
2004

Full Report
of the 2004 Data

Educator Supply and Demand in the United States

Highlights



For the most recent three years, the data show a slight downward trend in 2002 and 2003, with a slight upward trend for 2004.



Of the 64 fields surveyed, 32—or one half—continued to report shortages of educators.



All special education fields, as well as mathematics, sciences, bilingual education, plus Spanish and ESL continue to report shortages of educators.



For the ninth consecutive year, no fields are reported in the category of considerable surplus. Eight fields are reported in considerable shortage. Seven fields moved up from some shortage to considerable shortage. The number of fields reporting some surplus decreased from seven to five.



The market for elementary teachers stabilized, but the long-term trend of a slight surplus continued, particularly in certain regions of the U.S.



A number of factors in the category of “teaching environment”—such as testing, resources, and working conditions—were reported as having a negative effect on the supply of educators.



The No Child Left Behind Act (NCLB) and its implementation create concern as to how the “highly qualified” designation will affect the demand for and the supply of educators. Additionally, NCLB creates concerns on the part of school systems regarding how to fill positions in shortage fields.



Research from the American Association
for Employment in Education

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For more than 70 years, the American Association for Employment in Education, Inc. has focused on advocating for university career centers and school system HR offices as strategic partners in the staffing of school systems throughout the United States and other countries. AAEE is the only international association directly uniting the two vital components of education staffing—school districts and colleges. AAEE provides a range of services and publications to members and nonmembers designed to facilitate the career development, recruitment, and retention of educators.

The current study is the 28th research study on educator supply and demand that AAEE has conducted. Within recent years, we have observed rather significant shifts in the education marketplace. AAEE has followed these trends while providing job market information that is current and specific to more than 60 fields within education. Ideally, these data will inform groups and individuals in several contexts:

- ❖ College of education deans making choices about program modifications and recruitment of students into the education profession.
- ❖ School system HR administrators searching for highly qualified candidates.
- ❖ Career center administrators designing services for undergraduate students, graduate students, and alumni.
- ❖ Students and graduates making career decisions and developing job searches.
- ❖ State department and education agency officials making decisions about funding, education policy, and legislative mandates.
- ❖ The media and general public gaining a better understanding of education employment on both national and regional bases.

AAEE acknowledges the work of the members of the 2004 Educator Supply and Demand Research Committee who are committed to analyzing the annual data collected through survey responses from teacher education colleges, as well as monitoring trends throughout their regions and/or specialties. The Research and Data Analysis Consultation Service at the Ohio State University provides survey research expertise and statistical analyses, in addition to participation on the national committee and presentations to regional and national groups. AAEE also thanks the universities and colleges that gave us their data and perspectives in order to be a part of this research.

The association wishes to pay tribute to Jim Akin, retired director of career services at Kansas State University, who conducted the initial research in 1977, authored the original report, and guided this research for many years.

Finally, we appreciate the talents of the staff of Scholl Communications Incorporated of Deerfield, IL for their ability to take research data and terminology and shape it into a useful, interesting report for the educators and policy decision makers who will utilize the information.



BJ Bryant, Executive Director

Executive Summary: \$10 per copy. One complimentary copy per member of AAEE.

Full Research Report: \$35 per copy. Posted on the AAEE members' website (www.aaee.org); For Members Only).

State Report: \$100 per state (includes state, regional, and national comparisons).

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Executive Summary

For the first time since 2001, educators face a brighter job market. Having completed 28 years of research on educator supply and demand, AAEE has had the opportunity to observe the trends over several decades. Even the past few years have illustrated a variety of job markets in the education profession.

During the 1990s, the education market steadily climbed toward shortages in many fields, reaching a zenith in 2001 when all 64 fields surveyed were reported in either shortage or balanced categories.

The events of 2001, coupled with the economic conditions that occurred during and after that year led to slight declines in the job market during both 2002 and 2003. In some states and regions of the country, there were drastic cuts in state and local budgets. These declines materialized despite the No Child Left Behind (NCLB) legislation and related programs at the federal and state levels, all stressing quality, accountability, testing, and the critical nature of recruiting and retaining the best educators into our schools.

As state and local budgets recovered somewhat in 2004, the trend once again reversed as the market inched upward. This year, educators are encountering a more optimistic job market at the same time that school districts continue to strive to balance their staffing preferences and needs against mandates and budget limitations.

Data Collection

Surveys were sent to 1,267 teacher education colleges in the United States, asking career center directors and/or education deans to respond to market questions about each of 64 education fields in which they offer programs. Additionally, respondents were asked to react to 40 factors affecting the supply of and the demand for educators in their states and locales. The

Research and Data Analysis Consultation Service at the Ohio State University College of Education provided technical assistance in the collection and analysis of the data.

The Data

The tables on pages 8 and 9 of this report summarize the demand for educators by field and region. The tables also include 2004 data for each field, with comparative statistics from 2003.

Table 1 identifies each education field as reported on a scale of 1 to 5, with 1 representing a considerable oversupply of educators and 5 representing a considerable shortage of educators. As you follow each field across the table, you will see that there are variations from region to region that reflect small to substantial differences in the demand for educators.

Table 2 (Relative Demand by Field) reveals the following findings across the five categories.

Considerable Shortage

Respondents rated eight fields in the considerable shortage category. Included were six special education areas, physics, and mathematics. One year ago, multicategorical special education was the only field reported in this category.

It is worth noting that visual impairment was reported with a score of 4.20, falling just below the cutoff point for considerable shortage. This is yet another indicator that special education continues to be a very strong job market.

Some Shortage

In 2004, 24 of the 64 fields fell into the some shortage category. For candidates, this represents a likelihood for employment, while many employers may have difficulty filling positions.

In addition to visually impaired, fields reported in this category included areas of sci-

ence, Spanish, special services, bilingual, English as a second language, and administration.

Some teaching fields, including computer science education and library science/media specialist moved from the balanced category to the some shortage category. No fields moved downward from some shortage to balanced. Regional variations are also reflected in the data.

Balanced Supply and Demand

The balanced category included 27 of the 64 fields surveyed. For candidates and employers, this category represents a reasonably optimistic situation. Candidates have a reasonable expectation to obtain a desirable position, and employers can be reasonably confident they will be able to find qualified candidates. However, candidates may not find the exact position they desire in the exact location they desire.

Some Surplus

Five teaching fields were reported in the some surplus category. Candidates in surplus areas typically experience some difficulty obtaining employment in education and will likely need to conduct wider job searches.

This category included fields in which many institutions traditionally have offered training programs which enrolled large numbers of candidates. These include such programs as social studies, elementary-primary education, and physical education. Dance, also reported in the some surplus category, is a field that traditionally has a very small number of candidates and also a small demand.

Considerable Surplus

For the ninth consecutive year, no fields were reported in this category.

Changes from the Previous Year

Comparing the years of 2004 and 2003, only 12 fields were

lower in 2004 than in 2003; the remaining 52 fields reflected increases in demand. Of the 12 fields reporting downward scores, none changed category.

Using a difference of .10 or greater in the national composite score as an indication of meaningful change from the previous year, 28 fields report such change. Of those fields, 26 reported an increase in demand. Only two fields—German and Japanese—reported decreases in demand greater than .10.

One year ago, 47 fields reported downward trends in demand. No data were collected this year as to why German and Japanese fell in demand, but experienced observers of the field speculate that testing may be driving the curriculum and these areas are not tested. Budget cuts may eliminate small classes, and if districts cannot find teachers, they will eliminate programs, resulting in “no” demand rather than high demand.

Six fields reported increased shortages in excess of .20. It is interesting to note that five of these six fields are related to special education or special needs.

Conclusions

The job market for educators made a slight recovery in 2004. Variations among fields and within regions of the country are more notable than the variations in the overall job market.

Trend data compiled over the last 24 years indicate that the education field has remained balanced or with a slight shortage of educators.

The No Child Left Behind Act and its implementation create concern as to how the “highly qualified” designation will affect the demand for and the supply of educators. As states adjust standards and regulations to meet the revised imperatives, teacher preservice and inservice requirements will likely impact the supply of educators.

Review of Literature

From the early 1990s through 2001, nearly all education fields faced teacher shortages (Loschert, 2004). By 2003, while some fields continued to face high demands, many fields had an equal number or surplus of candidates to fill job openings, as indicated by perceptions of institutions regarding supply. Even so, it appears the demand for teachers persists in urban and rural areas, as well in some southern states such as Georgia and Florida. Nationwide, areas still facing widespread shortages are special education, mathematics, the sciences, bilingual education, English as a Second Language (ESL), and Spanish language (AAEE, 2003).

Special education is a field described as having a "severe, chronic shortage" (McLeskey, Tyler and Flippin, 2004). In 2000, a Recruiting New Teachers' (RNT) study of the largest urban school districts reported that 98% of responding districts had an immediate demand for special education teachers. According to the Bureau of Labor Statistics (2004), employment of special education teachers is expected to increase faster than average through 2012 due to the growing enrollment of special education students, which is being fueled by legislation encouraging early intervention. Over the next 10 years, the Bureau of Labor and Statistics predicts shortages of qualified teachers in this area, noting public schools today serve more than 6 million students with disabilities. Even more, all 50 states and the District of Columbia require special education teachers to be licensed with a general education credential and a specialty certificate to teach special education students.

Another growing population facing the need for teachers is English Language Learners (ELLs). The National Clearinghouse of English Language Acquisition (NCELA) reports ELLs is the fastest growing K-12 popu-

lation (Barron & Menken, 2002). Based on the most recent survey results from NCELA, in the 2000-01 school year, more than 4.5 million ELLs were enrolled in U.S. public schools, representing a 32.1% increase over the reported school enrollment for the 1997-1998 school year. ELL enrollment has increased at nearly 8 times the rate of total student enrollment over the past decade (Padolsky, 2002). A study by McKeon (1994) indicated that half of all teachers may anticipate educating an ELL during their careers. In the RNT study of urban schools (2000), 73% of respondents reported an immediate need for bilingual educators and 68% reported an immediate need for ESL teachers. The highest ELL enrollment was in California, followed by Texas, Florida, New York, Illinois, and Arizona; nevertheless the population is growing nationwide.

The need for math and science teachers is widespread as well, with respective 95% and 98% of urban school districts in the *Urban Teacher Challenge* reporting an immediate need for teachers in these areas (Recruiting New Teachers, 2000). The National Commission on Mathematics and Science Teaching for the 21st Century (2000) recently reported "the demand for certified and fully qualified math and science teachers is far outpacing supply" and projected that 170,000 new middle and high school math and science teachers will be needed over the next 10 years (p. 21). Factors leading to demand for teachers in these areas are different from special education and ESL. Some attribute the shortage to the opportunities in industry and other non-teaching professions appealing to those teachers with math and science certification (Neuborne, 2004). This is echoed by The National Commission for Mathematics and Science Teaching (2000), which notes that the preparation programs and skills of math and science teachers command much

higher salaries in other careers than are typically paid to teachers.

Minority students make up about 40% of the student population throughout the U.S., accounting for about 69% of the student population in urban school districts; minority teachers make up about 36% of the teaching force in urban areas and about 5% of the teaching force across the country (Shure, 2001). During the 1999-2000 school year, *USA Today* reported 38% of public schools did not have a single teacher of color (NEA, 2004). The Great City Schools Report (2000) highlights the need for more minority teachers in urban districts surveyed, where about 69% of students are minorities but only 36% of the teaching force is minority. Almost three quarters of responding districts reported an immediate need for teachers of color.

Although it appeared that half of the teaching areas have enough supply to meet the demand, many caution that the teacher shortages of the 1990s have not disappeared. In an interview with NEA Today (2004), B.J. Bryant, executive director of AAEE, attributed the overall leveling in supply and demand in many subjects to the current economic situations of 2002 and 2003, not to an overabundance of teacher education students. She reported that states and communities are facing large budget shortfalls, and as a result, many extracurricular activities and enrichment classes have been dropped, and class sizes have increased. Many teachers and staff have been terminated. According to Bryant, "if a school district had all the money it needed, we'd be right back to the shortages of 2001" (Loschert, 2004). This is partially because many teachers are reaching retirement age (National Center for Education Statistics, 2002), and many researchers posit teacher attrition is becoming a growing problem.

Reports on teacher attrition

range from 20%-50% of beginning teachers leaving the profession during their first three years, with the highest turnover in rural and urban areas (Darling-Hammond, 2000; Ingersoll, 2001; Ingersoll and Smith, 2003; NEA, 2004). A Teacher Attrition and Mobility study (U.S. Department of Education, 2004) found that 29% of those who leave public schools do so to retire, while 20% leave to pursue other careers and obtain better salaries or benefits. In explaining the factors leading to teacher attrition, many cite poor working conditions, disruptive students, lack of student motivation, violence in schools, uninvolved parents, lack of professionalism, heavy workloads, invasive bureaucracy, accountability standards requiring satisfactory levels of performance on standardized tests, isolation from colleagues, and large class sizes as deterrents to remaining in or entering the profession (Bureau of Labor Statistics, 2004; Voke, 2002). In inner cities and rural areas, many schools have difficulty attracting and retaining teachers. The Bureau of Labor and Statistics attributes this to overcrowded and ill-equipped schools, higher-than-average poverty rates, remote location for rural schools and relatively low salaries.

According to Boe, Cook, Bobbitt and Weber (1998), many teachers are leaving special education in particular to change careers altogether, while others are switching to general education, often due to the especially difficult working conditions for special education teachers. The Bureau of Labor Statistics (2004) notes that, while the field of special education can be rewarding, it can also be "emotionally and physically draining." This is attributed to heavy workloads, considerable amounts of paperwork and the looming threat of legal action that can be taken by parents who feel their child is not receiving adequate education. Researchers note that Congress is working to provide states financial support to address the

teacher shortage and to assist teachers in attaining the required certification to teach; however, they caution certification requirements in No Child Left Behind may exacerbate the teacher shortage (Billingsley & McLeskey, 2004).

Ingersoll (2003) notes that raising teacher salaries may be a way to fill positions, but he suggests that a better alternative may be to address working conditions identified by new teachers as their reason to leave teaching. Nationwide, there are many teacher recruitment and retention initiatives in place to combat the shortages. These include CalTeach out of California, Project ReSpecT in South Carolina and the Hawaii, Oregon, and South Carolina recruitment and retention center, specifically devoted to attracting special education teachers. The Excelsior Teacher Initiative (ETI), based in New York City, seeks to fill positions in math, science, special education, Spanish, bilingual education, ESL, and speech therapy. As cited in Voke (2002), many states have offered relocation benefits, signing bonuses, student loan forgiveness, and training for education paraprofessionals. In efforts to retain new teachers, school districts are implementing teacher-mentoring programs. For instance, school districts in Rochester, New York and Columbus, Ohio are providing mentor teachers with incentives such as relieving them from a portion of their course load to allow them to work with new teachers. Rates of retention in these areas have improved substantially (Stern, 2003). To ensure that every student has the opportunity to learn from qualified teachers, it is important for educational researchers to continue to identify areas of need and reasons for shortage, so that educational institutions and educational policy makers can continue to implement strategies to address them.

