

**Key Data from CERRA's Supply and Demand Reports
2012-13 to 2015-16**

School year	Number of newly hired certified teachers	Number of certified teachers who did not return to their teaching positions*	Number of graduates who completed a SC teacher education program (data obtained from CHE)†	Number of certified teachers who did not return after five or fewer years of classroom experience*	Number of certified teachers who did not return after one year or less of classroom experience*
2012-2013	5,739.5	3,503	2,050 (2011-12)	1,186.8	403.4
2013-2014	5,797.7	3,880.5	2,447 (2012-13)	1,154.5	438
2014-2015	6,217.9	4,108.1	2,219 (2013-14)	1,309	529.7
2015-2016	6,555.1	4,074.3	1,954 (2014-15)	1,506.5	579.6

*These numbers exclude teachers who left to teach in another South Carolina public school district or special school.

†These numbers include students who graduated with a Bachelor's degree eligible for teacher certification.

Note: Full reports can be accessed at <http://cerri.org/research/supplyanddemand/overview.aspx>.

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Contact: Todd

Scholl

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843.340.1213

schollt@cerra.org

New Study Examines State's Teacher Shortage

South Carolina not producing enough teachers to fill vacancies

Rock Hill, SC – For several years, data from the Center for Educator Recruitment, Retention, and Advancement's (CERRA's) *Supply and Demand Survey Reports* have indicated that South Carolina is experiencing a teacher shortage in certain subject and geographic areas. More teachers are leaving the classroom, causing more vacancies and more new hires to fill those positions. The number of teachers leaving each year is significantly higher than the number of students graduating from South Carolina institutions each year who are eligible for teacher certification. In response to these trends, FY16 Proviso 1A.78 was passed directing a study be conducted that projects the number of additional teachers needed annually in public school classrooms for grades K5 through 12, for school years 2016-17 through 2027-28. CERRA and the South Carolina Commission on Higher Education (CHE) have just released a report that summarizes the results of that study.

In this report, the number of teachers expected to be needed during these years was compared to the number of teachers expected to be available during this same time. Based on this comparison, seven core subject areas are projected to experience a teacher shortage over the next 12 years. These subject areas are art, business/marketing/computer technology, mathematics, sciences, social studies, special education, and Spanish. The report displays tables that include the projected supply and demand of teachers by subject area for three specified school years (2016-17, 2021-22, and 2027-28), as well as the projected teacher surplus or shortage for each subject area. Also included are estimates of the cumulative teacher



shortages that South Carolina is likely to experience if there are no changes in current patterns of hiring or completions of in-state teacher education programs. Looking at mathematics, in particular, in order to eliminate the projected teacher shortage by 2021-22, the state will need to produce approximately 459 new math teachers. This number rises to 527 in the 2027-28 school year. These figures incorporate new hires available, teachers leaving, and new demand for teachers from the increasing student count.

As part of Proviso 1A.78, a survey was sent to the deans of teacher education programs in 30 South Carolina public and independent colleges/universities to determine whether these institutions have the capacity and infrastructure to fulfill the projected teacher needs. The survey results indicate that South Carolina colleges and universities with teacher education programs have the willingness and ability to accommodate more teacher candidates in several subject areas that are projected to have teacher shortages. According to the deans, however, there is a lack of student interest in entering the teaching profession, particularly in these core areas: sciences, social studies, mathematics, and special education. Unfortunately, these areas are the ones with the greatest need for teachers and are projected to have the most significant teacher shortages over the next decade.

Overall, South Carolina does not produce a sufficient number of teachers through the state's teacher education programs to fill current and anticipated vacant positions. Graduates from in-state teacher education programs are the largest source of newly hired teachers each year. Other new hires include international teachers and those from another state, and teachers from alternative certification programs like South Carolina's Program of Alternative Certification (PACE). These sources combined, however, may not generate a supply of teachers large enough to meet the current or projected demand for teachers based on student enrollment.


To read the full report, go to

http://cerra.org/media/documents/2016/5/Teacher_Supply_Study_511161.pdf

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About The Center for Educator Recruitment, Retention, and Advancement

The Center for Educator Recruitment, Retention and Advancement, established by the Commission on Higher Education in December 1985 and funded by the South Carolina General Assembly, was created out of a concern for the condition of South Carolina's teacher supply pool and a need for a centralized teacher recruitment effort.

CERRA's agenda is a comprehensive one in which the Center sponsors a variety of programs for increasing the number of students in the education pipeline and recruiting and retaining qualified, caring, and competent teachers. The Center's primary target groups are middle and high school students, college students, and adults interested in changing careers. 

CERRA also targets groups of accomplished teachers through programs including mentoring, teacher leadership and National Board Certification. The network of educators in our programs overlaps in powerful ways to increase the level of collaboration for recruitment, retention and advancement of South Carolina educators. For more information about CERRA, visit www.cerra.org.

May 2016

Teacher Supply Study Report

FY16 Legislative Proviso 1A.78

Dr. Jennifer Garrett
SC Center for Educator Recruitment, Retention, & Advancement

Dr. Erica Von Nessen
SC Commission on Higher Education

FY16 Proviso 1A. 78. Teacher Supply Study

With funds appropriated to the Center for Educator Recruitment, Retention, and Advancement (CERRA), in concert with the Commission on Higher Education, the Department of Education, and the Education Oversight Committee, CERRA shall initiate and conduct a study to identify and project the number of additional teachers needed annually in public school classrooms for grades K5 through 12, for school years beginning 2017 through 2027. The purpose of the study shall be to: (1) provide specific data and projections on the number of teachers expected to be needed as compared to the number available, by Subject Areas Taught as indicated in CERRA's annual Supply and Demand Report, and with a focus on critical need subject areas; (2) determine whether, individually and collectively, teaching programs at applicable institutions of higher learning in South Carolina have the capacity and infrastructure to fulfill projected needs in item (1); and (3) provide data for general use in estimating the fiscal impact of any new or revised programs being considered to incent more talented individuals to enter teacher training programs and more highly qualified teachers to remain in the profession for longer periods of time.

Introduction

For several years, data from CERRA's *Supply and Demand Survey Reports* have indicated that South Carolina is experiencing a teacher shortage in certain subject and geographic areas. More teachers are leaving the classroom, causing more vacancies and more new hires to fill those positions. The number of teachers leaving each year is significantly higher than the number of students graduating from South Carolina institutions each year who are eligible for teacher certification. Although teacher vacancies are reported in public school districts throughout the state, there are regions within the state that face more serious hiring challenges. These affected areas often are located in more rural areas of the state and have high levels of poverty. Additionally, districts continue to report a constant need for teachers in several subject areas including special education, mathematics, and sciences. In response to these trends, FY16 Proviso 1A.78 was passed directing a study be conducted that projects the number of additional teachers needed annually in public school classrooms for grades K5 through 12, for school years 2016-17 through 2027-28. This report summarizes the results of that study.

In conjunction with the hiring, vacancy, and departure data gathered from CERRA's Supply and Demand Surveys, this report uses information from multiple sources: student program completion data from the Commission on Higher Education, student enrollment data from the South Carolina Department of Education, birth rates from the South Carolina Department of Health and Environmental Control, and population projections from the South Carolina Revenue and Fiscal Affairs Office. The end result will be projecting the number of additional teachers needed annually in public school classrooms for grades K5 through 12 for school years 2016-17 through 2027-28. Before this can occur, projections about teacher demand and teacher supply must be made for these years. Several techniques were used to estimate the number of teachers needed (demand) in each subject area through the year 2028 versus the number of teachers who will be available (supply) during this same period of time.

Projected Teacher Supply and Demand

A full description of this report's methodology can be found in Appendix 1. Projections of teacher supply and demand were made for academic years 2016-17, 2021-22, and 2027-28. The following series of tables (Tables 1, 2, and 3) show the projected supply and demand of teachers by subject area for the three specified school years: 2016-17, 2021-22, and 2027-28. Areas with projected significant teacher shortages are highlighted in each table. Subject areas included in the "all other" category in Tables 1, 2, and 3 that follow are those for which there is no undergraduate initial teacher certification program offered by a public or independent college/university in South Carolina. As a result, no student program completion data are available for these subject areas. For example, guidance is a subject area that is offered only at the graduate level in this state, and those who pursue this degree may or may not choose to obtain South Carolina Board of Education certification and seek employment in public schools. Thus, it is not possible to determine how many program completers will be available to work in South Carolina public schools. Another example of a subject area with no undergraduate initial teacher certification program is literacy, which is either an add-on or endorsement certification to an existing teaching certificate. A complete list of the subject areas is available in Appendix 1, Table 3.

