

# Getting Teachers Where They're Needed Most: The Case for Licensure Reciprocity

Prepared for the Center on Personnel Studies in Special Education

by  
**Paul T. Sindelar**  
**Anne G. Bishop**  
**Michele Gregoire Gill**  
University of Florida

**Vince Connelly**  
**Michael S. Rosenberg**  
Johns Hopkins University

May 2003



Center on Personnel Studies in Special Education

UNIVERSITY OF FLORIDA

<http://www.copsse.org>

---

# Center on Personnel Studies in Special Education

---

**University of Florida**

**Johns Hopkins University**

**Vanderbilt University**

**University of Colorado - Boulder**

**Instructional Research Group, Long Beach, CA**

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.

---

The Center on Personnel Studies in Special Education, H325Q000002, is a cooperative agreement between the University of Florida and the Office of Special Education Programs of the U. S. Department of Education. The contents of this document do not necessarily reflect the views or policies of the Department of Education, nor does mention of other organizations imply endorsement by them.

Recommended citation:

Sindelar, P. T., Bishop, A. G., Gill, M. G., Connelly, V., & Rosenberg, M. S. (2003). *Getting teachers where they're needed most: The case for licensure reciprocity. (COPSSE Document Number RS-8)*. Gainesville, FL: University of Florida, Center on Personnel Studies in Special Education.

Additional Copies may be obtained from:

COPSSE Project  
P.O. Box 117050  
University of Florida  
Gainesville, FL 32611  
352-392-0701  
352-392-2655 (Fax)



U. S. Office of Special  
Education Programs

There are no copyright restrictions on this document; however please credit the source and support of the federal funds when copying all or part of this document.

---

---

# CONTENTS

<b>Abstract</b> .....	<b>4</b>
<b>Introduction</b> .....	<b>5</b>
<b>Reciprocity and National Certification</b> .....	<b>7</b>
The NASDTEC Contract.....	7
Regional Reciprocity Agreements.....	8
National Certification.....	10
<b>The Logic of Reciprocity</b> .....	<b>12</b>
Teacher Shortages.....	12
The Reserve Pool.....	13
Within-State Variation.....	14
Teacher Mobility.....	15
Summary of Research on Reciprocity.....	16
<b>Other Policy Initiatives to Promote Relocation</b> .....	<b>18</b>
Salary Equalization.....	18
Credit for Experience.....	18
Pension Portability.....	18
Demographic Considerations.....	18
Summary of States and Reciprocity.....	19
<b>Recommendations for Future Research</b> .....	<b>20</b>
<b>References</b> .....	<b>22</b>

---

## ABSTRACT

Proponents advance licensure reciprocity as a solution to the problem of teacher shortages. In this paper, we describe existing national and regional reciprocity agreements and consider the arguments underlying this solution. We use research on teacher shortages, the reserve pool, within-state variation in demand, and teacher mobility to draw conclusions about the plausibility of these arguments. Our analysis suggests that relocation from state to state has limited potential to alleviate shortages. Instead, the evidence suggests that areas of need are better defined by socioeconomic (SES) considerations than by state lines. A policy strategy with better potential for reducing shortages would provide incentives for teachers to work in low socioeconomic status, urban and rural schools.

---

## INTRODUCTION

Let us begin with a true story from one of our senior authors:

Several years ago, I got a tearful call from a former student. She had moved to the same state where I had moved the year before and applied for a teaching certificate—which was denied. She thought I might be able to help, and I was willing. Our new home state was sorely short of qualified special education teachers, and Chris was one of the best I had ever supervised. I told her not to worry, because I would make a couple of calls.

I met the same unyielding wall of illogic that Chris had. I remember pleading with a woman in our state certification office: “I supervised Chris and can vouch for her. She’s one of the best teachers I’ve ever seen. We’ve got to give her a certificate. We need teachers. We need teachers like her.” Of course, I got nowhere.

Chris eventually got to teach via a temporary credential with deficiencies to satisfy. In fairness to the state, her cross-categorical certificate presented a problem of interpretation to our state’s categorical system. Yet with severe teacher shortages, such as those in special education, a capable teacher should have no problem moving from state to state. In fact, to the extent that states depend upon a supply of teachers from elsewhere, they should act affirmatively in recognizing qualified and experienced teachers from other states.

This familiar story illustrates the need for licensure reciprocity between states and the problems that result without it. Curran, Abrahams, and Clarke (2001) defined *licensure reciprocity* as a policy through which states deem “teachers . . . fully qualified . . . on the basis of a license earned in another state” (p. 5). Licensure reciprocity is considered “full” or “true” when a license earned in one state entitles a teacher to a license in another state—without having to pass teacher tests, take deficiency courses, or satisfy other requirements. In their report for the State Higher Education Executive Officers, Curran et al. argued that better licensure reciprocity would result in greater teacher mobility and relocation in response to market opportunities. They posited the existence of pools of unemployed teachers, fully credentialed elsewhere but unable to obtain a license in their new home states or unwilling to subject themselves to the indignity of dealing with the red tape it would take to get one. They asserted that granting teachers freedom of movement would promote their sense of professionalism.

Schools have suffered shortages of special education teachers for decades, and the problem now seems chronic and intractable. In this context, policies designed to promote the movement of teachers from areas of surplus to areas of need—policies like licensure reciprocity—hold promise for meeting unmet demand. In this paper, we consider licensure reciprocity as a possible solution to the problem of special education teacher shortages. We first describe existing national and regional reciprocity agreements and then consider the logic that underlies the reciprocity solution. We synthesize the literature related to the elements of this logic and draw conclusions about its plausibility. Our analysis suggests that relocation from state to state has limited potential to alleviate shortages and that policy designed to promote it is an insufficient solution to the problem. Instead, the evidence suggests that “areas of need” are better defined by SES than by state lines. A policy strategy with better potential for addressing shortages would provide incentives for teachers to work in low-SES urban and rural schools.

---

Throughout this paper, we consider the issue of licensure reciprocity from a national perspective. Our argument is simple: In special education, where more than 43,000 teachers were less than fully certified during the 2000-2001 school year (IDEAdata.org, n.d.), incentives for teachers to relocate from state to state can be expected to have limited impact on the problem. By making this assertion, however, we do not mean to suggest that improving licensure reciprocity would solve nothing. To the contrary, we: (a) recognize the benefits to individual teachers of ready access to professional credentials in other states, (b) believe that such recognition would enhance teaching as a profession, and (c) recognize that policies to promote teacher in-migration in areas of need are important to states that suffer shortages.