Methodology

The 28th AAEE study of teacher supply and demand in the United States was conducted in 2004. The reports since 1994 have included nonmember colleges and universities as well as AAEE members, more than doubling the number of institutions included in the data collection efforts. All institutions preparing educators, as listed in the Higher Education Directory (HEP), were sent surveys in May 2004. Approximately one month after the initial survey mailing, follow-up requests and second surveys were sent. Recipients of the hard-copy survey were given the option of completing the survey online. Additional surveys were faxed and e-mailed to colleges and universities that have responded within the past three years. Participants were asked to respond with data for each of the teaching fields for which their institutions prepared candidates. Additionally, telephone follow-up calls and faxes were made to increase the response rate.

A three-year longitudinal analysis was conducted on data from 2002, 2003, and 2004. This AAEE annual study examines the availability of educators from the supply side of universities and colleges. Periodically, a regional study of employers is conducted to help validate the responses of the colleges and universities. These studies were conducted in 1994, 1995, and 1997 in Southeastern U.S., Middle Atlantic States, and Great Lakes States (SEASCUS, MAASCUS, and GLASCUS respectively) within the ASCUS association, now AAEE. These studies have consistently validated the data provided by representatives from colleges and universities.

Questions of the Study

The assumption of this national annual survey research is that the opinions and responses of university directors of career services, directly involved in the

employment of education graduates, and of deans/directors of teacher education divisions throughout the U.S. accurately reflect the K-12 job market. This assumption is supported through the corroborating evidence provided by the three regional correlations based on employers' responses.

The major questions addressed in the 2004 study were:

What was the relative supply and demand of educators in 64 teaching, administrative, and support fields for the academic year 2003-2004, with a ranking from considerable shortage to considerable surplus of educators?

- ❖ What are the expectations of employment opportunities for the 2004-2005 academic year?
- ❖ What are the expectations regarding the increase or decrease in the number of minority candidates enrolling in education at the institutions surveyed?
- ❖ What are the additional issues or factors affecting educator supply and demand on either a regional or national basis: funding, retirement mandates, demographic shifts, changing teacher education enrollments, and mobility of new graduates and experienced educators?
- ❖ What are the trends in the supply of and demand for education candidates across the years of 2002, 2003 and 2004?

The Study Sample

A survey instrument was mailed in May 2004 to 1,267 institutions of higher education that prepare teachers in the United States. Of this number, 548 were mailed to institutional members of AAEE who are career services directors responsible for the career planning and placement of graduates in teacher education and related careers. The remaining 719 were mailed

to deans and directors of teacher education in universities that are not members of AAEE (see Appendix A). Two respondents indicated that they wanted to be removed from the study sample due to closure of their programs. Usable questionnaires were received from 426 institutions. (A complete listing of the responding institutions by region is found in Appendix D of this report.)

The AAEE members returned 292 surveys for a return rate of 53.3%. Deans and directors of education programs who are not AAEE members returned 134 surveys for a return rate of 18.6%. In total, the response rate was 33.6%. Of the total returned surveys, 90 were completed online, and 336 were completed on paper and mailed or faxed to the AAEE office. The responses were representative by response wave, and are slightly lower than the previous year's response rates, particularly with respect to nonmember institutions. Information on the responding sample sizes by region and by membership is contained in Appendix A.

The AAEE member institutions produce at least 65% of the total annual number of newly prepared educators. A large proportion of responding institutions came from five of the eleven regions (Regions 4, 5, 6, 7, and 8), which reinforces the idea that institutions from these parts of the country produce a disproportionate number of the teachers for the nation. Regions 6, 7, and 8 are home to 57% of the nation's teacher education institutions.

Instrumentation

The same 64 educator fields were used in the 2004 survey as appeared in the 2003 instrument. The 48 teaching fields used in earlier surveys were increased to 63 fields in 2001 and to 64 in 2002.

The instrument asked about employment opportunities in the coming year for elementary,

secondary, and special education. The instrument also requested information on projected availability of minority candidates for the future academic year. These questions previously were asked for elementary and secondary fields; beginning with 2000, the survey added the fields of special education to both questions.

Finally, the instrument included Likert-type items regarding factors likely to impact the employment of prospective educators. Beginning with the 2000 survey, four factors in the area of teaching environment were added: salaries, benefits, school violence, and working conditions. The 2002 survey continued to add emphasis to the study of factors by delineating whether each factor (e.g., retirement, class size, etc.) would affect supply, demand, or both. The 2003 survey removed four factors and added ten new factors. Those removed did not provide timely and relevant information. In 2004, the same factors remained but were renamed in a few instances and were reformatted into a Demand section and a Supply section.

Stability of Data Across Data Sets

For each of the 48 original teaching fields, the means for each survey and year (ASCUS 1995, AAEE 1996-2004, SEASCUS 1994, MAASCUS 1995, GLASCUS 1997) were compared. There was consistency among the 13 cohorts of respondents regarding fields with perceived shortage, surplus, and balanced conditions with respect to supply and demand. While some variation among the means was to be expected, the number of respondents for any one education field would influence the relative stability of the estimated mean. There is strong agreement between the “suppliers” (AAEE responses) and the “demanders” (employers from SEASCUS, MAASCUS, and GLASCUS).

Intraclass correlations were

generated across 45 of the original 48 teaching fields for 13 data sets (ASCUS 1995, AAEE 1996 through 2004, SEASCUS 1994, MAASCUS 1995, and GLASCUS 1997). Intraclass correlations ranged from a low of .57 to a high of .99 (see Appendix B which also contains definitions of the data sets). The correlations across the years 1994, 1995, and 1997 based on the responses from the demand side (school districts) were a low of .91 to a high of .98. The data across years for ASCUS/AAEE are very stable from year to year. The same is true for the data from employers (SEASCUS 1994, MAASCUS 1995, and GLASCUS 1997). The correlations across years are higher for years that are closer in proximity to each other and become lower as time between studies increases.

Data Analyses

The data were analyzed by checking for representativeness of the return sample on the variables of AAEE/non-AAEE membership, regions, and response wave. The response sample was found to be representative by response wave, but not representative by region and

AAEE/non-AAEE membership. Significantly more AAEE members returned the survey than non-AAEE members. This situation is not likely to adversely influence the reported data as the majority of teacher preparation institutions with high enrollments belong to AAEE. In addition, there were small differences in response rate by region, particularly for non-AAEE members.

AAEE members and non-members were compared across each of the 64 education fields with respect to perceived need for those fields. There were significant differences, based on independent samples t-tests, on 6 of the 64 fields, with non-AAEE institutions indicating a higher perceived need for educators. On most items, the perceptions of the AAEE and non-AAEE members were neither statistically different nor practically meaningful. Therefore, the responses from both AAEE and non-AAEE institutions were combined into an overall data set. The combined data set was then analyzed on a national basis as well as by region, using 11 regions identified by AAEE (see Figure 1). For each of the 64 fields, regional composites

and averages were compiled to address the study questions identified above.

The number of responses differs by region, and caution should be exercised when interpreting data from some regions (e.g., regions 10 and 11 are each only one state with few responses). Analyses of variance with Scheffe post-hoc analyses were conducted to see if perceptions of the respondents differed among the 2001-2002, the 2002-2003, and the 2003-2004 academic years and opportunities for elementary, secondary, and special education teachers.

A standard error was calculated for each of the 64 fields. These values had some variation because of differing sample sizes and different standard deviations. Most of these values hovered around a value of .10, and this value has been chosen to indicate expected chance variation across each of the education fields. Therefore, when differences across years exceed .10, it is believed these represent meaningful changes. This was done to identify potentially meaningful differences that were not detected as statistically significant most likely due to small sample size.

Figure 1. AAEE Supply/Demand Regions

1=Northwest; 2=West; 3=Rocky Mountain; 4=Great Plains/Midwest; 5=South Central; 6=Southeast; 7=Great Lakes; 8=Middle Atlantic; 9=Northeast; 10=Alaska; 11=Hawaii



2004 National and Regional Results

The 2004 supply and demand study examined the perceptions of career service representatives and deans and directors of teacher education on teacher supply and demand. Data analyses yielded information on 64 education fields in 11 different geographic regions across the United States. The results are reported by educational field, national average, and region.

Respondents were asked to rate the job market for each education field on a 5-point scale with "1" representing considerable surplus of candidates, "5" representing a considerable shortage of candidates, and "3" indicating a balanced job market. After the data were compiled and analyzed, the national average score for each teaching field was charted. See Table 1 on page 8 for national and regional data for each field.

The ratings for all 64 fields surveyed in 2004 are illustrated in relative demand order in Table 2 on page 9, beginning with those fields in considerable shortage and continuing to those in some surplus. For the ninth consecutive year of the AAEE research, no fields were found to be in considerable surplus nationally.

Considerable Shortage

Fields identified as having a considerable shortage of candidates are those fields for which there is an average demand score of 4.21 or greater on the 5-point scale. For candidates, this category represents multiple job opportunities, while employers may experience challenges in filling positions. The respondents rated eight fields in the considerable shortage category. Included were six special education areas, physics, and math education. In 2003, multicategorical special education was the only field reported as in considerable shortage.

It is worth noting, however, that visual impairment was rated at 4.20, which is just below the 4.21 cut-off point. This is another indicator that special education continues to be a very strong job market. While the number of teaching fields listed as in considerable shortage decreased in 2003, the results of this survey indicate a stronger job market for 2004.

Some Shortage

Fields identified as having some shortage of candidates are those fields in which there is an average demand score of 3.41 to 4.20 on a 5-point scale. This year 24 of the 64 fields fell in the some shortage category. For candidates, this area represents a strong likelihood for employment, while employers may have difficulty filling positions. In addition to visually impaired, other fields reported in this category included science, Spanish, special services, bilingual, ESL, and administration. Science includes chemistry, biology, general science, and earth/physical science. Special services personnel include speech pathologist, audiologist, physical therapist, school nurse, library science/media technology, school psychologist, and occupational therapist. Administrative areas include superintendent, elementary, middle school, and high school principal.

Some teaching fields that were previously considered balanced have moved up to the some shortage category. For example, computer science education and library science/media specialist moved from the balanced supply and demand category to the some shortage category. No fields moved down from the some shortage category to the balanced supply and demand category.

Balanced Supply and Demand

Fields identified as having balanced supply and demand of candidates are those fields in which there is an average de-

mand score of 2.61 to 3.40 on a 5-point scale. There are 27 fields out of 64 represented in the balanced category. For candidates and employers, this category represents a reasonably optimistic situation. Candidates have a reasonable expectation for obtaining a desirable position and employers can be reasonably confident they will be able to find qualified candidates. As always, candidates may not find the position they desire in the location they desire.

Areas in the balanced category included vocational, administrative, languages, the arts, and some elementary fields. Fields such as agriculture education, business education, and home economics/consumer science were all listed in the balanced category. Administrative areas included business manager, curriculum director, and human resources director.

Language areas found in the balanced category were classics, French, Japanese, and German. Included in the arts area were speech education, theatre/drama, instrumental and vocal music, and art/visual education.

The elementary fields in the balanced category included pre-K, kindergarten, and intermediate.

Some Surplus

Fields identified as having some surplus of candidates are those fields in which there is an average demand score of 1.81 to 2.60 on a 5-point scale. There were five teaching fields represented in the some surplus category. Candidates in surplus areas may typically experience some difficulty obtaining employment in education and will likely have to conduct wider job searches.

This category included fields in which many institutions offered training programs and large numbers of candidates were enrolled in those programs, such as social studies, primary (elementary) education, and physical education. Dance is a field in the surplus category that

traditionally has a very small number of candidates and also a small demand.

Considerable Surplus

Fields identified as having considerable surplus of candidates are fields in which there is an average demand score of 1.00 to 1.80 on a 5-point scale. For the ninth consecutive year, no fields have fallen within the considerable surplus category.

Changes from the Previous Year

In this year's study, 54 of the 64 fields (84%) reflected an increase in demand. Only nine fields were lower than reported in 2003 and one was identical; none of the nine fields with downward movement caused a change of category.

Using a difference of .10 or greater in the national composite score as an indication of notable change from the previous year, there were 28 fields that exhibited such a change. Of those 28 fields, 26 indicated an increase in demand.

Only two fields, German and Japanese, reported a decrease in demand greater than .10. This is a change from last year when 47 fields exhibited a downward trend in demand. No data were collected this year as to why German and Japanese fell in demand, but experienced observers of the study speculate that testing may be driving the curriculum, and these areas are not required for state student competency tests. Budget cuts may eliminate small classes, and if districts cannot find qualified teachers (both languages have been reported in the some shortage category in previous years), they may eliminate programs, resulting in "no" demand rather than high demand.

