

DATA BULLETIN

FALL HIRING REPORT, 1999

For 12 of the past 13 years the Connecticut State Department of Education has surveyed local school districts to determine areas of teacher and administrator shortage. This Bulletin summarizes the Fall Hiring Survey data for 1999 and compares it to previous years. The data have been provided by all 166 local and regional school districts, the three endowed and incorporated academies, six regional educational service centers, 16 charter schools, the state vocational-technical school system and the state approved nonpublic special education schools.

The 1999-2000 school year marked the first time these data were collected from the state-approved nonpublic special education schools. These schools were surveyed because they contain a significant number of certified teaching positions that were previously unreported. Another reason was in response to the commonly heard concern among district personnel that there is a shortage of special education teachers. By surveying the nonpublic schools the department hoped to obtain a more accurate picture of the need for special education teachers.

Public school districts had 5,293 full- and part-time positions to fill for the fall of 1999. This is an increase of 962 positions from the 1998-99 school year and the highest number of

positions to fill in the past 10 years (see Table 1). Nonpublic special education schools had 176 certified teaching vacancies to fill.

October Vacancies

In October 1999 there was a total of 485 positions in the public schools unfilled due to some special circumstance (see Table 1). This figure represents the largest number of unfilled October vacancies since these data were collected 12 years ago.

Of these 485 October vacancies, 323 were unfilled due to a lack of qualified applicants. This is the highest number since these data were collected. The top five subject areas, combining both public schools and the nonpublic special education schools, with a lack of qualified applicants were special education (83 vacancies), music (32 vacancies), bilingual teacher (25 vacancies), math (25 vacancies) and media specialist (23 vacancies).

Education Reference Group (ERG)¹ I had the highest percentage of vacancies remaining due to a lack of qualified applicants (see Table 2). This type of vacancy is significantly smaller in ERG E and ERG H.

Table 1. Fall Hiring Summary, 1987-1999, Public Schools Only

Fall of Year	Total Positions	Annual Positions To Fill	% Part-time of Positions To Fill	Percent Positions To Fill of Total	Vacancies Remaining in October	% of Annual Positions Filled	Vacancies Due to No Qualified Applicants	% Vacant: Not Qualified of Annual Positions
1999	47,793	5293	12.0	11.1	485	90.8	323	6.1
1998	46,751	4331	13.4	9.3	415	90.4	274	6.3
1997	45,326	3630	17.1	8.0	274	92.5	151	4.2
1996	44,307				No Data Collected			
1995	43,261	2990	22.7	6.9	245	91.8	103	3.4
1994	42,451	2895	22.8	6.8	237	91.8	81	2.8
1993	41,324	2349	23.1	5.7	268	88.6	59	2.5
1992	41,179	2515	17.7	6.1	201	92.0	50	2.0
1991	41,733	1281	26.5	3.1	101	92.1	21	1.6
1990	42,397	1965	19.8	4.6	220	88.8	44	2.2
1989	42,176	2161	17.2	5.1	263	87.8	81	3.7
1988	42,335	2358	16.6	5.6	176	92.5	98	4.2
1987	41,724	2845	14.6	6.8	258	90.9	145	5.1
Averages	42,914	2665.5	19.2	6.2	241.6	90.8	100.6	3.5

¹ Education Reference Groups (ERGs) are a classification of the state's public school districts into groups based on similar socioeconomic status and need of the families with children in public schools. For more information about ERG classification a research bulletin is available at the State Department of Education's website at www.state.ct.us/sde/. Select the Division of Evaluation and Research and view data bulletins.

Table 2. Vacancies, No Qualified Person Found, by ERG

ERG	# Vacancies, No Qualified Person Found	% Of Total Positions to Fill
A	15	2.8%
B	21	2.2%
C	25	3.8%
D	17	2.3%
E	7	3.4%
F	26	3.8%
G	18	7.1%
H	9	1.0%
I	190	20.7%
Other	31	10.5%

Note: "Other" refers to Charter Schools, RESCs, and the VT School System. This table does not include the state-approved nonpublic special education schools.

