



## **PUBLIC SCHOOL TEACHER SUPPLY AND DEMAND IN CONNECTICUT**

Given recent concerns over potential teacher shortages in Connecticut, the Department of Higher Education has undertaken a supply and demand analysis of educators across the state. In this brief, the Department compares its data on degrees and certificates awarded by the state's 15 teacher preparation programs (supply) against statistics on workforce need (demand) compiled by the Connecticut State Department of Education. This review confirms that there is a serious need for more teachers trained in shortage fields and for those who are minorities.

### **DEMAND FOR PUBLIC SCHOOL TEACHERS**

For the current 2002-2003 school year, nine public school teacher shortage areas exist in Connecticut based on 2001-02 data (see Table 1).<sup>1</sup> Except changes in Consumer Home Economics, Remedial and Language Arts, School Psychologist, and Technology Education, the other subject areas have remained constant as state certified shortage areas since 2000.

The number of Durational Shortage Area Permits (DSAP)<sup>2</sup> issued to districts has grown sharply over the past six years, from 35 in 1997-98 to 484 in 2000-01, and then to 805 in 2001-02. While a growing problem, the number of DSAP's in Connecticut accounts for only 1.5% of the state's 50,087 teaching force – very low compared to other states. The largest numbers of DSAPs issued were in Spanish, Special Education and 7-12 Mathematics. At present, some 800 classrooms in Connecticut are filled with teachers who are not fully certified based on the Connecticut requirements.

More than 25% of these less than fully certified teachers are teaching in the state's Education Reference Group I<sup>3</sup> districts, with the remaining 75% equally distributed across all other districts. In addition, the federal *No Child Left Behind* legislation mandates that all teachers teaching in core academic subjects must hold full certificates by 2005-06. Based on 2001-2002 data, 2.4% of Connecticut teachers are not "highly qualified" as defined by the federal government.<sup>4</sup> Finally, although more than 23 % of Pre-K-12 public school students are minorities, the state only has about 7% minority teachers.

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<sup>1</sup> Connecticut State Department of Education (2002). *Data bulletin: Fall hiring report, 2002*. Hartford, CT: Author.

<sup>2</sup> To obtain a DSAP, a district must demonstrate the inability to find a qualified certified teacher and present a candidate who has passed Praxis I and has at least 12 semester hours of credit in the subject area and has enrolled in a teacher preparation or alternate route to certification program.

<sup>3</sup> Education Reference Groups (ERGs) are a classification of the state's public school districts into groups based on similar socioeconomic status and need for families with children in public schools. ERG I includes districts of Bridgeport, Hartford, New Britain, New Haven, New London, Waterbury, and Windham.

<sup>4</sup> Sergi, T. (2002). Fall hiring report and related data. *Connecticut State Board of Education Meeting Agenda*. December 4. VIII.C.

TABLE 1  
CONNECTICUT PUBLIC SCHOOL TEACHER SHORTAGE AREAS  
2001-02 AND 2002-03<sup>5</sup>

Subject Area	Grades	Shortage Ranking	
		2001-2002	Change in 2002-2003
Bilingual Education	Pre-K-12	6	2
Consumer Home Economics	Pre-K-12	9*	7
Mathematics	7-12	4	10
Music	Pre-K-12	2	4
Remedial Reading and Language Arts**	1-12	12	9
School Library Media Specialist	Pre-K-12	8	16
School Psychologist	No Grades	7	5
Spanish	7-12	5	6
Special Education, Comprehensive	Pre-K-12	1	3
Speech and Language Pathology	No Grades	3	1
Technology Education**	Pre-K-12	16	8

\* Per Connecticut State Department of Education, in the *Fall 2001 Hiring Report*, Consumer Home Economics was ranked 17. However, based on district on-going reports, it was later adjusted and identified as a shortage area.

\*\* Remedial Reading and Language Arts and Technology Education are ranked 12 and 16, respectively, based on the Connecticut State Department of Education *Fall 2001 Hiring Report*. As the current certified shortage areas are based on the 2001 data, these two areas are not listed as shortage areas. However, the *Fall 2002 Hiring Report* has ranked Technology Education as the eighth and Remedial Reading and Language Arts as the ninth shortage areas. If this trend continues, these two areas are likely to be considered as certified shortage areas in 2003.

## SUPPLY OF PUBLIC SCHOOL TEACHERS

### *An Overview of Supply*

Connecticut draws its public school teachers from five primary sources:<sup>6</sup>

- graduates of Connecticut and of out-of-state teacher preparation programs and others newly certified in the state during the previous year;
- experienced Connecticut teachers who have interrupted their careers or who are on leave;
- inexperienced teachers who were first certified before the previous year;
- graduates of the Connecticut Department of Higher Education's Alternate Route to Certification program;
- experienced teachers from other states.