---

## RECIPROCITY AND NATIONAL CERTIFICATION

### The NASDTEC Contract

The National Association of State Directors of Teacher Education and Certification (NASDTEC) oversees the NASDTEC Interstate Contract (1999), an agreement that has become the primary means through which most states license qualified in-migrating teachers. Established in 1928, the present contract has been accepted to some degree by 48 states and jurisdictions (Meyer, Gaudiosi, Sampson, Tackett, & Wenda, 2001) and is in effect through 2005. This agreement, formed by professional standards boards, commissions, and state departments of education in the United States and its territories, guarantees that member states will accept another member state's teacher preparation programs and licensure process to the degree that they are comparable with their own licensure and program standards (National Association of State Directors of Teacher Education and Certification [NASDTEC], 2000). In general, teacher licenses are not issued automatically. States usually award a temporary or emergency credential to a fully qualified teacher from another participating state with the provision that the candidate has 1 or 2 years to make up other requirements, such as extra course work, licensure exams, or security measures (e.g., fingerprinting). Other support personnel (including administrators, aides, and vocational teachers) are covered by separate agreements in the contract.

Different levels of licensure are granted to incoming teachers based on a state's basic and ancillary requirements for credentialing. Member states may require: (a) completion of the approved program in a comparable or broader discipline; (b) compliance with any recency, ethical, or physical or mental fitness requirements; and (c) compliance with ancillary requirements, including the possibility of post-baccalaureate study (NASDTEC, 1999). Teaching experience is accepted if proof is provided of satisfactory, appropriate service for at least 27 months in the past 7 years. Over and above these basic agreements, member states can choose to accept additional subsections of the contract, such as acceptance of alternative certification programs or graduation from an unapproved teacher education program.

With the exception of five states (Iowa, Minnesota, Missouri, South Dakota, Wisconsin), all states, the District of Columbia, Guam, and Puerto Rico have signed the NASDTEC contract. Each state participates differently; for example, Alabama accepts 41 member states' licensure criteria, while Wyoming accepts only 20 (Curran et al., 2001). Furthermore, variations exist in the types of teaching licenses and programs accepted by individual states. Therefore, one state may accept another state's elementary education license but not its middle school license.

For teachers and other education professionals, the NASDTEC Interstate Contract is the most comprehensive reciprocity agreement among states currently in force. The contract is flexible: Although it establishes entry-level requirements for out-of-state teachers, there is nothing to prevent a member state or jurisdiction from loosening acceptance criteria for incoming teacher applicants (NASDTEC, 2000). To address rapid growth in Las Vegas, for example, Nevada has adopted a full reciprocity policy and now issues a license to any licensed teacher from elsewhere (Meyer et al., 2001). The contract respects the autonomy of individual states to set their own criteria for licensing teachers; at the same time, it provides a means for promoting teacher mobility by expediting the certification process for out-of-state teachers. Another key strength of the contract is that every 5 years it is revised to accommodate changes in states' certification and licensure processes. By balancing respect for states' rights and commitment to professionalism, the NASDTEC contract is probably as good an agreement as the profession can hope to get.

---

The strengths of the NASDTEC contract, in particular its flexibility and respect for states' autonomy, are also limitations. The contract offers teachers only limited reciprocity. Many states issue a provisional license, good for 1 or 2 years, to incoming teachers. For example, the Massachusetts Department of Education web site on teacher certification (Massachusetts Department of Education, 2001) states that "reciprocity is not automatic. Non-academic requirements are not covered. Also, pre-requisite requirements and the Massachusetts Educator's Tests are not covered under reciprocity. Other State tests cannot be substituted." Moreover, not every state recognizes every other member state's license; indeed, not all states recognize all categories of teacher licensure. Finally, according to Jayne Meyer, NASDTEC Vice President (personal communication, July 31, 2001), the most significant problem with the NASDTEC contract lies in implementation. Some states begin with the contract as a blueprint for interpreting a particular applicant's credentials, whereas others still rely on transcript analysis. Even an agreement as good as the NASDTEC contract has not done away with the problems that arise when large bureaucracies implement complex policy.

Diversity in licensing is nowhere more evident than in special education. States may issue categorical licenses—that is, differentiated by disability categories—or noncategorical licenses, or both. Although special education licensure was originally categorical, today only 5 states offer categorical licenses only, 13 states are strictly noncategorical, and 22 offer both categorical and noncategorical licenses (Geiger, Crutchfield, & Mainzer, 2002). Eleven states differentiate by severity, offering separate licenses to teach students with mild/moderate and severe/profound disabilities, for example. A small number of otherwise noncategorical states distinguish by age level. For example, Maine's "Teacher of Students with Disabilities" certificate is issued at K-8 and 7-12 levels. The number of special education licenses awarded by the states ranges from 1 to 13. Given this lack of state-to-state consistency, it is small wonder that licensure reciprocity is a particular problem for special education.

## **Regional Reciprocity Agreements**

Due to the complexity and limitations of the NASDTEC agreement, many states have joined in regional reciprocity consortia, e.g., the Northeast Regional Credential (NRC), the Central States Teacher Exchange Agreement (CSTE), and MOINKSA (an acronym of first letters of participating states' names) (Feistritz & Chester, 2001). When instituted in 1990, NRC set the standard for regional reciprocity agreements. It originated as the Chief State School Officers' response to anticipated teacher shortages in the northern states (Janet Phlegar, personal communication, September 13, 2001). The Northeast Common Market was formed to administer the NRC and was funded by the Northeastern Regional Lab (Newton et al., 1989). When government funding for this lab ended, Learning Innovations, a division of WestEd, a regional educational lab in the West, took over the responsibility for overseeing the NRC and currently serves as the facilitator of the NRC (WestEd, n.d.) under the direction of Janet Phlegar.

Nine jurisdictions (New York, Connecticut, Maine, New Hampshire, Rhode Island, Massachusetts, Pennsylvania, Vermont, and the District of Columbia) currently offer teachers the opportunity to obtain an NRC (New York State Department of Education, n.d.). The NRC license is considered a true license, because teachers who hold it are considered fully certified. In most cases, the NRC is valid for 2 years, except in Connecticut and Maine, where it is good for 1 year. In all cases, individual teachers may renew their NRCs only once. During their employment under the NRC, in-migrating teachers are still responsible for completing any additional requirements, such as fingerprinting, course work, or tests.



---

According to Mary Stenson, the NRC specialist at Learning Innovations (personal communication, October 5, 2001), the majority of NRC holders have migrated to New York. Most teachers, however, do not apply for a regional credential, even if they are interested in moving to another state. To date, 2,887 teachers have applied for NRCs, and 2,852 have been issued, 15% to special education teachers. The NRC has limited utility, because many of these northeastern states have established easier ways of obtaining licensure, particularly for broad areas such as elementary education. The primary advantage of the NRC is that it offers an alternative if reciprocity with a state is difficult to achieve, as in special education (Janet Phlegar, personal communication, September 13, 2001). This measure allows teachers to delay completing additional requirements of a particular state for at least a year.

Less information is available about the other two agreements. As reciprocity agreements and not regional licenses, these are more similar to NASDTEC than to the NRC. The CSTE A is a 5-year agreement among Illinois, Missouri, Oklahoma, Iowa, Nebraska, Kansas, South Dakota, Michigan, and Wisconsin, four of which (Wisconsin, Iowa, Missouri, and South Dakota) do not participate in the NASDTEC contract. Licensed teachers in any one of the participating states or those who have completed a regionally accredited teacher education program are eligible to receive a 2-year license in the receiving state. An advantage of this agreement is that special education licensure requirements are compatible or equivalent in each state (Wisconsin Department of Public Instruction, n.d.). However, to obtain a regular teaching license in a state, in-migrating teachers must complete any additional requirements a state might impose (Curran et al., 2001).

