

*January 22, 2010*

*HJR 678: Report on Teacher Shortages  
in the Commonwealth, with Focus on  
Enhancing the Transfer Pipeline from  
Virginia's Community Colleges*



State Council of Higher Education for Virginia

*Advancing Virginia through Higher Education*

# HJR 678: Report on Teacher Shortages in the Commonwealth, with Focus on Enhancing the Transfer Pipeline from Virginia's Community Colleges

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Virginia Community College System

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## Executive Summary

House Joint Resolution 678 requires that the State Council of Higher Education for Virginia (SCHEV) and the Virginia Community College System (VCCS) study *“the shortage of classroom teachers in the Commonwealth, and especially explore methods to attract students to the Virginia Community College System for the first two years of a teacher preparation program.”*

In response to this requirement, SCHEV and the VCCS have studied factors contributing to teacher shortages and suggested strategies for utilizing the transfer pipeline to narrow the gap between supply and demand.

This report begins with a description of the instructional personnel in Virginia public schools (including gender, age, and ethnicity) in relationship to the Commonwealth’s school population. Following this section, yearly data (2004 to 2010) from the Virginia Department of Education on specific shortage categories is listed and the reasons for these shortages are discussed.

Different pathways to teacher licensure are explored, including approved programs and alternative routes, such as the Career Switcher Program, experiential learning, provisional licenses, alternative routes, and reciprocity.

Transfer from a two- to a four-year institution is yet another path to teacher licensure. A survey was conducted to provide a broad stroke assessment of the ability of Virginia’s four-year institutions to accommodate an expanded flow of transfers into undergraduate teacher education programs, and to gain input from four-year institutions on the efficacy of relevant articulation agreements.

Models of exemplary practices to improve the pipeline preparing future teachers are explored at the national, out-of-state, and state-system levels. In addition, Virginia’s own model programs are described.

A number of recommendations designed to improve and increase the flow of teacher education students from our community colleges to the four-year institutions with teacher preparation programs close the report.

## I. Introduction

This report is submitted in response to House Joint Resolution 678 (HJR 678), which requests the State Council of Higher Education for Virginia (SCHEV) and the Virginia Community College System (VCCS) to examine *“the shortage of classroom teachers in the Commonwealth, and especially explore methods to attract students to the Virginia Community College System for the first two years of a teacher preparation program.”*

Provided herein is an examination of factors contributing to critical teacher shortages, and suggested strategies for utilizing the transfer pipeline to narrow the gap between supply and demand. Suggested strategies will focus on initiatives that can be employed by Virginia community colleges to recruit and enroll students for the first two years of a teacher preparation program, and by four-year institutions to facilitate the transfer and ultimate success of such students. This report includes:

- a profile of Virginia’s instructional personnel in the public school system;
- data from Virginia Department of Education (VDOE) indicating specific teacher shortages;
- national and state information in two- to four-year transfer;
- an analysis of survey research conducted with Virginia four-year institutions; and
- a discussion of exemplary models for utilizing the community college transfer pipeline to address teacher shortages.

The report concludes with broad recommendations for strategies to employ in Virginia to narrow the gap between teacher supply and demand.

## II. Profile of Instructional Personnel in Virginia Public Schools

### Teacher Employment in Virginia

Based on the *Instructional Personnel Report* (2008-09 school year), the Virginia Department of Education (VDOE) reports that in 2008-09, there were 100,908 instructional personnel employed in 134 public school divisions. The average number of years of teaching experience for instructional personnel was 12.3.

An important indicator of a state’s ability to narrow the gap between supply and demand is the rate of growth at which new instructional personnel (0 years’ experience) enter the public school system. New teachers are critical in filling vacancies resulting from retirements and teachers leaving the field for other career choices. For the academic year 2008-09, VDOE reports that a total of 5,145 new teachers were employed in Virginia school divisions. This represents a 12% drop in the number (5,878) of new teachers employed in school divisions in the academic year 2007-08.

Although some licensed professionals return to education from business and other industries, the numbers generally are not sufficient to fill all vacancies, especially in critical shortage endorsement areas. However, the effects of the current economic downturn on teacher supply and demand in relationship to teacher shortage/vacancies needs to be tracked as school divisions face greater fiscal challenges.