Public vs. Nonpublic

A look at public schools vs. nonpublic special education schools with regard to hiring certified special education teachers reveals drastic differences between the two types of schools and their ability to hire special education teachers. Public schools had a total of 601 special education positions to fill. Of these, 50, or 8.3%, remained unfilled because a qualified person could not be found. The nonpublic schools, however, had 120 special education positions to fill, and 33, or 27.5%, of the positions to fill remained vacant because a qualified person could not be found. Clearly, the nonpublic special education schools had a more difficult time filling special education positions than the public schools. Public schools reported receiving a significantly higher number of applications than the nonpublic schools (see Table 3). In addition, the public schools generally rated the quality of their applicant pools higher than the applicant pools found in the nonpublic schools. The following explanations for these differences were suggested by the nonpublic schools: the pay is lower compared to the public schools, the school operates on a year-round schedule and many teachers want the summers off, the student population is more challenging, and

there are often non-teaching duties associated with the teaching positions.

Applicant Quality Rating

District personnel responsible for hiring are asked to rate the quality of the applicant pool for each position. They are asked to consider academics, experience, recommendations, background and other factors to make this subjective rating. The ratings were made on the following scale, with the emphasis being placed on the quality, not the quantity, of the applicant pool:

- 1=Few or no minimally qualified applicants
- 2=Some acceptable applicants
- 3=Many acceptable applicants
- 4=Some high-quality applicants
- 5=Many high-quality applicants

Only three teaching areas received a median applicant pool rating of 4: elementary, kindergarten and social studies. These three areas received the same rating as last year. No subject area received a median applicant pool rating of 5. The following nine subject areas received a median rating of 1: bilingual education, teachers of the blind, consumer home economics, external GED program, French, Latin, partially sighted, physics and technology education.

A total of 857 full- and part-time positions received an applicant pool rating of 1. This number is a significant increase over last year's number of 696 positions.

Shortage Areas

Connecticut takes several variables into account in order to determine areas of shortage (see Columns C-I of Table 4). "Vacancy No Qualified Person Found" (Column C), is the number of full-time and part-time positions that were unfilled as of October 1, 1999, because no one had met a district's criteria after a complete search. Teachers working under a "Durational Shortage Area Permit" (Column D), must hold a bachelor's degree, have at least 12 semester hours of credit in the area and meet the state's basic skills testing requirement.

Table 3. Public and Non-Public Special Education Vacancies

Subject Area	Number Positions Available		Median Applications Received		October Vacancies, No Qualified Person Found		Median Applicant Pool Quality Rating	
	Public	Non-Public	Public	Non-Public	Public	Non-Public	Public	Non-Public
General Special Education	381	45	24.0	6.0	35	15	3.0	1.5
Specific Learning Disabled	101	29	30.0	26.5	2	1	3.0	3.5
Socially Emotionally Disturbed	74	43	18.5	5.0	10	14	2.0	2.0
Mentally-Intellectually Handicapped	35	0	47.0	NA	2	NA	3.0	NA
Physically Handicapped	7	0	17.0	NA	0	NA	4.0	NA
Other Handicapped	22	3	18.0	7.0	1	3	2.0	1.0
Total Across All Special Education Areas	620	120	25.0	6.0	50	33	3.0	2.0

