

DATA BULLETIN

DESIGNATION OF TEACHER SHORTAGE AREAS, 2005-06 (Fall Hiring Report)

For 17 of the past 18 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 2005-06 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 5,538 full- and part-time teaching positions out of 52,314 total positions to fill for the fall of 2005. This is an increase of 651 vacancies from the 2004-05 school year.

October Vacancies

Also showing an increase from the 2004-05 school year were the number of vacancies remaining in October, up from 268 in 2004 to 390 in 2005 (see Table 1). The number of vacancies remaining because no qualified person could be found also increased, from 185 in 2004 to 270 in 2005.

Of particular concern is the increase in vacancies in the subject areas of mathematics, special education, and intermediate administrators.

Education Reference Group (ERG) I 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 ERGs¹

ERG	Total Positions to Fill, 2004-05 School Year	# Vacancies, No Qualified Person Found	% Vacant of Total Positions to Fill
A	471	8	1.7
B	919	15	1.6
C	414	10	2.4
D	695	20	2.9
E	164	7	4.3
F	546	4	0.7
G	186	7	3.8
H	833	15	1.8
I	834	128	15.3
NA*	476	56	11.8

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

Table 1. Fall Hiring Summary, 1989-2005

Fall of Year	Total Positions	Annual Positions To Fill	Percent of Positions To Fill That Are Part Time	Percent of 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
2005	52,314	5538	11.5	10.6	390	93.0	270	4.9
2004	51,697	4887	8.6	9.5	268	94.5	185	3.8
2003	51,370	4300	12.1	8.4	328	92.4	230	5.3
2002	51,414	4344	9.8	8.4	320	92.6	227	5.2
2001	50,087	4894	10.3	9.8	473	90.3	337	6.9
2000	48,750	5457	11.3	11.2	590	89.2	422	7.7
1999	47,800	5293	12.0	11.1	485	90.8	323	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
1989	42,176	2161	17.2	5.1	263	87.8	81	3.7
Averages	46,133	3,677	16.0	8.0	317	91	179	4.0

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 Teaching, Learning and Assessment and view data bulletins.

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 14 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 one percent of the vacancies were resolved by no longer offering a course.

Table 3. Solution to October Vacancies

Solution	% of October Vacancies
Course no longer offered	1.3
Students redistributed among other classes	6.0
Short-term substitute	56.8
Teacher(s) with appropriate certification pick up additional class	7.7
Remaining vacant (administrative positions only)	3.4
Filled by interim appointment (administrative positions only)	1.3
Other	23.5

Designation of Shortage Areas

Based on 2004-05 school-year data, the state-identified shortage areas for the 2005-06 school year are:

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

These subject areas were submitted to the U.S. Department of Education this winter for federal designation as teacher shortage areas. The data collected in the 2005 Fall Hiring Survey will be used to determine the teacher shortage areas for the 2006-07 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 or transitional 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 or transitional 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 vacancies because a qualified person could not be found has decreased for some of the shortage areas, when compared to all other subject areas they continue to have the highest number of this type of vacancy, especially in the areas of mathematics, special education and intermediate administrators. 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, 2001-02 to 2005-06

Subject	# Positions Available					# Positions Remaining Vacant, No Qualified Person Found				
	01-02	02-03	03-04	04-05	05-06	01-02	02-03	03-04	04-05	05-06
Bilingual Education	101	97	65	40	34	18	23	22	14	14
Special Education	590	580	493	502	615	70	61	48	32	52
English	236	308	317	392	403	16	6	11	7	11
Intermediate Administrator	208	187	165	220	261	15	13	10	8	20
Mathematics	318	260	286	322	376	21	8	18	18	32
Remedial Reading	60	50	45	56	55	8	11	8	6	5
Science	211	326	265	315	322	8	16	11	13	8
Speech Language Pathologist	139	139	95	104	118	37	47	16	19	30
TESOL	23	33	19	41	41	0	2	2	7	7
World Languages	252	255	204	257	310	20	10	13	17	10