### **Gender, Age, and Ethnicity of Virginia Teachers (VDOE, 2008-2009)**

- Female teachers outnumber males by four to one, with females holding 80% of instructional positions in the public schools.
- Twenty percent of all teachers are 55 or older, outnumbering all other age groups. The 25-29 age group is the second largest, comprising 14% of the total.
- Eighty-two percent of teachers are white, compared to 57% of all students who are white.
- African American teachers account for 13% of Virginia's teachers while African American students are double that number (26%); and although 9% of Virginia's students are Hispanic, only 1.9% of the teachers in Virginia are Hispanic. Similar gaps exist in the Asian American population, where only 1.3% of the teachers and 6% of the students are Asian American. (*Instructional Personnel Report, 2008-09 school year*).

The Virginia Employment Commission's *LMI Data Population Projections* indicates increasing diversity in our population. From 2010 to 2030 the proportion of Asian and Hispanic populations in the Commonwealth will increase significantly. The Asian proportion will increase from 5% to 8% and the Hispanic from 6% to 10%. In addition, the African American population is expected to increase slightly, from 20% to 21%, while the White non-Hispanic proportion will fall from 67% to 60%. Virginia's ability to narrow the gap between teacher supply and demand will rest partly, therefore, on the recruitment, enrollment, and degree completion of the growing diverse populations in the state. This renders community college involvement in the pathway ever more important as these institutions tend to enroll diverse and under-represented populations in higher proportions than other sectors.

## **III. Critical Teacher Shortage Areas**

### **National and Virginia Critical Shortage Areas**

In 2008, the American Association for Employment in Education conducted a survey of states and the following areas fell into the "considerable shortage category:"

- Special Education (9 areas)
- Chemistry
- Mathematics Education
- Speech Pathology

The Virginia Department of Education (VDOE) collects data on critical shortage endorsement areas (defined as “a school personnel vacancy for which a school division receives three or fewer qualified candidates”) and produces an annual list of the top ten shortage areas in Virginia.

**Table 1: Critical Shortage Teacher Endorsement Areas in Virginia, 2004-09**  
(As listed and in the numerical order in which they are published each year by VDOE)

Endorsement Area	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05
<b>Special Education</b>	<b># 1</b>	<b># 1</b>	<b># 1</b>	<b># 1</b>	<b># 3</b>	<b># 2</b>
<i>General Curriculum K-12</i>	(# 1)	(# 1)	(# 1)	(# 1)	(# 3)	(# 2)
<i>Early Childhood</i>	(# 1)	(# 1)	(# 1)	(# 1)	(# 3)	(# 2)
<i>Visual Impairments preK-12</i>	(# 1)	(# 1)	(# 1)	(# 1)	(# 3)	(# 2)
<i>Hearing Impairment preK-12</i>	(# 1)	(# 1)	(# 1)	(# 1)	(# 3)	(# 2)
<i>Special Education Adapted Curriculum K-12</i>	(# 1)	(# 1)	(# 1)	(# 1)	(# 3)	(# 2)
<b>Speech Language Disorders preK-12</b>	<b># 2</b>	<b># 1</b>	<b># 1</b>	<b># 1</b>		<b># 2</b>
<b>Mathematics Grades 6-12</b>	<b># 3</b>	<b># 2</b>	<b># 3</b>	<b># 2</b>	<b># 2</b>	<b># 4</b>
<i>Algebra I</i>	<b># 8</b>	(# 2)	#	(# 2)	(# 2)	<b># 8</b>
<b>English as a Second Language preK-12</b>	<b># 4</b>	<b># 7</b>	<b># 9</b>		<b># 9</b>	<b># 5</b>
<b>Elementary Education preK-6</b>	<b># 5</b>		<b># 2</b>	<b># 4</b>	<b># 6</b>	
<b>Foreign Language</b>	<b># 6</b>	<b># 5</b>	<b># 6</b>	<b># 5</b>	<b># 7</b>	<b># 6</b>
<i>Spanish preK-12</i>	(# 6)	(# 5)	(# 5)	(# 5)	(# 7)	
<i>Latin preK-12</i>	(# 6)					
<i>French preK-12</i>			(# 5)	(# 5)		
<b>Science</b>	<b># 7</b>	<b># 3</b>		<b># 8</b>	<b># 1</b>	<b># 1</b>
<i>Grades 6-12</i>	(# 7)					
<i>Earth Science</i>		(# 3)		(# 8)	(# 1)	(# 1)
<i>Middle Grades 6-8</i>		(# 3)				
<i>Biology</i>		(# 3)				
<b>Reading Specialist</b>	<b># 9</b>	<b># 4</b>		<b># 7</b>	<b># 8</b>	<b># 10</b>
<b>Career and Technical Education</b>	<b># 10</b>	<b># 6</b>	<b># 5</b>	<b># 3</b>	<b># 4</b>	<b># 3</b>
<i>Technology Education</i>	(# 10)	(# 6)		(# 3)	(# 4)	(# 3)
<i>Agricultural Education</i>	(#10)					
<i>Family and Consumer Sciences</i>		(# 6)		(# 3)		(# 3)
<i>Business Education</i>				(# 3)		(# 3)
<i>Trade and Industrial Education</i>				(# 3)	(# 4)	(# 3)
<i>Health Occupations Education</i>						(# 3)
<b>English 6-12</b>		<b># 8</b>	<b># 7</b>	<b># 10</b>		
<b>Library Media preK-12</b>		<b># 9</b>				
<b>Middle Grades 6-8 (all subjects)</b>		<b># 10</b>	<b># 4</b>	<b># 6</b>		<b># 6</b>
<b>Health and Physical Education, preK-12</b>			<b># 6</b>		<b># 7</b>	
<b>School Counselor, preK-12</b>			<b># 10</b>			
<b>History and Social Science, 6-12</b>				<b># 9</b>	<b># 5</b>	<b># 9</b>
<b>Computer Science, 6-12</b>					<b># 10</b>	<b># 8</b>