Six fields reported an increase in excess of .20. They are: emotional/behavior disabled, severe/profound disabled, early childhood special education, occupa-

– continues on page 10

Table 1

Teacher Supply and Demand by Field and Region

Region codes: 1 - Northwest, 2 - West, 3 - Rocky Mountain, 4 - Great Plains/Midwest, 5 - South Central, 6 - Southeast, 7 - Great Lakes, 8 - Middle Atlantic, 9 - Northeast, 10 - Alaska and 11 - Hawaii. (See map on page 6.)
 Demand codes: 5.00 - 4.21 = Considerable Shortage; 4.20 - 3.41 = Some Shortage; 3.40 - 2.61 = Balanced; 2.60 - 1.81 = Some Surplus; 1.80 - 1.00 = Considerable Surplus

Field	Region											National		Change
	1	2	3	4	5	6	7	8	9	10	11	2004	2003	
Agriculture	4.00	3.80	2.50	3.82	3.17	2.91	3.14	3.71	—	—	—	3.36	3.39	-0.03
Art/Visual Education	2.56	2.45	2.56	2.90	2.87	2.57	2.78	2.52	2.53	—	2.00	2.69	2.65	0.04
Bilingual Education	4.13	3.94	4.00	3.73	4.41	4.44	4.31	4.00	4.20	—	—	4.12	4.07	0.05
Business Education	3.00	2.46	2.83	3.11	2.33	3.18	2.96	3.00	3.00	—	3.00	2.89	2.86	0.03
Computer Science Education	3.33	3.20	3.50	3.40	3.29	3.63	3.48	3.20	4.33	—	—	3.43	3.35	0.08
Dance Education	2.50	2.25	2.00	2.33	2.86	2.38	2.38	2.50	2.80	—	—	2.48	2.54	-0.06
Driver Education/Traffic Safety	3.00	3.50	—	3.25	2.33	2.80	2.82	3.00	—	—	—	2.85	2.60	0.25
Elementary Education														
Pre-K	2.22	3.11	2.89	2.43	3.15	3.36	2.38	2.57	2.94	3.00	3.00	2.74	2.62	0.12
Kindergarten	2.29	2.77	2.69	2.38	3.11	3.26	2.36	2.49	2.80	4.00	2.50	2.65	2.55	0.10
Primary	2.13	2.88	2.69	2.25	3.03	3.27	2.18	2.51	2.59	3.50	2.67	2.59	2.49	0.10
Intermediate	2.20	2.85	2.73	2.51	3.31	3.32	2.55	2.59	2.67	3.50	3.50	2.75	2.69	0.06
Middle	2.93	3.04	2.92	2.92	3.50	3.78	2.92	2.92	3.00	3.50	4.00	3.11	3.05	0.06
English/Language Arts	2.54	3.16	2.80	3.14	3.04	3.33	2.79	2.72	2.62	2.00	—	2.95	2.87	0.08
English as a Second Lang. (ESL)	3.85	3.45	4.00	3.81	3.64	4.14	3.89	4.00	3.71	4.00	2.00	3.82	3.78	0.04
Health Education	2.33	2.40	2.14	2.46	2.61	2.50	2.54	2.25	2.33	—	—	2.46	2.49	-0.03
Home Economics/Consumer Sci.	3.33	2.90	2.50	3.53	3.00	3.47	3.28	3.50	2.67	—	—	3.25	3.15	0.10
Journalism Education	2.50	2.60	3.00	2.81	2.88	2.86	2.67	3.00	—	—	—	2.78	2.76	0.02
Languages														
Classics	3.00	3.00	2.50	3.00	3.20	3.56	3.71	3.20	4.00	—	—	3.25	3.23	0.02
French	2.60	2.74	2.89	3.11	3.00	3.42	3.23	3.08	3.30	—	—	3.12	3.17	-0.05
German	2.70	2.54	2.43	2.92	2.69	3.46	3.14	2.74	3.20	—	—	2.95	3.14	-0.19
Japanese	2.80	2.89	2.33	3.00	3.33	3.00	3.40	3.25	3.00	—	3.00	3.04	3.23	-0.19
Spanish	3.62	3.25	4.11	3.89	3.89	4.21	3.93	3.79	4.08	4.00	3.00	3.86	3.82	0.04
Mathematics Education	4.08	4.33	4.42	4.22	4.00	4.45	4.03	4.27	4.07	5.00	5.00	4.21	4.20	0.01
Music Education														
Instrumental	3.70	3.05	3.75	3.57	3.09	3.00	3.13	2.82	2.88	—	—	3.21	3.08	0.13
Vocal	3.70	2.90	3.75	3.48	3.00	2.97	3.07	2.86	3.00	—	—	3.16	3.06	0.10
General	3.70	2.86	3.56	3.48	2.95	3.03	2.96	2.66	3.00	3.00	3.00	3.07	2.99	0.08
Physical Education	2.45	2.30	2.00	2.35	2.41	2.42	2.40	2.30	2.64	—	3.00	2.38	2.36	0.02
Reading	3.09	3.38	3.27	3.44	3.20	3.64	3.07	3.38	3.40	3.00	—	3.31	3.17	0.14
Science Education														
Biology	3.77	4.16	3.42	3.95	4.13	3.93	3.78	3.66	4.24	—	4.00	3.88	3.79	0.09
Chemistry	4.08	4.30	4.22	4.27	4.22	4.14	4.09	3.98	4.54	—	—	4.16	4.08	0.08
Earth/Physical	3.78	4.23	3.75	3.76	3.92	3.96	3.88	3.64	4.31	—	—	3.88	3.76	0.12
Physics	4.42	4.27	4.13	4.34	4.14	4.26	4.33	4.35	4.54	—	—	4.31	4.19	0.12
General	3.92	4.30	3.83	3.72	4.08	3.85	3.69	3.63	4.31	5.00	5.00	3.85	3.71	0.14
Social Studies Education	2.38	2.31	2.21	2.61	3.08	2.54	2.42	2.17	2.94	3.00	2.00	2.49	2.41	0.08
Special Educaton														
Multicategorical	4.50	4.50	4.20	4.14	4.50	4.47	4.30	4.38	4.50	—	5.00	4.36	4.22	0.14
Emotional/Behavioral Disorders	4.50	4.40	4.43	4.39	4.33	4.30	4.11	4.38	4.50	—	—	4.32	4.09	0.23
Hearing Impaired	4.25	4.25	4.67	4.00	3.67	4.22	4.00	4.29	4.00	—	—	4.11	3.95	0.16
Learning Disability	4.33	4.33	4.29	4.32	4.33	4.21	4.07	4.12	4.33	—	—	4.22	4.05	0.17
Mental Retardation	4.50	4.33	4.50	4.14	4.14	4.21	4.21	4.00	4.29	—	—	4.23	4.07	0.16
Visually Impaired	4.50	3.67	4.50	4.00	4.17	4.50	4.00	4.33	4.50	—	—	4.20	4.04	0.16
Mild/Moderate Disabilities	4.20	4.57	4.25	4.24	4.50	4.50	4.21	4.00	4.20	5.00	5.00	4.32	4.15	0.17
Severe/Profound Disabilities	4.33	4.62	4.40	4.25	4.40	4.75	4.48	3.89	4.43	—	—	4.42	4.20	0.22
Early Childhood Special Ed.	4.25	4.33	4.20	4.00	4.25	4.26	4.06	3.75	4.00	4.00	—	4.08	3.81	0.27
Dual Certificate (Gen./Spec.)	4.50	4.00	4.17	3.96	4.31	4.31	4.13	4.09	4.10	4.00	4.50	4.14	3.98	0.16
Speech Education	3.00	3.38	2.00	3.23	3.08	3.58	3.00	3.67	—	—	—	3.20	3.14	0.06
Technology Education	3.60	3.60	3.14	4.17	3.50	3.64	3.73	3.91	4.00	—	—	3.74	3.57	0.17
Theatre/Drama Education	2.55	2.60	2.17	3.00	2.42	2.72	2.74	3.00	2.63	—	—	2.70	2.70	0.00

Field	1	2	3	4	5	6	7	8	9	10	11	2004	2003	Change
Administration														
Principal														
Elementary	3.25	3.24	3.30	3.52	3.18	3.46	3.47	3.62	3.60	3.00	4.00	3.43	3.37	0.06
Middle School	3.25	3.19	3.33	3.55	3.27	3.54	3.64	3.58	3.70	—	4.00	3.48	3.39	0.09
High School	3.50	3.24	3.33	3.60	3.36	3.41	3.60	3.64	3.70	3.00	5.00	3.51	3.43	0.08
Business Manager	3.50	3.25	3.00	3.00	3.00	3.20	3.09	3.13	3.50	—	—	3.14	3.06	0.08
Curriculum Director	2.00	3.00	3.00	3.00	3.00	3.15	3.13	3.06	3.50	—	—	3.06	3.04	0.02
Human Resources Director	—	3.17	3.00	3.22	3.00	2.83	3.00	3.00	3.00	—	—	3.05	2.93	0.12
Superintendent	3.25	2.90	3.67	3.79	3.41	3.79	3.63	3.52	4.29	3.00	—	3.59	3.50	0.09
Additional Services														
Audiologist	3.00	4.00	3.50	4.00	3.25	3.86	3.83	3.43	3.00	—	—	3.71	3.75	-0.04
Counselor	3.56	2.95	3.25	3.48	3.26	3.40	3.32	3.04	3.31	4.00	4.00	3.29	3.30	-0.01
Gifted/Talented Education	3.20	3.40	4.00	3.19	3.38	3.20	2.86	3.00	3.50	—	—	3.22	3.09	0.13
Library Science/Media Tech.	3.00	3.00	3.50	3.56	3.14	3.57	3.53	3.88	3.33	—	—	3.49	3.31	0.18
Occupational Therapist	3.00	3.00	4.00	3.30	3.00	3.71	3.57	3.20	4.50	—	—	3.46	3.22	0.24
Physical Therapist	3.00	3.00	3.50	3.64	3.80	3.80	3.57	3.67	3.75	—	—	3.66	3.30	0.36
School Nurse	4.00	3.18	4.50	3.43	3.33	3.92	3.42	3.45	3.33	—	—	3.51	3.52	-0.01
School Psychologist	4.00	3.50	3.33	3.53	3.22	3.50	3.58	3.31	3.50	—	—	3.49	3.43	0.06
School Social Worker	3.00	3.00	3.33	3.31	3.50	3.38	3.36	3.29	3.29	—	—	3.30	3.26	0.04
Speech Pathologist	4.00	4.36	4.33	3.89	3.82	4.00	3.85	3.78	4.50	—	—	3.95	3.74	0.21
COMPOSITE	3.26	3.38	3.26	3.32	3.40	3.57	3.24	3.31	3.39	3.76	3.55	3.35	3.27	0.08
Number of Participants	15	35	16	69	33	61	84	70	24	2	3	426*	501*	

* Questionnaires returned without indication of region computed in the national averages only. Total of regional participants does not equal national total.

Table 2

Relative Demand by Field

Fields with Considerable Shortage (5.00 - 4.21)

Severe/Profound Disabilities (Spec. Ed.)	4.42
Multicategorical (Spec. Ed.)	4.36
Emotional/Behavioral Disorders (Spec. Ed.)	4.32
Mild/Moderate Disabilities	4.32
Physics	4.31
Mental Retardation (Spec. Ed.)	4.23
Learning Disability (Spec. Ed.)	4.22
Mathematics Education	4.21

Fields with Some Shortage (4.20 - 3.41)

Visually Impaired	4.20
Chemistry	4.16
Dual Certificate (Gen./Spec.)	4.14
Bilingual Education	4.12
Hearing Impaired	4.11
Early Childhood Special Education	4.08
Speech Pathologist	3.95
Biology	3.88
Earth/Physical	3.88
Languages – Spanish	3.86
General Science	3.85
English as a Second Language	3.82
Technology Education	3.74
Audiologist	3.71
Physical Therapist	3.66
Superintendent	3.59
School Nurse	3.51
High School Principal	3.51
Library Science/Media Technology	3.49
School Psychologist	3.49
Middle School Principal	3.48
Occupational Therapist	3.46
Elementary Principal	3.43
Computer Science Education	3.43

Fields with Balanced Supply and Demand (3.40 - 2.61)

Agriculture	3.36
Reading	3.31
School Social Worker	3.30
Counselor	3.29
Home Economics/Consumer Science	3.25
Languages – Classics	3.25
Gifted/Talented Education	3.22
Music – Instrumental	3.21
Speech Education	3.20
Music – Vocal	3.16
Business Manager	3.14
Languages – French	3.12
Elementary – Middle	3.11
Music – General	3.07
Curriculum Director	3.06
Human Resources Director	3.05
Languages – Japanese	3.04
English/Language Arts	2.95
Languages – German	2.95
Business Education	2.89
Driver Education/Traffic Safety	2.85
Journalism Education	2.78
Elementary – Intermediate	2.75
Elementary – Pre-Kindergarten	2.74
Theatre/Drama	2.70
Art/Visual Education	2.69
Elementary – Kindergarten	2.65

Fields with Some Surplus (2.60 - 1.81)

Elementary – Primary	2.59
Social Studies Education	2.49
Dance Education	2.48
Health Education	2.46
Physical Education	2.38

Fields with Considerable Surplus (1.80 - 1.00)

None

tional therapy, physical therapy, and speech pathology, as well as the field of driver education (reported by institutions where the field is still offered). It is interesting to note that five of these six fields are related to special education or special needs.

Overall, 32 out of 64 (50%) of the education fields were perceived to be in considerable or some shortage. An additional 27 out of 64 were perceived to be balanced between supply and demand. The composite ranking for all education fields for 2004 was 3.35, up .08 from 2003. This ranking fell within the upper end of the balanced category.

National Three-Year Trend Data

This year's AAEE research study examined three-year trend data from 2002 to 2004 for 64 fields. Three-year trend data are reported in Table 3.

It was noteworthy that in 2004, four fields followed a downward trend for the three years, two fields followed an upward trend, and the remaining 58 fields exhibited no trend in the three year period. Only one field increased in demand by > .30 (physical therapist). Six fields moved by > .20 (all special needs fields plus drivers education). Two fields decreased in demand by > .10 (German and Japanese). Only nine fields changed downward between 2003 and 2004.

Overall, the composite ranking for 2004 was 3.35, placing the composite demand for educators in the balanced category. This marks a notable change in the three-year period, since 2003 was .18 lower than 2002, but 2004 showed a slight increase of .08 over 2003. Looking at many fields in the three-year trend, 2004 showed a slight upturn from 2003 which was typically lower than 2002, providing a U-shaped trend. In general 2002 was a higher year, with 2003 the lower year and a slight reverse upward in 2004. As mentioned elsewhere, these fluctuations appear to be driven

by finances—school budgets increasing or decreasing the demand for hiring educators—now for shifts in supply of educators.

In order to further examine the three-year trends of the 64 fields, a Scheffe post-hoc analysis was conducted on fields demonstrating significant difference. The data can be seen in "Sig" Column of Table 3. Twenty-six of the 64 fields showed significant differences across three years (2002-2003-2004). Eleven of 26 also reflect a meaningful difference between 2003 and 2004. An additional 19 meaningful differences are not statistically significant between 2003 and 2004; the composite reflects a significant difference with 2002 being greater than 2003 and 2004. In addition, 55 of the 64 fields demonstrated a meaningful difference of .10 or greater in one or more of those years. The majority of the remaining meaningful differences occurred between 2002 and 2003, reflected by the precipitous drop in 2003, as shown in Table 3.

Thus, despite the gradual downturn during 2002 and 2003, the highest demand areas in 2004 continue to be all areas of special education, bilingual education, ESL, Spanish, mathematics education, all areas of science, technology education, all principalships, superintendent, audiology, school nursing, and school psychology, all of which fell into the considerable shortage or some shortage categories. At the other end of the spectrum, five fields—dance education, elementary/primary, health education, physical education, and social studies education—were in the some surplus category. For the ninth consecutive year, there were no fields in the considerable surplus category.

The data, however, may belie the actual situation. School funding cuts have played a major role in the reflected decrease in teacher demand. Budget reductions have forced schools to hire fewer teachers and to rely on

increasing class sizes or cutting programs in order to balance budgets. It is significant that one-half of all added comments from survey respondents referred to the negative impact that national, state, and local finances had had on educator employment.