MOINKSA is like the CSTE A in two ways. First, non-NASDTEC states are well represented among MOINKSA members (Missouri, Iowa, South Dakota). Second, although the states involved assert that MOINKSA does not offer reciprocity (Iowa Department of Education, n.d.), this agreement allows teachers who have earned a license in one of the participating states to receive a 2-year conditional license in another member state. For full licensure, applicants must satisfy whatever requirements the receiving state imposes.

The regional agreements, like the NASDTEC contract, do not offer true reciprocity. Even the NRC, which offers the closest approximation, is limited by the prerogative of member states to accept or reject licenses. Connecticut, which offers its own graduates the opportunity to apply for an NRC license, does not accept NRC licenses in any area. Like the NASDTEC contract, regional agreements do not eliminate the need for incoming teachers to take state competency tests (Koepke, 1990).

Regional agreements may cover teachers who are neglected by the NASDTEC contract. For instance, the NRC “captures more” teachers and allows for mobility by providing reciprocity for complex certification areas, such as special education. In addition, some of the agreements, including the NRC, are standards-based. According to Phlegar, the formation of the Interstate New Teacher Assessment and Support Consortium (INTASC) was based on the research and guidelines established by the NRC. Thus, the INTASC standards may make regional agreements obsolete, at least for beginning teachers. Although unique for its time in addressing teacher mobility in the traditionally supply-heavy Northeast, the NRC is now used mostly for special situations (Phlegar, personal communication, September 13, 2001).

In sum, the primary benefits of regional agreements are their greater specificity and agreement on complex aspects of licensure, such as special education, as well as their potential to set uniform standards for teacher preparation. In addition, some, such as the NRC, are portable and

---

are not considered temporary or emergency credentials, which is an attraction to schools looking to boost their image as employing fully certified teachers. On the other hand, regional agreements have limitations: They do not guarantee true reciprocity, and in-migrating teachers must still apply for the state's own teaching license within a year or two.

## National Certification

An alternative to reciprocity is national licensure. The concept of *national certification* differs from the concept of *national licensure*. Whereas *licensure* refers to the satisfaction of minimum standards of competence, *certification* is recognition of significant professional accomplishment. Proponents argue that: (a) national licensure would standardize the preparation of the teaching work force and simplify licensure issues for states, and (b) universal adoption would mitigate the need for reciprocity agreements. While recognizing states' rights to establish and to regulate professional teacher standards, professional organizations, state officials, and teacher educators also recognize the need to develop formalized teacher standards. The National Board for Professional Teaching Standards (NBPTS) and INTASC are the result of collaboration among these groups. Although the original intent of both organizations was to establish model standards for the licensure of beginning teachers and the certification of accomplished veterans, NBPTS and INTASC provide coherent frameworks for states to consider when developing or refining licensure guidelines. Both NBPTS and INTASC contribute a new level of uniformity in teaching standards and have the potential to support reciprocal agreements among states.

**The National Board for Professional Teaching Standards.** NBPTS was established in 1987 to create advanced certification standards for accomplished teachers (Darling-Hammond, 1999). The NBPTS was a collaborative effort among professionals as 187 independent organizations contributed to the establishment of the standards (Darling-Hammond). The original goal of NBPTS was to advance the teaching profession and improve student learning (Bailey & Helms, 2000) by instituting a stringent professional certification structure similar to those found in other high-status professions. The established certification standards were based on a broad vision of what teachers should know and be able to do.

By recognizing the expertise required in teaching, NBPTS certification is thought to enhance the professionalism of the field. Certification is offered in over 25 fields for teachers having at least 3 years of experience. As of June 2001, 4,804 teachers had received Board certification (National Board for Professional Teaching Standard [NBPTS], n.d.). In the last year, the NBPTS established Board certification for special educators, allowing PreK to 12+ educators to seek recognition (Helms, 2000). With increasing numbers of teachers seeking Board certification in an increasing number of categories, states are responding with changes in certification policies and incentive programs. In a recent survey of 38 states, 22 acknowledged awarding licensure to new applicants solely on the basis of a valid NBPTS certificate (NASDTEC, 2000). Twenty-eight states provide benefits for teachers earning an NBPTS certificate. The certification structure provides a framework for identifying and rewarding accomplished teachers and establishes common ground among teacher educators, professional organizations, state agencies, and policy makers.

**The Interstate New Teacher Assessment and Support Consortium.** INTASC was established in 1992 under the auspices of the Council of Chief State School Officers (Interstate New Teacher Assessment and Support Consortium [INTASC], 2001). Its purpose was to support state collaboration in redesigning teacher assessment for the licensure of beginning teachers.

---

Model standards for the licensure of new teachers were developed using the NBPTS advanced certification standards as a framework. State and professional organizations joined forces to establish core principles for beginning teachers. Subsequently, subject matter, elementary, and special education standards were developed. The special education standards build upon the premise that all general and special education teachers are responsible for providing an appropriate education for students with disabilities.

NBPTS and INTASC support performance-based standards and assessments that reflect the expertise required of today's teachers. These organizations recognize states' responsibilities to establish standards and to offer a coherent structure that state agencies, teacher preparation programs, and professional organizations may use to develop standards of their own. INTASC and NBPTS are fusing partnerships with the National Council for the Accreditation of Teacher Education (NCATE), which accredits teacher preparation programs. The national alignment of accreditation standards for preservice programs provides an additional link to a more consistent licensing structure among states (Wise, 1994).

The combined efforts of NBPTS, INTASC, and NCATE provide a common framework for program accreditation as well as teacher licensure and advanced certification. Despite the alignment of standards, the acknowledgment of common core principles, and a developing consensus among diverse professional groups, state autonomy continues to prevail. In fact, the NASDTEC survey (NASDTEC, 2000) revealed great disparities among states on issues relating to board certification. States differ in the incentives offered for board certification and in the length of time such certification is valid. Such differences highlight the difficulties in establishing a common framework, even using the established NBPTS structure. Although the establishment of core principles and model standards for teachers appears to lay the groundwork for national licensure, questions remain. Are states willing to relinquish their autonomy to regulate licensure? Will doing so alleviate teacher shortages? What sociopolitical issues must be overcome to establish commonalities among states? Who would orchestrate national licensure? In special education, how would variations in licensure structures be resolved? Without answers to these questions, it appears a national licensure structure remains at the extreme end of a continuum of solutions addressing problems relating to reciprocal agreements between states.