Table 1: Projected Supply and Demand of Teachers, 2016-17

Subject	2016-17 Projected Teacher Demand	2016-17 Projected Teacher Supply	Projected Teacher Surplus or Shortage
Agriculture	108	115	7
Art	1,186	1,166	-20
Business/Marketing/ Computer Technology	906	896	-10
Dance & Theater	264	268	4
Early Childhood/Elementary	18,346	18,591	245
English/Language Arts	3,665	3,785	120
Family & Consumer Sciences	139	155	16
Health	202	245	43
Industrial Technology	84	82	-2
Mathematics	3,606	3,530	-76
Music	1,595	1,595	0
Physical Education	1,817	1,953	136
Sciences	3,076	2,987	-89
Social Studies	3,123	3,049	-74
Special Education	5,295	5,179	-116
French	187	206	19
German	52	52	0
Spanish	812	789	-23
All Other ¹	7,942	7,600	-342
TOTAL	52,405	52,243	-164

¹The subjects with the largest number of projected teaching positions included in this category are guidance, media, speech language, literacy, gifted and talented, and English for Speakers of Other Languages (ESOL). Other subject areas in this category include career and technology, driver's education, school psychology, American Sign Language, Chinese, and Latin.

Table 2: Projected Supply and Demand of Teachers, 2021-22

Subject	2021-22 Projected Teacher Demand	2021-22 Projected Teacher Supply	Projected Teacher Surplus or Shortage
Agriculture	113	152	39
Art	1,202	1,140	-62
Business/Marketing/ Computer Technology	961	860	-101
Dance & Theater	275	309	34
Early Childhood/Elementary	17,676	20,311	2,635
English/Language Arts	3,906	4,544	638
Family & Consumer Sciences	147	247	100
Health	211	462	251
Industrial Technology	89	82	-7
Mathematics	3,843	3,384	-459
Music	1,635	1,718	83
Physical Education	1,859	2,671	812
Sciences	3,278	2,725	-553
Social Studies	3,327	2,837	-490
Special Education	5,396	5,058	-339
French	197	308	111
German	54	53	-1
Spanish	850	727	-123
All Other ²	8,069	6,389	-1,680
TOTAL	53,088	53,976	888

²The subjects with the largest number of projected teaching positions included in this category are guidance, media, speech language, literacy, gifted and talented, and English for Speakers of Other Languages (ESOL). Other subject areas in this category include career and technology, driver's education, school psychology, American Sign Language, Chinese, and Latin.

Table 3: Projected Supply and Demand of Teachers, 2027-28

Subject	2027-28 Projected Teacher Demand	2027-28 Projected Teacher Supply	Projected Teacher Surplus or Shortage
Agriculture	110	197	87
Art	1,213	1,110	-104
Business/Marketing/ Computer Technology	934	817	-117
Dance & Theater	272	357	85
Early Childhood/Elementary	18,533	22,375	3,842
English/Language Arts	3,796	5,455	1,659
Family & Consumer Sciences	143	356	213
Health	208	722	514
Industrial Technology	86	81	-5
Mathematics	3,735	3,208	-527
Music	1,636	1,866	230
Physical Education	1,861	3,533	1,672
Sciences	3,185	2,411	-774
Social Studies	3,233	2,583	-650
Special Education	5,422	4,911	-511
French	192	431	239
German	53	54	1
Spanish	834	653	-182
All Other ³	8,124	4,937	-3,187
TOTAL	53,570	56,057	2,487

³The subjects with the largest number of projected teaching positions included in this category are guidance, media, speech language, literacy, gifted and talented, and English for Speakers of Other Languages (ESOL). Other subject areas in this category include career and technology, driver's education, school psychology, American Sign Language, Chinese, and Latin.

As shown in Tables 1, 2, and 3 above, there are seven core subject areas that are projected to experience a teacher shortage. These seven subject areas are listed in Table 4. Also included in this table are estimates of the cumulative teacher shortages that South Carolina is likely to experience if there are no changes in current patterns of hiring or completions of in-state teacher education programs. Looking at mathematics, in particular, in order to eliminate the projected teacher shortage by 2021-22, the state will need to produce approximately 459 new math teachers. This number rises to 527 in the 2027-28 school year. These figures incorporate new hires available, teachers leaving, and new demand for teachers from the increasing student count. The projected shortages in Table 4 assume that hiring patterns remain constant. Actual vacancies may be minimized by increasing the number of new hires from alternate sources or by hiring a larger number of graduates from in-state teacher education programs.

Table 4: Projected Teacher Shortages, 2016-17 through 2027-28

Subject	Projected Teacher Shortage, 2016-17	Projected Teacher Shortage, 2021-22	Projected Teacher Shortage, 2027-28
Art	20	62	104
Business/Marketing/ Computer Technology	10	101	117
Mathematics	76	459	527
Sciences	89	553	774
Social Studies	74	490	650
Special Education	116	339	511
Spanish	23	123	182

A majority of newly hired teachers are graduates of a teacher education program in a South Carolina public or independent college/university. Because teacher education students have to complete a full four-year program, an immediate increase in new enrollment into this hiring source will not likely result in a significant impact on the teaching pool until at least the year 2020-21. This realization helps to explain the sizeable jump in projected teacher shortages from the year 2016-17 to 2021-22. It is unlikely that school districts will be able to fill these vacancies quickly enough to meet the estimated short-term demand.

Teacher Education Program Capacity and Infrastructure

Once the subject areas with projected teacher shortages were identified, a survey was sent to the deans of teacher education programs in 30 South Carolina public and independent colleges/universities. The purpose of the survey was to determine whether these institutions have the capacity and infrastructure to fulfill the projected teacher needs. The survey can be found in Appendix 2.

For approved teacher education programs in the shortage areas, deans were asked how many more students, if any, they could accommodate (per year) with little to no difficulty. All respondents indicated that their institution could accommodate at least one to ten additional education students in each of their approved programs. There are far more mathematics, sciences, social studies, and special education programs in the state than art, business/marketing/computer technology, and Spanish. These smaller programs, particularly the latter two, may prove to be more difficult to expand due to limited number of established programs in the state. The larger programs, however, all appear to have the capacity to expand to a significant extent. Specifically, a majority of the institutions that offer mathematics, sciences, social studies, and special education each have the ability to possibly expand by more than 20 students each year.

Deans were asked to identify the greatest barrier to increasing the number of teacher candidates enrolled in the programs at their institutions. Student interest was, by far, the most frequently cited barrier. Some respondents expanded on this by noting that students who were interested in the critical need subject areas, such as math and science, often majored in these subjects rather than in teacher education in that subject. According to the deans, these students presumably wanted to pursue more lucrative career opportunities. Others stated that students were not interested due to the lack of financial assistance offered to support them through a teacher education program.

Deans also were asked to identify resources needed to increase the number of teacher candidates enrolled in the programs at their institutions. Again, student interest and financial assistance were cited, but the need for additional faculty also was identified by respondents. Along with the need for more qualified education faculty to support course delivery to additional students, more clinical placement locations will have to be secured as well as faculty to supervise students at these locations.

Overall, South Carolina colleges and universities with teacher education programs have the willingness and ability to accommodate more teacher candidates in several subject areas that are projected to have teacher shortages. According to the deans, however, there is a lack of student interest in entering the teaching profession, particularly in these core areas: sciences, social studies, mathematics, and special education. Unfortunately, these areas are the ones with the greatest need for teachers and are projected to have the most significant teacher shortages over the next decade.

Some respondents from institutions with Teaching Fellows Programs indicated that they would like to expand that program in order to recruit more students into the education program.⁴ Some also mentioned the desire to build their college partnership with local high schools that offer the Teacher Cadet Program. These statewide programs recruit high-achieving students into the teaching profession. The Teaching Fellows Program also has proven to positively impact teacher retention. More than half of the deans who responded are employed by institutions that have a Teaching Fellows Program, and two-thirds of the institutions serve as College Partners to high schools that offer the Teacher Cadet Program.

South Carolina does not produce a sufficient number of teachers through the state's teacher education programs to fill current and anticipated vacant positions. Graduates from in-state teacher education programs are the largest source of newly hired teachers each year. Other new hires include international teachers and those from another state, and teachers from alternative certification programs like South Carolina's Program of Alternative Certification (PACE). These sources combined, however, may not generate a supply of teachers large enough to meet the current or projected demand for teachers based on student enrollment.

Data for Use in Estimating the Fiscal Impact of Recruitment and Retention Programs

Many sources of data can be used to estimate the fiscal impact of new or revised programs being considered to incentivize more individuals into teacher education programs and, once in the classroom, encourage them to remain in the profession for longer periods of time. Annual information from districts such as the number of allocated teaching positions, number of new hires, number of vacancies, and number of teachers leaving their classrooms would all be necessary data factors when considering the fiscal impact of teacher recruitment and retention efforts. All of this information can be found in CERRA's annual Supply and Demand Reports. *The Report on the Fall 2015 Supply and Demand Survey* can be found in Appendix 3.

⁴ It should be noted that expansion of the Teacher Fellows Program at the state level would result in a larger number of awards being made, as opposed to an increase in the size of the cohort at any particular institution. Cohort size is within the purview of the institution.

Appendix 1: Methodology

Projecting Teacher Demand

Several sources of data were obtained and analyzed to project the number of teachers needed annually in South Carolina public schools. First, estimates were made concerning the number of students who would be enrolled in these schools each year through 2027-28.