It is yet unclear what ultimate effects No Child Left Behind legislation is having on the trends in educator supply and demand. Certainly, the standards call for fully certified and licensed educators to be hired. Also, with standardized testing of students setting the parameters for curriculum choices in many schools, the "tested" fields of reading, communications, and math will be as fully staffed as school systems can afford. However, the "non-tested" areas of music, physical education, theatre, foreign languages, etc. may be in less demand if budget dollars are needed for the required competency areas.

Projected Availability of Opportunities

Respondents were asked about their expectations of employment possibilities for the current year as compared to 2003-2004 school year for elementary, secondary, and special education teachers (see Table 4 on page 12). At the elementary and secondary levels, more than half of the respondents indicated that employment opportunities would be the same, 55.7% and 53.8% respectively. We see a pattern similar to last year's distribution of responses.

Availability of Minority Candidates

Institutions were asked to provide their perceptions of the increase or decrease in the number of minority teacher candidates coming through their institutions for the current year as compared to the previous year, a one-year comparison. The NCES (1998) predicted by the early 21st century, the percentage of minority teachers would shrink to a low of 5 percent. The perceptions of

the institutional responses, however, do not suggest the supply of minority teachers is diminishing.

Overall, in elementary and secondary settings, the majority of respondents indicated a number of minority teacher candidates consistent with the previous year, 63.5% and 66.6% respectively. When the responses are disaggregated by region, regional variations are reflected. In some instances, the reader should take note that different numbers of respondents across regions will result in variations of percentages due to sample size.

For the current year, within elementary education, only Regions 5 and 6 fell below the 50% threshold of seeing no change (see Table 5). Region 5 (TX, OK, AR, and LA), more so than other regions, appears to have a split 'vote', as 23.5% indicated a decrease from the previous year of 1 - 5%, 32.4% indicated an increase of 1 - 5%, and the same percentage indicated no change. This could be due to one state's effect within the region. One such example would be varying routes to certification within states, alternative versus traditional. For instance, NCES (1999) reported that Texas's alternative certification programs produce almost half of their minority teachers. In Region 6, while the majority of respondents reported stable to slight increase in minority teacher candidates,

Table 3 Key

4.21-5.00 = Considerable Shortage
 3.41-4.20 = Some Shortage
 2.61-3.40 = Balanced
 1.81-2.60 = Some Surplus
 1.00-1.80 = Considerable Surplus

Three-Year Trend

"+" = all three years upward
 "-" = all three years downward
 "0" = three years in different directions
 L=Low Year;
 M=Middle Year;
 H=High Year

Significance

B = 2002 > 2003 and 2002 > 2004
 C = 2002 > 2003
 D = 2002 > 2004
 Blank = no significance

Table 3

Three-Year Trends (Key on page 10.)

Field	2004	2003	2002	2004	2003	2002	+ - 0	1-yr. diff.	Sig
Agriculture	3.36	3.39	3.34	M	H	L	0	-0.03	
Art/Visual Education	2.69	2.65	2.88	M	L	H	0	0.04	A
Bilingual Education	4.12	4.07	4.10	H	L	M	0	0.05	
Business Education	2.89	2.86	3.07	M	L	H	0	0.03	B
Computer Science Education	3.43	3.35	3.65	M	L	H	0	0.08	B
Dance Education	2.48	2.54	2.54	L			0	-0.06	
Driver Education Traffic Safety	2.85	2.60	2.94	M	L	H	0	0.25	*
Elementary - Pre-K	2.74	2.62	2.95	M	L	H	0	0.12	A *
Elementary - Kindergarten	2.65	2.55	2.85	M	L	H	0	0.10	A *
Elementary - Primary	2.59	2.49	2.88	M	L	H	0	0.10	A *
Elementary - Intermediate	2.75	2.69	3.03	M	L	H	0	0.06	A
Elementary - Middle School	3.11	3.05	3.35	M	L	H	0	0.06	A
English/Language Arts	2.95	2.87	3.10	M	L	H	0	0.08	A
English as a Second Language	3.82	3.78	3.91	M	L	H	0	0.04	
Health Education	2.46	2.49	2.63	L	M	H	-	-0.03	
Home Ec/Consumer Science	3.25	3.15	3.42	M	L	H	0	0.10	*
Journalism Education	2.78	2.76	2.97	M	L	H	0	0.02	
Languages - Classics	3.25	3.23	3.32	M	L	H	0	0.02	
Languages - French	3.12	3.17	3.31	M	L	H	0	-0.05	C
Languages - German	2.95	3.14	3.22	L	M	H	-	-0.19	C *
Languages - Japanese	3.04	3.23	3.44	L	M	H	-	-0.19	*
Languages - Spanish	3.86	3.82	3.96	M	L	H	0	0.04	
Mathematics Education	4.21	4.20	4.28	M	L	H	0	0.01	
Music - Instrumental	3.21	3.08	3.29	M	L	H	0	0.13	B *
Music - Vocal	3.16	3.06	3.23	M	L	H	0	0.10	B *
Music - General	3.07	2.99	3.23	M	L	H	0	0.08	B
Physical Education	2.38	2.36	2.55	M	L	H	0	0.02	B
Reading	3.31	3.17	3.37	M	L	H	0	0.14	B *
Science - Biology	3.88	3.79	3.89	M	L	H	0	0.09	
Science - Chemistry	4.16	4.08	4.20	M	L	H	0	0.08	
Science - Earth/Physical Science	3.88	3.76	3.96	M	L	H	0	0.12	B *
Science - Physics	4.31	4.19	4.26	H	L	M	0	0.12	*
Science - General	3.85	3.71	3.81	H	L	M	0	0.14	*
Social Studies Education	2.49	2.41	2.63	M	L	H	0	0.08	B
Spec. Ed. - Multicategorical	4.36	4.22	4.20	H	M	L	+	0.14	*
Spec. Ed. - Emotional/Behavior. Dis.	4.32	4.09	4.42	M	L	H	0	0.23	B *
Spec. Ed. - Hearing Impaired	4.11	3.95	4.17	M	L	H	0	0.16	*
Spec. Ed. - Learning Disability	4.22	4.05	4.21	H	L	M	0	0.17	*
Spec. Ed. - Mental Retardation	4.23	4.07	4.26	H	L	M	0	0.16	*
Spec. Ed. - Visually Impaired	4.20	4.04	4.19	H	L	M	0	0.16	*
Spec. Ed. - Mild/Moderate Disabilities	4.32	4.15	4.23	H	L	M	0	0.17	*
Spec. Ed. - Severe/Profound Dis.	4.42	4.20	4.35	H	L	M	0	0.22	*
Spec. Ed. - Early Childhood Spec. Ed.	4.08	3.81	3.82	H	L	M	0	0.27	*
Spec. Ed. - Dual Cert. (Gen./Spec.)	4.14	3.98	3.92	H	M	L	+	0.16	*
Speech Education	3.20	3.14	3.19	H	L	M	0	0.06	
Technology Education	3.74	3.57	4.02	M	L	H	0	0.17	B *
Theatre/Drama	2.70	2.70	2.87			H	0	0.00	
Principal - Elementary	3.43	3.37	3.59	M	L	H	0	0.06	B
Principal - Middle School	3.48	3.39	3.65	M	L	H	0	0.09	B
Principal - High School	3.51	3.43	3.72	M	L	H	0	0.08	A
Business Manager	3.14	3.06	3.38	M	L	H	0	0.08	B
Curriculum Director	3.06	3.04	3.18	M	L	H	0	0.02	
Human Resources Director	3.05	2.93	3.23	M	L	H	0	0.12	*
Superintendent	3.59	3.50	3.67	M	L	H	0	0.09	
Audiologist	3.71	3.75	3.84	M	L	H	0	-0.04	
Counselor	3.29	3.30	3.36	L	M	H	-	-0.01	
Gifted/Talented Education	3.22	3.09	3.33	M	L	H	0	0.13	*
Library Science/Media Tech.	3.49	3.31	3.60	M	L	H	0	0.18	B *
Occupational Therapist	3.46	3.22	3.36	H	L	M	0	0.24	*
Physical Therapist	3.66	3.30	3.48	H	L	M	0	0.36	*
School Nurse	3.51	3.52	3.44	M	L	H	0	-0.01	
School Psychologist	3.49	3.43	3.52	M	L	H	0	0.06	
School Social Worker	3.30	3.26	3.26	H			0	0.04	
Speech Pathologist	3.95	3.74	3.91	H	L	M	0	0.21	*
Composite	3.35	3.27	3.45	M	L	H	0	0.08	A
Number of colleges responding	426	501	498						

almost 8% (about 6 institutions) indicated a decrease of at least 6%.

Viewing the responses regarding secondary minority candidates, we see a similar overall pattern, with only Region 5 falling below the 50% threshold of reporting seeing no change. Region 6 is only slightly above at 54.7%. Unlike elementary, secondary institutions seem to have some split in their perceptions, as many regions have the same number of respondents indicating a 1 – 5% increase as those indicating a 1 – 5% decrease in minority teacher candidates. These regions include Region 1, Region 3, Region 5, Region 8, and Region 9. Within secondary, Region 6 and Region 1 had the largest percentage of respondents reporting moderate decreases—at least 6%—in their minority teacher candidates.

Within special education, about three-fourths of institutions responding indicated no change in the perceived number of minority teacher candidates. There is great similarity in perceptions by region, with the possible exception of Regions 3 and 5. Region 3, composed of Montana, Wyoming, Colorado, and New Mexico had no institution indicating an increase or decrease of greater than 6%. Instead, about 46% of respondents reported no change, 38% reported a 1 – 5% increase and a little more than 15% reported a decrease of 1 – 5%. Region 5 had great variability, with almost 12% indicating a 6 – 9% increase, approximately 18% reporting 1 – 5% increase and around 15% signaling a 1 – 5% decrease in candidates.

Issues of Supply and Demand Related to the Special Education Professions

The nationwide demand for special educators remained the highest of any field. Along with physics and math teachers, six categories of special educators were in considerable shortage including severe/profound disabilities, multi-categorical, emo-

tionally disturbed/behavior disorders, mild/moderate disabilities, mental retardation, and learning disabilities (see Table 2). Teaching of the visually and hearing impaired, as well as early childhood special educators, were fields in some shortage. Candidates in occupations related to special education—speech pathology, audiology, physical therapy, school psychology, and occupational therapy—were a little easier for school districts to find, though still considered areas of some shortage.

The demand for special educators varied little by region, with the possible exception of the severe/profound disabilities category of teachers, which had only a moderate shortage in the Eastern region (see Table 1). More regional variation existed for special education support occupations such as speech pathologist (the Western, Mountain, and Northeastern regions still showed a considerable shortage), occupational therapists (the Northeast showing a considerable shortage unlike the balanced supply in other regions, especially the West and Southwest) and physical therapists (balanced supply in the West but some shortages everywhere else).

The increase in demand for special educators from 2003 to 2004 outpaced the general increase in demand for teachers as a whole by a factor of two in

each special education field and for physical and occupational therapists (see Table 1). Modest shortages remained constant only in the related occupations of audiologists and school psychologists. The increasing need for special education teachers may reflect an increase in demand due to a slight rebound in state and local funding for education or the increasing number of students being identified as needing those services.

When asked about employment opportunities for special educators for the next school year (2004-2005), about half of the respondents believed they would be better, and a third thought opportunities would be about the same. In contrast, only one in three believed that secondary teaching opportunities would improve and only one in four thought elementary job opportunities would increase.

It should be noted that the category of “multi-categorical” in special education is a relatively new category in licensure being offered by an increasing number of states over the past five years. This may explain its emergence as a high shortage area (second highest of any field in 2004) as more and more school districts seek candidates with the multicategorical license. This may facilitate staffing crunches in classrooms that are combining students with an array of disabili-

ties, including regular education classrooms.

Factors Affecting Educator Supply and Demand

For the past 12 years, AAEE has collected information on the factors that affect the supply of educators and/or the demand for educators. For the fourth consecutive year, respondents shared perceptions as to how 40 factors (12 regarding demand and 28 regarding supply) affect the education job market and its context. For each factor, response choices ranged from 5 (significantly positive influence) to 1 (significantly negative influence). The 2004 results are reported in Table 6 on page 14. Analysis of the factors was completed using the scale indicated.

Demand Factors

Local funding and state funding were perceived as moderately negative influences on the demand for new educators. This is consistent with the comments provided by respondents indicating that state and local funding issues have had negative influences on the demand for educators. States and cities across the country have responded to budget changes or shortfalls in various degrees, but it is clear that most areas have been affected negatively by funding over the past three years. The remaining

Table 4

Projections of Availability of Teaching and Education-Related Employment Opportunities for 2004-2005 Based on Current Year (2003-2004)

		Elementary					Total
		Much Greater	Greater	Same	Less	Much Less	
National	n	17	77	229	71	17	411
	%	4.1	18.7	55.7	17.3	4.1	100.0
		Secondary					Total
		Much Greater	Greater	Same	Less	Much Less	
National	n	19	109	222	56	7	413
	%	4.6	26.4	53.8	13.6	1.7	100.0
		Special Education					Total
		Much Greater	Greater	Same	Less	Much Less	
National	n	65	135	127	45	13	385
	%	16.9	35.1	33.0	11.7	3.4	100.0

Table 5**Availability of Minority Candidates**

In general, do you expect to see an increase or decrease in the number of minority teacher candidates this year as compared to last year in teaching fields offered by your institution.