---

## THE LOGIC OF RECIPROCITY

In the introduction to their paper, “Solving Teacher Shortages Through Licensure Reciprocity,” Curran et al. (2001), writing on behalf of the State Higher Education Executive Officers, argued that “veteran teachers are discouraged from seeking teaching opportunities in other districts or states by the lack of reciprocity in licensing. . . . As a result, many good teachers leave the profession prematurely. Similarly, many talented individuals are discouraged from considering teaching as a career” (p. 1). They also asserted that “policies that enhance teacher mobility also . . . provide greater opportunities to recruit teachers to schools where they are in greatest need” (p. 2). By giving “teachers the freedom of movement enjoyed by other high-status professions” (p. 1), reciprocity policy would enhance the quality of teachers’ professional lives.

For Curran and her colleagues (2001), improving licensure reciprocity would reap many benefits for schools struggling to constitute and sustain a professional staff. Their argument about state-to-state mobility is based on the assumption that some states experience shortages and others do not. Thus, the solution to the problem of shortages resides in redistributing teachers from areas of surplus to areas of need and in developing policies that encourage teachers to move from state to state. According to this analysis, teachers also stand to benefit from improved reciprocity policy. They may relocate more readily in response to market conditions and enjoy higher professional status.

In this section, we consider the argument that reciprocity may help to alleviate special education teacher shortages. With data from OSEP *Annual Reports to Congress* reported by the U. S. Department of Education (USDOE, n.d.), we consider the possibility that surpluses exist in enough states and that they are sufficiently large to address shortages in other states. We then describe what is known about the reserve pool of special education teachers, the extent to which it supplements teacher supply, and the likelihood that improved reciprocity will entice reserve pool teachers to return to the classroom. We also consider research on within-state patterns of teacher shortages—patterns obscured in data aggregated at state and national levels. We then review research on teacher mobility.

The findings from these studies allow us to judge the extent to which teachers move in response to market conditions—as Curran and her colleagues (2001) and others believe—and to ascertain other factors that may influence teachers’ decisions to change jobs. This research and the special education research on supply and demand suggest an alternative policy strategy for coping with critical teacher shortages. This strategy, which does not rely on teachers’ moving from state to state, would not be enhanced by improved reciprocity.

### Teacher Shortages

In special education, teacher shortages are real, chronic, and severe. USDOE (n.d.) reported that in 2000-2001 over 43,000 teachers were needed nationally to fill vacancies and replace less than fully qualified practitioners. USDOE considers teachers less than fully certified “if they [do] not hold standard State certification or licensure for the position to which they were assigned” (USDOE, 1996). This estimate undoubtedly includes some teachers who have moved and were unable to obtain “full certification” from their new home states. However, this number is likely to be small. Thus, from a national perspective and on the basis of shortage data, teacher movement from state to state would seem to solve nothing and merely to shift the shortage burden from one jurisdiction to another. Individual states may benefit at the expense of other

---

states, but nationally state-to-state relocation amounts to little more than robbing Peter to pay Paul.

Yet the issue is not as simple as shortage data imply. For one thing, we know that shortages are unevenly distributed, both across and within states. USDOE annually reports shortages by state. In 2000-2001, the most recent year for which such data are available, Connecticut and Massachusetts reported no shortages of teachers for students with disabilities aged 3 to 21 (USDOE, n.d.a, n.d.b); and in four other states and territories, shortages did not exceed 2%. On the other hand, shortages averaged 11.4% nationally and exceeded 20% in six states, including California and New York.

Moreover, according to a recent national survey of state certification agencies, all but five states reported that they would be “very likely” to hire immediately a fully qualified special education major. One of the exceptions, New York, reported that they would be “very likely” to do so in New York City (Feistritzer & Chester, 2001, Table 14c). In addition, 14 states reported that they would be “very likely” to hire a special education major who was not fully certified, and 23 more states and New York City would be “somewhat likely” to do so. This evidence confirms USDOE data: Clearly, the shortage of special education teachers is a problem for most states. As a result, state-to-state mobility—and policies to enhance it—would have limited impact on special education teacher shortages aggregated nationally.

## The Reserve Pool

Improved reciprocity policy, however, may foster *reserve pool* teachers’ reentry into teaching. Although the existence of a reserve pool of qualified but unemployed teachers is well established (Boe, Cook, Bobbitt, & Terhanian, 1998; Merrow Report, 1999), USDOE data do not estimate oversupply or indicate oversupply where it exists. To ascertain whether better reciprocity would promote relocation reentry, it would be necessary to determine if reserve pool members are willing to move across state lines—and are hampered in doing so by the lack of reciprocity or by the limitations of existing reciprocity agreements.

Researchers in both general education and special education have attempted to analyze the elements of teacher supply (Boe et al., 1998; Boe, Cook, Kaufman, & Danielson, 1996; Lauritzen & Friedman, 1993). The concept of a reserve pool emerged from data analyses conducted over the past 15 years. Initially, it was broadly defined as individuals who are qualified to teach but not currently teaching (Cagampang, Garms, Greenspan, & Guthrie, 1985; Haggstrom & Darling-Hammond, 1988) and included: (a) teachers currently on leave, (b) former teachers, (c) college graduates prepared to teach but not employed as teachers, and (d) college graduates who did not prepare to teach. A more recent definition appeared in Boe’s work on teacher supply and demand. According to Boe and his colleagues (1996), the reserve pool consists of: (a) delayed-entry, first-time teachers and (b) experienced teachers reentering the work force.

Lauritzen and Friedman (1993) posited that teachers leave and reenter the profession at various times during their careers, often for personal reasons. In an analysis of teacher shortages, Ingersoll (2001) suggested this revolving-door pattern constitutes temporary attrition. In a 1989 National Education Association survey of practicing teachers, one third acknowledged that they had taken leave for at least 1 year during their careers (National Education Association, 1989). Feistritzer (1989) estimated that as many as 45% of teachers have a break in service. Other



---

researchers have reported estimates of the proportion of these teachers who return to the classroom. Singer (1993a, 1993b), for instance, studied the career paths of 2,700 special educators in Michigan and determined that 34% of former teachers returned to the classroom within 5 years of leaving. Haberman and Rickards (1990) found that 90% of the 124 teachers who left the Milwaukee Public Schools returned to teaching, often outside of Milwaukee's urban area. Clearly, reserve pool members contribute substantially to the supply of teachers. Although the extent to which they relocate to reenter the work force is not fully known, existing evidence suggests that improved reciprocity policy may be of limited use in attracting reserve pool returnees to where they are needed most.

The most recent national reserve pool estimates are drawn from Boe's analyses of School and Staffing Survey (SASS) and Teacher Follow-up Survey data (Boe et al., 1998; Boe et al., 1996). In its 1998 review of these and other studies, the U. S. Department of Education reported that the proportion of reserve pool teachers among all new hires had dropped from 66% in 1988-1989, to 50% in 1990-1991, and to 33% in 1993-1994 (USODE, 1998). This precipitous decrease led the Department of Education to conclude that the reserve pool "is rapidly becoming depleted" (p. III-17). However, in their preliminary analysis of 1999-2000 SASS data, Boe, Cook, and Barkanic (2003) found that reserve pool hires constituted 41% of all new hires that year. This datum is consistent with a declining trend, but the decrease may not be as marked as initially feared.