Public School Student Enrollment Estimates

In order to project the number of teachers that will be needed annually from 2016-17 through 2027-28, the number of students enrolled during these years first had to be calculated. The student enrollment projections were made using three sources of data: current student enrollment data, current birth rates, and population projections.

Current Student Enrollment

The first source of data used to project public school enrollment is current public school enrollment. This information was obtained from the South Carolina Department of Education's 2015-16 45-Day Active Student Headcount. For those students currently enrolled in 5-year-old Kindergarten (K5) through 11th grade, it is possible to estimate the number who will likely move to the next higher grade in the following year using historical trends. These trends in student movement between grades, from 2005-06 through 2014-15, were averaged and a "survival" probability was calculated for each grade. This cohort survival analysis allowed projections to be made through the year 2027-28 for the grades available. Students currently enrolled in K5 in 2015-16 would be expected to be enrolled in grade 12 in the 2027-28 school year.

Current Birth Rates

The second source of data used to project public school enrollment is current birth rates. This information was obtained from the South Carolina Department of Health and Environmental Control. A similar cohort survival analysis was conducted using birth rates from 2001-2010 and the number of students enrolled in K5 five years later. Trends in the birth to K5 movement of these children were averaged, and a survival rate was calculated. This rate was applied to the birth rates from 2011-2014 to project the number of these children likely to start K5 five years later and progress through each grade. Children born in the year 2011 are likely to start K5 in the 2016-17 school year while those born in 2014 are likely to start in the 2019-2020 school year.

Population Projections

The third and final source of data used to predict public school enrollment is population projections. This information was obtained from the South Carolina Revenue and Fiscal Affairs Office. For some of the later years and earliest grades, potential students have not yet been born. The state's population projections for 2015-2025 were relied on to produce the estimated number of students likely to start K5 in 2020-21 and so on. For the year 2020-21, those students would likely have been born in the year 2015. Population estimates for 2015 are provided for children aged 0 to 4 years. Dividing their estimate by five produces a projected number of births during 2015. Once the survival rate calculated for the birth to K5 movement was applied to the projected number of 2015 births, the result was a projected number of K5 students five years later in 2020-21. A similar analysis was done with the population projections for 2020 and 2025.

Public School Enrollment Projections

The total number of students likely to be enrolled in South Carolina public schools during the years 2016-17 through 2027-28 was calculated by combining the estimates that were produced using current student enrollment data, current birth rates, and population projections. These student enrollment projections are shown, by grade and school year, in Table 1.

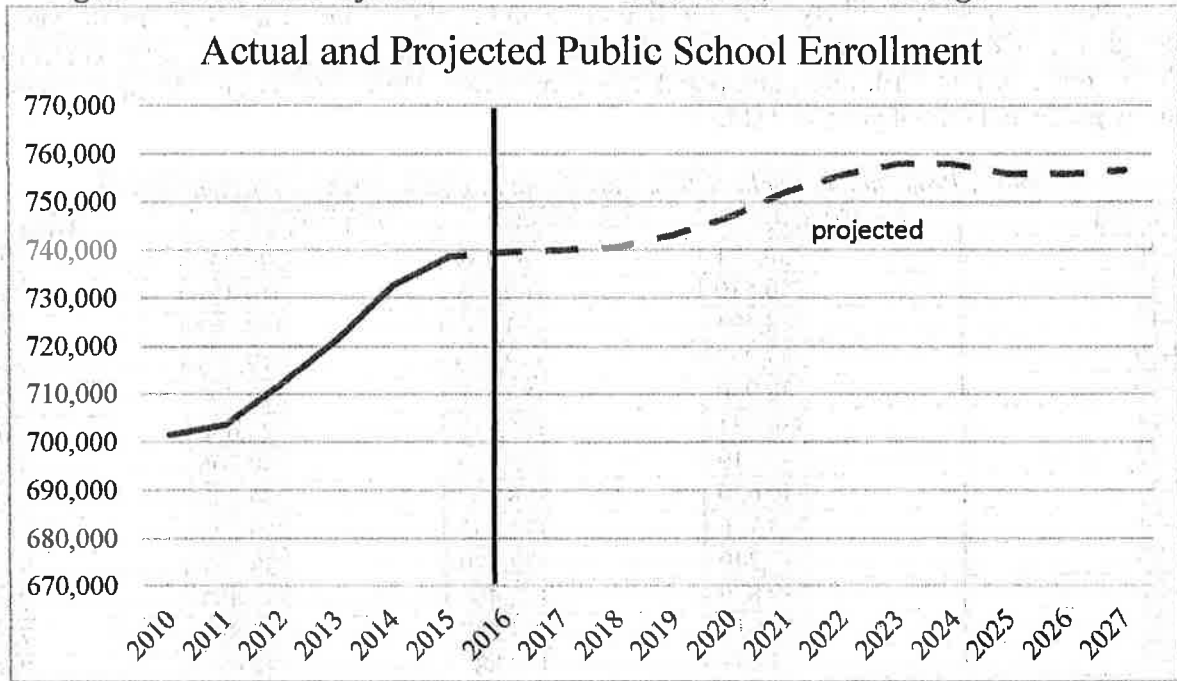
Table 1: Projection of Public School Enrollment by Grade, 2016-17 through 2027-28

School Year	K5-5 th Grades	6 th -8 th Grades	9 th -12 th Grades	Total
2015-16 ¹	350,271	168,149	220,237	738,657
2016-17	350,510	169,588	219,421	739,519
2017-18	348,491	173,365	218,182	740,037
2018-19	343,227	179,500	217,928	740,655
2019-20	338,940	184,388	219,792	743,120
2020-21	336,331	186,777	223,656	746,765
2021-22	337,719	183,445	230,706	751,871
2022-23	340,620	178,757	236,250	755,627
2023-24	343,746	174,233	239,929	757,908
2024-25	347,240	172,120	238,567	757,927
2025-26	349,879	172,406	233,493	755,778
2026-27	352,615	174,287	228,894	755,796
2027-28	354,081	177,885	224,621	756,587

¹Numbers for 2015-16 indicate actual student enrollment; numbers for all other years are projections based on historical cohort survival.

Birth rates peaked in 2008 just before the most recent recession. As a result of the recession, the number of live births in South Carolina steadily declined over the next five years. This decline accounts for the leveling off of student enrollment between 2014 and 2018. The number of live births in 2014, which is the most recent year provided by the South Carolina Department of Health and Environmental Control, grew by nearly 900 compared to data from 2013. Birth rates are expected to continue to recover as the economy expands, and thus student enrollment is projected to climb through 2027-28. A visual depiction of these projections is displayed in Figure 1.

Figure 1: Actual and Projected Public School Enrollment, 2016-17 through 2027-28



Once public school enrollment estimates were determined for each school year through 2027-28, the number of teachers needed to meet student enrollment demand during these years could be projected. To do this, the current number of teachers had to be considered; because the proviso called for data and projections on the number of teachers expected to be needed by “subject areas taught,” the current distribution of teachers was examined by subject area.

Current Distribution of Teachers by Subject Area

CERRA administers a Supply and Demand Survey to public school districts each year to gather information on the number of certified teaching positions allocated in district budgets by subject area taught. The 2015-16 distribution of certified teaching positions is shown in Table 2. Assuming that the distribution of teachers, as reported in the Survey, remains constant among these subject areas over the next decade, it is possible to project the number of certified teachers that will be needed for each subject area based on the number of projected students from Table 1. For example, for every one student enrolled in a South Carolina primary/elementary school, there will be a need for 0.052 teachers with an Early Childhood and/or Elementary certification ($18,333.47 / 350,271 = 0.05234$). [18,333.47 is the number of Early Childhood/Elementary positions allocated in district budgets in 2015-16, and 350,271 is the number of students enrolled in primary/elementary schools in 2015-16.]

Thus, if there were 336,331 students projected to be in primary/elementary schools five years from now in 2020-21 (see Table 1), we would expect a need for 17,604 teachers with an Early Childhood/Elementary certification ($0.05234 * 336,331$). These calculations were performed for each subject and each grade level grouping to determine the demand for teachers through the 2027-28 school year. Table 3 displays the projected demand for teachers over the next 12 years.