Elementary							
	+10%	+6-9%	+1-5%	No Change	-1-5%	-6-9%	-10%
National 2004	2.7	1.5	17.8	63.5	11.4	1.5	1.7
National 2003	1.0	2.7	23.7	64.3	5.6	0.6	2.1
National 2002	1.6	3.6	22.8	63.7	5.4	2.2	0.8
National 2001	2.1	2.8	21.2	67.5	4.7	0.6	1.1
National 2000	2.4	3.9	19.3	67.2	5.8	0.6	0.9
National 1999	3.2	4.3	18.1	64.7	8.1	0.4	1.1
Region 1			6.7	73.3	13.3	6.7	
Region 2	2.9		8.8	73.5	8.8	2.9	2.9
Region 3	6.3		18.8	62.5	12.5		
Region 4	1.5	1.5	13.2	76.5	7.4		
Region 5	5.9	5.9	32.4	32.4	23.5		
Region 6	1.6	4.7	23.4	48.4	14.1	4.7	3.1
Region 7	1.2		21.2	61.2	12.9		3.5
Region 8	6.1		9.1	78.8	4.5		1.5
Region 9			29.2	58.3	12.5		
Region 10					50.0	50.0	
Region 11				100.0			
Secondary							
	+10%	+6-9%	+1-5%	No Change	-1-5%	-6-9%	-10%
National 2004	1.7	2.4	14.9	66.6	10.7	2.2	1.5
National 2003	1.0	2.7	17.9	69.6	5.8	0.8	2.1
National 2002	1.2	3.0	19.7	68.0	5.0	2.0	1.2
National 2001	1.5	2.7	20.0	68.1	4.6	1.3	1.7
National 2000	2.4	3.2	19.0	67.6	5.6	0.9	1.3
National 1999	2.6	2.4	15.6	68.5	8.4	1.1	1.3
Region 1			12.5	62.5	12.5	6.3	6.3
Region 2	2.9	2.9	8.8	70.6	11.8	2.9	
Region 3			18.8	62.5	18.8		
Region 4	1.5		15.2	77.3	4.5	1.5	
Region 5	2.9	11.8	17.6	47.1	17.6	2.9	
Region 6	1.6	3.1	18.8	54.7	10.9	6.3	4.7
Region 7		1.2	16.9	68.7	10.8	1.2	1.2
Region 8	4.4	2.9	8.8	75.0	7.4		1.5
Region 9			16.7	66.7	16.7		
Region 10				50.0	50.0		
Region 11			33.3	66.7			
Special Education							
	+10%	+6-9%	+1-5%	No Change	-1-5%	-6-9%	-10%
National 2004	2.2	1.9	10.8	72.6	8.9	1.6	1.9 ^o
National 2003	1.4	1.2	14.1	76.0	4.1	0.9	2.3
National 2002	1.8	2.5	17.2	70.6	3.6	2.3	2.0
National 2001	1.3	2.5	11.5	78.5	3.2	0.9	1.6
National 2000	2.6	1.7	12.0	74.4	6.7	1.0	1.7
Region 1	6.3	6.3		75.0	6.3	6.3	
Region 2	3.2		6.5	77.3	9.7		3.2
Region 3			38.5	46.2	15.4		
Region 4			10.2	81.4	6.8		1.7
Region 5	2.9	11.8	17.6	50.0	14.7		2.9
Region 6	5.1		13.6	61.0	11.9	5.1	3.4
Region 7	1.4	1.4	9.6	76.7	6.8	2.7	1.4
Region 8	1.8		3.5	87.7	5.3		1.8
Region 9		4.5	13.6	72.7	9.1		
Region 10				50.0	50.0		
Region 11			33.3	66.7			

Question was not asked about special education specifically in years prior to 2000.

10 factors in the demand section are in the mid ranges; however, it should be noted that none of the demand factors are in the positive ranges (above 3.41).

Supply Factors

Increasing teacher education enrollments and personal career shifts were perceived by respondents as two factors providing moderately positive influences on the supply of educators. The other two factors above the midpoint also are related to the preparation of educators: alternative licensure and distance learning. As states and districts have grappled with shortages in particular fields, new avenues have been developed for individuals to move into education as a career change.

Seven factors with ratings below 2.60 were categorized as moderately negative influences on the supply of new educators, including: mobility of experienced teachers, state mandates, teacher salaries, federal mandates, school violence/safety, testing of teachers, and discipline problems. Nineteen factors (two above the midpoint and seventeen below the midpoint) were in the mid range; however, it should be noted that out of 28 factors, four are seen as positive influences and 24 as negative influences.

Comments

Of the respondents who provided written comments in responding to the survey, nearly one-half (24 of 51) referred to state and local funding as being inadequate to hire the number of teachers needed, thus limiting the demand for educators.

At a time when No Child Left Behind legislation and related programs or mandates are pointing to the need for highly qualified, professional educators, it is disquieting to note how many factors are below the midpoint. Particularly when looking at the supply factors, these may directly impact the decisions of individuals to enter or stay in the field. This information is critical for

Table 6

Factors Affecting Educator Supply and Demand (in relative order)

Codes: Degree of Influence

5.00 - 4.21 = Significant Positive Influence; 4.20 - 3.41 = Moderate Positive Influence; 3.40 - 2.61 = Midpoint (small direction of positive or negative); 2.60 - 1.81 = Moderate Negative Influence; 1.80 - 1.00 = Significant Negative Influence

Factors Affecting Demand for Educators		Mean		
Early Retirement		3.31	Amount of Teacher Influence	2.90
Limited English-Proficient Students		3.27	Foreign-prepared Teachers	2.89
Routine Retirement		3.25	Teacher Benefits	2.89
Student Enrollment		3.07	Federal Funding	2.86
	Midpoint		Local Funding	2.85
Class Size		2.91	State Funding	2.82
Local Mandates		2.85	Postponed Retirement	2.82
Postponed Retirement		2.78	Local Board Policies	2.75
State Mandates		2.74	Classroom Intrusions	2.74
Federal Mandates		2.66	Amount of Administrative Support	2.73
Federal Funding		2.63	Mobility of New Graduates	2.71
Local Funding		2.48	Amount of Teaching Time	2.69
State Funding		2.28	Decreasing Teacher Education Enrollments	2.67
			Amount of Student Motivation	2.63
			Working Conditions	2.62
			Mobility of Experienced Teachers	2.59
			State Mandates	2.58
			Teacher Salaries	2.57
			Federal Mandates	2.49
			School Violence/Safety	2.48
			Testing of Teachers	2.46
			Discipline Problems	2.26
Factors Affecting the Supply of Educators		Mean		
Increasing Teacher Education Enrollments		3.71		
Personal Career Shifts		3.51		
Alternative Certification/Licensure		3.26		
Distance Learning Teacher Education		3.06		
	Midpoint			
Economic Conditions		2.98		
Hiring of Retirees		2.94		

education officials and human resources administrators to understand and assimilate into their decision making. Whatever school system administrators can do to recognize and address the factors that are negatively affecting the supply of educators will be a substantial step toward recruiting highly qualified educators and creating the programs or services to lead to higher retention of excellent teachers.

Conclusions and Recommendations

As mentioned in several areas of this report, the 2004 data show a slight upward trend, as compared to slight downward trends in 2002 and 2003, with half of the fields studied appearing in the categories of some shortage or considerable shortage.

Special education continues to include fields with considerable shortages that show no sign of diminishing. Budget shortfalls caused a slight dip in demand for 2002 and 2003, but there are no large-scale solutions to the issue of recruiting and retaining special education teachers. Other

continuing shortage areas are mathematics, sciences, bilingual education, Spanish, and ESL.

Slight surpluses of candidates are found nationally in only five fields: elementary-primary, social studies, dance, health, and physical education. Regional differences exist for the relative demand for educators. For the ninth consecutive year, no fields are reported in the category of considerable surplus. However, it must be noted that different regions, states and even portions of states may have very unique job markets that the national averages tend to mask. These regional and local variations are often connected to the number of teacher-training programs available nearby and the attractiveness of the hiring school system (excellent working conditions, high salaries, etc.).

The results of factors affecting the supply of educators indicated a pessimistic picture of conditions that encourage or discourage individuals from entering or staying in the profession: 24 out of 28 factors were seen as negatively impacting the supply of educators. All factors in the

category of “teaching environment”—such as testing, resources, and working conditions—were reported as having a negative effect on the supply of educators.

The No Child Left Behind Act, and its implementation, creates concern as to how the “highly qualified” designation will affect the demand for and the supply of educators. As states adjust standards and regulations to meet the revised imperatives, teacher preservice and inservice requirements will likely affect the supply of educators. The variations between state certification/licensure standards and those of NCLB can create confusion for potential candidates. Additionally, NCLB creates concerns on the part of school systems regarding how to fill positions in shortage fields while simultaneously trying to comply with standards and requirements.

- ❖ Over the past 28 years, AAEE has had the opportunity to examine supply and demand in a consistent way. During this time certain themes continue to occur:
- ❖ Educator supply and de-

mand has been remarkably balanced nationally — even when regions and disciplines have experienced wide variations in supply and/or demand for educators.

- ❖ Students continue to make personal career choices despite market realities. Job market information is extremely important for individuals making career decisions, but ultimately each person chooses the certification/licensure area that he/she wishes to study, even in instances where candidate surpluses exist in particular regions or disciplines.

Recommendations for Further Study

A nation-wide study of employer perceptions regarding the supply and demand of educators is needed.

Research is necessary to assess the impact of the “highly qualified” designation on educator supply and demand.

Further study is needed on the impact of working conditions and the teaching environment as factors affecting the recruitment

and retention of educators.

Further study is needed on the impact, particularly long-term, of alternative licensure paths: the length of service of an alternatively prepared educator; the impact on student learning; and the impact on the totality of the teacher education process in the future.

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Appendix A
Response Rate

	Mailed	Valid Response	Percent
National			
Member	548	292	53.3
Non-member	719	134	18.6
Total	1267	426	33.6
Region 1			
Member	19	12	63.2
Non-member	21	4	19.0
Total	40	16	40.0
Region 2			
Member	33	24	72.7
Non-member	53	12	22.6
Total	86	36	41.9
Region 3			
Member	17	13	76.5
Non-member	12	3	25.0
Total	29	16	55.2
Region 4			
Member	92	57	62.0
Non-member	53	15	28.3
Total	145	72	49.7
Region 5			
Member	44	24	54.5
Non-member	80	11	13.8
Total	124	35	28.2
Region 6			
Member	67	24	35.8
Non-member	219	41	18.7
Total	286	65	22.7
Region 7			
Member	127	68	53.5
Non-member	82	18	22.0
Total	209	86	41.1
Region 8			
Member	116	53	45.7
Non-member	117	17	14.5
Total	233	70	30.0
Region 9			
Member	33	15	50.0
Non-member	76	10	13.2
Total	106	25	23.6
Region 10			
Member	1	-	0.0
Non-member	4	2	50.0
Total	5	2	40.0
Region 11			
Member	2	2	100.0
Non-member	2	1	50.0
Total	4	3	75.0

Appendix B

Pearson Intraclass Correlations for Longitudinal Studies of Supply and Demand

	National Studies										SEASCUS	MAASCUS	GLASCUS
	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1995	1997
2004	1.00	0.96	0.98	0.94	0.94	0.94	0.91	0.91	0.89	0.87	0.75	0.65	0.68
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003		1.00	0.97	0.93	0.96	0.96	0.96	0.96	0.95	0.93	0.84	0.75	0.77
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002			1.00	0.93	0.96	0.96	0.95	0.95	0.93	0.91	0.80	0.68	0.71
				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001				1.00	0.95	0.93	0.90	0.88	0.85	0.83	0.68	0.57	0.60
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000					1.00	0.99	0.96	0.95	0.93	0.91	0.78	0.66	0.70
						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999						1.00	0.98	0.97	0.95	0.93	0.81	0.71	0.74
							0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998							1.00	0.99	0.98	0.97	0.87	0.77	0.80
								0.00	0.00	0.00	0.00	0.00	0.00
1997								1.00	0.99	0.98	0.89	0.80	0.83
									0.00	0.00	0.00	0.00	0.00
1996									1.00	0.99	0.91	0.82	0.85
										0.00	0.00	0.00	0.00
1995										1.00	0.92	0.82	0.85
											0.00	0.00	0.00
SEASCUS 1994											1.00	0.91	0.93
												0.00	0.00
MAASCUS 1995												1.00	0.98
													0.00
GLASCUS 1997													1.00

Key

National Studies: 28 AAEE (formerly ASCUS) studies of university responses.

SEASCUS: Southeastern ASCUS (now SAEE) correlation study of school district employers.

MAASCUS: Mid-Atlantic ASCUS (now MAEE) correlation study of school district employers.

GLASCUS: Great Lakes ASCUS (now MWAE) correlation study of school district employers.

Appendix C

Regional Relative Demand By Teaching Area

Region 1

Idaho, Oregon, Washington

<p>Considerable Shortage (5.00-4.21)</p> <p>Multicategorical Sp. Ed. 4.50</p> <p>Emotionally Dis./Behavior Dis. 4.50</p> <p>Mental Retardation 4.50</p> <p>Visually Impaired 4.50</p> <p>Dual Cert. 4.50</p> <p>Physics Ed 4.42</p> <p>Learning Disability 4.33</p> <p>Severe/Profound Dis. 4.33</p> <p>Hearing Impaired 4.25</p> <p>Early Childhood Sp. Ed. 4.25</p> <p>Some Shortage (4.20-3.41)</p> <p>Mild/Moderate Dis. 4.20</p> <p>Bilingual Ed 4.13</p> <p>Math Ed 4.08</p> <p>Chemistry Ed 4.08</p> <p>Agriculture Ed 4.00</p> <p>School Nurse 4.00</p> <p>School Psychologist 4.00</p> <p>Speech Pathologist 4.00</p> <p>Gen Science Ed 3.92</p> <p>ESL 3.85</p> <p>Earth/Physical Ed 3.78</p> <p>Biology Ed 3.77</p> <p>Music - Instrumental 3.70</p> <p>Music - Vocal 3.70</p> <p>Music - General 3.70</p> <p>Lang - Spanish 3.62</p> <p>Technology Ed. 3.60</p> <p>Counselor 3.56</p> <p>Principal - High School 3.50</p> <p>Business Manager 3.50</p> <p>Balanced Supply and Demand (3.40-2.61)</p> <p>Computer Science Ed 3.33</p> <p>Home Ec./Family Consumer Science 3.33</p> <p>Principal - Elementary 3.25</p> <p>Principal - Middle School 3.25</p> <p>Superintendent 3.25</p> <p>Gifted/Talented Ed 3.20</p> <p>Reading 3.09</p> <p>Business Ed 3.00</p> <p>Driver Ed/Traffic Safety 3.00</p> <p>Lang - Classics 3.00</p> <p>Speech Ed. 3.00</p> <p>Audiologist 3.00</p> <p>Library Science/Media Technology 3.00</p> <p>Occupational Therapist 3.00</p> <p>Physical Therapist 3.00</p> <p>School Social Worker 3.00</p> <p>Middle School 2.93</p> <p>Lang - Japanese 2.80</p> <p>Lang - German 2.70</p>	<p>Some Surplus (2.60-1.81)</p> <p>Lang - French 2.60</p> <p>Art/Visual Ed 2.56</p> <p>Theatre/Drama Ed. 2.55</p> <p>English/Language Arts 2.54</p> <p>Dance Ed 2.50</p> <p>Journalism Ed 2.50</p> <p>Physical Ed 2.45</p> <p>Social Studies Ed 2.38</p> <p>Health Ed 2.33</p> <p>Kindergarten 2.29</p> <p>Pre-K 2.22</p> <p>Intermediate 2.20</p> <p>Primary 2.13</p> <p>Curriculum Director 2.00</p> <p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p> <p>No data</p> <p>Human Resources Director</p>
<h4>Data Trends</h4>	
<ul style="list-style-type: none"> ❖ Ten fields are reported in considerable shortage; twenty fields are reported in some shortage; nineteen fields are reported as balanced. No fields are reported in considerable surplus. ❖ Fourteen fields, including all elementary levels, English/language arts, and social studies, are reported in some surplus. 	
<h4>Observations and Comments</h4>	
<ul style="list-style-type: none"> ❖ The “retire-rehire” of veteran teachers in Washington state hurts new candidates. ❖ A decrease in state funding and higher tuition charges in Oregon are affecting education enrollments. 	