Recent data from Connecticut corroborate these findings. In this study, Beaudin, Thompson, and Prowda (2000) defined the reserve pool to include: (a) teachers certified more than 1 year earlier but not teaching, (b) former educators, and (c) educators certified in previous years who had not taught. In their analysis of the availability of reserve pool teachers, Beaudin et al. predicted minor shortages in speech/language, media, and health but more significant shortages in special education, where they projected a deficit of 171 teachers for 1999 to 2003. They attributed these shortages to a shrinking reserve pool. Its diminution also was evidenced by a shortage of substitute teachers, often former teachers who are considering a return to the classroom. Taken together, these two studies suggest at best a diminishing number of reserve pool returnees; at worst, the studies indicate a depletion of the reserve pool itself. Although far from definitive, these data suggest that the reserve pool, once the prime source of teacher supply in the late 1980s, may no longer make the same key contribution to the supply of new hires.

Beaudin et al.'s analysis (2000) also indicated that Connecticut's reserve pool members are highly selective when returning to work and have specific job preferences. Like the teachers in Haberman and Rickards's study (1990) who left Milwaukee for suburban districts, Connecticut returnees were shown to prefer positions in suburbs and small towns and to avoid urban and rural areas. Previously, Beaudin (1995) had reported that reserve pool members were more likely to return to districts that were affluent and offered adequate salaries and classroom support. Ingersoll (2001) also concluded that location per se was less important in attracting and retaining teachers than the organizational characteristics and conditions of schools. Taken together, these data suggest that returning reserve pool members often do change districts, moving out of cities to suburbs and small towns. Such relocations are unlikely to involve moving from state to state, but they may. Although improved reciprocity would facilitate such movement, any policy that promotes relocation to low-need districts will have limited impact on shortages.

## **Within-State Variation**

---

Studies of shortages within states also suggest that in hiring and retaining teachers certain schools are advantaged relative to others. In analyzing SASS data, Ingersoll (2001) reported far greater variability in teacher shortages within states than between states. Lauritzen and Friedman (1993) found that shortages of special education teachers in Wisconsin were most severe in Milwaukee, suburban Milwaukee enjoyed a surplus of teachers, and shortages in the rest of the state were judged no worse than “slight.” To the extent that these data are representative of other states’ distributions, the shortage problem may be more amenable to within-state, not between-state, teacher relocation.

Data from Texas bear this out. In a statewide study of teacher mobility, the Texas Education Agency (1995) described a mobility pattern “from urban districts to suburban districts” (p. 21). Hanushek, Kain, and Rivkin (1999), describing the same phenomenon, asserted that moving away from low-income schools was even more probable than moving to high-salary schools. Thus, when economic considerations do affect teachers’ relocation, the deciding factor is more likely to be a school’s SES than a teacher’s salary.

The National Association of State Boards of Education (NASBE, 1998) reached the same conclusion. Their report on teacher supply and demand asserted that “wealthy districts rarely experience shortage; low-income ones do.” NASBE also argued that a district’s ability to attract teachers varies with working conditions. Moreover, wealthy districts get many applicants, whereas high-poverty districts get fewer. This claim is substantiated by data from individual states. In Connecticut, for instance, Beaudin and her colleagues (1998, 2000) found that unequal distribution of teachers resulted from two sources. First, new teachers applied selectively to specific districts in Connecticut, with 75% preferring to work in suburban schools. Second, employed teachers, when they moved from a district, were much more likely to leave disadvantaged districts and move to wealthier ones than vice versa. Beaudin also found that more teachers preferred to teach close to home, which for a white and middle class work force tends to be suburbs and small towns. As many researchers have found, high-poverty districts lack resources and working conditions to attract and retain good teachers (Beaudin, 1998; Ingersoll, 1999; NASBE, 1998). The SASS study also supported this conclusion: High-poverty schools (at least 50% of students on free or fee-reduced lunch) are more difficult to staff than more affluent schools (less than 15% free or fee-reduced lunch).

## **Teacher Mobility**

How often do teachers move from state to state? What prompts them to move? A picture of teacher mobility can be pieced together from existing research, although this literature clarifies little about the reciprocity question (other than to offer estimates of the number of teachers who move from state to state in the current political context). The literature has established that younger teachers are more mobile and more likely than older teachers to relocate to other states (Hanushek et al., 1999; Ingersoll, 1999; Shen, 1997; Texas Education Agency Austin Division of Policy Planning and Evaluation, 1995). Yet beginning teachers make up a fairly small proportion of all special education teachers (Boe et al., 1998). Although mobility and attrition are high among young, inexperienced teachers, few specifics about how many of them actually do relocate to new states are known.

In a study of teacher retention and mobility in Texas, the Texas Education Agency’s Policy Analysis and Evaluation Division (1995) estimated mobility to exceed 10%. However, their definition of mobility was limited to school-to-school and district-to-district movement within

---

the state. State-to-state mobility was considered an element of attrition, which in this study was defined as all teachers employed by Texas schools in 1991-1992 who were not employed by Texas schools in 1992-1993. Attrition was estimated to be 8% of the teaching work force. When these leavers were asked to explain why they left teaching, 10% reported a “family or personal move” as the reason. Among the many reasons for leaving, “family or personal move” was the only option that might have included state-to-state mobility. Thus, at most, 0.8% of all Texas teachers could have moved to another state and taught there. The subset of these teachers who moved in response to labor market forces—the availability of jobs or the availability of higher paying jobs in other states—is unknown.

Hanushek et al. (1999) reported a separate analysis of Texas data in which transitions from 1993 to 1996 were analyzed. These authors reported estimates of movement from school to school within a district, from district to district within the state, and out of Texas schools, a figure that presumably included teachers moving to other states. Although their estimate of attrition, 13.7%, exceeded the earlier estimate, out-of-state movement was not quantified. However, Hanushek et al.’s findings did illuminate within-state movement. They reported that teachers tended to move to jobs where they worked with “higher achieving, non-minority, non-low income students” (p. 24) and that these student characteristics exerted a more powerful influence on teacher mobility than salary. These findings support the idea that correcting within-state distribution may be a more fruitful policy approach than facilitating reciprocity.

The Study of Personnel Needs in Special Education (SPeNSE) offers more data relevant to this question. In their survey of 8,000 special education teachers, SPeNSE researchers found that three fourths were employed in the same state in which they were trained. Furthermore, of the 9% of teachers who were not fully certified for their current positions, only 12% indicated that they were fully certified elsewhere. Thus, the best current estimate of the proportion of the special education work force that might benefit from improved reciprocity policy is a little over 1% (12% of 9%, or 1.08%). Furthermore, the proportion of fully certified teachers did not differ for teachers prepared in state or out of state (E. Carlson, personal communication, June 4, 2002).

In the SPeNSE sample, about 70% of the teachers did not move to accept their current positions, and an additional 11% moved no more than 50 miles (SPeNSE, n.d.a). Of the 30% who did move, two thirds did not move from one state to another (SPeNSE, n.d.b). Thus, we may estimate from the SPeNSE data that 10% of the sample moved from one state to assume their current positions. The fact that only 1.08% were not fully certified suggests that most had little trouble getting certified in their new home states.

