

# DATA BULLETIN

## DESIGNATION OF TEACHER SHORTAGE AREAS, 2006-07 (Fall Hiring Report)

For 18 of the past 19 years, the Connecticut State Department of Education has surveyed local school districts to determine areas of teacher and administrator shortage. This Data Bulletin summarizes the Fall Hiring Survey data for the 2006-07 school year and compares these data to previous years. The data have been provided by all 166 local and regional school districts, the 3 endowed and incorporated academies, 6 regional educational service centers, 12 charter schools, the state technical high school system and the Connecticut Birth-to-Three Program.

Public school districts had 5,087 full- and part-time teaching positions out of 52,870 total positions to fill for the fall of 2006. This is a decrease of 175 vacancies from the 2005-06 school year.

### October Vacancies

While the number of positions to fill decreased, the number of vacancies remaining because no qualified person could be found increased, from 248 in 2005 to 292 in 2006 (see Table 1).

Of particular concern is the continued increase in vacancies because no qualified person could be found in the subject areas of special education, science, and world languages.

District Reference Group (DRG) I, comprised of Connecticut's large urban districts, continues to have the highest number and percentage of vacancies remaining due to a lack of qualified applicants (see Table 2).

**Table 2. Vacancies, No Qualified Person Found, by DRGs<sup>1</sup>**

DRG	Total Positions to Fill, 2006-07 School Year	# Vacancies, No Qualified Person Found	% Vacant of Total Positions to Fill
A	338	5	1.5
B	811	9	1.1
C	364	10	2.7
D	670	16	2.4
E	224	10	4.5
F	277	9	3.2
G	557	8	1.4
H	598	42	7.0
I	965	146	15.1
NA*	283	37	13.1

\* includes charter schools, RESCs and the technical high school system

**Table 1. Fall Hiring Summary, 1990-2006**

Fall of Year	Total Positions	Annual Positions To Fill	Percent of Positions To Fill That Are Part Time	Percent Positions To Fill of Total	Vacancies Remaining in October	Percent of Annual Positions Filled	Vacancies Due to No Qualified Applicants	Percent of Annual Positions Vacant, No Qualified Applicants
2006	52,870	5087	9.0	9.6	321	93.7	292	5.7
2005	52,314	5262	10.2	10.1	372	92.9	248	4.7
2004	51,697	5147	8.4	10.0	308	94.0	201	3.9
2003	51,370	4515	11.7	8.8	370	91.8	249	5.5
2002	51,414	4688	9.8	9.1	348	92.6	227	4.8
2001	50,087	5135	10.3	10.3	505	90.2	353	6.9
2000	48,750	5701	11.3	11.7	622	89.1	428	7.5
1999	47,800	5557	12.0	11.6	528	90.5	338	6.1
1998	46,459	4331	13.4	9.3	415	90.4	274	6.3
1997	45,269	3630	17.1	8.0	274	92.5	151	4.2
1996	44,893				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
Averages	46,780	3,941	15.0	8.2	333	91.4	195	4.4

<sup>1</sup> District Reference Groups (DRGs) 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 DRG classification, a research bulletin is available at the State Department of Education's website at [www.state.ct.us/sde/](http://www.state.ct.us/sde/).

The majority of school districts indicated that they were using short-term substitutes as a solution to their October vacancies (see Table 3). In addition, approximately 18 percent of the October vacancies were handled by either redistributing students among other classes, thereby increasing class size, or by adding additional classes to teachers' schedules. Approximately four percent of the vacancies were resolved by no longer offering a course.

**Table 3. Solution to October Vacancies**

<b>Solution</b>	<b>% of October Vacancies</b>
Course no longer offered	4.3
Students redistributed among other classes	10.6
Short-term substitute	54.5
Teacher(s) with appropriate certification pick up additional class	7.8
Remaining vacant (administrative positions only)	5.8
Filled by interim appointment (administrative positions only)	8.6
Other	8.2

**Designation of Shortage Areas**

**Based on 2005-06 school-year data, the state-identified shortage areas for the 2006-07 school year are:**

- **Bilingual Education, PK-12**
- **Comprehensive Special Education, 1-12**
- **English, 7-12**
- **Intermediate Administrator**
- **Mathematics, 7-12**
- **Music, PK-12**
- **Remedial Reading, PK-12**
- **Science, 7-12**
- **Speech and Language Pathology**
- **World Languages, 7-12**

**These subject areas were approved by the U.S. Department of Education as federally designated teacher shortage areas. The data collected in the 2006 Fall Hiring Survey will be used to determine the teacher shortage areas for the 2007-08 school year.**

The Connecticut State Department of Education sends a yearly proposal to the U.S. Department of Education to consider certain subjects as areas of shortage. 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. Perkins loan holders may qualify for full loan forgiveness if they are teaching in one of these shortage areas.