Approximately 3,700 teachers are newly certified in Connecticut each year. Over the last three years, almost 1,500 teachers have retired each year. Unfortunately, teachers receiving new certificates are often not certified in shortage subject areas nor are they seeking employment in Connecticut or its urban and priority districts. For example, of the newly certified teachers in 2001-02, approximately 32% were in the non-shortage field of Elementary Education.

<sup>5</sup> Data Sources: Connecticut State Department of Education (2002). Ibid. Connecticut State Department of Education (2001). *Data bulletin: Fall hiring report, 2001*. Hartford, CT: Author.

<sup>6</sup> Connecticut State Department of Education (2000). *Public school educator supply and demand in Connecticut: A look toward the 21<sup>st</sup> century*. Hartford, CT: Author.

## *Supply from Connecticut Teacher Preparation Programs*

In 2001-02, Connecticut's 15 teacher preparation programs, including the Alternate Route to Certification Program, awarded 3,416 bachelor's and master's degrees as well as post-baccalaureate/master's certificates (see Table 2). Of this total, at least 1,317 (or 39%) were new teacher candidates (i.e., never before certified) who completed Connecticut teacher preparation programs.<sup>7</sup> These include 1,006 awards from baccalaureate and post-baccalaureate programs, and 311 from the Alternate Route to Certification program. Among all program graduates, 6% are minorities and 24% are men.

Looking at fields of study, Connecticut's teacher preparation programs awarded 954 (or 28%) degrees and certificates in Elementary Education (see Figure 1), 126 (or 3.7%) in Early Childhood Education and 670 (or 20%) in Pre-K-12 Administration, for a total of 1,750 (or 51%) across Pre-K-6 certification and school administrator fields.

Connecticut's teacher preparation programs awarded 630 (18% of the total) degrees and certificates in shortage areas (see Table 3 and Figure 2). Combined, the 14 traditional teacher preparation programs produced 517 (or 17% of the 3,105 awards from the traditional programs) graduates in the state certified shortage areas. The Alternate Route to Certification produced 113 (or 36% of the 311 awards) graduates in the state certified shortage areas of Bilingual Education, Mathematics, Music, and Spanish.

## **DISCUSSION**

To ensure that all Connecticut Pre-K-12 school students are taught by a qualified teacher, Connecticut must diligently continue to attract people into the profession and provide the support necessary to retain quality teachers. The state also must intensify its production of teacher candidates in shortage subject areas. Such steps should include:

- encouraging candidates in Early Childhood Education and Elementary Education to move to shortage areas and Secondary subjects;
- reviewing, by teacher preparation programs, the size of their Elementary Education programs and corresponding adjustment in light of current state and school district needs;
- reviewing, by teacher preparation programs, their modes of delivery (e.g. weekend program models and summer-to-summer program models) to accommodate diverse adult populations, including career-changing professionals and current paraprofessionals in schools.

Other steps could include establishing Master of Arts in Teaching programs for recent liberal arts graduates, creating modules (not courses) to demonstrate candidate proficiencies, establishing and expanding cross-certification programs, combining on-line and on-ground delivery models, and encouraging community college graduates to continue their education to pursue careers in teaching.

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<sup>7</sup> The number of new teachers are, in fact, higher because there are new candidates through master's or post-master's programs.

TABLE 2  
 OVERVIEW OF CERTIFICATES AND DEGREES AWARDED  
 BY CONNECTICUT TEACHER PREPARATION PROGRAMS  
 2001-02

Institutions	Awards (July 1, 2001-June 30, 2002)								
	Totals		Percentage	Demography		Degree Level			
	Awards	% change vs. last year	% of state total	% male	% known minority	Baccalaureate/ Post-Baccalaureate	Master's	Post-Master's	Not Reported
Alternate Route to Certification	311	46%	9%	39%	20%				311*
Central Connecticut State University	556	10%	16%	30%	6%				556
Connecticut College	22	-44%	1%	32%	5%	14	8		
Eastern Connecticut State University	162	17%	5%	25%	2%	151	11		
Fairfield University	72	20%	2%	17%	3%	28	38	6	
Quinnipiac University	22	-19%	1%	45%					22
Sacred Heart University	511	154%	15%	28%	2%	233		278	
Southern Connecticut State University	671	-37%	20%	17%	5%	238	298	99	36
St. Joseph College	134	7%	4%	2%	4%	88	46		
University of Bridgeport	231	11%	7%	22%	7%		221	10	
University of Connecticut, Storrs	260	3%	8%	15%	11%	107	129	24	
University of Hartford	166	7%	5%	28%	5%	50	116		
University of New Haven**	93	-23%	3%	22%	2%				93
Western Connecticut State University***	194	-5%	6%	22%	2%	86	105	3	
Yale University	11	10%	0%	45%	9%	11			
<b>TOTAL</b>	<b>3,416</b>	<b>3%</b>	<b>100%</b>	<b>24%</b>	<b>6%</b>	<b>1,006</b>	<b>972</b>	<b>420</b>	<b>1,018</b>