Regional Relative Demand By Teaching Area

Region 2

Arizona, California, Nevada, Utah

<p>Considerable Shortage (5.00-4.21)</p> <p>Severe/Profound Dis. 4.62</p> <p>Mild/Moderate Dis. 4.57</p> <p>Multicategorical Sp. Ed. 4.50</p> <p>Emotionally Dis./Behavior Dis. 4.40</p> <p>Speech Pathologist 4.36</p> <p>Math Ed 4.33</p> <p>Learning Disability 4.33</p> <p>Mental Retardation 4.33</p> <p>Early Childhood Sp. Ed. 4.33</p> <p>Chemistry Ed 4.30</p> <p>Gen Science Ed 4.30</p> <p>Physics Ed 4.27</p> <p>Hearing Impaired 4.25</p> <p>Earth/Physical Ed 4.23</p> <p>Some Shortage (4.20-3.41)</p> <p>Biology Ed 4.16</p> <p>Dual Cert. 4.00</p> <p>Audiologist 4.00</p> <p>Bilingual Ed 3.94</p> <p>Agriculture Ed 3.80</p> <p>Visually Impaired 3.67</p> <p>Technology Ed. 3.60</p> <p>Driver Ed/Traffic Safety 3.50</p> <p>School Psychologist 3.50</p> <p>ESL 3.45</p> <p>Balanced Supply and Demand (3.40-2.61)</p> <p>Gifted/Talented Ed 3.40</p> <p>Reading 3.38</p> <p>Speech Ed. 3.38</p> <p>Lang - Spanish 3.25</p> <p>Business Manager 3.25</p> <p>Principal - Elementary 3.24</p> <p>Principal - High School 3.24</p> <p>Computer Science Ed 3.20</p> <p>Principal - Middle School 3.19</p> <p>School Nurse 3.18</p> <p>Human Resources Director 3.17</p> <p>English/Language Arts 3.16</p> <p>Pre-K 3.11</p> <p>Music - Instrumental 3.05</p> <p>Middle School 3.04</p> <p>Lang - Classics 3.00</p> <p>Curriculum Director 3.00</p> <p>Library Science/Media Technology 3.00</p> <p>Occupational Therapist 3.00</p> <p>Physical Therapist 3.00</p> <p>School Social Worker 3.00</p> <p>Counselor 2.95</p> <p>Music - Vocal 2.90</p> <p>Home Ec./Family Consumer Science 2.90</p> <p>Superintendent 2.90</p>	<p>Lang - Japanese 2.89</p> <p>Primary 2.88</p> <p>Music - General 2.86</p> <p>Intermediate 2.85</p> <p>Kindergarten 2.77</p> <p>Lang - French 2.74</p> <p>Some Surplus (2.60-1.81)</p> <p>Journalism Ed 2.60</p> <p>Theatre/Drama Ed. 2.60</p> <p>Lang - German 2.54</p> <p>Business Ed 2.46</p> <p>Art/Visual Ed 2.45</p> <p>Health Ed 2.40</p> <p>Social Studies Ed 2.31</p> <p>Physical Ed 2.30</p> <p>Dance Ed 2.25</p> <p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p>
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Data Trends

- ❖ All special education fields are reported in considerable or some shortage. Mathematics, chemistry, general science, physics, earth science, and speech pathology are also reported in considerable shortage.
- ❖ No fields are reported in considerable surplus.
- ❖ Journalism, theatre/drama, German, business, art/visual, health education, social studies, physical education, and dance are reported in some surplus.

Observations and Comments

- ❖ The California budget crisis continues to affect hiring, and legislative mandates about certification discourage students from entering the education profession.
- ❖ Even as student enrollments are increasing in Utah, low per-pupil expenditures (translate: low salaries) discourage students from teaching.
- ❖ There are too many elementary teachers in Nevada.

Regional Relative Demand By Teaching Area

Region 3

Colorado, Montana, New Mexico, Wyoming

<p>Considerable Shortage (5.00-4.21)</p> <p>Hearing Impaired 4.67</p> <p>Mental Retardation 4.50</p> <p>Visually Impaired 4.50</p> <p>School Nurse 4.50</p> <p>Emotionally Dis./Behavior Dis. 4.43</p> <p>Math Ed 4.42</p> <p>Severe/Profound Dis. 4.40</p> <p>Speech Pathologist 4.33</p> <p>Learning Disability 4.29</p> <p>Mild/Moderate Dis. 4.25</p> <p>Chemistry Ed 4.22</p>	<p>Some Surplus (2.60-1.81)</p> <p>Art/Visual Ed 2.56</p> <p>Agriculture Ed 2.50</p> <p>Home Ec./Family Consumer Science 2.50</p> <p>Lang - Classics 2.50</p> <p>Lang - German 2.43</p> <p>Lang - Japanese 2.33</p> <p>Social Studies Ed 2.21</p> <p>Theatre/Drama Ed. 2.17</p> <p>Health Ed 2.14</p> <p>Dance Ed 2.00</p> <p>Physical Ed 2.00</p> <p>Speech Ed. 2.00</p>
<p>Some Shortage (4.20-3.41)</p> <p>Multicategorical Sp. Ed. 4.20</p> <p>Early Childhood Sp. Ed. 4.20</p> <p>Dual Cert. 4.17</p> <p>Physics Ed 4.13</p> <p>Lang - Spanish 4.11</p> <p>Bilingual Ed 4.00</p> <p>ESL 4.00</p> <p>Gifted/Talented Ed 4.00</p> <p>Occupational Therapist 4.00</p> <p>Gen Science Ed 3.83</p> <p>Music - Instrumental 3.75</p> <p>Music - Vocal 3.75</p> <p>Earth/Physical Ed 3.75</p> <p>Superintendent 3.67</p> <p>Music - General 3.56</p> <p>Computer Science Ed 3.50</p> <p>Audiologist 3.50</p> <p>Library Science/Media Technology 3.50</p> <p>Physical Therapist 3.50</p> <p>Biology Ed 3.42</p>	<p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p> <p>No data</p> <p>Driver Ed/Traffic Safety</p>
<p>Balanced Supply and Demand (3.40-2.61)</p> <p>Principal - Middle School 3.33</p> <p>Principal - High School 3.33</p> <p>School Psychologist 3.33</p> <p>School Social Worker 3.33</p> <p>Principal - Elementary 3.30</p> <p>Reading 3.27</p> <p>Counselor 3.25</p> <p>Technology Ed. 3.14</p> <p>Journalism Ed 3.00</p> <p>Business Manager 3.00</p> <p>Curriculum Director 3.00</p> <p>Human Resources Director 3.00</p> <p>Middle School 2.92</p> <p>Pre-K 2.89</p> <p>Lang - French 2.89</p> <p>Business Ed 2.83</p> <p>English/Language Arts 2.80</p> <p>Intermediate 2.73</p> <p>Kindergarten 2.69</p> <p>Primary 2.69</p>	

Data Trends

- ❖ Thirty-one fields are reported in considerable or some shortage; no fields are reported in considerable surplus.
- ❖ Twelve fields are reported in some surplus.

Observations and Comments

- ❖ In Montana, budget cuts have resulted in increased class sizes. Undergraduate enrollment in teacher education has decreased due to unattractive salaries.

Regional Relative Demand By Teaching Area

Region 4

Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

<p>Considerable Shortage (5.00-4.21)</p> <p>Emotionally Dis./Behavior Dis. 4.39</p> <p>Physics Ed 4.34</p> <p>Learning Disability 4.32</p> <p>Chemistry Ed 4.27</p> <p>Severe/Profound Dis. 4.25</p> <p>Mild/Moderate Dis. 4.24</p> <p>Math Ed 4.22</p> <p>Some Shortage (4.20-3.41)</p> <p>Technology Ed. 4.17</p> <p>Multicategorical Sp. Ed. 4.14</p> <p>Mental Retardation 4.14</p> <p>Hearing Impaired 4.00</p> <p>Visually Impaired 4.00</p> <p>Early Childhood Sp. Ed. 4.00</p> <p>Audiologist 4.00</p> <p>Dual Cert. 3.96</p> <p>Biology Ed 3.95</p> <p>Speech Pathologist 3.89</p> <p>Lang - Spanish 3.89</p> <p>Agriculture Ed 3.82</p> <p>ESL 3.81</p> <p>Superintendent 3.79</p> <p>Earth/Physical Ed 3.76</p> <p>Bilingual Ed 3.73</p> <p>Gen Science Ed 3.72</p> <p>Physical Therapist 3.64</p> <p>Principal - High School 3.60</p> <p>Music - Instrumental 3.57</p> <p>Library Science/Media Technology 3.56</p> <p>Principal - Middle School 3.55</p> <p>Home Ec./Family Consumer Science 3.53</p> <p>School Psychologist 3.53</p> <p>Principal - Elementary 3.52</p> <p>Counselor 3.48</p> <p>Music - Vocal 3.48</p> <p>Music - General 3.48</p> <p>Reading 3.44</p> <p>School Nurse 3.43</p> <p>Balanced Supply and Demand (3.40-2.61)</p> <p>Computer Science Ed 3.40</p> <p>School Social Worker 3.31</p> <p>Occupational Therapist 3.30</p> <p>Driver Ed/Traffic Safety 3.25</p> <p>Speech Ed. 3.23</p> <p>Human Resources Director 3.22</p> <p>Gifted/Talented Ed 3.19</p> <p>English/Language Arts 3.14</p> <p>Business Ed 3.11</p> <p>Lang - French 3.11</p> <p>Lang - Classics 3.00</p> <p>Lang - Japanese 3.00</p> <p>Theatre/Drama Ed. 3.00</p> <p>Business Manager 3.00</p> <p>Curriculum Director 3.00</p>		<p>Middle School 2.92</p> <p>Lang - German 2.92</p> <p>Art/Visual Ed 2.90</p> <p>Journalism Ed 2.81</p> <p>Social Studies Ed 2.61</p> <p>Some Surplus (2.60-1.81)</p> <p>Intermediate 2.51</p> <p>Health Ed 2.46</p> <p>Pre-K 2.43</p> <p>Kindergarten 2.38</p> <p>Physical Ed 2.35</p> <p>Dance Ed 2.33</p> <p>Primary 2.25</p> <p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p>
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Data Trends

- ❖ Thirty-seven fields—more than one-half of all fields surveyed—are reported in considerable or some shortage.
- ❖ Seven fields, including all elementary fields, health, physical education, and dance are reported in some surplus. No fields are reported in considerable surplus.

Observations and Comments

- ❖ In Kansas, class sizes are increasing due to state funding issues. Missouri and Minnesota also reports increasing class sizes due to lack of state and local funding.
- ❖ Minnesota teachers are postponing retirements due to high cost of health care.
- ❖ North Dakota reports an attrition of teachers due to lack of administrative support.

Regional Relative Demand By Teaching Area

Region 5

Arkansas, Louisiana, Oklahoma, Texas

<p>Considerable Shortage (5.00-4.21)</p> <p>Multicategorical Sp. Ed. 4.50</p> <p>Mild/Moderate Dis. 4.50</p> <p>Bilingual Ed 4.41</p> <p>Severe/Profound Dis. 4.40</p> <p>Emotionally Dis./Behavior Dis. 4.33</p> <p>Learning Disability 4.33</p> <p>Dual Cert. 4.31</p> <p>Early Childhood Sp. Ed. 4.25</p> <p>Chemistry Ed 4.22</p> <p>Some Shortage (4.20-3.41)</p> <p>Visually Impaired 4.17</p> <p>Mental Retardation 4.14</p> <p>Physics Ed 4.14</p> <p>Biology Ed 4.13</p> <p>Gen Science Ed 4.08</p> <p>Math Ed 4.00</p> <p>Earth/Physical Ed 3.92</p> <p>Lang - Spanish 3.89</p> <p>Speech Pathologist 3.82</p> <p>Physical Therapist 3.80</p> <p>Hearing Impaired 3.67</p> <p>ESL 3.64</p> <p>Middle School 3.50</p> <p>Technology Ed. 3.50</p> <p>School Social Worker 3.50</p> <p>Superintendent 3.41</p> <p>Balanced Supply and Demand (3.40-2.61)</p> <p>Gifted/Talented Ed 3.38</p> <p>Principal - High School 3.36</p> <p>Lang - Japanese 3.33</p> <p>School Nurse 3.33</p> <p>Intermediate 3.31</p> <p>Computer Science Ed 3.29</p> <p>Principal - Middle School 3.27</p> <p>Counselor 3.26</p> <p>Audiologist 3.25</p> <p>School Psychologist 3.22</p> <p>Lang - Classics 3.20</p> <p>Reading 3.20</p> <p>Principal - Elementary 3.18</p> <p>Agriculture Ed 3.17</p> <p>Pre-K 3.15</p> <p>Library Science/Media Technology 3.14</p> <p>Kindergarten 3.11</p> <p>Music - Instrumental 3.09</p> <p>Social Studies Ed 3.08</p> <p>Speech Ed. 3.08</p> <p>English/Language Arts 3.04</p> <p>Primary 3.03</p> <p>Home Ec./Family Consumer Science 3.00</p> <p>Lang - French 3.00</p> <p>Music - Vocal 3.00</p> <p>Business Manager 3.00</p> <p>Curriculum Director 3.00</p>	<p>Human Resources Director 3.00</p> <p>Occupational Therapist 3.00</p> <p>Music - General 2.95</p> <p>Journalism Ed 2.88</p> <p>Art/Visual Ed 2.87</p> <p>Dance Ed 2.86</p> <p>Lang - German 2.69</p> <p>Health Ed 2.61</p> <p>Some Surplus (2.60-1.81)</p> <p>Theatre/Drama Ed. 2.42</p> <p>Physical Ed 2.41</p> <p>Business Ed 2.33</p> <p>Driver Ed/Traffic Safety 2.33</p> <p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p>
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Data Trends

- ❖ Seven special education fields, plus chemistry and bilingual education are reported in considerable shortage.
- ❖ Sixteen fields are reported in some shortage; thirty-five fields are reported as balanced.
- ❖ Some surplus is reported in the fields of theatre/drama, physical education, business and drivers education.

