., at the Center for Research and Evaluation in Social Policy, University of Pennsylvania, and George Terhanian at the Gordon S. Black Corporation. Although figures are omitted in this version, the data they display is described adequately in the text; otherwise, the paper is reproduced in its entirety as it appeared in the *Twentieth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*. The reference citation is shown on the last page.

There is a serious shortage of special education teachers (Boe, Cook, Bobbitt, & Terhanian, 1998; Smith-Davis & Billingsley, 1993). For example, in 1994, more than 50 percent of schools with vacancies in special education and selected other areas had difficulty filling the positions (Darling-Hammond, 1997). Congress noted in the IDEA Amendments of 1997 that "supporting high-quality, intensive professional development for all personnel who work with" children with disabilities is a critical element for ensuring the effective education of these children (Section 601[c][5][E]).

The demand for teachers in public education is commonly defined as the number of teaching positions that have been established and funded (Barro, 1992) (1). Because all States require that teaching positions be filled with fully certified teachers (Andrews, Andrews, & Pape, 1996) (2), the demand for teachers should ideally match the demand for teachers who are fully certified.

(1) Demand thus defined is also referred to as "total demand" for teachers to distinguish it from the "annual demand" for individuals to be hired as newly employed teacher each year to fill open positions. This distinction will be used later in this module.

(2) Teacher certification is the most basic qualification established for teachers. While there are other important dimensions of teacher quality (Kennedy, 1992), the most readily available national information on the quality of special education teachers is their certification status for the positions to which they are assigned. For these reasons, only the certification dimension of teacher quality is considered in this module.

However, teaching positions are not always filled by fully certified teachers. Therefore, it is possible to distinguish between two types of teacher shortages, as follows:

- * A *quantity shortage* of teachers, which is a shortage in the number of individuals who are available to fill *all* established and funded teaching positions, thereby leaving some positions vacant, and/or
- * A *quality shortage* of teachers, which is a shortage in the number of teachers who are fully certified for their positions *and* available to fill vacant teaching positions.

Until recently, national data have not been available on the *quantity* shortage of special education teachers because the number of vacant teaching positions has been combined with the number of employed teachers who were not fully certified (i.e., quality shortage). However, since OSEP's publication of the *Eighteenth Annual Report to Congress*, information about the number and percentage of unfilled teaching positions in special education has been reported (OSEP, 1996).

With respect to the *quality* shortage of special education teachers, national data have been reported annually to Congress on the number of teaching positions in special education that have *not* been filled with teachers who were fully certified in their positions (e.g., OSEP, 1990). These data, as well as data from other sources) have demonstrated a substantial national shortage of fully certified special education teachers (Boe, Cook, et al., 1998).

One of the fundamental responsibilities of education policy makers and administrators is to ensure that all the teaching positions in our nation's public schools are filled by teachers who are certified for their positions. In continuing efforts to fulfill this responsibility, policy makers and administrators could benefit from basic information about the extent to which past initiatives have failed, as quantified by sound statistics about continuing teacher shortages. Information about special education teachers that should be useful to policy makers and administrators includes:

- * Trends over time in the growth of demand for teachers;
- * Trends over time in shortages of teachers;
- * The extent of teacher shortages in both quantity and quality;
- * The extent of teacher shortages in relation to the age level of students served (i.e., ages 3-5 or ages 6-21); and
- * The patterns and trends in retention of special education teachers.

This module discusses aspects of the national teaching force in special education for nine school years, from 1987-88 through 1995-96, to provide a basis for better understanding the problem of teacher shortages in this field (3). All data reported are for the U.S. and outlying areas. Statistics from OSEP's Data Analysis System (DANS) for school years 1987-88 through 1995-96 were abstracted and analyzed and the results . . . (showed) trends over time in several aspects of teacher shortage. DANS contains population data on special education students and teachers (counted in full-time equivalent units [FTEs]) that have been reported by all States. More detailed information about the data in DANS is available from Westat (1997).

HOW LARGE IS THE SHORTAGE OF TEACHERS IN SPECIAL EDUCATION?

