

# The Supply of and Demand for Special Education Teachers: A Review of Research Regarding the Nature of the Chronic Shortage of Special Education

Prepared for the Center on Personnel Studies in Special Education

## EXECUTIVE SUMMARY

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COPSSE research is focused on the preparation of special education professionals and its impact on beginning teacher quality and student outcomes. Our research is intended to inform scholars and policymakers about advantages and disadvantages of preparation alternatives and the effective use of public funds in addressing personnel shortages.

In addition to our authors and reviewers, many individuals and organizations have contributed substantially to our efforts, including Drs. Erling Boe of the University of Pennsylvania and Elaine Carlson of WESTAT. We also have benefited greatly from collaboration with the National Clearinghouse for the Professions in Special Education, the Policymakers Partnership, and their parent organizations, the Council for Exceptional Children and the National Association of State Directors of Special Education.

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## INTRODUCTION

Information available from professional organizations (ERIC Clearinghouse on Disabilities and Gifted Education, National Education Association [NEA], National Governors Association [NGA]) and data from the research literature indicate that there is a severe, chronic shortage of fully certified special education teachers in the U. S. This paper reviews the literature on the teacher shortage, critiques data sources, reviews trends in supply and demand, and describes state and local policies addressing the shortages. Research findings and recommendations for future research are discussed, emphasizing research that informs policy makers as they seek to resolve supply and demand imbalances.

## DATA SOURCES

The most frequently used supply and demand data come from three primary sources: (1) U. S. Department of Education (USDOE)'s Office of Special Education Program [OSEP]'s data on the shortage of certified teachers; (2) the National Center for Education Statistics [NCES]'s Schools and Staffing Survey (SASS) and companion Teacher Followup Survey (TFS); and (3) the American Association of Employment in Education [AAEE]'s data on regional and national teacher shortages.

### **Personnel Data from *Annual Reports to Congress***

OSEP's *Annual Reports to Congress* yield valuable data about personnel in special education, including age groups of students served (3–5 years and 6–21 years) and personnel classifications/reporting definitions (*employed/fully certified, employed/not fully certified*). However, the data that states are required to collect have changed over time, resulting in a lack of compatibility with previous data. For example, it is no longer possible to aggregate data across states by disability condition. Nonetheless, data from the *Annual Reports to Congress* provide valuable information on the national shortage of certified teachers in the U. S. Because of technical considerations (discussed in this paper), state-to-state data should only be compared after careful consideration of data notes provided in *Annual Reports to Congress*.

### **National Center on Education Statistics (NCES) Data: Schools and Staffing Survey (SASS) and Teacher Followup Survey (TFS)**

The U. S. Census Bureau administered surveys for NCES to a nationally representative sample of teachers for both SASS and TFS during the following school years: 1987-1988, SASS; 1988-1989, TFS; 1990-1991, SASS; 1991-1992, TFS; 1993-1994, SASS; and 1994-1995, TFS. The reliability of the SASS and TFS surveys is well established. Although the paper discusses important limitations, this is considered the most comprehensive source for school staffing, occupational, and organizational data.

### **American Association for Employment in Education (AAEE): Educator Supply and Demand in the U.S.**

The 24th AAEE study of teacher supply and demand conducted in 2000 surveyed Deans or Directors of Teacher Education at all institutions preparing teachers listed in the *Higher Education Directory* (HED). The AAEE survey is designed to collect information on employment opportunities for education professionals in 62 teaching, support, and administrative fields. Likert-type questions measure shortages or surpluses in teaching and related areas. Data are collected in 11 geographic regions and aggregated regionally and nationally.

Although the survey meets measurement standards for reliability and respondents are likely to be well informed about job opportunities for teachers in their states or local areas, the surveys are based on self-reports and have a low response rate. This paper strongly suggests that these data should be interpreted with caution.

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## MAGNITUDE OF THE SPECIAL EDUCATION TEACHER SHORTAGE

Of the nation's school districts, 98% report special education teacher shortages, and special education is the area with the greatest teacher shortage in the 200 largest U. S. cities. According to a 2000 AAEE report, five areas of special education (emotional/behavioral disorder, multicategorical disability, severe/profound disability, learning disability, mild/moderate disability (in AAEE terms) rank as the teaching fields with the greatest national shortages. All other areas of special education rank in the top 15 shortage areas nationally, including mental retardation, visually impaired, hearing impaired, dual certificate in special education and general education, and early childhood special education. According to USDOE data, throughout the 1990s, more than 30,000 special education positions in the U. S. annually were filled by uncertified personnel.

In 2000-2001, 11.4% of all teachers in special education positions lacked appropriate special education certification—a 23% increase in uncertified teachers from 1999-2000—the largest ever reported by USDOE. Projections show the situation worsening. The Council for Exceptional Children (CEC) predicted that the U. S. will need over 200,000 special education teachers to fill open positions by 2005. The Bureau of Labor Statistics projected that between 1998 and 2008 over 135,000 special education teachers will be needed. Acknowledging this lack of agreement about how many teachers will be needed in the near term, there are no indications that the shortage of fully certified personnel will abate in the near future.