Table 4. 1999-2000 Hiring Statistics

(A) Subject Area	(B) Total Positions to Fill	(C) Vacancy: No Qualified Person Found	(D) Durational Shortage Area Permit	(E) Minor Assignment	(F) Minimum Qualified Hire	(G) Median Applications	(H) 1st CT Certificates	(I) Median Applicant Quality Rating	(J) Shortage Rank*
Art	119	2	0	1	6	14.0	228	3.0	29
Bilingual Teacher	69	25↑	1	0	20↑	4.0↓	80	1.0	4
Biology/Life Science	98	6↑	2	2	15↑	10.0	227	2.0	19
Blind	8	1	0	0	2	1.0	3	1.0	37
Business & Office	60	8↑	0	0	17	8.0	106	2.0	11
Chemistry	53	5	3	2	20↑	7.0	72	2.0	14
Computer Education	17	3	NA	NA	1↓	10.5	NA	2.5	NA
Consumer Home Economics	34	7	8	0	15	3.0	36	1.0	9
CWE/Diversified Occupations	1	1	1	0	0	2.0	5	1.0	46
Dance	1	0	0	0	0	3.0	NA	2.0	NA
Deaf	8	1	0	0	2	13.0↑	20	2.0	42
Developmental Reading	32	0	0	0	5	7.0↓	77↓	3.0	48
Earth Science	16	0	1	3	5	6.0	41	2.0	43
Elementary Teacher Grades 1-3	857	3	1	1	5	75.0	3889	4.0	26
Elementary Teacher Grades 4-8	560	2	0	0	4	75.0	3889	4.0	35
Elementary World Language	8	2	5	0	1	5.0	29	2.0	32
English	268	5	2	5↓	8	27.5	561	3.0	22
External (GED) Program	1	1	0	0	0	1.0	130	1.0	49
French	28↓	3↓	3	5	12↓	6.0	75	1.0	15
General Science	48↓	10	3	7	6	9.0↓	136	2.0	16
General Special Education	740	83↑	13↑	0	23↑	21.0↑	917	2.0	2
German	4	1	2	0	1	3.0	12	1.0	40
Gifted and Talented	24	2	NA	NA	2	15.0	NA	2.0	NA
Health	65	5	0	14	11↑	10.0	117	2.0	20
Italian	8	0	0	3	4	6.5	23↑	1.5	50
Kindergarten/Pre-K	163	5	1	1	3	75.0	2187	4.0	27
Latin	11	2	3	1	7	4.0	21↑	1.0	23
Marketing and Distribution	2	0	0	0	0	1.5	15	2.5	54
Mathematics	200	25↑	6↑	7	23↑	12.0↓	310	2.0	5
Media Specialist	98	23	20↑	0	22	7.0	87	2.0	1
Middle Grades, Biology	13	1	0	0	1	16.5	20	2.5	47
Middle Grades, Earth Science	4	0	0	0	1	11.5	3	3.0	53
Middle Grades, English	127	1	0	1	4	20.0	59	3.0	39
Middle Grades, French	24	2	NA	NA	5	8.5	NA	2.0	NA
Middle Grades, General Science	99	1	1	0	11	17.0	26	3.0	31
Middle Grades, German	1	0	NA	NA	0	4.0	NA	2.0	NA
Middle Grades, Latin	5	0	NA	NA	3	3.0	NA	2.5	NA
Middle Grades, Mathematics	114	2	2	0	12	15.0	48	2.0	24
Middle Grades, Other Language	1	0	NA	NA	0	2.0	NA	3.0	NA
Middle Grades, Physical Science	7	0	NA	NA	1	10.0	NA	2.0	NA
Middle Grades, Russian	1	0	NA	NA	0	3.0	NA	3.0	NA
Middle Grades, Social Studies/History	99	0	0	1	5	25.0	76	3.0	45
Middle Grades, Spanish	81	5	NA	NA	17	10.0	NA	2.0	NA
Music	219	32	6	0	20	10.0	239	2.0	3
Occupational Subjects	35	4	0	0	1	1.5	155	2.0	28
Other Language	2	0	1	0	1	1.5	7	1.5	51
Other Occupational Subject	2	1	0	0	1	1.0	107	1.0	41
Partially Sighted	8	2	0	0	1	1.0	3	1.0	33
Physical Education	203	18↑	0	3	12↑	15.0	272	3.0	10
Physical Science	10↑	0	NA	NA	3	6.0	NA	2.0	NA
Physics	31	3	7↑	4	14	5.0	42	1.0	21
Reading and Language Arts Consultant	49	8	2	0	7	5.0	77	1.5	17
Related Subjects (Voc-Tech Only)	29	0	0	0	0	75.0	41	2.0	55
Remedial Math	3	0	NA	NA	0	45.0	NA	3.5	NA
Remedial Reading/Language Arts	75↑	19↑	7↑	0	10↑	7.0↓	49↓	1.5	8
Russian	1	0	0	0	1	2.0	4	1.0	52
School Counselor	162↑	10↑	5↑	0	7	15.0	275	3.0	13
School Nurse-Teacher	8	0	0	0	4	4.0	8	2.0	44
School Psychologist	87	10	0	0	6	9.5	122	2.0	18
School Social Worker	74	4	0	0	2	11.0	213	3.0	30
Social Studies	183	2	5	7	2	45.0	600	4.0	34
Spanish	115	12↓	42↑	13	30	8.0	184	2.0	6
Speech & Language Pathologist	101	6↓	0	0	19	6.5	159↑	2.0	12
Technology Education	49	9	15	0	23	4.0	41	1.0	7
TESOL	24↑	5↑	1	2	2	8.0	64	2.0	25
Theater/Drama	6	0	NA	NA	0	6.5	NA	2.0	NA
Trade & Industrial	31	3	0	0	0	7.0	3	2.0	36
Unlisted Non-Teaching Assignment	7	5	NA	NA	1	3.0	NA	1.0	NA
Unlisted Teaching Assignment	2	1	NA	NA	0	37.5	NA	2.5	NA
Vocational Agriculture	9↑	1	0	0	3	3.0	7	2.0	38

↑ Indicates an increase of 50% or more over 1998-99 data.
 ↓ Indicates a decrease of 50% or more from 1998-99 data.