Teachers of Students Ages 3-5 with Disabilities

. . . From 1987-88 to 1995-96, demand increased by more than 100 percent, from about 13,000 to about 27,000 teachers. . . . (T)he shortage of fully certified teachers during the same period fluctuated between 2,000 and 4,000. Thus, despite rapid growth in demand for teachers for students ages 3-5, the shortage did not increase correspondingly but actually decreased. This trend demonstrates that special education was reasonably successful in meeting the increasing demand for teachers for students ages 3-5.

After eight years of rapid growth in teacher demand for student with disabilities ages 3-5, . . . (there was) a sudden and sharp decline in demand (1,700 teaching positions) in 1995-96. This decline was not paralleled by a decline in the number of students ages 3-5; the number of these students continued to increase steadily throughout the nine-year period One possible explanation for the observed decline in teacher demand from 1994-95 to 1995-96 is the increasing inclusion of students with disabilities in general education classrooms. Although few data are available to support this hypothesis, future studies should address this possibility because of its significance to policies regarding teacher preparation and supply. Despite the one-year decline in teacher demand for the 1995-96 year, it should be noted that the demand for teachers in this year was still substantially higher than it was two years earlier, with the peak demand observed in 1994-95. Therefore, data for years beyond 1995-96 are needed to see if the observed downturn in demand is a temporary event or a sustained trend.

(3) School year 1987-88 was chosen as the base year because it was the first year for which data were reported separately for teachers serving students with disabilities ages 3-5 years and ages 6-21 years. School year 1995-96 is the last year for which data are currently available.

Teachers for Students Ages 6-21 with Disabilities

In contrast with the rapid growth in teacher demand for students ages 3-5, the growth in the number of total teaching positions nationally for students ages 6-21 with disabilities has been gradual From 1987-88 to 1995-96, demand increased by 15 percent from about 284,000 to about 328,000 teachers. . . . (There was also) a reasonably stable level of shortage, averaging about 27,000 fully certified teachers during this nine-year period. Despite the gradual growth in demand for teachers for students ages 6-21, the shortage did not increase correspondingly; rather, it remained relatively constant at approximately 9 percent. This finding demonstrates a long-term shortage of teachers for students ages 6-21 with disabilities and demonstrates that special education has not been successful in reducing this shortage during the nine-year period studied.

After seven years of steady growth in the need for teachers for students ages 6-21 from 1987-88 through 1993-94, a gradual decline in demand began in 1994-95 and continued in 1995-96 Specifically, the decline in demand was from about 335,000 teachers in 1993-94 to about 328,000 teachers in 1995-96 (i.e., a decline in demand for 7,000 teachers, or 2.1 percent, during the two most recent years studied). This decline in teacher demand was not paralleled by a decline in the number of students ages 6-21. . . . (T)he number of such students continued to increase steadily throughout the nine-year period.

As is the case for teacher demand for students ages 3-5, the recent decline in teacher demand for students ages 6-21 could be explained by increasing inclusion of students with disabilities into general education classrooms. Although few data are available to support this hypothesis, States

have reported to OSEP anecdotally that some or all of the decline is attributable to increasing inclusion. A chronic shortage remains of about 27,000 fully certified special education teachers, as well as an annual national demand for about 28,000 entering teacher hires in special education for students ages 6-21 (Boe, 1997). (4)

The significance of the chronic shortage of fully certified teachers for students with disabilities ages 6-21 can be viewed from at least two perspectives. The first perspective is to contrast the shortage of special education teachers with the shortage of general education teachers. Evidence suggests that, for students in grades K-12, the shortage of general education teachers averaged about 3.5 percent less than that of special education teachers (Boe, 1997) (5).

(4) The annual demand for "entering teacher hires" refers to open teaching positions that are not filled by fully certified, employed teachers who continue from one year to the next, even though many switch positions between school years. For example, thousands of general education teachers switch to special education each year to fill open positions. The remaining open positions in special education need to be filled by individuals entering the employed teaching force each year, thereby filling the annual demand for "entering teacher hires."

(5) The shortage percentage for general education teachers (7 percent) is based on data from the Schools and Staffing Surveys of the National Center for Education Statistics, U.S. Department of Education, for students in grades K-12 in public schools during the school years 1987-88, 1990-91, and 1993-94. Comparable data from these surveys indicate that the shortage of special education teachers averaged 10.5 percent.