Connecticut also designates shortage areas in response to a mortgage assistance program administered by the Connecticut Housing Finance Authority (CHFA). This program enables teachers who teach in a priority school district, or who teach in a state-identified subject-matter shortage area, to qualify for mortgage assistance. In the case of certified teachers employed by a priority school district, the teacher's residence must be located in that district. Teachers who teach in a state-identified subject-matter shortage area are able to purchase homes statewide. This program is available to first-time home buyers only and is subject to CHFA eligibility requirements. The mortgage assistance program was created to serve as a tool to help recruit and retain public school teachers in Connecticut.

In addition to loan deferment and mortgage assistance benefits for teaching in a shortage area, school districts may also take advantage of this designation when rehiring retired teachers. The 2003 General Assembly enacted a law that enables retired teachers to be reemployed without being subject to the earnings limit if they teach in a position designated by the Commissioner of Education as a subject shortage area for the school year in which they are employed.

For the past several years, subject areas designated as shortage areas have been difficult positions to fill (see Table 4). While the number of positions available for the start of the school year has decreased for many of the shortage areas, the number of these vacancies remaining in October because no qualified person could be found continues to increase. Initiatives such as the mortgage assistance program, federal loan deferment program and the rehiring of retirees are intended to somewhat reduce these specific subject-area shortages.

**Table 4. Positions Available in the Shortage Areas, 2002-03 to 2006-07**

<b>Subject</b>	<b># Positions Available</b>					<b># Positions Remaining Vacant, No Qualified Person Found</b>				
	<b>02-03</b>	<b>03-04</b>	<b>04-05</b>	<b>05-06</b>	<b>06-07</b>	<b>02-03</b>	<b>03-04</b>	<b>04-05</b>	<b>05-06</b>	<b>06-07</b>
Bilingual Education	97	65	40	34	53	23	22	14	14	21
Special Education	580	493	502	615	578	61	48	32	52	56
English	308	317	392	403	379	6	11	7	11	15
Intermediate Administrator	187	165	220	261	244	13	10	8	20	26
Mathematics	260	286	322	376	329	8	18	18	32	21
Music	216	175	196	151	177	20	10	4	9	15
Remedial Reading	50	45	56	55	72	11	8	6	5	12
Science	326	265	315	322	333	16	11	13	8	30
Speech and Language Pathologist	139	95	104	118	140	47	16	19	30	28
World Languages	255	204	257	310	251	10	13	17	10	21