Table 2: Certified Teaching Positions Allocated in District Budgets, 2015-16

Subject Area Taught	Number of Certified Teaching Positions			
	Primary/Elementary	Middle	High	Total
Agriculture		5.75	102.25	108.00
Art	604.50	263.11	317.13	1,184.74
Business/Marketing/Computer Technology		281.14	624.64	905.78
Career & Technology		103.50	859.75	963.25
Dance	32.30	39.80	38.50	110.60
Driver's Education			67.39	67.39
Early Childhood/Elementary	18,333.47			18,333.47
Engineering		6.25	34.75	41.00
English for Speakers of Other Languages (ESOL)	349.20	117.62	100.47	567.29
English/Language Arts		1,737.42	1,919.65	3,657.07
Family & Consumer Sciences		29.00	109.90	138.90
Gifted & Talented	404.97	167.71	93.78	666.46
Guidance	739.75	501.96	755.01	1,996.72
Health	33.25	65.05	103.52	201.82
Industrial Technology		26.00	57.50	83.50
Literacy	650.07	105.25	37.00	792.32
Mathematics		1,690.19	1,908.65	3,598.84
Media Specialist	618.19	234.96	243.00	1,096.15
Music	650.72	493.99	447.12	1,591.83
Physical Education	742.26	455.18	617.31	1,814.75
School Psychologist	292.12	104.73	101.20	498.05
Sciences		1,426.85	1,643.13	3,069.98
Social Studies		1,420.65	1,696.40	3,117.05
Special Education	2,404.90	1,339.99	1,542.40	5,287.29
Speech Language Therapist	725.78	136.72	85.74	948.24
Theater	22.50	49.58	80.75	152.83
World Languages				
American Sign Language	5.00	4.00	3.00	12.00
Chinese	28.17	7.75	9.58	45.50
French	14.80	43.50	128.82	187.12
German	6.00	9.75	36.25	52.00
Japanese	0.00	0.00	0.00	0.00
Latin	0.00	9.00	22.45	31.45
Russian	0.00	0.00	0.00	0.00
Spanish	100.20	155.20	557.23	812.63
Other	0.00	154.55	97.25	251.80
TOTAL	26,758.15	11,179.90	14,406.77	52,344.82
Student Enrollment	350,271	168,149	220,237	738,657

Table 3: Projection of Certified Teaching Positions by Subject Area, 2016-17 through 2027-28

Subject Area Taught	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Agriculture	108	107	107	108	110	113	116	117	117	114	112	110
Art	1,186	1,187	1,187	1,190	1,195	1,202	1,208	1,211	1,212	1,210	1,211	1,213
Business/Marketing/Computer Technology	906	909	918	931	947	961	969	971	965	951	940	934
Career & Technology	961	958	961	972	988	1,014	1,032	1,044	1,037	1,018	1,001	986
Dance	111	111	112	113	114	115	115	115	114	114	114	114
Driver's Education	67	67	67	67	68	71	72	73	73	71	70	69
Early Childhood/Elementary	18,346	18,240	17,965	17,740	17,604	17,676	17,828	17,992	18,175	18,313	18,456	18,533
English for Speakers of Other Languages (ESOL)	568	568	567	567	568	570	572	574	575	576	578	580
English/Language Arts	3,665	3,693	3,754	3,821	3,879	3,906	3,906	3,892	3,858	3,817	3,796	3,796
Family & Consumer Sciences	139	139	140	141	144	147	149	150	149	146	144	143
Gifted & Talented	668	669	669	669	670	672	673	673	675	676	679	682
Guidance	1,999	2,001	2,008	2,020	2,035	2,052	2,063	2,069	2,065	2,054	2,050	2,049
Health	202	203	204	207	209	211	213	213	212	210	208	208
Industrial Technology	84	84	85	86	87	89	89	90	89	88	87	86
Literacy	794	792	786	781	779	780	784	787	792	796	802	806
Mathematics	3,606	3,633	3,693	3,758	3,816	3,843	3,844	3,831	3,798	3,757	3,736	3,735
Media Specialist	1,098	1,098	1,097	1,098	1,101	1,107	1,112	1,115	1,117	1,116	1,118	1,121
Music	1,595	1,600	1,607	1,618	1,628	1,635	1,638	1,638	1,635	1,631	1,632	1,636
Physical Education	1,817	1,819	1,824	1,833	1,845	1,859	1,868	1,873	1,870	1,863	1,861	1,861
School Psychologist	499	499	498	499	500	502	504	505	506	506	508	509
Sciences	3,076	3,099	3,149	3,204	3,254	3,278	3,279	3,269	3,240	3,205	3,187	3,185
Social Studies	3,123	3,145	3,195	3,251	3,301	3,327	3,330	3,320	3,292	3,255	3,236	3,233
Special Education	5,295	5,302	5,313	5,336	5,364	5,396	5,418	5,429	5,426	5,411	5,413	5,422
Speech Language Therapist	950	948	942	938	936	939	943	947	952	956	961	966
Theater	153	154	155	157	159	160	161	161	161	159	158	158
World Languages												
American Sign Language	12	12	12	12	12	12	12	12	12	12	12	12
Chinese	46	46	45	45	45	46	46	46	46	46	46	46
French	187	187	188	191	193	197	199	200	199	196	194	192
German	52	52	52	53	53	54	55	55	55	54	54	53
Japanese	0	0	0	0	0	0	0	0	0	0	0	0
Latin	31	32	32	32	33	33	34	34	34	33	33	32
Russian	0	0	0	0	0	0	0	0	0	0	0	0
Spanish	812	812	815	823	834	850	860	866	862	850	841	834
Other	253	256	261	267	270	270	269	266	264	261	262	263
TOTAL	52,405	52,421	52,410	52,530	52,742	53,088	53,360	53,539	53,576	53,465	53,498	53,570
Student Enrollment	739,519	740,037	740,655	743,120	746,765	751,871	755,627	757,908	757,927	755,778	755,796	756,587

Projecting Teacher Supply

Once the number of teachers expected to be needed through 2027-28 was calculated, the number of teachers expected to be available during these years could be projected. To do this, several variables had to be considered: current supply of teachers in public schools, average number of new teachers available each year, and the average number of teachers who leave their teaching positions each year.

Current Teacher Supply

CERRA's Report on the Fall 2015 Supply and Demand Survey provides information on both the number of certified teaching positions allocated in district budgets by subject area and the number of vacancies in each subject area. These two pieces of information were used to estimate the current supply of teachers (number of positions – number of vacancies) in South Carolina's public schools. For example, in 2015-16 there were 108 positions for agriculture teachers in South Carolina, and there was one vacancy in this subject area reported by a public school district. Thus, there is a current supply of 107 (108 – 1) agriculture teachers.

From this 2015-16 number, projections were made for each subsequent year through 2027-28 by adding an estimated number of new teachers who might be available in each year and subtracting teachers who might be expected to leave the teaching pool each year.

Newly Hired Teachers

There are a limited number of sources from which teachers are newly hired in South Carolina public schools. According to CERRA's Supply and Demand Survey results over the last five years, most teachers newly hired to a district are graduates from a South Carolina teacher education program. Other sources include graduates from out-of-state teacher education programs, alternative certification programs such as the Program of Alternative Certification for Educators (PACE) and the American Board for the Certification of Teacher Excellence (ABCTE), international teachers, and teachers hired directly from another South Carolina public school district or special school. Since this report focuses on the entire state, it does not include teachers who move from one South Carolina district to another. Table 4 presents the number of certified teachers who were newly hired in the state over the last five years and the source from which they were hired.

Table 4: Sources of Newly Hired Teachers

Source	2011-12	2012-13	2013-14	2014-15	2015-16
Teacher Education Program (In-State)	1,452.25	2061.00	1,882.60	1,947.13	1,883.70
Teacher Education Program (Out-of-State)	332.00	507.40	483.60	392.00	446.20
PACE	128.50	209.20	245.00	259.50	303.20
ABCTE	28.00	23.20	13.00	17.00	32.00
Teach for America		81.00	118.00	106.00	63.00
Adjunct Teaching License	0.00	1.00	1.00	3.00	3.00
Newly Certified Career & Technology Teacher			58.50	54.37	70.00
Retired SC Teacher, Returned to Teaching	144.10				
Inactive SC Teacher, Returned to Teaching	142.37	202.10	218.97	215.97	220.62
Teacher from a College/University or Private School in SC			112.75	121.00	199.00
Teacher from Another State	666.60	779.00	855.10	1,028.11	977.60
Teacher from Outside the US	104.50	110.00	102.00	133.00	186.00
Other	143.20	151.00	121.40	72.00	154.80
Total	3,141.52	4,124.90	4,211.94	4,349.10	4,539.12
Total Excluding In-State Graduates	1,689.27	2,063.90	2,329.34	2,401.97	2,655.42
<i>Average Excluding In-State Graduates</i>			2,227.98		

Using the average distribution of certified teaching positions reported in the Supply and Demand Surveys from 2011-12 through 2015-16, it is possible to allocate the new 2,227.98 teachers per year to each of the subject areas. For example, there were an average of 101.2 agriculture teaching positions which represented 0.2 percent of all teaching positions. Applying the 0.2 percent to the new 2,227.98 teachers yields 4.5 new agriculture teachers available per year. Similar calculations were completed for each subject area to determine the number of new teachers that would be available each school year. These numbers do not include graduates coming from South Carolina teacher education programs; they were derived using a different method, which is described in the next two paragraphs.