The second perspective is to relate the chronic shortage of fully certified special education teachers to the production of teacher preparation programs in special education. Such programs produced about 18,000 degree graduates (bachelor's plus master's levels) in 1993 (Snyder & Hoffman, 1995), about 6,000 of whom were already employed as teachers at the time of graduation (Boe, Bobbitt, Cook, & Paulsen, 1998). Thus, only about 12,000 graduates were available to serve as newly hired teachers. In addition, there is a demand for about 28,000 entering teacher hires each year in special education -- a demand that will be filled in part by about 7,000 partly certified entering teachers. These partly certified entering teachers, along with about 20,000 partly certified continuing teachers, comprise the chronic shortage of about 27,000 fully certified teachers (1993-94 data from Boe, Bobbitt, Cook, Barkanic, & Maislin, 1998, and from Boe, 1997). It is apparent that the shortage of about 20,000 fully certified continuing teachers, as well as the need to hire another 23,000 entering teachers each year, represents a difficult hurdle for the field to overcome -- a hurdle that has proven to be insurmountable thus far, since the chronic shortage of teacher has persisted for so many years.

Comparison of Teacher Shortage Trends

... The shortage of fully certified teachers for students ages 6-21 with disabilities held fairly constant at about 9 percent, while the percentage shortage of teachers for students ages 3-5 has been much higher. The shortage of teachers for the 3-5 age group has varied considerably over the nine-year period studied. It has been as high as 25 percent in 1987-88 and has never been below 10 percent (or 2,000 teachers). When the shortage of fully certified teachers for students ages 3-5 in 1995-96 is added to that for students ages 6-21, the total shortage was about 33,000 special education teachers.

Until the 1993-94 school year, data had not been available in special education to disaggregate the *quantity* shortage of teachers (i.e., the number of vacancies) from the *quality* shortage of fully certified teachers. Since 1993-94, OSEP's data collection format has been refined to quantify separately the number and percentage of vacant teaching positions for students ages 3-21. Thus, in 1993-94, 1.1 percent (or about 3,600) of teaching positions for the 6-21 age group were vacant, and this percentage remained constant in 1994-95 and 1995-96. Therefore, for the most recent school year for which statistics are available (1995-96), total teacher shortage (9 percent) comprised 1.1 percent vacant positions and 7.9 percent teaching positions that were filled by teachers who were not fully certified. While 1.1 percent vacant positions in special education may seem small, it is at least four

times as large as the percentage of vacant positions in all of elementary and secondary education nationally (about 0.25 percent during the 1993-94 school year, according to Henke, Choy, Geis, & Broughman, 1996).

WHAT FACTORS ARE ASSOCIATED WITH THE SHORTAGES OF TEACHERS IN SPECIAL EDUCATION?

Teacher Shortages and Student-Teacher Ratios

Teacher shortages might be explained, at least in part, by policies designed to reduce the student-teacher ratio. For example, . . . the increase in the number of teaching positions for students with disabilities ages 3-5 was much greater over the four-year period following 1991-92 than was the increase in the number of students. Such was not the case for teachers of students with disabilities ages 6-21 These findings suggest two phenomena. The first is that the rate of increase in teaching positions for students ages 3-5 was much greater than the comparable rate for students age 6-21 The second is that the ratio of students per teaching position declined for students ages 3-5 but not for students ages 6-21 Specifically, the number of students per teaching position for the 3-5 age group declined from a ratio of 27:1 in 1989-90 to a ratio of 19:1 in 1994-95. In contrast, the comparable ratio for the 6-21 age group held steady at close to 15:1 throughout the nine-year period studied.

The trends . . . clearly suggest a long-term policy to accelerate the growth of teaching positions for students ages 3-5 in order to bring the student-teacher ratio for this age group in line with that for students ages 6-21. The rapid growth of teaching positions for students ages 3-5 has contributed to the extraordinarily high shortage in percentages of fully certified teachers to fill these positions.

Teacher Shortages and Expansion of Demand in Special and General Education

Evidence of the differential expansion of teaching positions in special education (for student ages 6-21) versus general education (for students in grades K-12) was examined for the nine-year period of this study (6). It appears that teaching positions in both special and general education expanded by similar percentages during this period (13.8 percent for general education, 15.3 percent for special education). However, the expansion in special education showed a period of rapid growth from 1991-92 to 1993-94, followed by more limited growth during the following two years.