### Shortage Variability

**Shortages by location.** Special education personnel shortages vary greatly by state, from 100% fully certified in 2000-2001 (Connecticut and Massachusetts) to 31.8% (Delaware). Data from AAEE (2000) reveal: (1) shortages in all special education teaching fields in the West, Rocky Mountains, Great Plains/Midwest, and Alaska; (2) in most special education teaching fields in the Northwest, South Central, Southeast, Great Lakes, and Middle Atlantic; and (3) fewer shortages in the Northeast. Recent research has shown that the variation in hiring difficulties among schools (for all teachers, not just special education teachers) is greater within states than it is across states. There is also large variation at the school level: some schools within a district have waiting lists of qualified teacher applicants, while other schools in the same district have difficulty finding any qualified applicants. The paper reviews research concluding that classrooms for minority and low-income students in urban settings are most likely to have uncertified teachers and that high-poverty public schools have higher turnover rates than wealthier public schools. Special education is also affected by many of the same factors that lead to general education teacher shortages (e.g., funding inequities, labor market inequities, working conditions, and distribution of local power).

**Shortages by job description.** AAEE lists emotional/behavioral disorders as the teaching field with the greatest national shortage, followed closely by multicategorical, severe/profound disabilities, learning disability, and mild/moderate disabilities (AAEE terms). Over the last three years, national shortages in the areas of emotional/behavioral disorders, learning disability, mental retardation, and visual impaired have increased, while teacher shortages in other areas of special education have remained level.

**Shortages of diverse personnel.** While 38% of the students with disabilities in the U. S. are culturally and linguistically diverse (CLD), only 14% of those currently teaching in special education and 14% of those in the teacher education pipeline are from historically underrepresented groups, and the percentage may be declining. Clearly, the diversity of teachers does not reflect the general population or that of the students with whom they work. More research is needed to explore approaches that may be used to recruit CLD teachers into the profession.

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## TRENDS IN THE DEMAND FOR SPECIAL EDUCATION TEACHERS

### Student Enrollment

While the U. S. population between the ages of 3 and 21 grew significantly through the 1990s, the number of students with disabilities grew almost three times faster than the overall student population. A disproportionate increase of students identified with disabilities has been a significant factor in the increasing demand for special education teachers. While the overall population of school-aged students is expected to remain stable over the next decade, differences in enrollment growth in different regions of the country will likely result in significant changes in the demand for special education teachers for some states and regions.

### Teacher Case Loads

Teacher case loads, which have a significant effect on the demand for teachers and the quality of services delivered to students with disabilities, vary dramatically across the U. S. Although several initiatives aim at reducing general education class sizes, some data (which must be interpreted with caution) suggest that case loads may have increased to nearly the 18:1 ratios of primary general education classrooms in many states.

### Teacher Attrition

The departure of special educators from the teaching profession (exit attrition) is a major contributing factor to teacher demand. Because of a revolving door where teachers leave for reasons other than retirement, the number of teachers leaving annually exceeds the number of new teachers recruited. Special education teachers are more likely either to leave the profession or to migrate to another position than general education teachers. In several studies, attrition rate in general education was about one half the attrition rate in special education. This paper reviews factors that contribute to teacher attrition and retention in detail.

## TRENDS IN THE SUPPLY OF SPECIAL EDUCATION TEACHERS

Almost all 30,000 special education teaching positions open in public schools are filled by the beginning of each school year. Although only about 1% of positions remain vacant during any year, uncertified teachers fill many positions.

### Production of Teacher Education Programs

According to one study, 40% of all beginning teachers were recent graduates of teacher education programs—a major source of beginning special education teachers. Even though the production of teachers by these programs increased 21% from 1993 to 1998, these numbers will not fill the available teaching positions with fully certified teachers or keep up with the continuing growth of the field. From one study, every general education elementary school teaching position had 1.68 teachers coming from preparation programs; in contrast, for every entering teacher position available in special education, only .86 teachers were prepared. The production of teachers in special education preparation programs would have to increase significantly to adequately address the teacher shortage. Research is needed to explore this issue, especially in light of increasing numbers of teachers who graduate from alternative programs.

### The Reserve Pool

Returning experienced teachers are the main source of supply for the reserve pool, comprising two thirds of all newly hired special education teachers in 1987-1988; in 1990-1991, one half; and in 1993-1994, one third. Further research is needed to determine factors that influence this reserve pool of potential teachers and why a rebound in supply from this source has apparently occurred.