**Table 5. 2006-07 Hiring Statistics**

<u>Endorsement Area</u>	<u>Total Positions to Fill</u>	<u>Vacancy: No Qualified Person Found</u>	<u>Durational Shortage Area Permit</u>	<u>Minor Assignment</u>	<u>Minimum Qualified Hire</u>	<u>Median Applications</u>	<u>1st CT Certificates</u>	<u>Median Applicant Quality Rating</u>	<u>Shortage Rank</u>
Agriculture, Pre-K-12	3	0	0	0	2	5	8	1	42
Art, Pre-K-12	113	2	0	0	6	25	196	3	25
Bilingual, PK-12	53	21	11	0	26	5.5	12	1	4
Blind, PK-12	1	0	1	0	1	1	3	1	40
Business, 7-12	39	1	0	0	6	10	97	2	28
Comprehensive Special Education	578	56	39	0	28	18	711	2	5
Department Chairperson	9	0	21	0	3	4	45	2	32
Driver Education	2	1	0	0	0	19.5	20	2.5	36
Elementary, 1-6	1124	2	9	2	4	141	3380	4	21
English, 7-12	379	15	30	4	7	26	519	3	9
English, Middle School	63	1	14	1	3	15	51	3	22
General Science, Middle School	52	1	0	0	12	11	28	2	26
Health Occupations – V-T Schools	6	0	0	0	5	12	7	1	38
Health Occupations-Comprehensive H. S.	1	0	0	0	1	6	3	1	43
Health, Pre-K-12	67	3	5	4	9	12	134	3	16
Hearing Impaired, PK-12	3	1	0	0	2	5	30	1	29
History & Social Studies, 7-12	232	2	3	1	4	43.5	533	4	24
History & Social Studies, Middle School	27	0	1	1	6	13.5	40	3	37
Home Economics, Pre-K-12	34	2	3	0	13	4	31	2	17
Integrated Early Childhood/Spec. Ed, Birth-K	13	2	0	0	2	5	17	1	23
Integrated Early Childhood/Spec. Ed, Nursery-3	56	0	9	0	13	11	223	2	33
Intermediate Administrator	244	26	12	0	21	18	545	3	7
Marketing Education, 7-12	1	0	0	0	1	6	15	1	45
Mathematics, 7-12	329	21	37	0	36	16	409	2	6
Mathematics, Middle School	45	1	17	0	11	9	55	2	20
Music, PK-12	177	15	7	0	23	13	188	3	8
Occupational Subject, V-T Schools	22	0	0	0	0	75	74	2	49
Partially Sighted, PK-12	1	0	1	0	1	2	3	1	41
Physical Education, Pre-K-12	135	4	0	0	11	20	213	3	15
Practical Nurse Education Instruction	3	1	0	0	1	8.5	5	2.5	31
Reading and Language Arts Consultant	26	3	1	0	8	7	62	1.5	19
Remedial Reading & Language Arts, 1-12	72	12	4	0	18	10	98	2	12
School Business Administrator	5	1	0	0	0	15	52	3	35
School Counselor	129	3	4	0	10	22.5	224	3.5	18
School Library Media Specialist	73	7	9	0	19	8.5	58	2	10
School Nurse Teacher	2	0	0	0	1	6	7	2	44
School Psychologist	108	7	0	0	12	10	114	2	14
School Social Worker	45	1	0	0	5	14	178	3	30
Science, 7-12	333	30	44	8	78	9	583	2	2
Speech and Language Pathologist	140	28	0	0	58	4	128	1	1
Superintendent of Schools	22	0	0	0	0	16	66	3.5	48
Technology Education, PK-12	61	8	3	0	18	5	52	2	11
TESOL, PK-12	43	6	6	0	9	8.5	87	2	13
Trade & Industrial Occupations- Comprehensive H.S.	5	2	0	0	1	4.5	12	2	27
Trade Related Subjects, V-T Schools	1	0	0	0	0	2	8	2	46
Unique Subject Area Endorsement	7	0	6	1	4	5.5	34	1.5	34
Vocational Agriculture, 7-12	1	0	0	0	0	3	8	2	47
World Language Instructor, Elementary	9	0	0	0	5	3	48	1	39
World Languages, 7-12	251	21	30	4	79	7	276	2	3

## Calculation of Shortage Areas

Connecticut takes several variables into account in order to determine areas of shortage (see Table 5). The column headed "Vacancy: No Qualified Person Found" indicates the number of full-time and part-time positions that were unfilled as of October 1, 2006, because no individual had met a district's criteria after a complete search.

Teachers working under a "Durational Shortage Area Permit" (DSAP) must hold a bachelor's degree, have at least 12 semester hours of credit in the subject area, and meet the state's basic skills testing requirement.

Teachers working under a Temporary Authorization for Minor Assignment (TAMA) must already be certified in another area and have at least 12 semester hours of credit in the subject to be taught. The column headed by "Minimum Qualified Hire" identifies 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." DSAPs and TAMAs are included in the calculation of teacher shortage areas because they are typically issued when a school district cannot find a candidate with full certification in the subject area needed.

"Median Applications" heads the column that lists 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 final variable used for determining shortage areas, certificates issued or renewed per position, is calculated by dividing the number of people receiving or renewing Connecticut certificates between October 1, 2005, and September 30, 2006, by the number of full- and part-time positions for which a district actively sought applicants or reviewed applications from existing files.

The designated shortage areas for any given school year are determined by the sum of the following 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 and the number of minor assignments;
- 3) median applications weighted 25 percent; and
- 4) the number of Connecticut certificates first issued or renewed per position, also weighted 25 percent.

## Applicant Quality Rating

District personnel responsible for hiring were asked to rate the quality of the applicant pool for each position. They were asked to consider academic qualifications, 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

No subject areas received a median rating of 5. Two areas received a median applicant pool rating of 4: elementary and history/social studies.

Of the subject areas with more than one position available, seven received a median rating of 1; they were: agriculture, bilingual education, health occupations (technical high schools), teachers of the hearing impaired, integrated early childhood/special education (Birth-K), speech/language pathologist, and world languages at the elementary level.