Because the teaching positions in special and general education expanded by comparable percentages, the serious chronic shortage of teachers in special education cannot be attributed to extraordinarily rapid expansion of teaching

(6) To obtain the number of FTE teaching positions in general education, the number of FTE teaching positions in special education (as obtained from OSEP's Data Analysis System) was subtracted from the number of FTE teaching positions in all teaching fields in grades K-12 as recorded by the Common Core of Data of the National Center for Education Statistics, U.S. Department of Education (Snyder, Hoffman, & Geddes, 1996).

positions in contrast with general education. Instead, other evidence suggests that the number of graduates in special education teacher preparation programs is much too low to satisfy the need for fully certified special education teachers (Boe, Cook, et al., 1998).

CONCLUSIONS

Statistics from OSEP's DANS provide convincing evidence of a substantial chronic shortage of fully certified special education teachers nationally. This conclusion pertains to both the modest number of teachers for students ages 3-5 with disabilities and to the much larger numbers of teachers for students ages 6-21 during the school years from 1987-88 through 1995-96.

The shortage of teachers for students with disabilities ages 3-5 has remained fairly stable (ranging between 2,000 to 4,000 teachers) despite the rapid growth in teacher demand for students at this age level. This growth in demand has been due to two major trends over time: (1) growth in the numbers of students to be served and (2) substantial reductions in the ratio of students to teaching positions (a trend that may have reversed as of school year 1995-96). Given the dual factors producing the rapid growth in teacher demand, the significant reduction in teacher shortage *percentages* for this age group of students indicates that progress has been made in producing a relatively steady supply of fully certified teachers to serve students age 3-5.

The same conclusion cannot be drawn with respect to the substantial chronic shortage of teachers for the much larger group of students ages 6-21 with disabilities. Although the total demand for teachers for this age group has not experienced extraordinary rapid expansion (i.e., the rate of expansion has been comparable to that in general education) and the ratio of students per teaching position has remained stable, no progress has been observed in reducing the chronic shortage of fully certified teachers, which has averaged 27,000 teachers a year.

There are two reasons for the chronic shortage of teachers for students ages 6-21 with disabilities. The first reason is that the annual demand for entering teacher hires in special education (about 10 percent of total demand) is greater than the in general education (about 8 percent of total demand) (Boe, 1997). (7) This demand for new hires places extraordinary pressure on the supply of

(7) The high annual demand for newly hired teachers in special education, in comparison with general education, is mainly due to (a) a larger number of teachers switching from special to general education than vice versa, (b) a higher percentage of vacant teaching positions than in general education, and until school year 1994-95, (c) a somewhat higher rate of expansion of teaching positions.

teachers available to fill open positions. Therefore, the supply of teachers to fill open positions annually is not available to replace many employed teachers who lack full certification for their positions.

The second reason for the chronic shortage of special education teachers is that the annual supply of degree graduates of teacher preparation programs in special education has been exceptionally low in comparison with general education with respect to three important factors: the much greater shortage of fully certified teachers, the annual demand for entering teacher hires, and the total demand for teachers. As shown in Table 1, the number of degree graduates produced by teacher preparation programs was (1) 50 percent of the demand to replace teachers in special education who were not fully certified in their positions, as compared to 88 percent in general education; (2) 66 percent of the demand for entering teacher hires each year in special education, as compared to 81 percent in general education; and (3) 5 percent of total teacher demand in special education, as compared to 6 percent in general education. To further compound this imbalance, a much higher percentage of such graduates were already employed as teachers in special education upon graduation than in general education (37 percent versus 18 percent, respectively), thereby further

reducing the potential number of entering teacher hires from among degree graduates produced annually by teacher preparation programs in special education (Boe, Bobbitt, Cook, & Weber, 1996).