The Commission on Higher Education (CHE) maintains detailed information about the number of graduates from South Carolina teacher education programs who are eligible for initial certification each year. A majority of these graduates are receiving a Bachelor’s degree, while a much smaller portion are receiving a Master’s degree. A portion of students graduating may not enter the profession because they do not pass certification, chose to work in a different occupation, chose to teach at a private school, chose to leave the state, etc. Therefore, the number of new graduates who would be available to teach the next year had to be reduced accordingly. Five years of graduation information (2010-11 through 2014-15) was used to determine the average number of new graduates per year that would be available to fill teaching positions in the state’s public schools.

For example, an average of 13.4 students graduated from a South Carolina teacher education program related to agriculture. Assuming that 80 percent (number of SC graduates hired / number of SC graduates eligible for teacher certification) of these individuals would be available to teach in South Carolina public schools in the next year, that would equate to 10.7 new teachers being added to the supply of agricultural teachers. Similar calculations were completed for each subject area (as provided by the CHE) to determine the number of in-state graduates that would be available to teach each school year.

Loss of Teachers

Each year, the state loses an average of nearly 3,850 teachers for a variety of reasons including retirement, change of profession, termination, return to school for advanced degree, personal choice, etc. The three most common reasons cited for teachers not returning to their positions are personal choice, retirement², and taking a teaching position in another South Carolina public school district or special school. Since this report focuses on the entire state, it does not include teachers who move from one South Carolina district to another. Table 5 presents the number of teachers, over the last five years, who did not return to their teaching positions.

Table 5: Teachers who Left Their Positions

School Year	“Leavers”
2011-12	3,663.00
2012-13	3,503.00
2013-14	3,880.50
2014-15	4,108.10
2015-16	4,074.30
<i>Average</i>	<i>3,845.78</i>

² Following the final year of the phase-out of the Teacher and Employee Retention Incentive (TERI) Program on June 30, 2018, it is possible that a greater number of teachers will retire each year.

Detailed information about the distribution of “leavers” among subject areas was not available for this study, so the distribution of certified teaching positions over the last five school years was used as a best approximation. For example, it was previously determined that an average of 0.2 percent of all teaching positions were in agriculture. Applying the 0.2 percent to the 3,845.78 average leavers results in an expected loss of 7.7 agriculture teachers per year in South Carolina public schools. Similar calculations were completed for each subject area to determine the number of teachers expected to leave their positions each year.

Projected Supply of Teachers

Using the current supply of teachers from the 2015-16 Supply and Demand Survey, the average number of new teachers available each year, and the average number of teachers who leave their positions each year, it is possible to project the supply of teachers for the next school year. Continuing with the prior example, Table 6 displays these numbers.

Table 6: Projected Supply of Agriculture Teachers, 2016-17

Agriculture	Count
2015-16 Positions	108.0
2015-16 Vacancies	-1.0
Average New Graduates	+10.7
Average Other New Hires	+4.5
Average Leavers	-7.7
2016-17 Supply	~114.5

This analysis was repeated for each subject area through each of the remaining years to determine a projected number of teachers available through 2027-28. The results of this analysis are presented in the report for the years 2016-17, 2021-22, and 2027-28. In addition to the projected number of teachers available, this information will be compared to the estimated demand for teachers previously displayed in Table 3 of Appendix 1.

Appendix 2: Survey Sent to South Carolina Education Deans

Teacher Supply Study

Assuming that the number of students graduating from South Carolina's teacher education program remains fairly constant, data suggest that our state will experience persistent shortages of teachers in public schools in the following areas:

- *Art
- *Business, Marketing, or Computer Technology
- *Mathematics
- *Sciences
- *Social Studies
- *Special Education
- *Spanish

Please answer the following questions as accurately as possible.

1. Name of Institution

2. Name of person completing this survey

First

Last

3. Does your institution currently have an approved teacher education program in the following areas?

	Yes	No
Art		
Business, Marketing, or Computer Technology		
Mathematics		
Sciences		
Social Studies		
Special Education		
Spanish		

4. For each program, how many more students could your institution accommodate (per year) with little to no difficulty?

	0 additional students	1 – 10 additional students	11 – 20 additional students	21+ additional students	My institution does not offer this program
Art					
Business, Marketing, or Computer Technology					
Mathematics					
Sciences					
Social Studies					
Special Education					
Spanish					

5. What resources are needed to increase the number of teacher candidates in any of these programs at your institution?
6. What do you consider to be the greatest barrier to increasing the number of teacher candidates in any of these programs at your institution?
7. Is there anything you wish to share concerning your institution's ability to maintain the current level of teacher education graduates?

Appendix 3: 2015 Supply and Demand Report

**A REPORT ON THE FALL 2015
SUPPLY AND DEMAND SURVEY**

JANUARY 2016

**CENTER FOR EDUCATOR RECRUITMENT,
RETENTION, & ADVANCEMENT**

Introduction

Since 2001, the Center for Educator Recruitment, Retention, and Advancement (CERRA) has administered the annual Supply and Demand Survey to South Carolina's public school districts. Once the information is submitted, CERRA compiles a statewide report summarizing data on certified teacher and administrator positions, hires, vacancies, and departures. CERRA would like to sincerely thank the district representatives who complete this survey each year. Their collaboration facilitates the completion of this very important and complex process.

When completing the survey, districts are asked to report positions in full-time equivalents (FTEs), based on 1.0 for full-time positions and 0.5, 0.75, etc. for part-time positions. For example, if one full-time and three half-time Spanish teachers are hired, the district would report a total of 2.5 FTEs filled rather than four teachers hired.

Certified Teaching Positions

Districts were asked to provide the number of allocated teaching positions for the 2015-16 school year.¹ For the current school year, districts reported a total of 52,344.82 full-time and part-time certified teaching positions, an increase of 1,268.2 FTEs from last year. Most of this increase can be explained by newly created teaching positions in several certification areas, including early childhood/elementary, special education, and speech language therapy. Other areas of increase that are noteworthy include business and marketing technology, middle and secondary level music, and literacy positions in elementary and middle schools.

Overall statewide, there was an increase in the number of FTEs at all school levels and among many certification areas. Despite this overall growth, districts reported a decrease in more than one-third of all areas. The most significant decrease occurred in art across all school levels, but predominantly in middle schools. Decreases in English/language arts positions were reported at the middle and secondary levels, as well as a decline in gifted and talented positions in elementary and middle schools. Last year, an increase in the number of teaching positions occurred in all three of these certification areas.

Since the 2009-10 school year when districts were first asked to submit this kind of information, the same certification areas have consistently represented the largest share of allocated teaching positions in the state. These six areas make up 71% of all certified teaching positions: early childhood/elementary (35%), special education (10%), English/language arts (7%), mathematics (7%), social studies (6%), and sciences (6%). Another 15% of all reported positions are made up of guidance counselors; physical education, music, and art teachers; and media specialists.

The proportions of positions reported at each school level also have remained steady over time. Similar to last year, primary/elementary positions accounted for just over half of all FTEs, while middle and high school positions respectively made up 21% and 28% of the total.

¹ With the exception of Dillon 3, Spartanburg 4, and Spartanburg 6, all public school districts completed a Supply and Demand Survey. Information from these 79 districts is included in all data tables throughout the report.

Certified Teachers Hired

The total number of FTEs filled by newly hired certified teachers in school districts this year was 6,555.1, an increase of 337.2 FTEs from last year. Much of this increase is due to the 180.86 FTEs filled by newly hired high school teachers, specifically those who teach special education, English, social studies, career and technology subjects, sciences, and art. Last year, the largest increase in the number of teachers hired occurred in primary and/or elementary schools, mainly attributable to teachers with an early childhood/elementary certification, and those teaching art, literacy, and physical education. This year, the number of art and literacy teachers newly hired in primary and/or elementary schools actually decreased and the number of physical education teachers hired in these schools remained about the same.

Similar to last year's report, primary/elementary school teachers hired for the 2015-16 school year represented 47% of the total number of FTEs filled in the state. Teachers hired in middle and high schools accounted for 24% and 29% of the total, respectively. The majority of newly hired teachers were concentrated in the same certification areas as those reported in the previous section as making up the largest portion of allocated teaching positions. These include early childhood/elementary, special education, English/language arts, mathematics, sciences, and social studies. Following these larger categories of teachers are guidance counselors and those hired to teach physical education and music at all school levels.

This year, 28.8% (1,883.7) of the FTEs filled by newly hired teachers were graduates from a South Carolina teacher education program, and 6.8% (446.2) were filled by graduates from teacher education programs in other states. The in-state graduate numbers are down 3.3%, while the out-of-state graduate numbers are up nearly 14%. These statistics suggest that districts are beginning to increase, whether by necessity or not, their candidate pool by searching outside the state to fill vacant teaching positions. Teachers who transferred directly from another South Carolina school district made up 30.7% of all FTEs filled this year. Although these teachers are still employed in the state, their departures leave vacancies for many districts. About 15% of the newly hired teachers transferred from a teaching position in another state. This percentage declined from approximately 17% last year.