Observations and Comments

- ❖ In Oklahoma, low salaries discourage students from entering the teaching profession.
- ❖ As student enrollments grow, class sizes are increasing in Texas.
- ❖ State funding issues and certification changes have been negative hiring influences in Arkansas.

Regional Relative Demand By Teaching Area

Region 6

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia

<p>Considerable Shortage (5.00-4.21)</p> <p>Severe/Profound Dis. 4.75</p> <p>Visually Impaired 4.50</p> <p>Mild/Moderate Dis. 4.50</p> <p>Multicategorical Sp. Ed. 4.47</p> <p>Math Ed 4.45</p> <p>Bilingual Ed 4.44</p> <p>Dual Cert. 4.31</p> <p>Emotionally Dis./Behavior Dis. 4.30</p> <p>Early Childhood Sp. Ed. 4.26</p> <p>Physics Ed 4.26</p> <p>Hearing Impaired 4.22</p> <p>Lang - Spanish 4.21</p> <p>Mental Retardation 4.21</p> <p>Learning Disability 4.21</p>	<p>Music - Instrumental 3.00</p> <p>Music - Vocal 2.97</p> <p>Agriculture Ed 2.91</p> <p>Journalism Ed 2.86</p> <p>Human Resources Director 2.83</p> <p>Driver Ed/Traffic Safety 2.80</p> <p>Theatre/Drama Ed. 2.72</p>
<p>Some Shortage (4.20-3.41)</p> <p>Chemistry Ed 4.14</p> <p>ESL 4.14</p> <p>Speech Pathologist 4.00</p> <p>Earth/Physical Ed 3.96</p> <p>Biology Ed 3.93</p> <p>School Nurse 3.92</p> <p>Audiologist 3.86</p> <p>Gen Science Ed 3.85</p> <p>Physical Therapist 3.80</p> <p>Superintendent 3.79</p> <p>Middle School 3.78</p> <p>Occupational Therapist 3.71</p> <p>Technology Ed. 3.64</p> <p>Reading 3.64</p> <p>Computer Science Ed 3.63</p> <p>Speech Ed. 3.58</p> <p>Library Science/Media Technology 3.57</p> <p>Lang - Classics 3.56</p> <p>Principal - Middle School 3.54</p> <p>School Psychologist 3.50</p> <p>Home Ec./Family Consumer Science 3.47</p> <p>Principal - Elementary 3.46</p> <p>Lang - German 3.46</p> <p>Lang - French 3.42</p> <p>Principal - High School 3.41</p>	<p>Some Surplus (2.60-1.81)</p> <p>Art/Visual Ed 2.57</p> <p>Social Studies Ed 2.54</p> <p>Health Ed 2.50</p> <p>Physical Ed 2.42</p> <p>Dance Ed 2.38</p>
<p>Balanced Supply and Demand (3.40-2.61)</p> <p>Counselor 3.40</p> <p>School Social Worker 3.38</p> <p>Pre-K 3.36</p> <p>English/Language Arts 3.33</p> <p>Intermediate 3.32</p> <p>Primary 3.27</p> <p>Kindergarten 3.26</p> <p>Business Manager 3.20</p> <p>Gifted/Talented Ed 3.20</p> <p>Business Ed 3.18</p> <p>Curriculum Director 3.15</p> <p>Music - General 3.03</p> <p>Lang - Japanese 3.00</p>	<p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p>

Data Trends

- ❖ All ten special education fields, plus mathematics, bilingual education, physics, and Spanish are reported in considerable shortage.
- ❖ Twenty-five fields are reported in some shortage. Only five fields—art, dance, health, physical education, and social studies—are reported in some surplus.

Observations and Comments

- ❖ Kentucky reports economic conditions and lack of candidate mobility as negative influences.
- ❖ Virginia has had budget cuts that resulted in teacher layoffs.
- ❖ All states report increased pressure on teachers due to legislative mandates following No Child Left Behind.

Regional Relative Demand By Teaching Area

Region 7

Illinois, Indiana, Michigan, Ohio, Wisconsin

<p>Considerable Shortage (5.00-4.21)</p> <p>Severe/Profound Dis. 4.48</p> <p>Physics Ed 4.33</p> <p>Bilingual Ed 4.31</p> <p>Multicategorical Sp. Ed. 4.30</p> <p>Mental Retardation 4.21</p> <p>Mild/Moderate Dis. 4.21</p> <p>Some Shortage (4.20-3.41)</p> <p>Dual Cert. 4.13</p> <p>Emotionally Dis./Behavior Dis. 4.11</p> <p>Chemistry Ed 4.09</p> <p>Learning Disability 4.07</p> <p>Early Childhood Sp. Ed. 4.06</p> <p>Math Ed 4.03</p> <p>Hearing Impaired 4.00</p> <p>Visually Impaired 4.00</p> <p>Lang - Spanish 3.93</p> <p>ESL 3.89</p> <p>Earth/Physical Ed 3.88</p> <p>Speech Pathologist 3.85</p> <p>Audiologist 3.83</p> <p>Biology Ed 3.78</p> <p>Technology Ed. 3.73</p> <p>Lang - Classics 3.71</p> <p>Gen Science Ed 3.69</p> <p>Principal - Middle School 3.64</p> <p>Superintendent 3.63</p> <p>Principal - High School 3.60</p> <p>School Psychologist 3.58</p> <p>Occupational Therapist 3.57</p> <p>Physical Therapist 3.57</p> <p>Library Science/Media Technology 3.53</p> <p>Computer Science Ed 3.48</p> <p>Principal - Elementary 3.47</p> <p>School Nurse 3.42</p> <p>Balanced Supply and Demand (3.40-2.61)</p> <p>Lang - Japanese 3.40</p> <p>School Social Worker 3.36</p> <p>Counselor 3.32</p> <p>Home Ec./Family Consumer Science 3.28</p> <p>Lang - French 3.23</p> <p>Agriculture Ed 3.14</p> <p>Lang - German 3.14</p> <p>Music - Instrumental 3.13</p> <p>Curriculum Director 3.13</p> <p>Business Manager 3.09</p> <p>Music - Vocal 3.07</p> <p>Reading 3.07</p> <p>Speech Ed. 3.00</p> <p>Human Resources Director 3.00</p> <p>Music - General 2.96</p> <p>Business Ed 2.96</p> <p>Middle School 2.92</p> <p>Gifted/Talented Ed 2.86</p> <p>Driver Ed/Traffic Safety 2.82</p>	<p>English/Language Arts 2.79</p> <p>Art/Visual Ed 2.78</p> <p>Theatre/Drama Ed. 2.74</p> <p>Journalism Ed 2.67</p> <p>Some Surplus (2.60-1.81)</p> <p>Intermediate 2.55</p> <p>Health Ed 2.54</p> <p>Social Studies Ed 2.42</p> <p>Physical Ed 2.40</p> <p>Pre-K 2.38</p> <p>Dance Ed 2.38</p> <p>Kindergarten 2.36</p> <p>Primary 2.18</p> <p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p>
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Data Trends

- ❖ Four special education fields, plus physics and bilingual education are reported in considerable shortage. Twenty-seven fields are reported in some shortage.
- ❖ All elementary fields, plus health, social studies, physical education, and dance are reported in some surplus. No fields are reported in considerable surplus.

Observations and Comments

- ❖ State budget deficits are reported as a negative influence on hiring in Kentucky, Indiana, Michigan, and Ohio.
- ❖ Some teachers are leaving the profession due to low pay and too much time required for administration and assessment.

Regional Relative Demand By Teaching Area

Region 8

Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania

<p>Considerable Shortage (5.00-4.21)</p> <p>Emotionally Dis./Behavior Dis. 4.38</p> <p>Multicategorical Sp. Ed. 4.38</p> <p>Physics Ed 4.35</p> <p>Visually Impaired 4.33</p> <p>Hearing Impaired 4.29</p> <p>Math Ed 4.27</p> <p>Some Shortage (4.20-3.41)</p> <p>Learning Disability 4.12</p> <p>Dual Cert. 4.09</p> <p>Bilingual Ed 4.00</p> <p>ESL 4.00</p> <p>Mental Retardation 4.00</p> <p>Mild/Moderate Dis. 4.00</p> <p>Chemistry Ed 3.98</p> <p>Technology Ed. 3.91</p> <p>Severe/Profound Dis. 3.89</p> <p>Library Science/Media Technology 3.88</p> <p>Lang - Spanish 3.79</p> <p>Speech Pathologist 3.78</p> <p>Early Childhood Sp. Ed. 3.75</p> <p>Agriculture Ed 3.71</p> <p>Speech Ed. 3.67</p> <p>Physical Therapist 3.67</p> <p>Biology Ed 3.66</p> <p>Earth/Physical Ed 3.64</p> <p>Principal - High School 3.64</p> <p>Gen Science Ed 3.63</p> <p>Principal - Elementary 3.62</p> <p>Principal - Middle School 3.58</p> <p>Superintendent 3.52</p> <p>Home Ec./Family Consumer Science 3.50</p> <p>School Nurse 3.45</p> <p>Audiologist 3.43</p> <p>Balanced Supply and Demand (3.40-2.61)</p> <p>Reading 3.38</p> <p>School Psychologist 3.31</p> <p>School Social Worker 3.29</p> <p>Lang - Japanese 3.25</p> <p>Computer Science Ed 3.20</p> <p>Lang - Classics 3.20</p> <p>Occupational Therapist 3.20</p> <p>Business Manager 3.13</p> <p>Lang - French 3.08</p> <p>Curriculum Director 3.06</p> <p>Counselor 3.04</p> <p>Business Ed 3.00</p> <p>Driver Ed/Traffic Safety 3.00</p> <p>Journalism Ed 3.00</p> <p>Theatre/Drama Ed. 3.00</p> <p>Human Resources Director 3.00</p> <p>Gifted/Talented Ed 3.00</p> <p>Middle School 2.92</p> <p>Music - Vocal 2.86</p> <p>Music - Instrumental 2.82</p>		<p>Lang - German 2.74</p> <p>English/Language Arts 2.72</p> <p>Music - General 2.66</p> <p>Some Surplus (2.60-1.81)</p> <p>Intermediate 2.59</p> <p>Pre-K 2.57</p> <p>Art/Visual Ed 2.52</p> <p>Primary 2.51</p> <p>Dance Ed 2.50</p> <p>Kindergarten 2.49</p> <p>Physical Ed 2.30</p> <p>Health Ed 2.25</p> <p>Social Studies Ed 2.17</p> <p>Considerable Surplus (1.80-1.00)</p> <p>No fields</p>
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Data Trends

- ❖ Four special education fields, plus physics and mathematics are reported in considerable shortage. Twenty-six fields are reported in some shortage.
- ❖ All elementary fields, plus art, dance, physical education, health, and social studies are reported in some surplus. No fields are reported in considerable surplus.

Observations and Comments

- ❖ Significant changes have been made to certification requirements in New York state.
- ❖ Pennsylvania reports decreasing enrollments in teacher education programs, but notes new enrollment controls result in higher quality teachers.
- ❖ In New Jersey, baby-boomer teachers are retiring in large numbers.

Regional Relative Demand By Teaching Area

Region 9

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Considerable Shortage (5.00-4.21)			
Chemistry Ed	4.54	Intermediate	2.67
Physics Ed	4.54	Home Ec./Family Consumer Science	2.67
Multicategorical Sp. Ed.	4.50	Physical Ed	2.64
Emotionally Dis./Behavior Dis.	4.50	Theatre/Drama Ed.	2.63
Visually Impaired	4.50	English/Language Arts	2.62
Occupational Therapist	4.50		
Speech Pathologist	4.50	Some Surplus (2.60-1.81)	
Severe/Profound Dis.	4.43	Primary	2.59
Learning Disability	4.33	Art/Visual Ed	2.53
Computer Science Ed	4.33	Health Ed	2.33
Earth/Physical Ed	4.31		
Gen Science Ed	4.31	Considerable Surplus (1.80-1.00)	
Mental Retardation	4.29	No fields	
Superintendent	4.29		
Biology Ed	4.24	No data	
		Agriculture Ed	
Some Shortage (4.20-3.41)		Driver Ed/Traffic Safety	
Bilingual Ed	4.20	Journalism Ed	
Mild/Moderate Dis.	4.20	Speech Ed.	
Dual Cert.	4.10		
Lang - Spanish	4.08		
Math Ed	4.07		
Lang - Classics	4.00		
Hearing Impaired	4.00		
Early Childhood Sp. Ed.	4.00		
Technology Ed.	4.00		
Physical Therapist	3.75		
ESL	3.71		
Principal - Middle School	3.70		
Principal - High School	3.70		
Principal - Elementary	3.60		
Business Manager	3.50		
Curriculum Director	3.50		
Gifted/Talented Ed	3.50		
School Psychologist	3.50		
Balanced Supply and Demand (3.40-2.61)			
Reading	3.40		
Library Science/Media Technology	3.33		
School Nurse	3.33		
Counselor	3.31		
Lang - French	3.30		
School Social Worker	3.29		
Lang - German	3.20		
Business Ed	3.00		
Middle School	3.00		
Lang - Japanese	3.00		
Music - Vocal	3.00		
Music - General	3.00		
Human Resources Director	3.00		
Audiologist	3.00		
Social Studies Ed	2.94		
Pre-K	2.94		
Music - Instrumental	2.88		
Dance Ed	2.80		
Kindergarten	2.80		

Data Trends

- ❖ Thirty-three fields—more than one-half of all fields surveyed—are reported in considerable or some shortage.
- ❖ Primary, art, and health are reported in some surplus. No fields are reported in considerable surplus.

Observations and Comments

- ❖ There is an increased perception among Vermont teacher candidates that they are working within unacceptable regulatory constraints.
- ❖ As is true throughout the country, cuts in state funding have a negative impact on teacher hiring in this region.