Source: Connecticut Department of Higher Education

\* The Alternate Route to Certification Program only awards certificates upon completion, not degrees.

\*\* University of New Haven reported those who completed one or both of Master's Degree and passed student teaching during the period specified.

\*\*\*Master's degree students at Western Connecticut State University have current teaching certificates before entering the program. The completers, therefore, are not new teachers. Master's completers at other institutions can include a mix of students with no certificates and those who already hold certificates.

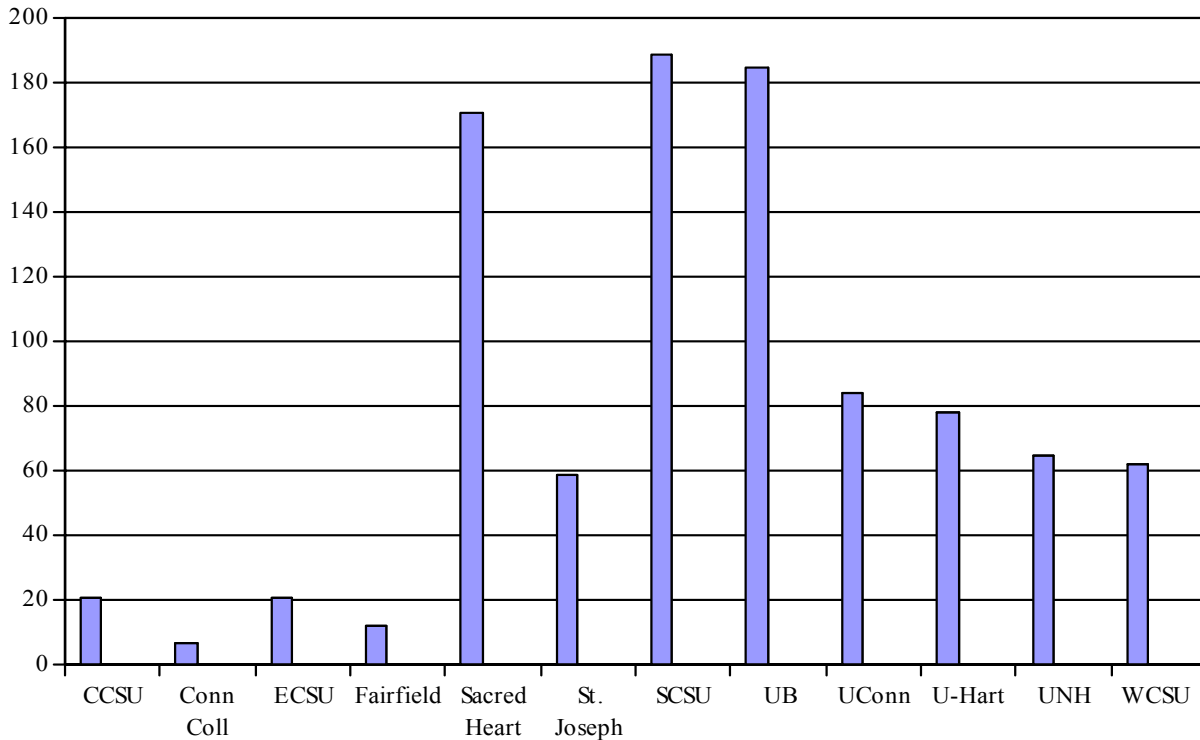
TABLE 3  
DEGREES AND CERTIFICATES IN SHORTAGE SUBJECT AREAS AWARDED BY  
CONNECTICUT TEACHER PREPARATION PROGRAMS  
2001-02