Just over 7% of newly hired teachers in the state came through alternative certification programs. Most of these teachers were participants in the Program of Alternative Certification (PACE). According to data reported by districts at the beginning of the school year, the number of FTEs filled by first-year PACE teachers was 303.2. However, in November 2015, CERRA obtained updated data from the South Carolina Department of Education (SCDE) that included second-semester participants. This addition brought the total number of first-year PACE teachers to 356 for the 2015-16 school year. This total signifies an increase of 31 PACE participants compared to the 325 reported by the SCDE last year. Substantial increases occurred this year mostly in the number of PACE teachers becoming certified in secondary areas, including business/marketing/computer technology, biology, social studies (significant increase in middle level as well), and English. Small declines of newly hired PACE teachers occurred in several certification areas, but secondary science saw the most considerable decrease.

In November 2015, the SCDE also provided data on the number of teachers hired through two other alternative certification programs, Teacher For America (TFA) and the American Board for Certification of Teacher Excellence (ABCTE). An additional 113 teachers were hired this year through these two programs – 62 through TFA and 51 through ABCTE.

Approximately 20% of the teachers hired this year are male. While this percentage has remained consistent over the years, the percentage of minority teachers hired decreased from 20% last year to 17% this year. According to the South Carolina Department of Education, 18.8% of the state's 2014-15 public school teachers were identified as male and 17.2% as a non-white race.

Vacant Teaching Positions

Districts reported 448.97 vacant teaching positions at the beginning of the 2015-16 school year. This figure indicates a 33% increase in vacancies compared to last year and a 66% increase compared to the 2013-14 school year. Most of this increase is a result of more vacant positions being reported in primary and/or elementary schools, particularly among positions that require early childhood/elementary certification. Other areas of substantial increase in primary/elementary school vacancies include special education, literacy, and music. Districts also reported more vacancies in middle level mathematics, middle level and secondary social studies, and English. Across all school levels, the total number of vacancies in speech language therapy more than doubled this year. Despite the overall increase, considerably fewer vacancies were reported this year in two high school certification areas: career and technology subjects, as well as business/marketing/computer technology. In middle schools, fewer vacancies were reported in gifted and talented positions. Last year, however, districts reported an increase in vacancies among all three of these certification areas.

This year, nearly 20% of all vacant teaching positions were those that require early childhood/elementary certification. This certification area constituted the largest portion of all unfilled FTEs in the state. Compared to last year, only 14% of statewide vacancies fell in this category. Special education vacancies in all school levels made up the second largest share (18.6%) of unfilled teaching positions in the state. These areas, in conjunction with middle level and secondary mathematics and sciences, consistently represent about half (53.5% in this case) of all vacant teaching positions in South Carolina.

Certain geographic areas of South Carolina are known for having schools with high teacher turnover rates, elevated levels of poverty, low student performance, and sometimes all of the above. Large concentrations of these types of schools are located in regions of the state known as the Pee Dee, Savannah River, and Lowcountry. Combined, the vacancies reported in these three regions make up nearly two-thirds of all vacant teaching positions in the state, yet they account for less than half of all teaching positions in the state. It should be noted that several large school districts are located in these regions, and they often are responsible for high numbers of vacancies merely because of their size. More often than not, however, a number of districts in these regions that report a significant number of vacancies also have high levels of poverty and teacher turnover.

To assist in the recruitment and retention of teachers in school districts like the ones described above, a Rural Teacher Recruiting Incentive has been initiated in South Carolina. Twenty rural, underserved districts that have experienced excessive turnover of teachers are now part of this incentive program and will be the focus of targeted recruitment and retention efforts. With the

exception of two districts located in the Midlands region, the districts identified are positioned in the Pee Dee, Savannah River, and Lowcountry regions of the state. In addition to having disproportionate rates of teacher turnover, each of the 20 districts also have some of the highest poverty levels in the state. The average poverty index for these school districts is 90%, whereas the average of all South Carolina districts is 74.5%. Although other districts in the state often struggle with some of the same issues, the state's focus on these 20 districts is vital for students.

Teachers Leaving

A total of 5,352.2 FTEs were held by certified teachers who did not return to their teaching positions for the current school year. Compared to last year's report, this figure represents an increase of only 1.4% (or 74.5 FTEs), but the numbers have been on a constant rise since 2012. Based on the number of allocated positions reported for the 2014-15 school year, 10.5% of those FTEs were held by teachers who did not return to their teaching positions this year.

The proportions of teachers who fell into each "reason for leaving" category were very similar to what districts reported last year. Nearly one-quarter of these teachers took a teaching position in another South Carolina public school district or special school. For the state, this may not be considered turnover, but for those districts who are constantly losing teachers to bordering and/or preferred districts, the impact can be detrimental. According to districts, 23% of teachers who left did so because of "personal choice." This category includes staying home with children, resignation, no reason given, etc. The third category reported most frequently was retirement. Twenty percent of teachers who left their positions either retired for the first time, their TERI period ended, or they were retirees not rehired by the district.

Each year, these three categories (teaching position in another South Carolina district or special school, personal choice, and retirement) make up about two-thirds of all teachers who leave their teaching positions. Eleven percent of these teachers who left last year did so because of a spouse relocation, military reassignment, or some other reason that caused them to move out of the area. Just over 4% were terminated or their contracts/letters of agreement were not renewed (for cause), and 3.5% took a teaching position in another state or country. These smaller statistics are identical to what districts reported last year.

Sixty-one percent of the teachers who did not return to their teaching positions this year had more than five years of teaching experience. Therefore, the remaining 39% of teachers who left did so during the first five years of their careers. This statistic rose from 34% last year. Fourteen percent of all departures occurred during or at the end of the teachers' first year in the classroom, mostly due to personal choice, teaching position in another South Carolina district or special school, termination or contract/letter of agreement non-renewal (for cause), or relocation. A similar trend occurred last year, with 13% of departures happening after only one year or less of teaching experience. Among these exiting teachers are those with an alternative teaching certificate. This group with alternative certification accounted for 3.5% of all teachers who did not return to their teaching positions this year and can be categorized as follows: 21% left due to personal choice; 16.7% took a teaching position in another South Carolina district or special school; 12.4% moved out of the area; and 11.3% changed professions. A total of 14% (26 teachers) left after only two years in the classroom because they were affiliated with Teach For America.

Certified Administrators

At the beginning of the 2015-16 school year, districts reported a total of 341.8 FTEs that were filled by newly hired administrators. In this section, the term “administrator” refers to all employees in certified, non-teaching positions. Last year, more than 450 FTEs were filled by newly hired administrators, indicating a 25% decrease in hires for the current school year. Much of this decline can be explained by substantially fewer (-106) “other school-level administrators” being hired. This category includes positions such as instructional coaches and technology specialists. Districts also reported fewer principals hired at all school levels. In terms of vacancies, 34.5 vacant administrator positions were reported, which is a reduction of 10.5 compared to last year.

Teacher Expo

The Teacher Expo is a statewide teacher recruitment fair designed to facilitate connections between in-state and out-of-state job seekers and the South Carolina public school districts and special schools who choose to send recruiters to the Expo. In 2010, the Expo was conducted as a virtual event due to declining school budgets and a subsequent impact on districts’ need and ability to take part in the event. The 2011, 2012, 2013, and 2014 Expos were limited to applicants seeking positions in critical need subject areas. Because of vacancies occurring in recent years in more than just critical need subject areas, the Expo held in May 2015 was open to applicants seeking positions in any subject area. Forty-two districts participated in the 2015 Expo, which was attended by 345 candidates.

Districts were asked to report the number of teachers hired as a result of the 2015 Teacher Expo. A total of 44 teachers who attended the Expo were hired for the 2015-16 school year; 11 of these hires are males and 19 are minority teachers. In the past 13 years, more than 1,100 teachers, including approximately 350 males and 360 minority teachers, have been hired as a result of their participation in the Expo.

Conclusion

According to the results from this year’s survey, the gap between teacher supply and teacher demand continues to widen. More teachers are leaving, causing more vacancies and more new hires to fill those positions. This cycle negatively impacts our state in numerous ways. If teachers are constantly leaving their positions, regardless of the reason, districts will be forced to continually use dwindling resources (time and money) to ensure that every vacancy is filled with an appropriately prepared and inducted teacher. Additionally, teacher morale and instructional consistency are impacted when there is little or no stability among school personnel. Students also are affected as they often form relationships with teachers that are crucial to their academic and personal growth.

The growing number of teachers leaving their schools and districts is a major concern in South Carolina. This number continues to rise each year, as does the percentage of teachers leaving early in their careers. More than 5,300 teachers did not return to their teaching positions this year. This total includes approximately 1,280 FTEs held by teachers who went to teach in another district or special school in the state and a little more than 1,060 who retired from the profession. Departures are problematic on their own, but this issue is exacerbated when compared to the number of graduates eligible for teacher certification. Over the last five years, on average, 2,180 graduates

completed a South Carolina teacher education program. Adding to this dilemma is the escalating number of teachers who leave their positions so early into their careers. Of the teachers who did not return at the beginning of the 2015-16 school year, 39% left in the first five years and 14% left after just one year or less in the classroom. This occurrence has, unfortunately, become a trend as these figures rose from 34% and 13% last year and grew even more from two years ago.