* "NA" indicates that certification does not currently exist for that subject area. Because of this, a shortage area index could not be calculated. The numbers associated with these non-certifiable subject areas were factored into their respective certifiable areas (e.g., Middle Grades Spanish into regular Spanish, Theater/Drama into English). Therefore, the shortage area ranking assigned to areas such as Spanish and English reflect the numbers associated with their related non-certifiable areas.

A "Minimum Qualified Hire" (Column

F), is the number of full-time and part-time positions that were filled from an applicant pool that was judged by school district personnel to contain "Few or no minimally qualified applicants." "Median Applications" (Column G), is the median number of applications that the district screened, from appropriately certified people, for any number of full- or part-time positions within a subject area. The maximum reportable number of applications was limited to 75.

The final variable, certificates issued or renewed per position, is calculated by dividing the number of people receiving or renewing 1999 first-level Connecticut certificates between September 1, 1998, and August 31, 1999 (Column H), by the number of full- and part-time positions for which a district actively sought applicants or reviewed applications from existing files (Column B).

In the past, the overall ranking of shortage areas (Column J) was determined by the sum of three items:

- 1) the weighted sum of the number of vacancies because no qualified person was found, the number of durational shortage area permits, the number of minor assignments and the number of minimum qualified hires per position;
- 2) the median number of applications received; and
- 3) the number of first Connecticut certificates issued or renewed per position.

Based on this model and last year's data, the designated shortage areas for the 1999-2000 school year in Connecticut were speech and language pathology, Spanish, consumer home economics and technology education. The 1999-2000 data will be used to determine the shortage areas for the 2000-2001 school year.

Revised Shortage Area Designation Model

To determine the designated shortage areas for the 2000-2001 school year, a revised model has been applied to the 1999-2000 school year's data. The revised model factors in the number of vacancies because no qualified person was found as an independent indicator, not as part of a weighted sum as in the previous model. The weighted sum is now comprised of the number of durational shortage area permits, the number of minor assignments and the number of minimum qualified hires per position. The new model, therefore, is based on the sum of four items:

- 1) the number of vacancies because no qualified person was found;
- 2) the weighted sum of the number of durational shortage area permits, the number of minor assignments and the number of minimum qualified hires per position;
- 3) median applications weighted 25%; and
- 4) the number of first Connecticut certificates issued or renewed per position, also weighted 25%.

There were several reasons for changing the model used to determine shortage areas. First, it was determined that the variables "Median Applications Received" and "First Connecticut Certificates Issued or Renewed" were indicators that do not present an accurate portrayal of the supply of certified teachers. For example, "Median Applications Received" provides the number of applications received in response to an advertisement, yet does not indicate how many of those applicants were actually available for an interview. Because of this uncertainty, "Median Applications Received" was weighted down to 25 percent within the overall shortage area designation model. The same condition applies to the variable "First Connecticut Certificates Issued or Renewed." While this number tells us the number of people receiving certification in a subject area, it does not indicate how many are actually available to work and/or are seeking a teaching position. This variable, therefore, was also weighted down to 25 percent within the overall model. Another reason for changing the model was the realization that the indicator "Vacancies: No Qualified Person was Found" provided an excellent indication of the degree of difficulty school districts were having in filling positions in certain subject areas. This variable, therefore, was given full weight.

Federal Designation of Shortage Areas

The Connecticut State Department of Education sends a yearly proposal to Washington, D.C. to consider certain subjects as areas of shortage. As a result of the submittal of 1998-99 data, the Federal government approved Spanish, technology education, consumer home economics, and speech and language pathology as federally designated teacher shortage areas for the 1999-2000 school year. This designation enables borrowers under the Stafford and Supplemental Loans for Students programs, who teach in one of these areas, to possibly qualify for a deferral of loan repayments. Holders of Paul Douglas Scholarships can reduce their teaching obligation from two years to one if they teach in an area of shortage. Perkins loan holders may qualify for full loan forgiveness if teaching in one of these shortage areas.

When the yearly proposal for consideration of shortage areas for the 2000-2001 school year is submitted this summer based on 1999-2000 data, the following subject areas will be proposed: media specialist, bilingual education, music, special education and mathematics.

These results more accurately reflect what many school districts are actually experiencing with regard to teacher shortages. These selected subject areas are a result of the new model described above. If approved by the Federal government, these subject areas will be the federally designated teacher shortage areas for the 2000-2001 school year.