Finally, in a study of New York City’s beginning teachers, Darling-Hammond, Chung, and Frelow (2002) reported that only 1.5% of their sample first earned a credential in another state. This finding is interesting for several reasons. For one thing, New York, which is a member of both the NASDTEC compact and the Northeast Common Market, is the biggest benefactor of Common Market migration. For another, New York City lies within easy commuting distance of both New Jersey and Connecticut. Given these factors, it is surprising that so few of New York City’s beginning teachers are recruited from out of state.

## **Summary of Research on Reciprocity**

In special education, teacher shortages are severe and pervasive, but they vary from state to state. Because shortages are nationwide, state-to-state migration would seem to solve nothing, except



---

from the perspective of an individual state. Many new hires come from a reserve pool of currently unemployed teachers, and improved reciprocity might facilitate their return to the work force. However, little is known about the extent to which reserve pool members cross state lines when returning to work. What we do know about their employment preferences suggests that they tend to move away from districts where need is greatest, and a similar pattern is evident in studies of teacher mobility. Teachers tend to leave jobs in high-poverty, low-performing schools and districts for jobs in higher SES and higher performing schools and districts. Often this pattern involves moving from cities to suburbs and towns. Thus, improving reciprocity to promote state-to-state relocation would seem to have limited impact on recruiting teachers for high-need schools. However, states have attempted to promote such movement with other policy initiatives.

---

## OTHER POLICY INITIATIVES TO PROMOTE RELOCATION

### Salary Equalization

Connecticut and Kansas have reduced teacher shortages in urban and rural areas by implementing salary equalization programs across high-and low-need districts (NASBE, 1998). Moreover, in 1998, a new Mississippi policy offered a scholarship, professional development, computer, mentoring, home loan, and \$1,000 in moving expenses for teachers seeking masters degrees who agreed to teach in critical shortage areas for at least 3 years (Hirsch, 2001).

### Credit for Experience

By credit for experience, we mean position on a salary scale and corresponding benefits (e.g., health insurance, sick leave, professional development). Credit for experience may be a powerful incentive or disincentive to experienced teachers considering a move. For experienced teachers, the amount of credit offered for experience may be a critical element in their decisions to relocate. A few states (notably Nevada, Texas, Washington) have complete portability for in-state teaching experience, whereas other states allow districts to grant credit (Hirsch, Koppich, & Knapp, 2001). The loss of benefits and credit for experience may discourage teacher relocation from state to state.

### Pension Portability

Pension portability is the extent to which workers may transfer their retirement benefits without significant loss of value when they change jobs. Despite other inducements, experienced teachers may be reluctant to relocate if their retirement benefits are not fully transferable. In many states, K-12 teachers are enrolled in separate retirement plans. Although state legislatures have passed legislation in recent years designed to increase the portability for other groups of workers, they have been slow to develop comprehensive policies that respond to the mobility needs of teachers (Ruppert, 2001). Ruppert speculated that one reason for this lack of response from the states may be an underlying assumption that teaching is not a mobile profession and that teachers tend to take and keep jobs close to where they live or have attended college. There is some evidence to support such an assumption. In the SPeNSE analysis, for example, over 80% of the respondents had moved no more than 50 miles for their current jobs.

As we have seen, less experienced teachers relocate more often than those with more experience (Hanushek et al., 1999; Ingersoll, 1999; Shen, 1997; Texas Education Agency Austin Division of Policy Planning and Evaluation, 1995). More experienced teachers may relocate less often because of family and financial obligations (Haggstrom & Darling-Hammond, 1988). By assuring that these obligations can be met, at least in part, through the assurance of pension portability, states can have greater influence in motivating experienced teachers to relocate than through recognition of a teaching certificate.

### Demographic Considerations

Certain demographic aspects of the teaching force also influence teacher mobility. Women may choose teaching because of the flexibility it allows for leaving and returning to the work force

---

(Haggstrom & Darling-Hammond, 1988), and research has shown that women do leave to raise families (Boe, Bobbitt, & Cook, 1997). Furthermore, Lauritzen (1990) observed that the teacher in a family is often not the primary wage earner. Women who leave the field may seek to reenter teaching in the future, but where they choose to teach may be more a factor of spousal employment than market conditions or licensure reciprocity.

## **Summary of States and Reciprocity**

Clearly, full reciprocity alone will not dramatically increase the number of qualified special educators who migrate to seek employment. In fact, relative to pensions and other benefits, licensure may exert little influence on teachers' decision-making, and lack of reciprocity may be considered more an inconvenience than a barrier. Still, reciprocity works to assist states with their primary goal of ensuring that special education teachers moving to their state meet minimal qualifications and standards. Many states use reciprocity agreements as a gate-keeping function, allowing ready access to credentials to those who come from other states that share common views of teaching (e.g., specific standards) and teacher preparation (e.g., categorical or noncategorical programming). Individuals who do not fulfill all requirements for a state license must complete course work or other prescribed activities. However, to attract qualified candidates in times of critical shortages, states may suspend requirements that limit reciprocity. For example, in 1997, California enacted the Credentialed Out-of-State Teacher Recruitment and Retention Act, which authorized districts to employ any teacher holding a valid elementary, secondary, or special education credential from another state. Teachers were granted a 5-year preliminary credential but were required to complete the California requirements for a standard professional credential (Curran et al., 2001). Similarly, Florida legislators recently authorized granting full license reciprocity to out-of-state teachers with standard certificates and 2 years of teaching experience in another state—without placing additional requirements on a candidate (Curran et al.).

---

## RECOMMENDATIONS FOR FUTURE RESEARCH

In this paper, we have attempted to make the case that improving reciprocity policy would have limited impact on special education teacher shortages. Our argument had several elements and began with a consideration of reciprocity policy as it exists today. We argued that the NASDTEC Contract is about as good an agreement among states as is ever likely to be forged. It recognizes states' responsibility—and prerogative—to establish standards for teacher licensure and allows states discretion in implementing the agreement. All but five states have signed on, and four of these are members of regional consortia. On the other hand, state-to-state differences in the way special education licensure is organized present a particular problem for states.

Thinking back to the vignette with which we began this paper, Florida may have been right to question Chris's application for a teaching license. After all, her Pennsylvania license was noncategorical. The question of which categorical license Chris was most qualified for was surely not a simple determination for Florida to make. Of course, Chris was inconvenienced and upset by her experience. Given the demand for teachers, it seems illogical and unfortunate that a special educator as capable as she would be denied professional recognition. Had Chris had national certification, however, both she and the state might have been spared this inconvenience.

We believe that the field is making progress in establishing such national certification. INTASC and NBPTS standards are in place for beginning and experienced teachers, and states are signing on. INTASC and NBPTS certification may someday substitute for transcript analysis and thereby facilitate teacher relocation.