Statewide, districts reported a 33% increase in the number of vacant teaching positions compared to last year and a 66% increase compared to the 2013-14 school year. Many South Carolina districts continue to have difficulty filling vacancies in special education at all school levels, and mathematics and sciences in middle and high schools. This year, more vacancies occurred in social studies and English as well. Additionally, districts are citing a growing number of vacancies in primary and/or elementary schools. One explanation for this is the fact that positions requiring early childhood/elementary certification account for 35% of all teaching positions in the state. This percentage is, by far, the single largest among all certification areas. Another related basis for this trend is the total number of primary/elementary teaching positions. This category represents over half of all teaching positions in the state. Based on numbers alone, it is understandable that a sizeable amount of vacancies exist in our primary and/or elementary schools.

Some districts, regardless of certification area, struggle to hire and retain teachers due to their geographic location in the state. As discussed in a previous section, these districts are predominantly located in three regions of the state: Pee Dee, Savannah River, and Lowcountry. Also located in these regions are most of the 20 districts that have been identified through the Rural Teacher Recruiting Incentive as having excessive teacher turnover. This initiative will offer incentives to recruit into the profession, incentives to recruit into South Carolina vacancies, and teacher retention incentives. One possible incentive is tuition reimbursement for certain certified teachers to either add on a critical need subject area (i.e., special education, math, science, etc.) or pursue graduate coursework in understanding children in poverty. Teachers who add on a critical need subject area will help address the ongoing challenges to fill vacancies in these areas. Teachers who pursue graduate coursework in poverty will learn tools and strategies to more effectively relate to and provide instruction to the students in their classes. In either case, teachers are more likely to have a greater degree of job satisfaction and remain in their positions for a longer period of time.

It is anticipated that a combination of efforts like tuition reimbursements, as well as several others proposed in the incentive program, will improve teacher recruitment and retention in these underserved schools that so often have the most challenging circumstances. Focusing on these specific districts is one promising way to enhance some of the schools in our state. With so much attention on these areas, and for good reasons, it also should be mentioned that there are many other schools with similar issues that are not located in one of the identified districts. If South Carolina continues to see similar supply and demand trends among teachers (in a nutshell: fewer teachers graduating and more teachers leaving), it is possible that a statewide teacher shortage is on the horizon.

Table 1A includes the number of certified teaching positions allocated in district budgets for the 2015-16 school year.

Table 1A Subject Area Taught	Number of Certified Teaching Positions			
	Primary/ Elementary	Middle	High	Total
Agriculture		5.75	102.25	108.0
Art	604.5	263.11	317.13	1,184.74
Business/Marketing/Computer Technology		249.89	581.39	831.28
Career & Technology (all Work-Based Certification areas)		103.5	859.75	963.25
Computer Programming		31.25	43.25	74.5
Dance	32.3	39.8	38.5	110.6
Driver's Education			67.39	67.39
Early Childhood/Elementary (any or all core subjects)	18,333.47			18,333.47
Engineering		6.25	34.75	41.0
English for Speakers of Other Languages (ESOL)	349.2	117.62	100.47	567.29
English/Language Arts		1,737.42	1,919.65	3,657.07
Family & Consumer Sciences		29.0	109.9	138.9
Gifted & Talented	404.97	167.71	93.78	666.46
Guidance	739.75	501.96	755.01	1,996.72
Health	33.25	65.05	103.52	201.82
Industrial Technology		26.0	57.5	83.5
Literacy	650.07	105.25	37.0	792.32
Mathematics		1,690.19	1,908.65	3,598.84
Media Specialist	618.19	234.96	243.0	1,096.15
Music	650.72	493.99	447.12	1,591.83
Physical Education	742.26	455.18	617.31	1,814.75
School Psychologist (includes contracted FTEs)	292.12	104.73	101.2	498.05
Sciences		1,426.85	1,643.13	3,069.98
Social Studies		1,420.65	1,696.4	3,117.05
Special Education	2,404.9	1,339.99	1,542.4	5,287.29
Speech Language Therapist (includes contracted FTEs)	725.78	136.72	85.74	948.24
Theater	22.5	49.58	80.75	152.83
World Languages				
American Sign Language (ASL)	5.0	4.0	3.0	12.0
Chinese	28.17	7.75	9.58	45.5
French	14.8	43.5	128.82	187.12
German	6.0	9.75	36.25	52.0
Japanese	0.0	0.0	0.0	0.0
Latin	0.0	9.0	22.45	31.45
Russian	0.0	0.0	0.0	0.0
Spanish	100.2	155.2	557.23	812.63
Other	0.0	148.3	62.5	210.8
TOTAL	26,758.15	11,179.9	14,406.77	52,344.82

Table 2A includes the number of FTEs filled by newly hired certified teachers for the 2015-16 school year.

Table 2A Subject Area Taught	Number of FTEs Filled by Newly Hired Certified Teachers			
	Primary/ Elementary	Middle	High	Total
Agriculture		1.0	10.0	11.0
Art	66.0	30.75	42.25	139.0
Business/Marketing/Computer Technology		43.0	70.5	113.5
Career & Technology (all Work-Based Certification areas)		4.5	109.5	114.0
Computer Programming		0.0	2.0	2.0
Dance	6.0	9.5	5.5	21.0
Driver's Education			1.95	1.95
Early Childhood/Elementary (any or all core subjects)	2,140.3			2,140.3
Engineering		0.0	3.0	3.0
English for Speakers of Other Languages (ESOL)	33.8	19.5	13.5	66.8
English/Language Arts		278.8	255.0	533.8
Family & Consumer Sciences		2.0	13.0	15.0
Gifted & Talented	14.55	2.75	0.0	17.3
Guidance	77.67	52.97	81.39	212.03
Health	1.0	6.3	11.0	18.3
Industrial Technology		1.0	2.0	3.0
Literacy	31.5	2.0	0.0	33.5
Mathematics		251.0	291.8	542.8
Media Specialist (includes contracted FTEs)	48.0	17.0	10.5	75.5
Music	72.85	78.8	48.67	200.32
Physical Education	72.85	73.0	71.85	217.7
School Psychologist	49.5	12.6	19.05	81.15
Sciences		220.0	235.5	455.5
Social Studies		186.0	226.5	412.5
Special Education	336.25	211.5	230.25	778.0
Speech Language Therapist (includes contracted FTEs)	90.9	12.75	12.25	115.9
Theater	3.5	4.5	13.0	21.0
World Languages				
American Sign Language (ASL)	0.0	1.0	0.0	1.0
Chinese	4.0	4.0	1.0	9.0
French	2.0	5.5	9.5	17.0
German	1.0	2.0	4.0	7.0
Japanese	0.0	0.0	0.0	0.0
Latin	0.0	1.0	2.0	3.0
Russian	0.0	0.0	0.0	0.0
Spanish	20.5	38.25	101.0	159.75
Other	0.0	5.5	7.0	12.5
TOTAL	3,072.17	1,578.47	1,904.46	6,555.1

Table 2B includes the source of the new hires reported in 2A.

Table 2B	Number of FTEs Filled by Newly Hired Certified Teachers
Source	
Teacher Education Program Graduate – In State	1,883.7
Teacher Education Program Graduate – Out of State	446.2
PACE	303.2
ABCTE	32.0
Teach For America	63.0
Adjunct Teaching Certificate	3.0
Newly Certified Career and Technology Teacher	70.0
Inactive South Carolina Teacher, Returned to Teaching	220.62
Teacher Coming Directly from Another South Carolina School District	2,012.97
Teacher from a College/University or Private School in South Carolina	199.0
Teacher from Another State	977.6
Teacher from Outside the United States	186.0
Other	154.8
TOTAL	6,552.09

Note: The totals in Tables 2A and 2B should match; however, three districts reported numbers that were not equal. Consequently, there is a discrepancy of 3.01 FTEs.

Table 2C includes the number of FTEs filled by newly hired male and minority teachers for the 2015-16 school year.

Table 2C	Number of FTEs Filled by Newly Hired Certified Teachers
Male Teachers	1,321.0
Minority Teachers	1,132.32

Table 3A includes the number of first-year PACE participants hired for the 2015-16 school year. This information was obtained from the South Carolina Department of Education.

Table 3A Certification Area	Number of First-Year PACE Participants			
	Primary/ Elementary	Middle	High	Total
Agriculture	0	0	1	1
Art	12	2	4	18
Biology	0	0	9	9
Business/Marketing/Computer Technology	0	28	49	77
Chemistry	0	0	2	2
Chinese	3	0	1	4
Dance	1	3	1	5
English	0	0	14	14
Family & Consumer Science	0	2	1	3
French	1	1	0	2
German	1	0	1	2
Health	0	1	1	2
History	0	0	4	4
Latin	0	0	2	2
Mathematics	0	0	8	8
Media Specialist	5	0	1	6
Middle Level Language Arts	0	23	0	23
Middle Level Mathematics	0	9	0	9
Middle Level Science	0	24	0	24
Middle Level Social Studies	0	28	0	28
Music Education - Choral	2	2	1	5
Music Education - Instrumental	5	3	0	8
Physical Education	3	4	5	12
Science	0	0	18	18
Social Studies	0	0	12	12
Special Education - Emotional Disabilities	13	7	3	23
Spanish	5	6	18	29
Theater	0	2	4	6
TOTAL	51	145	160	356

Table 4A includes the number of certified teaching positions reported as vacant at the beginning of the 2015-16 school year.