There are two other main sources of supply of special education teachers, namely (1) the reserve pool composed in major part by former experienced teachers and (2) presently employed general education teachers. Although former experienced teachers accounted for 66 percent of all new hires into special education in 1987-88, this percentage declined to 50 percent in 1990-91 (Boe, Cook, Kaufman, & Danielson, 1996) and further declined to 33 percent by 1993-94 (Boe, unpublished data). Apparently, this source of supply is rapidly becoming depleted. In addition, available evidence shows that considerably more special education teachers switch to general education annually than general education teachers switch to special education (a net loss to special education of 5,000 teachers in 1990-91) (Boe, Bobbitt, & Weber, 1996). Research findings suggest that it would be difficult to reverse this trend (Billingsley & Cross, 1991a; 1991b).

Given all these facts about the supply of teachers to fill open positions annually in special education and to replace employed special education teachers who are not fully certified in their positions, it appears that graduates from teacher preparation programs must serve as the major source of supply in the future. Yet the current level of production of such teachers nationally is far from adequate (Boe, Cook, et al., 1998).

Table 1. Production of Degree Graduates by Teacher Preparation Programs in 1993-94, as a Percentage of Three Indicators of Teacher Demand in Public Schools

<u>Indicators of Teacher Demand</u>	<u>Statistic</u>	<u>Main Teaching Field</u>	
		<u>Special Education</u>	<u>General Education</u>
1. Demand to replace not fully certified teachers (a)	FTE teachers	36,180	154,000
Degree graduates: (b) (Teacher prep)	Number % of demand	18,250 50.4 percent	135,667 88.1 percent
2. Annual demand for new hires (c)	FTE teachers	27,000	168,300
Degree graduates: (b) (Teacher prep)	Number % of demand	18,250 65.9 percent	135,667 80.6 percent
3. Total teacher demand (d)	FTE positions	335,000	2,169,000
Degree graduates: (b) (Teacher prep)	Number % of demand	18,250 5.4 percent	135,667 6.3 percent

(a) Sources: Percentages of not fully certified teachers in special education and general education from NCES SASS for 1993-94 (from figure 5 of Boe, 1997) *times* the number of FTE teaching positions in the respective field from Row 1 of this table.

(b) Source: NCES Integrated Postsecondary Education Data System (IPEDS) for 1993-94 graduates (Snyder & Hoffman, 1995).

(c) Source: Table 2 (revised) of Boe, 1997.

(d) Sources: OSEP's Data Analysis System for Special Education for 1993-94; NCES Common Core of Data (CCD) for General Education for 1993-94.

The evidence . . . suggests that steps have been taken during recent years to reduce the demand for teachers for students ages 6-21 with disabilities, although the number of such students has continued to rise, and the ratio of students to teaching positions has remained stable. One possible explanation for the recent decrease in demand is that more students with disabilities have been placed in general education classrooms than heretofore, thereby resulting in a reduction in demand for special education teachers. Nonetheless, the shortage of fully certified special education teachers did not decrease accordingly, nor has the annual demand for entering teacher hires in special education yet decreased. Thus, while reduction in demand might become an effective means for reducing the chronic shortage of special education teachers, there is little reason to expect that the need for a much larger supply of fully certified special education teachers will disappear in the near future.

To the extent that inclusion of students with disabilities into general education classrooms is achieved, responsibility for instructing them will fall largely upon general education teachers. While inclusion can be expected to decrease the demand for special education teachers to some extent, it will simultaneously increase the demand for general education teachers who are qualified to instruct students with disabilities. This could well result in a major shift in the shortage of fully qualified teachers from special to general education. Whether this occurs, the National Commission on Teaching and America's Future (1996) observed that 2 million teachers will be hired in the decade from 1997 through 2006 and, as a group, they should be more highly qualified for their assignments than heretofore.

References

Andrews, T. E., Andrews, L. A., & Paper, C. (Eds.). (1996). *The NASDTEC manual 1996-97*. Dubuque, IA: Kendall/Hunt Publishing Company.

Barro, S. M. (1992). Models for projecting teacher supply, demand, and quality: An assessment of the state of the art. In E. E. Boe & D. M. Gilford (Eds.). *Teacher supply, demand, and quality: Policy issues, models, and data bases* (pp. 318-329). Washington, DC: National Academy Press.

Billingsley, B. S., & Cross, L. H. (1991a). General education teachers' interest in special education teaching: Deterrents, incentives, and training needs. *Teacher Education and Special Education*, 14, 162-168.