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## **Alternative Teacher Education Programs**

In response to both teacher shortages and concerns about the quality of graduates from traditional programs, alternative teacher education programs offer an alternative to university-based, 4-year or 5-year programs. Some alternative programs are designed to provide older, non-traditional students who may already have a bachelors degree a means for entering the profession. Most evidence points to small but growing numbers of graduates of alternative programs nationally; in 2001, 45 states and the District of Columbia had some form of alternative program. One particularly encouraging feature of alternative certification programs is their success in recruiting and training CLD teachers. This rapidly growing area of teacher supply and demand deserves further study, because little is known about this emerging approach to addressing the teacher shortage.

## **Uncertified Persons Entering Teaching**

Two types of special education teacher shortages are: (1) a quantity shortage and (2) a quality shortage, according to Boe and his colleagues. A *quantity shortage* is simply the number of persons needed to fill open teaching positions. Approximately 99% of all special education teaching positions are filled each year, indicating a very small quantity shortage. In contrast, a *quality shortage* exists when school districts cannot fill all positions with professionals possessing the qualifications they are seeking. The primary indicator of quality for entering teachers is full certification in the area of the primary teaching assignment. Little is known about uncertified teachers' job skills, which can vary widely. More research is needed regarding just what the quality shortage of special education teachers means and how this shortage may influence outcomes for students with disabilities.

## **Factors Affecting the Supply of Special Education Teachers**

Two primary factors influence the supply of new teachers from preparation programs: (1) the limited yield of teachers from the total number of graduates (by one estimate, 59% in the year after graduation) and (2) the large number of teachers already employed when they graduate from a preparation program. In addition, conditions of teaching in special education may influence the number of teachers who choose to enter the profession.

The shortage of special education teachers being prepared by colleges and universities influences the overall teacher shortage in two important ways: (1) there are simply not enough certified teachers available (or willing) to fill teaching positions in special education and (2) uncertified teachers leave the profession at a much higher rate than fully certified teachers leave. Uncertified teachers were three times more likely to leave their teaching positions than were fully certified teachers in one study. Thus, hiring large numbers of uncertified teachers each year further adds to revolving door problem.

Available incentives from USDOE and SEAs (e.g., grants or forgivable loan programs) have not attracted enough people to make up for attrition and to fill new positions to teach the growing number of students with disabilities.

## **STATE & LOCAL POLICIES AND PRACTICES ADDRESSING THE TEACHER SHORTAGE**

This paper provides detailed examples of strategies designed by state departments of education, school districts, and other education agencies to resolve shortages, but no research has been conducted on the effectiveness of these approaches. We do not have empirical data about which strategies are effective, cost effective, and attract teachers into special education. Research is needed to ensure that funds are expended on effective and efficient methods for attracting highly qualified teachers to staff classrooms.

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## SUMMARY

### **What We Know about Teacher Supply and Demand in Special Education**

- The shortage of special education teachers is chronic and long term and will get worse.
- There is a severe shortage of CLD teachers in the work force, and this shortage is likely to get worse.
- The shortage of special education teachers is pervasive across geographic regions and localities in the U. S.
- The shortage of special education teachers is greater than teacher shortages in any other area, including mathematics and science.
- Reducing teacher attrition is necessary to address the teacher shortage successfully.
- The conditions of teaching in special education are a major factor affecting the teacher shortage.
- Insufficient numbers of new teachers are being prepared to meet the ongoing demand.

It is obvious that we face pervasive, chronic shortages of special education teachers in many parts of the U. S. If we are to address these shortages successfully, research needs to provide a deeper understanding about the reasons for the shortages and what may be done to address them.

### **What We Need to Learn More About**

- How do we attract more teachers into special education?
- Why do so many teachers transfer from special to general education?
- How do we attract more CLD individuals into special education?
- What strategies are effective in retaining well-qualified teachers?
- What large-scale, systematic strategies used by SEAs and LEAs are effective in attracting teachers into the profession and retaining them?
- How qualified are the teachers who are categorized as uncertified in a given state?
- What state policy initiatives have addressed teacher supply and demand and which initiatives have been most effective?

In addition to answering these questions, the paper recommends updating the teacher shortage data in special education using the recently released SASS database (updated in 1999-2000) and the TFS (updated in 2000-2001) and analyzing data currently available from USDOE Title II reports (<http://www.title2.org>). Results will yield any changes in special education teacher shortages, any disproportionate numbers of special education teachers transferring to general education, and the number of certified teachers provided by the reserve pool.

The paper uses available data to reveal the shortages of qualified people willing to work at current salaries under classroom working conditions in the U. S. Unless these issues are addressed, there seems to be little hope that the shortage of fully certified teachers in the profession will be significantly reduced in the near future. It is highly unlikely that there will be easy or cheap answers. However, without these research results, we can only guess at reasonable alternatives for addressing the teacher shortage. The research questions in this paper are a beginning to ensure that eventually a well-qualified teacher will be provided for every student with a disability in the U. S.