Table 1, above, shows VDOE information on the top ten shortage areas from 2004-05 to 2009-10. The bold numbers in black indicate the order in which the endorsement was listed by VDOE; items in blue and in parentheses represent sub-categories of the particular endorsement area.

In the last five years, the most acute teacher shortages have been reported in special education, speech pathology, mathematics, and science. Virginia shortages mirror the national ones, with special education and math in particular showing consistent chronic shortages.

### **Factors Related to Teacher Shortage Areas**

In a series of reports, including *Strengthening and Diversifying the Teacher Recruitment Pipeline: Current Efforts (2009)*, the National Education Association (NEA) stresses that a convergence of factors has led to teacher shortages:

- Students majoring in science and math forgo the field of teaching for higher salaries in other sectors;
- Males choose elementary teaching at much lower rates than females, likely due to low salaries and societal stereotypes;
- Retention rates are low for those already in the field of teaching;
- College scholarships for would-be teachers often have substantive academic performance requirements (SAT, ACT scores, grade point averages) that tend to act as barriers for under-represented groups; and
- Licensure tests screen out minorities disproportionately.

The NEA reports, though, that the most critical factor affecting teacher shortages is the lack of ethnic diversity in the teaching profession. Nationally, 40% of all public school students are in a minority group, compared to 5% of teachers. In fact, the decline in African American and Hispanic students pursuing an undergraduate teacher education program is steeper than the overall decline in education majors. These factors, coupled with minority teachers leaving the field at a faster rate than white teachers, may contribute to an even worse plight in urban school divisions. The NEA strongly supports initiatives from local and state governing bodies to work to increase the percentage of ethnic minority teachers to at least the percentage of minorities in the general population.

Another factor contributing to the teacher shortage is teacher turnover. The National Center for Education Statistics (2005) reports the following national data on teacher turnover:

- At the end of the 2003-04 school year, 17% of the elementary and secondary teacher workforce left the public and private schools where they were teaching;
- Eight percent of teacher turnover was due to school transfers;
- Nine percent of the teacher workforce left teaching; and
- The turnover rate for high-poverty schools was greater than for low-poverty schools (21% vs. 14%).

In 2008-09 the Virginia Department of Education reported a turnover rate of 9.2% for instructional personnel (excluding principals and assistant principals). This percentage reflects the number of instructional personnel who were employed the previous year but were not reported as employed the next year in any Virginia school division. Also contributing to the teacher shortage is the insufficient number of students completing teacher education programs. For example, VDOE reports that in 2006-07 approximately 3,240 students completed teacher education programs in the state—an insufficient quantity to fulfill the statewide need.