Billingsley, B. S., & Cross, L. H. (1991b). Teachers' decisions to transfer from special education to general education. *Journal of Special Education*, 2, 496-511.

- Boe, E. E. (1997). *Special education teachers: Demand and shortage trends in national perspective*. Paper presented at the Office of Special Education Programs, U.S. Department of Education, Washington, DC.
- Boe, E. E., Bobbitt, S. A., Cook, L. H., Barkanic, G., & Maislin, G. (1998). *Supply of teachers for eight cognate areas: National trends and predictors (data analysis report No. 1998-DAR2)*. Philadelphia, PA: University of Pennsylvania, Graduate School of Education, Center for Research and Evaluation in Social Policy.
- Boe, E. E., Bobbitt, S. A., Cook, L. H., & Paulsen, C. A. (1998, April). *The yield of degree graduates from teacher preparation programs for the teaching force*. Paper presented at the annual meeting of The Council for Exceptional Children, Minneapolis, MN.
- Boe, E. E., Bobbitt, S. A., Cook, L. H., & Weber, A. L. (1996). *The production of degree graduates by teacher preparation programs in special and general education: To much or not enough? (Research report 1996 TSD4)*. Philadelphia, PA: University of Pennsylvania, Graduate School of Education, Center for Research and Evaluation in Social Policy.
- Boe, E. E., Cook, L. H., Bobbitt, S. A., & Terhanian, G. (1998). The shortage of fully certified teachers in special and general education. *Teacher Education and Special Education*, 21, 1-21.
- Boe, E. E., Cook, L. H., Bobbitt, S. A., & Weber, A. L. (1996). *Retention and turnover of teachers at the district level: National trends in special and general education (Research report 1996 TSD6)*. Philadelphia, PA: University of Pennsylvania, Graduate School of Education, Center for Research and Evaluation in Social Policy.
- Boe, E. E., Cook, L. H., Kaufman, M. J., & Danielson, L. (1995). *Supply of special and general education teachers in public schools: 1987-88 (Research report 1995 TSD1)*. Philadelphia, PA: University of Pennsylvania, Graduate School of Education, Center for Research and Evaluation in Social Policy.
- Darling-Hammond, L. (1997). *Doing what matters most: Investing in quality teaching*. New York, NY: National Commission on Teaching and America's Future.
- Henke, R. R., Choy, S. P., Geis, S., & Broughman, S. P. (1996). *Schools and staffing in the United States: A statistical profile, 1993-94*. Washington, DC: National Center for Education Statistics, U.S. Department of Education.
- Kennedy, M. M. (1992). The problem of improving teacher quality while balancing supply and demand. In E. E. Boe & D. M. Gilford (Eds.). *Teacher supply, demand, and quality: Policy issues, models, and data bases* (pp. 117-122). Washington, DC: National Academy Press.
- National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's future*. New York, NY: Author.
- Smith-Davis, J., & Billingsley, B. S. (1993). The supply / demand puzzle. *Teacher Education and Special Education*, 15, 205-220.
- Snyder, T. D., & Hoffman, C. M. (1995). *Digest of education statistics: 1995*. Washington, DC: National Center for Education Statistics, U.S. Department of Education.
- Snyder, T. D., Hoffman, C. M., & Geddes, C. M. (1996). *Digest of education statistics: 1996*. Washington, DC: National Center for Education Statistics, U. S. Department of Education.
- U.S. Department of Education, Office of Special Education Programs. (1990). *Twelfth annual report to Congress on the implementation of the Education for the Handicapped Act*. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education, Office of Special Education Programs. (1996). *Eighteenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Washington, DC: U.S. Government Printing Office.

Westat. (1997). *OSEP data dictionary*. Washington, DC: Office of Special Education Programs, U.S. Department of Education.

The citation for this paper is:

Office of Special Education Programs. (1998). Special education teachers: National trends in demand and shortage. *Twentieth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*. Washington, DC: Office of Special Education Programs and Rehabilitative Services (OSERS), U.S. Department of Education, pp. III-1 through III-23.

The Alliance Project (#8029K4085) is supported by the U.S. Department of Education, Office of Special Education Programs (OSEP). Opinions expressed herein are those of the sources and do not necessarily represent the position of the U.S. Department of Education.