There are reasons to believe that neither national certification nor improved licensure reciprocity would have a dramatic impact on shortages. Because special education teacher shortages are nationwide, licensure reciprocity cannot alleviate shortages from a national perspective. States may be advantaged in the competition for teachers by implementing reciprocity policy to promote in-migration, as some states are doing already. Nevada licenses any teacher who has completed an approved teacher education program elsewhere. However, if other states were to do the same, Nevada's advantage would be diluted, and other incentives to promote in-migration would be required to regain it.

We also considered the possibility that better licensure reciprocity might encourage reserve pool teachers to return to work in areas of great need. We know that a substantial number of all new hires are reserve pool members. Although its impact may be diminishing, we also know that many teachers leave the field with the intent to return to work, thereby guaranteeing a continuing supply from this reserve. However, we know little about the extent to which reserve pool returnees relocate to find work or the extent to which relocation involves moving from state to state. We do know that returnees often return to the districts in which they taught previously. We also know that when they do relocate, it is often to higher SES, higher achieving schools.

Within states, shortages are more likely to occur in relatively disadvantaged schools. In some states, such shortages exist side by side with surpluses in more affluent neighboring districts. When teachers do move, they are likely to move away from low-income, highly diverse schools with low-achieving students to less diverse, higher SES, higher achieving schools. This tendency also accounts for the pattern of flight from city schools to suburbs and small towns. For states

---

with such inequitable distribution of shortages—and relocation patterns that exacerbate them—reciprocity offers little relief.

We believe that a more sensible policy approach for supporting state-to-state relocation would include three elements: (a) policies that encourage teachers to work in disadvantaged urban and rural schools must be promulgated; (b) states would be well served by establishing policy that recognizes in-migrating teachers’s service, both on the salary scale and with regard to other benefits; and (c) most importantly, the issue of pension portability must be addressed. Experienced teachers are not likely to move if they would lose their stake in a retirement system, regardless of how easy it might be to obtain a license elsewhere.

In spite of our skepticism about licensure reciprocity as a solution to the problem of critical teacher shortages, our analysis of this literature has brought to light interesting, important, and unanswered questions that future research must address. First, we found no information about the proportion of new teacher hires who are state-to-state migrants. We need to know who migrates and why. In asking why, we would hope to learn the extent to which teachers relocate in response to market conditions. Our discussion— indeed, the entire national conversation about problem. Second, because a subset of migrants will be members of the reserve pool, we need to know the proportion of reentering reserve pool members who relocate to new states. In our opinion, more information about the reserve pool generally also would be useful and pertinent. As we described, the declining trend in the proportion of new hires from the reserve pool is based on only four data points; more data would allow for more reliable trend estimation. Finally, we need to know which policies promote migration to high-need schools—whether state-to-state, district-to-district, or school-to-school. Our reading of the literature suggests strongly that policies that promote relocation to high-needs schools have greater potential to solve the problem of shortages than licensure reciprocity policies.

---

## REFERENCES

- Bailey, D. L., & Helms, R. G. (2000). *The national board certified teacher*. Bloomington, IN: Phi Delta Kappa Educational Foundation. (ERIC Document Reproduction Service No. ED447115)
- Beaudin, B. Q. (1995). Former teachers who return to public schools: District and teacher characteristics of teachers who return to the districts they left. *Educational Evaluation and Policy Analysis, 17*, 462-475.
- Beaudin, B. Q. (1998, April). *Teacher interdistrict migration: A comparison of teacher, position, and district characteristics for the 1992 and 1997 cohorts*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA. (ERIC Document Reproduction Service No. ED422616)
- Beaudin, B. Q., Thompson, J. S., & Prowda, P. M. (2000, April). *Projecting state-level teacher supply and demand: Improving an imperfect science to enhance policy decision-making*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED446046)
- Boe, E. E., Cook, L. H., & Barkanic, G. (2003, February). *Teacher education does make a difference: National data on first-time teachers with and without teacher preparation*. Paper presented at the U. S. Department of Education, Office of Special Education Programs, Personnel Preparation Project Director's Conference, Washington, DC.
- Boe, E. E., Bobbitt, S. A., & Cook, L. H. (1997). Whither didst thou go? Retention, reassignment, migration, and attrition of special and general education teachers from a national perspective. *Journal of Special Education, 30*, 371-389.
- 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., Kaufman, M. J., & Danielson, L. (1996). Special and general education teachers in public schools: Sources of supply in national perspective. *Teacher Education and Special Education, 19*, 1-16.
- Cagampang, H., Garms, W. I., Greenspan, T. J., & Guthrie, J. W. (1985). Is the reserve pool a realistic source of supply? *Teacher Education Quarterly, 12*(4), 13-44.
- Curran, B., Abrahams, C., & Clarke, T. (2001, February). *Solving teacher shortages through license reciprocity*. Retrieved September 20, 2001, from the State Higher Education Executive Officers (SHEEO) Web site: <http://www.sheeo.org/quality/mobility/mobility-briefs.htm>
- Darling-Hammond, L. (1999). *Reshaping teaching policy, preparation, and practice: Influences of the National Board for Professional Teaching Standards*. Washington, DC: American Association of Colleges for Teacher Education. (ERIC Document Reproduction Service No. ED432570)
- Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education, 53*, 286-302.
- Feistritzer, C. E. (1989). *Status of the American public school teacher: 1998-89*. Washington, DC: National Center for Education Information.
- Feistritzer, C. E., & Chester, D. T. (2001). *Alternative teacher certification: A state-by-state analysis 2001*. Washington, DC: National Center for Educational Information.