Table 5. 2005-06 Hiring Statistics

Endorsement Area	Total Positions to Fill	Vacancy:			Minimum Qualified Hire	Median Applications	1st CT Certificates	Median Applicant Quality Rating	Shortage Rank
		No Qualified Person Found	Durational Shortage Area Permit	Minor Assignment					
Art, PK-12	106	2	5	0	6	18.5	180	3	25
Bilingual, PK-12	34	14	12	0	12	2	19	1	4
Blind, PK-12	1	1	0	0	0	2	10	1	35
Business, 7-12	38	2	3	0	5	10	115	2	27
Comprehensive Special Education	615	52	78	0	24	20	712	3	3
Co-Operative Work Education/Diversified Occupation	2	0	2	0	0	5.5	2	2	38
Department Chairperson	15	0	14	0	3	8	34	4	31
Elementary, 1-6	1219	9	1	0	7	103	3352	5	15
English, 7-12	403	11	44	3	21	30	525	3	7
English, Middle School	50	2	9	1	2	17	35	3	21
External Diploma Program	2	0	0	0	0	2	116	4	45
Health Occupations – Technical High Schools	5	0	0	0	5	12	7	1	37
Health Occupations-Comprehensive H. S.	6	0	0	0	3	3	6	1	36
Health, PK-12	63	0	4	10	8	15	119	3	33
Hearing Impaired, PK-12	7	3	0	0	3	2	27	1	24
History & Social Studies, 7-12	240	3	7	3	3	52.5	575	4	22
History & Social Studies, Middle School	23	0	0	1	2	30.5	35	3	43
Home Economics, PK-12	26	2	9	0	11	5	31	2	19
Integrated Early Childhood/Spec. Ed, Birth-K	16	1	1	0	1	6.5	21	2.5	30
Integrated Early Childhood/Spec. Ed, Nursery-3	76	4	8	0	4	18.5	205	3	17
Intermediate Administrator	261	20	15	0	29	20	528	3	6
Mathematics, 7-12	376	32	112	6	25	18	372	2	2
Mathematics, Middle School	42	0	18	1	3	15.5	59	3	29
Music, PK-12	151	9	15	1	18	19	153	3	9
Occupational Subject, Technical High Schools	15	1	0	0	0	38.5	76	2.5	39
Partially Sighted, PK-12	1	0	0	0	1	1	9	1	44
Physical Education, PK-12	164	4	0	0	8	22.5	219	3	18
Practical Nurse Education Instruction	1	0	0	0	0	11	10	2	46
Reading and Language Arts Consultant	23	4	2	0	5	6	70	2	20
Remedial Reading and Language Arts, 1-12	55	5	11	0	15	6	70	2	10
School Business Administrator	7	2	0	0	0	11	80	2	32
School Counselor	113	4	7	0	11	20	214	3	16
School Library Media Specialist	63	7	11	0	11	12	67	2	12
School Nurse Teacher	4	0	1	0	1	6.5	7	3	42
School Psychologist	102	11	0	0	9	9	123	3	11
School Social Worker	62	2	0	0	4	14.5	192	3	28
Science, 7-12	322	8	112	13	99	10	537	2	8
Science, Middle School	44	3	2	0	2	18	36	2	23
Speech and Language Pathologist	118	30	3	0	53	4	99	1	1
Superintendent of Schools	14	0	0	0	0	14	72	3	47
Technology Education, PK-12	47	3	11	0	22	5.5	44	1	14
TESOL, PK-12	41	7	11	2	14	10	74	2	13
Trade & Industrial Occupations- Comprehensive H.S.	9	0	0	0	5	5	13	1	34
Unique Subject Area Endorsement	4	0	0	0	3	4	47	1	41
Vocational Agriculture, 7-12	4	0	0	0	1	2.5	7	3	40
World Language Instructor, Elementary	22	2	1	0	6	4.5	57	2	26
World Languages, 7-12	310	10	51	13	82	7	277	2	5

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, 2005, 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." While DSAPs and TAMAs are factors in determining areas of shortage, under the No Child Left Behind Act of 2001, teachers teaching under these permits are considered highly qualified. 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, certificates issued or renewed per position, is calculated by dividing the number of people receiving or renewing Connecticut certificates between October 1, 2004, and September 30, 2005, 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

Only the elementary teacher applicant pool received a median rating of 5. Three areas received a median applicant pool rating of 4: history/social studies, external diploma program, and department chairperson.

Ten certifiable subject areas received a median rating of 1; they were: bilingual, blind, health occupations (technical high schools), health occupations (comprehensive high schools), hearing impaired, partially sighted, speech and language pathologist, technology education, trade and industrial occupations (comprehensive high schools) and unique subject area endorsement.