Table 4A Subject Area Taught	Number of Certified, Vacant Teaching Positions			
	Primary/ Elementary	Middle	High	Total
Agriculture		0.0	1.0	1.0
Art	8.0	3.5	2.0	13.5
Business/Marketing/Computer Technology		3.0	0.0	3.0
Career & Technology (all Work-Based Certification areas)		0.0	9.5	9.5
Computer Programming		0.0	0.0	0.0
Dance	0.0	0.5	1.17	1.67
Driver's Education			0.0	0.0
Early Childhood/Elementary (any or all core subjects)	87.0			87.0
Engineering		0.0	1.0	1.0
English for Speakers of Other Languages (ESOL)	5.0	2.25	1.25	8.5
English/Language Arts		10.5	13.25	23.75
Family & Consumer Sciences		1.0	1.0	2.0
Gifted & Talented	0.0	0.0	0.0	0.0
Guidance	2.0	2.2	2.75	6.95
Health	0.0	0.25	0.25	0.5
Industrial Technology		1.0	0.0	1.0
Literacy	15.75	2.0	0.0	17.75
Mathematics		20.5	18.7	39.2
Media Specialist (includes contracted FTEs)	12.0	3.0	4.55	19.55
Music	13.5	6.0	2.0	21.5
Physical Education	0.5	3.75	1.25	5.5
School Psychologist	3.94	0.78	0.78	5.5
Sciences		15.5	15.0	30.5
Social Studies		12.5	13.5	26.0
Special Education	32.5	22.75	28.25	83.5
Speech Language Therapist (includes contracted FTEs)	16.0	5.0	5.0	26.0
Theater	0.6	0.0	1.0	1.6
World Languages				
American Sign Language (ASL)	0.0	0.0	0.0	0.0
Chinese	0.0	0.0	0.0	0.0
French	0.0	0.0	2.0	2.0
German	0.0	0.0	0.0	0.0
Japanese	0.0	0.0	0.0	0.0
Latin	0.0	0.0	0.0	0.0
Russian	0.0	0.0	0.0	0.0
Spanish	1.0	3.0	7.0	11.0
Other	0.0	0.0	0.0	0.0
TOTAL	197.79	118.98	132.2	448.97

Table 5A includes the number of FTEs held by certified teachers who did not return to their teaching positions for the 2015-16 school year.

Reason for Leaving	Number of FTEs Held by Certified Teachers Who Left Their Teaching Positions									TOTAL
	Primary/Elementary			Middle			High			
	Total Years of Teaching Experience			Total Years of Teaching Experience			Total Years of Teaching Experience			
	≤1	2-5	>5	≤1	2-5	>5	≤1	2-5	>5	
Retirement (includes first-time retirees, TERI period ended, and retirees not rehired)	0.0	0.0	549.4	0.0	0.0	223.0	0.0	0.0	289.0	1,061.4
Changed profession	15.8	27.2	48.5	5.0	23.0	19.0	16.0	27.0	42.0	223.5
Teaching position in another SC school district/special school	86.1	171.5	289.0	31.5	104.5	165.0	51.34	136.0	243.0	1,277.9
Teaching position in a college/university or private school in SC	6.0	9.0	12.0	1.0	5.0	3.0	1.0	2.0	16.0	55.0
Teaching position in another state/country	13.0	38.0	49.0	12.0	27.0	31.0	11.0	26.0	26.0	233.0
Other administrator/education position in the same district	1.0	3.0	39.0	1.0	1.0	28.0	2.0	2.0	24.0	101.0
Other administrator/education position in another SC school district or SC education entity	2.0	6.0	17.0	0.0	3.0	15.0	1.0	2.0	25.0	71.0
Other administrator/education position in another state/country	0.0	1.0	1.25	0.0	0.0	0.25	0.0	0.0	7.5	10.0
Reduction in force (RIF)/ Program or grant conclusion	0.0	0.0	2.0	1.0	0.0	1.0	0.5	1.0	3.0	8.5
Did not qualify for state certification	5.5	3.0	2.0	4.5	6.0	3.0	7.0	5.0	3.0	39.0
Termination or contract/letter of agreement non-renewal, for cause	58.84	19.0	24.0	33.0	16.0	19.0	32.8	6.0	21.0	229.6
International teacher returned to country of origin	4.0	4.5	2.0	0.0	11.5	5.0	4.0	13.0	6.0	50.0
Returned to school to obtain advanced degree	4.0	5.0	5.0	4.0	7.0	2.0	3.0	11.0	1.0	42.0
Moved out of area (includes spouse relocation, military assignment, etc.)	47.0	112.0	134.0	30.0	52.0	61.0	37.0	57.81	71.0	601.8
Death/Disability/Illness (includes self, caring for sick child, caring for sick or aging parent, etc.)	10.0	5.0	29.0	3.0	7.0	20.0	7.0	10.0	24.0	115.0
Personal choice (includes staying home with children, resignation, no reason given, etc.)	83.2	168.1	318.2	55.5	89.8	152.3	57.0	89.0	194.25	1,207.4
Other	0.0	5.0	0.0	0.0	8.0	0.0	0.0	13.0	0.0	26.0
Total	336.4	577.3	1,521.4	181.5	360.8	747.6	230.6	400.8	995.8	5,352.2
TOTAL	2,435.1			1,289.9			1,627.2			5,352.2

Table 5B includes the number of FTEs held by teachers with alternative certification who did not return to their teaching positions for the 2015-16 school year. These teachers are a subset of those included in question 5A.

Reason for Leaving	Number of FTEs Held by Teachers with Alternative Certification Who Left Their Teaching Positions			
	Total Years of Teaching Experience			
	<1	2-5	>5	Total
Retirement (includes first-time retirees, TERI period ended, and retirees not rehired)	0.0	0.0	2.0	2.0
Changed profession	8.0	10.0	3.0	21.0
Teaching position in another SC school district/special school	16.0	14.0	1.0	31.0
Teaching position in a college/university or private school in SC	0.0	2.0	1.0	3.0
Teaching position in another state/country	1.0	3.0	0.0	4.0
Other administrator/education position in the same district	0.0	0.0	0.0	0.0
Other administrator/education position in another SC school district or SC education entity	0.0	1.0	1.0	2.0
Other administrator/education position in another state/country	0.0	0.0	1.0	1.0
Reduction in force (RIF)/ Program or grant conclusion	0.5	0.0	0.0	0.5
Did not qualify for state certification	9.0	2.0	0.0	11.0
Termination or contract/letter of agreement non-renewal, for cause	8.0	1.0	0.0	9.0
International teacher returned to country of origin	1.0	6.0	0.0	7.0
Returned to school to obtain advanced degree	1.0	2.0	0.0	3.0
Moved out of area (includes spouse relocation, military assignment, etc.)	13.0	9.0	1.0	23.0
Death/Disability/Illness (includes self, caring for sick child, caring for sick or aging parent, etc.)	2.0	1.0	0.0	3.0
Personal choice (includes staying home with children, resignation, no reason given, etc.)	17.0	19.0	3.0	39.0
Other	0.0	26.0	0.0	26.0
TOTAL	76.5	96.0	13.0	185.5

Table 6A includes the number of FTEs filled by newly hired certified administrators and certified administrator positions reported as vacant at the beginning of the 2015-16 school year.

Table 6A Type of Administrator	Number of FTEs Filled by Newly Hired Certified Administrators	Number of Certified, Vacant Administrator Positions
District Superintendent	11.0	3.0
District Assistant/Associate Superintendent	13.0	1.0
Other District-Level Administrator (i.e., director or coordinator position)	64.5	9.0
Primary/Elementary School Principal	36.5	2.0
Primary/Elementary School Assistant Principal	63.5	3.0
Middle School Principal	13.5	0.0
Middle School Assistant Principal	27.5	1.0
High School Principal	17.0	0.0
High School Assistant Principal	43.0	4.0
Other School-Level Administrator (i.e., coach or specialist position)	52.3	11.5
TOTAL	341.8	34.5

Note: In this table, the term "administrator" includes all employees in certified, non-teaching positions.

Tables 7A and 7B include information about the South Carolina Teacher Expo.

Table 7A	Yes	No	Undecided	No answer
Did you participate in the Expo held on May 29 th , 2015?	41	35	-----	3
Are you planning to attend next year's Expo?	43	7	26	3

Table 7B	Number of Teachers Hired as a Result of the Teacher Expo
Male Teachers	11
Minority Teachers	19
TOTAL	44