- 
- Geiger, W. L., Crutchfield, M., & Mainzer, R. (2002). *The status of licensure of special education teachers at the beginning of the 21<sup>st</sup> century*. Retrieved on January 29, 2003, from University of Florida, Center on Personnel Studies of Special Education Web site: <http://www.coe.ufl.edu/copsse/publicationFiles/researchsyntheses.html>
- Haberman, M., & Rickards, W. H. (1990). Urban teachers who quit: Why they leave and what they do. *Urban Education*, 25, 297-303.
- Haggstrom, G. W., & Darling-Hammond, L. (1988). *Assessing teacher supply and demand*. Santa Monica, CA: Rand Corporation. (ERIC Document Reproduction Service No. ED299224)
- Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (1999, January). *Do higher salaries buy better teachers?* Paper presented at the annual meeting of the American Economic Association, New York, NY. (ERIC Document Reproduction Service No. ED437710)
- Helms, R. G. (2000). An "exceptional" NBPTS certificate for special educators. *TEACHING Exceptional Children*, 32(5), 4-10.
- Hirsch, E. (2001). *Teacher recruitment: Staffing classrooms with quality teachers*. Retrieved October 20, 2001, from the NGA Center for Best Practices Web site: <http://www.nga.org/center/divisions/>
- Hirsch, E., Koppich, J. E., & Knapp, M. S. (2001, February). *Revisiting what states are doing to improve the quality of teaching: An update on patterns and trends*. Retrieved August 27, 2001, from the Center for the Study of Teaching and Policy Web site: <http://depts.washington.edu/ctpmail>
- IDEAdata.org. (n.d.) Table AC2: *Total number of teachers employed (in full-time equivalency) to provide special education and related services for children and youth ages 6-21 with disabilities, during the 2000-2001 school year*. Retrieved February 11, 2003, from [www.ideaata.org/tables25th\AR\\_AC2.htm](http://www.ideaata.org/tables25th\AR_AC2.htm)
- Ingersoll, R. M. (1999, August). *Teacher turnover, teacher shortages, and the organization of schools: A CTP working paper* (No. R-01-1). Seattle, WA: Center for the Study of Teaching and Policy. (ERIC Document Reproduction Service No. ED445415)
- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38, 499-534.
- Interstate New Teacher Assessment and Support Consortium. (2001). *Model standards for beginning teacher licensing and development: A resource for state dialogue*. Retrieved September 13, 2001, from <http://www.ccsso.org/intascst.html>
- Iowa Department of Education. (n.d.). *Iowa Board of Educational Examiners*. Retrieved October 12, 2001, from <http://www.state.ia.us/educate/programs/boee/newsletter/vol2boeenews.html>
- Koepke, M. (1990). How to avoid getting trapped in license hell. *Teacher Magazine*, 1(7), 51-56.
- Lauritzen, P. (1990, April). *How critical is the special education teacher shortage?* Paper presented at the Convention for the Council of Exceptional Children, Toronto, Canada.
- Lauritzen, P., & Friedman, S. J. (1993). Meeting the supply/demand requirements of the Individuals with Disabilities Education Act. *Teacher Education and Special Education*, 16(3), 221-229.
- Massachusetts Department of Education. (2001). *Regulations for educator licensure and preparation program approval*. Retrieved October 12, 2001, from <http://www.doe.mass.edu/>
- Merrow Report. (1999). *Teacher shortage: False alarm?* Retrieved August 27, 2001, from [http://www.pbs.org/merrow/tmr\\_radio/transcr/teacher\\_shortage.pdf](http://www.pbs.org/merrow/tmr_radio/transcr/teacher_shortage.pdf)
- Meyer, J., Gaudiosi, J. B., Sampson, J. R., Tackett, P. B., & Wenda, S. (2001, June). *Accounting for quality*. Panel presentation at the National Symposium: Policy and Practice to Ensure High Quality Teachers for Children and Youth with Disabilities, Washington, DC.
-



- 
- National Association of State Boards of Education. (1998). *The numbers game: Ensuring quantity and quality in the teaching workforce*. Retrieved September 27, 2001, from [http://www.nasbe.org/Educational\\_Issues/Reports/Number\\_Game.pdf](http://www.nasbe.org/Educational_Issues/Reports/Number_Game.pdf)
- National Association of State Directors of Teacher Education and Certification. (1999). *NASDTEC Interstate Contract*. Mashpee, MA: Author.
- National Association of State Directors of Teacher Education and Certification. (2000). *The NASDTEC manual on the preparation and certification of educational personnel* (5th ed.). Dubuque, IA: Kendall/Hunt.
- National Board for Professional Teaching Standards. (n.d.). *News center: Facts*. Retrieved October 12, 2001, from <http://www.nbpts.org>
- National Education Association. (1989). *Status of the American public school teacher, 1988-89*. Washington, DC: Author.
- New York State Department of Education. (n.d.). *Northeast Regional Credential*. Retrieved August 31, 2001, from <http://www.highered.nysed.gov/tcert/nercmemo.htm>
- Newton, A. E., Dambruch, E. L., Dastur, D., Day, D. F., Kastruck, E. B., Mackey, C. C., Jr., et al. (1989, March). *Implementation of a Northeast Regional Credential for educators in New England and New York. A policy group issue brief*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA: Regional Laboratory for Educational Improvement of the Northeast & Islands. (ERIC Document Reproduction Service No. ED311574)
- Ruppert, S. S. (2001, February). *Improving pension portability for K-12 teachers*. Retrieved September 20, 2001, from the State Higher Education Executive Officers (SHEEO) Web site: <http://www.sheeo.org/quality/mobility/mobility-briefs.htm>
- Shen, J. (1997). Teacher retention and attrition in public schools: Evidence from SASS 1991. *Journal of Educational Research*, 91(2), 81-88.
- Singer, J. D. (1993a). Are special educators' career paths special? Results from a 13-year longitudinal study. *Exceptional Children*, 59, 262-279.
- Singer, J. D. (1993b). Once is not enough: Former special educators who return to teaching. *Exceptional Children*, 60, 58-72.
- SPeNSE, (n.d.a). *Table 1.30 Percent of service providers who relocated to accept their current position, by type of service provider*. Retrieved February 11, 2003, from [http://www.spense.org/scripts/tables/htdocs/Table1\\_30.htm](http://www.spense.org/scripts/tables/htdocs/Table1_30.htm)
- SPeNSE, (n.d.b). *Table 1.31 Percent of service providers whose relocation involved moving to a different state, by type of service provider*. Retrieved February 11, 2003, from [http://www.spense.org/scripts/tables/htdocs/Table1\\_31.htm](http://www.spense.org/scripts/tables/htdocs/Table1_31.htm)
- Texas Education Agency Austin Division of Policy Planning and Evaluation. (1995). *Texas teacher retention, mobility, and attrition*. (ERIC Document Reproduction Service No. ED399233)
- U. S. Department of Education. (n.d.a). *Table AC1. Total number of teachers employed (in full-time equivalency) to provide special education and related services for children and youth ages 3-5 with disabilities, during the 2000-2001 school year*. Retrieved May 23, 2003, from [http://www.ideadata.org/tables25th/ar\\_ac1.htm](http://www.ideadata.org/tables25th/ar_ac1.htm)
- U. S. Department of Education. (n.d.b). *Table AC2. Total number of teachers employed (in full-time equivalency) to provide special education and related services for children and youth ages 6-21 with disabilities, during the 2000-2001 school year*. Retrieved May 23, 2003, from [http://www.ideadata.org/tables25th/ar\\_ac2.htm](http://www.ideadata.org/tables25th/ar_ac2.htm)
- U. S. Department of Education. (1996). *Eighteenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Washington, DC: Author. Retrieved January 27, 2003, from <http://www.ed.gov/pubs/OSEP96AnlRpt/chap1e.html>
-



- 
- U. S. Department of Education. (1998). Special education teachers: National trends in demand and shortage. In *To assure the free appropriate public education of all children with disabilities* (pp. III-1--III-22). Washington, DC: Author.
- WestEd. (n.d.). *Northeast regional credential program*. Retrieved October 12, 2001, from <http://www.wested.org/cs/wew/view/pj/185>
- Wisconsin Department of Public Instruction. (n.d.). *Quality staff: Teacher exchange agreement*. Retrieved October 12, 2001, from <http://www.dpi.state.wi.us/dpi/dlsea/een/sip3g.html>
- Wise, A. (1994). The coming revolution in teacher licensure: Redefining teacher preparation. *Action in Teacher Education*, 16(2), 1-13.