Regional Relative Demand By Teaching Area

Region 10 Alaska

Considerable Shortage (5.00-4.21)		
Math Ed	5.00	
Gen Science Ed	5.00	
Mild/Moderate Dis.	5.00	
Some Shortage (4.20-3.41)		
Kindergarten	4.00	
ESL	4.00	
Lang - Spanish	4.00	
Early Childhood Sp. Ed.	4.00	
Dual Cert.	4.00	
Counselor	4.00	
Primary	3.50	
Intermediate	3.50	
Middle School	3.50	
Balanced Supply and Demand (3.40-2.61)		
Pre-K	3.00	
Music - General	3.00	
Reading	3.00	
Social Studies Ed	3.00	
Principal - Elementary	3.00	
Principal - High School	3.00	
Superintendent	3.00	

Some Surplus (2.60-1.81)
English/Language Arts 2.00

Considerable Surplus (1.80-1.00)
No fields

No data
Agriculture Ed
Art/Visual Ed
Bilingual Ed
Business Ed
Computer Science Ed
Dance Ed
Driver Ed/Traffic Safety
Health Ed
Home Ec./Family Consumer Science
Journalism Ed
Lang - Classics
Lang - French
Lang - German
Lang - Japanese
Music - Instrumental
Music - Vocal
Physical Ed
Biology Ed
Chemistry Ed
Earth/Physical Ed
Physics Ed
Multicategorical Sp. Ed.
Emotionally Dis./Behavior Dis.
Hearing Impaired

Learning Disability
Mental Retardation
Visually Impaired
Severe/Profound Dis.
Speech Ed.
Technology Ed.
Theatre/Drama Ed.
Principal - Middle School
Business Manager
Curriculum Director
Human Resources Director
Audiologist
Gifted/Talented Ed
Library Science/Media Technology
Occupational Therapist
Physical Therapist
School Nurse
School Psychologist
School Social Worker
Speech Pathologist

Data Trends

- ✦ Of the twenty fields reported, twelve are in considerable or some shortage. Only English/language arts is reported in some surplus.

Observations and Comments

- ✦ Teacher education enrollments in Alaska should show an increase next year.

Regional Relative Demand By Teaching Area

Region 11 Hawaii

Considerable Shortage (5.00-4.21)

Math Ed	5.00
Gen Science Ed	5.00
Multicategorical Sp. Ed.	5.00
Mild/Moderate Dis.	5.00
Principal - High School	5.00
Dual Cert.	4.50

Some Shortage (4.20-3.41)

Middle School	4.00
Biology Ed	4.00
Principal - Elementary	4.00
Principal - Middle School	4.00
Counselor	4.00
Intermediate	3.50

Balanced Supply and Demand (3.40-2.61)

Business Ed	3.00
Pre-K	3.00
Lang - Japanese	3.00
Lang - Spanish	3.00
Music - General	3.00
Physical Ed	3.00
Primary	2.67

Some Surplus (2.60-1.81)

Kindergarten	2.50
Art/Visual Ed	2.00
ESL	2.00
Social Studies Ed	2.00

Considerable Surplus (1.80-1.00)

No fields

No data

Agriculture Ed
 Bilingual Ed
 Computer Science Ed
 Dance Ed
 Driver Ed/Traffic Safety
 English/Language Arts
 Health Ed
 Home Ec./Family Consumer Science
 Journalism Ed
 Lang - Classics
 Lang - French
 Lang - German
 Music - Instrumental
 Music - Vocal
 Reading
 Chemistry Ed
 Earth/Physical Ed
 Physics Ed
 Emotionally Dis./Behavior Dis.
 Hearing Impaired

Learning Disability
 Mental Retardation
 Visually Impaired
 Severe/Profound Dis.
 Early Childhood Sp. Ed.
 Speech Ed.
 Technology Ed.
 Theatre/Drama Ed.
 Business Manager
 Curriculum Director
 Human Resources Director
 Superintendent
 Audiologist
 Gifted/Talented Ed
 Library Science/Media Technology
 Occupational Therapist
 Physical Therapist
 School Nurse
 School Psychologist
 School Social Worker
 Speech Pathologist

Data Trends

- ❖ Of the twenty-three fields reported, twelve are in considerable or some shortage.
- ❖ Kindergarten, art, ESL, and social studies are reported in some surplus.

Observations and Comments

- ❖ State funding issues, coupled with a desire to decrease elementary class sizes and perceptions of unsafe/inadequate working conditions, create a mixed picture in Hawaii.

Appendix D

Participants in the 2004 AAEE Supply and Demand Study

Region 1

Boise State University
Brigham Young University-Idaho
Central Washington University
City University
Eastern Oregon University
Lewis and Clark College
Lewis-Clark State College
Maryhurst University
Northwest Nazarene University
Portland State University
Seattle University
Southern Oregon University
University of Oregon
University of Puget Sound
University of Washington
Western Washington University
Willamette University

Region 2

Arizona State University
California College of Arts
California Lutheran University
California State Poly. Univ. - Pomona
California State Univ. - Bakersfield
California State Univ. - Chico
California State Univ. - Fresno
California State Univ. - Hayward
California State Univ. - Los Angeles
California State Univ. - Northridge
California State Univ. - Sacramento
California State Univ. - San Marcos
Claremont Graduate School
College of Notre Dame
Fresno Pacific University
Humboldt State University
La Sierra University
Mount Saint Mary's College
Pacific Union College
Pepperdine University
Point Loma Nazarene College
San Diego State University
San Jose State University
University of Arizona
University of California-Berkeley
University of California-Davis
University of La Verne
University of Nevada-Reno
University of San Diego
University of San Francisco
Utah State University
Utah Valley State College
Weber State University
Westminster College of Salt Lake City
Whittier College

Region 3

Adams State College
College of the Southwest
Colorado College
Colorado State University
Eastern New Mexico University
Montana State University
Montana State University-Northern
New Mexico Highlands University
New Mexico State University
Rocky Mountain College
University of Denver
University of Great Falls
University of Montana
University of Montana - Western
University of New Mexico
University of Northern Colorado
Western New Mexico University

Region 4

Augustana College
Bemidji State University
Benedictine College
Bethany College
Bethel College
Black Hills State University
Briar Cliff University
Central College
Central Methodist College
Central Missouri State University
Clarke College
College of Saint Catherine
College of the Ozarks
Concordia College
Concordia University
Cornell College
Creighton University
Crown College

Dakota State University
Dana College
Dickinson State University
Dordt College
Drake University
Drury College
Emporia State University
Fonbonne College
Fort Hays State University
Graceland University
Grinnell College
Gustavus Adolphus College
Iowa State University
Jamestown College
Kansas State University
Lindenwood College
Macalester College
Mayville State University
MidAmerica Nazarene University
Midland Lutheran College
Minnesota State University Moorhead
Minnesota State University, Mankato
Minot State University
Missouri Southern State College
Missouri Western State College
Morningside College
North Central University
North Dakota State University
Northern State University
Northwest Missouri State University
Park University
Peru State College
Pittsburg State University
Rockhurst University
Saint Cloud State University
Saint Mary's University of Minnesota
Simpson College
South Dakota State University
South Dakota Teacher Placement Center
Southeast Missouri State University
Southwest Baptist University
Southwest Minnesota State University
Southwest Missouri State University
Trinity Bible College
Union College
University of Iowa
University of Kansas
University of Minnesota-Morris
University of Minnesota-Twin Cities
University of Missouri-Columbia
University of Nebraska-Kearney
University of Nebraska-Lincoln
University of Nebraska-Omaha
University of North Dakota
University of Northern Iowa
University of Sioux Falls
University of South Dakota
Upper Iowa University
Valley City State University
Wayne State College
Westminster College
William Jewell College
York College

Region 5

Abilene Christian University
Angelo State University
Arkansas State University
Arkansas Tech University
Baylor University
Dallas Baptist University
Harding University
Henderson State University
Howard Payne University
Langston University
McMurry University
Midwestern State University
Northeastern State University
Oklahoma Panhandle State University
Oklahoma State University
Sam Houston State University
Southwestern Oklahoma State University
Southwestern University
St. Edwards University
St. Mary's University
Stephen F. Austin State University
Tarleton State University
Texas A&M University-Commerce
Texas Christian University
Texas Southern University
Texas Tech University
Texas Woman's University
Trinity University
University of Arkansas
University of Central Arkansas

University of Central Oklahoma
University of Louisiana at Monroe
University of Mary Hardin-Baylor
University of North Texas
University of Oklahoma
University of Science & Arts of Oklahoma
University of Texas at Arlington
University of Texas at Dallas
University of Texas at El Paso
University of Texas of the Permian Basin
University of the Ozarks
West Texas A & M University

Region 6

Alabama A&M University
Alcorn State University
Alderson-Broaddus College
Alice Lloyd College
Athens State University
Benedict College
Bennett College
Berry College
Bethel College
Blue Mountain College
Bluefield State College
Brescia University
Campbell University
Clemson University
Coastal Carolina University
College of Charleston
Concord College
Converse College
Duke University
East Tennessee State University
Eastern Kentucky University
Elon College
Erskine College
Fairmont State College
Flagler College
Florida Atlantic University
Florida Institute of Technology
Florida Memorial College
Florida State University College of Education
Gardner-Webb College
Georgetown College
Georgia Southern University
Georgia Southwestern State University
Greensboro College
High Point University
Kennesaw State College
King College
Lipscomb University
Longwood University
Mary Washington College
Marymount University
Middle Tennessee State University
Mississippi College
Mississippi State University
Newberry College
Peabody College of Vanderbilt University
Queens University of Charlotte
Radford University
Roanoke College
Rollins College
Samford University
Shenandoah University
Southeastern College
Southern Adventist University
St. Andrews Presbyterian College
State University of West Georgia
Tennessee Technological University
Toccoa Falls College
Trevecca Nazarene College
Troy State University
Union University
University of Alabama
University of Charleston
University of Georgia
University of North Carolina at Asheville
University of North Carolina at Charlotte
University of North Carolina at Greensboro
University of North Carolina at Wilmington
University of Richmond
University of South Alabama
University of Southern Mississippi
University of Tampa
University of Tennessee at Chattanooga
University of Virginia
University of Virginia's College at Wise
Valdosta State University
Virginia Commonwealth University
Warner Southern College
Wesleyan College
West Virginia University
West Virginia Wesleyan College

Western Carolina University
Western Kentucky University
Wheeling Jesuit College
William Carey College

Region 7

Anderson University
Ashland University
Augustana College
Ball State University
Barat College of DePaul University
Benedictine University
Bluffton College
Bradley University
Butler University
Capital University
Cardinal Stritch
Carthage College
Central Michigan University
Cleveland State University
College of Mount Saint Joseph
College of Wooster
Concordia College
Concordia University
Concordia University-Wisconsin
Cornerstone University
Defiance College
DePaul University
DePauw University
Dominican University
Eastern Illinois University
Franciscan University of Steubenville
Franklin College
Goshen College
Grand Valley State University
Greenville College
Heidelberg College
Huntington College
Illinois State University
Illinois Wesleyan University
Indiana Univ. - Purdue Univ. Indianapolis
Indiana University Bloomington
John Carroll University
Judson College
Kent State University
Lakeland College
Lawrence University
Malone College
Manchester College
Marian College of Fond du Lac
Marietta College
McKendree College
Miami University
Michigan Technological University
Millikin University
Monmouth College
Mount Mary College
Mount Union College
Mount Vernon Nazarene University
Muskingum College
North Central College
North Park University
Northeastern Illinois University
Northern Illinois University
Northern Michigan University
Oakland University
Ohio Dominican University
Ohio Northern University
Ohio State University
Ohio State University Mansfield Campus
Ohio Wesleyan University
Olivet College
Olivet Nazarene University
Purdue University
Purdue University Calumet
Purdue University North Central
Quincy University
Saint Mary's College
Saint Mary-of-the-Woods College
Shawnee State University
Silver Lake College
Southern Illinois Univ. at Carbondale
Spring Arbor University
St. Norbert College
St. Xavier University
Tri-State University
Trinity Christian College
University of Akron
University of Dayton
University of Illinois at Springfield
University of Illinois at Urbana-Champaign
University of Michigan
University of Michigan-Flint
University of Southern Indiana
University of Toledo

University of Wisconsin-Green Bay
University of Wisconsin-La Crosse
University of Wisconsin-Oshkosh
University of Wisconsin-Parkside
University of Wisconsin-River Falls
University of Wisconsin-Stevens Point
University of Wisconsin-Stout
University of Wisconsin-Superior
University of Wisconsin-Whitewater
Ursuline College
Valparaiso University
VanderCook College of Music
Wheaton College
Wilmington College
Wisconsin Lutheran College
Wittenberg University
Wright State University
Xavier University
Youngstown State University

Region 8

Albright College
Alvernia College
Bloomsburg University
California University of Pennsylvania
Centenary College
Clarion University of Pennsylvania
College of New Jersey
College of Saint Rose
CUNY-Medgar Evers College
D'Youville College
Delaware State University
Dominican College
Dowling College
Edinboro University of Pennsylvania
Elizabethtown College
Elmira College
Geneva College
Graduate College of Union University
Indiana University of Pennsylvania
Ithaca College
Juniata College
King's College
Kutztown University of Pennsylvania
La Salle University
Lehigh University
Long Island University
Loyola College in Maryland
Lycoming College
Mansfield University of Pennsylvania
Marist College
Marymount College

Marywood University
Messiah College
Monmouth University
Moravian College
Muhlenberg College
Nazareth College
New Jersey City University
Niagara University
NY Institute of Technology
Pennsylvania State University
Pratt Institute
Richard Stockton College of New Jersey
Roberts Wesleyan College
Rutgers-The State Univ. of NJ
Rutgers-The State Univ. of NJ, Camden campus
Saint John's University
Seton Hall University
Shippensburg University of Pennsylvania
Siena College
Slippery Rock University
St. Francis College
St. Francis University
St. Joseph's College
St. Lawrence University
St. Mary's College of Maryland
St. Vincent College
SUNY College at Buffalo
SUNY at Potsdam
SUNY at Stony Brook
SUNY College at Brockport
SUNY College at Cortland
SUNY College at Fredonia
SUNY College at Geneseo
Susquehanna University
Syracuse University
The Sage Colleges
Towson State University
University at Buffalo
University of Delaware
University of Maryland Baltimore County
University of Maryland Eastern Shore
University of the Arts
Ursinus College
Utica College
Washington & Jefferson College
Waynesburg College
West Chester University of Pennsylvania
Westminster College
Widener University
William Paterson University of NJ
York College of Pennsylvania

Region 9

Albertus Magnus College
Anna Maria College
Bennington College
Central Connecticut State University
Colby-Sawyer College
Eastern Connecticut State Univ.
Fitchburg State College
Framingham State College
Harvard Grad. School of Education
Lesley University
New England College
Regis College
Rhode Island College
Rivier College
Roger Williams University
Salve Regina University
Simmons College
Smith College
Springfield College
St. Michael's College
Suffolk University
Thomas College
Tufts University
University of Bridgeport
University of Hartford
University of Maine at Farmington
University of Maine at Presque Isle
University of Massachusetts-Amherst
University of Southern Maine
University of Vermont
Wheelock College

Region 10

University of Alaska
University of Alaska-Anchorage
University of Alaska-Southeast

Region 11

Chaminade University
University of Hawaii at Manoa