Institutions	Total	Nine Priority Areas		Bilingual Education, K-12	Consumer Home Economics K-12	Mathematics 7-12*	Music, PreK-12	School Library Media Specialist K-12	School Psychologist	Spanish, 7-12	Special Education, PreK-12	Speech and Lang Pathology
		Awards	% of awards									
Alternate Route to Certification*	311	113	36%	32		37	17			27		
Central Connecticut State University	556	68	12%			55	7	1		5		
Connecticut College	22	4	18%			1	1			2		
Eastern Connecticut State University	162	10	6%			10						
Fairfield University	72	21	29%			4		1	6	4	6	
Quinnipiac University	22	6	27%			5				1		
Sacred Heart University	511	14	3%			8				6		
Southern Connecticut State University	671	176	26%			4			12	1	157	2
St. Joseph College	134	40	30%		8	4				1	27	
University of Bridgeport	231	2	1%			1	1					
University of Connecticut-Storrs	260	109	42%			11	14		19	3	51	11
University of Hartford	166	41	25%			7				1	33	
University of New Haven	93	0	0%									
Western Connecticut State University	194	24	12%			3	18			3		
Yale University	11	2	18%			1	1					
<b>Total</b>	<b>3,416</b>	<b>630</b>	<b>18%</b>	<b>32</b>	<b>8</b>	<b>151</b>	<b>59</b>	<b>2</b>	<b>37</b>	<b>54</b>	<b>274</b>	<b>13</b>

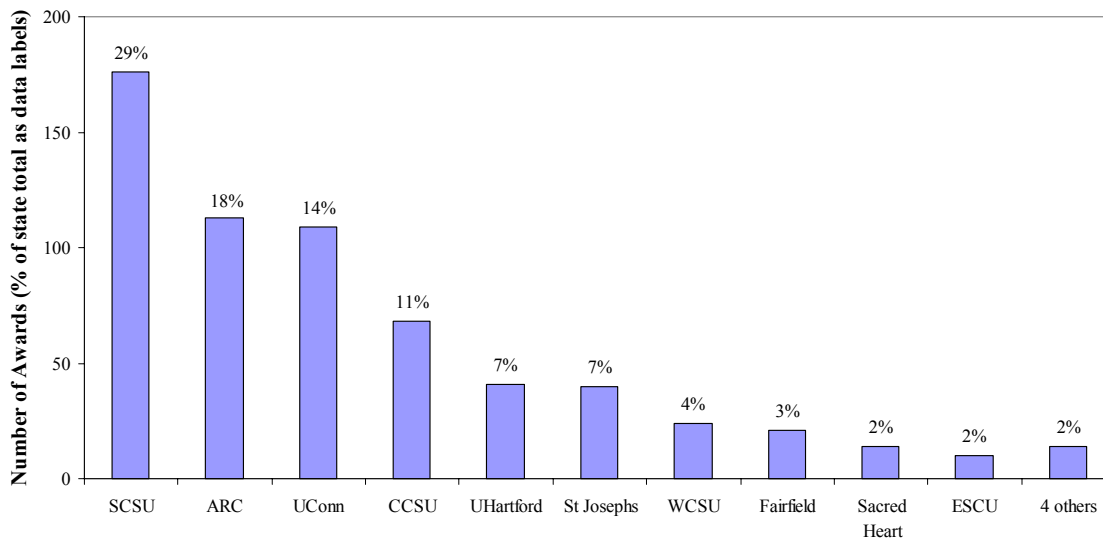
Source: Connecticut Department of Higher Education

\* The Alternate Route to Certification Program granted 21 additional awards in Mathematics (Middle Grades 4-8).

**FIGURE 1**  
**DEGREES AND CERTIFICATES IN ELEMENTARY EDUCATION AWARDED BY**  
**CONNECTICUT TEACHER PREPARATION PROGRAMS**  
**2001-02 (N = 954)**



**FIGURE 2**  
**PERCENTAGE OF DEGREES AND CERTIFICATES IN SHORTAGE SUBJECT AREAS AWARDED BY**  
**CONNECTICUT TEACHER PREPARATION PROGRAMS**  
**2001-02 (N = 630)**



Abbreviations: : ARC: Alternate Route to Certification; CCSU: Central Connecticut State University; Conn Coll: Connecticut College; ECSU: Eastern Connecticut State University; Fairfield: Fairfield University; Sacred Heart: Sacred Heart University; St. Joseph: Saint Joseph College; SCSU: Southern Connecticut State University; UB: University of Bridgeport; UConn: University of Connecticut-Storrs; U-Hart: University of Hartford; UNH: University of New Haven; WCSU: Western Connecticut State University. Four others include: Connecticut College, University of Bridgeport, University of New Haven, and Yale University.