### **National Higher Education Trends**

It is well known that higher education provides economic and social benefits to both individuals and society as a whole. People with more education tend to have higher salaries, higher savings, more leisure time, and better life/health expectancy (Institute for Higher Education Policy, 2006). Yet, for higher education, these are times of both unprecedented challenge and ever increasing expectations. Currently, higher education is expected to produce more skilled workers and increase degree attainment rates in the face of budget cuts due to a sagging economy, not to mention a reduced ability to pay on the part of students and their families.

According to projections by the State Higher Education Executive Officers (SHEEO), by 2012 the U.S. will have 3 million more jobs requiring a baccalaureate degree and not enough college graduates to fill them. At the same time, the budgetary challenges currently confronting states mean that higher education faces continually increasing fiscal competition with other important state needs in health, transportation, safety, and P-12 education.

SHEEO also points out that for significant segments of the population higher education does not work well. Low income students, students of color, and first-generation college students oftentimes have limited access to higher education due to cost, geographic location, and level of college preparedness. Yet, if the rate of degree attainment in the U.S. is going to be significantly improved, the turnaround will have to occur among these very populations (State Higher Education Executive Officers, *Second to None in Attainment, Discovery, and Innovation: The National Agenda for Higher Education*, Change, 2008).

## **IV. Pathways to Teacher Licensure in Virginia**

### **Approved Programs Leading to Licensure**

Virginia currently has 37 institutions of higher education that offer state-approved teacher preparation programs. These programs prepare teachers for endorsement to teach specific subjects in elementary, middle school, or high school. For example, elementary teachers are endorsed to teach all of the subjects usually taught in an elementary classroom; middle and high school teachers are endorsed in specific subjects. Programs are approved pursuant to the Virginia Board of Education's *Regulations Governing the Review and Approval of Education Programs in Virginia*.



A route utilized by some teacher education students participating in approved programs is two- to four-year transfer. That is, students begin their academic careers at a two-year college and ultimately transfer to a four-year institution to complete the teacher education program. To facilitate the transfer process, two- and four-year institutions have articulation agreements designed to smooth the pathway by clearly specifying requirements and providing services, such as academic advising, to transfer students. Students may or may not transfer with an earned associate degree.

### **Alternative Routes to Licensure**

Below are alternate pathways to licensure set forth in the Virginia Board of Education's *Licensure Regulations for School Personnel*. For detailed requirements for each of these routes, refer to the *Licensure Regulations for School Personnel* on the following Web site:

[http://www.doe.virginia.gov/teaching/licensure/licensure\\_regs.pdf](http://www.doe.virginia.gov/teaching/licensure/licensure_regs.pdf).

- *Career Switcher Program*: An alternate route to licensure for career professions. This alternate route is available to career switchers who seek teaching endorsements pre-kindergarten through grade 12 with the exception of special education. Programs are currently offered by a school division, a consortium of school divisions, the Virginia Community College System, and four-year colleges and universities.
- *Experiential Learning*: Individuals applying for an initial license through this alternate route meet specific criteria as prescribed by the State Board of Education. To be eligible to request experiential learning credits in lieu of the coursework for the endorsement (teaching) content area the applicant must (1) hold a baccalaureate degree from a regionally accredited college or university; (2) have at least five years of documented full-time work experience that may include specialized training related to the endorsement sought; and (3) have met the qualifying score on the content knowledge assessment prescribed by the Board of Education. The criteria do not apply to teachers of special education and elementary education (preK-3 and preK-6).
- *Provisional License*: An alternate route is available to individuals employed by an educational agency who seek teaching endorsements pre-kindergarten through grade 12. Individuals must have met specified requirements prior to the issuance of the provisional license and complete the requirements for the regular, five-year license within the validity period of the provisional license.
- *Provisional (Special Education) License*: This alternate route in special education allows for the issuance of a three-year nonrenewable provisional license to an individual employed as a special education teacher in a public school or a nonpublic special education school in Virginia who meets prerequisite requirements but who does not hold the appropriate special education endorsement. The requirements for the endorsement and the full license must be met during the validity period of the license.
- *Alternate Programs at Institutions of Higher Education or Virginia School Divisions*: Alternate programs developed by institutions of higher education must recognize the unique strengths of prospective teachers from nontraditional backgrounds and prepare these individuals to meet the same standards that are established for others who are granted a license through an alternate route.

- *Adding Endorsements by Testing:* The *Licensure Regulations for School Personnel* allow adding endorsements by testing and are applicable to individuals already holding a postgraduate professional or collegiate professional license. An individual who holds a teaching license may add an additional endorsement to the license by passing a rigorous academic subject test prescribed by the Board of Education.
- *Reciprocity:* An individual coming into Virginia from any state may qualify for a Virginia teaching license with comparable endorsement areas if the individual has completed a state-approved teacher preparation program through a regionally accredited four-year college or university, or if the individual holds a valid out-of state teaching license, in force at the time the application for a Virginia license is made. Also, an individual coming into Virginia will qualify for a Virginia teaching license with comparable endorsement areas if the individual holds national licensure from the National Board for Professional Teaching Standards (NBPTS) or a nationally recognized licensure program approved by the Board of Education.

In the interest of discovering additional avenues to address the teacher shortage, the General Assembly, via HJR 678, has requested that the State Council of Higher Education for Virginia (SCHEV) and the Virginia Community College System (VCCS) study how best to utilize the community colleges to address the shortage of classroom teachers in the Commonwealth. In conducting this study, SCHEV and VCCS prepared a survey of Virginia's four-year public and private institutions with undergraduate and graduate teacher education programs.

## V. Survey Results and Analysis

The purpose of the survey was to provide a broad stroke assessment of the ability of Virginia's four-year institutions to accommodate an expanded flow of transfers into undergraduate teacher education programs, and to gain input from four-year institutions on the efficacy of relevant articulation agreements. The survey was distributed to 14 public four-year institutions and 24 independent private non-profit institutions. A total of 20 institutions responded, 14 publics and 6 private non-profits. Responses to the survey questions yielded the following information:

Question 1— *How many transfer students [from VCCS and from other institutions] did you enroll in your undergraduate teacher education programs during the following academic years (in the case of 2010-2011, please indicate planned transfer enrollment)?*

Sixteen private and public four-year institutions responding to the survey reported that approximately 715 transfer students were enrolled in teacher education programs for the academic year 2008-2009, with an additional 682 students for 2009-2010. The 687 transfer students projected for 2010-2011 stem from 11 institutions reporting, while figures for 2008-2009 and 2009-2010 were provided by 16 institutions. Therefore, actual enrollment counts for 2010-2011 are likely to be higher than reported below.

**Table 2: Transfer Enrollments from VCCS and non-VCCS institutions**

Academic Year	Transfer from VCCS to		Transfer from Non-VCCS to	
	Private 4-year	Public 4-year	Private 4-year	Public 4-year
2008-2009 *	113	360	44	198
2009-2010 *	93	376	37	176
2010-2011 +	85	397	47	158

\* 16 institutions provided information for Academic Years 08-09 and 09-10

+ Only 11 institutions provided information for Academic Year 10-11

**Question 2** – *What is the current capacity, i.e., the number of VCCS transfer students enrolled in your UNDERGRADUATE education programs? Please indicate by endorsement area and level below.*

Private four-year institutions reported current enrollment of transfer students in their *undergraduate* teacher education programs at more than 300, while over 1,000 transfer students were enrolled at the public four-year institutions. Eight institutions (six public and two private) account for the bulk of transfer enrollments, with Longwood, Old Dominion, and Radford universities enrolling appreciably more than the rest.

**Table 3: Current Undergraduate Enrollment by Endorsement Area and Level (VCCS transfer students)**

Endorsement Area – Level: Elementary	Private 4-year	Public 4-year
Early Childhood Education (Pre-3)	6	17
Elementary Education	91	236
Endorsement Area – Level: Middle-High School	Private 4-year	Public 4-year
Business and Information Science		20
Business Education & Information Technology	2	13
Computer Science	20	
Driver Education (add on endorsement)	15	
English	26	65
History/Social Sciences	23	127
Journalism (add on endorsement)	15	
Mathematics	27	67
Middle School Education (6-8)		45
Science/Biology	23	42
Science/Chemistry		29
Science/Earth Science		16
Science/Physics	1	
Speech Communication (add on endorsement)	15	
Endorsement Area – Level: preK-12 or K-12	Private 4-year	Public 4-year
Dance Arts		2

English as a Second Language (ESL)		3
Foreign Language/French	1	21
Foreign language/German		8
Foreign Language/Latin		12
Foreign Language/Spanish		19
Health and Physical Education	33	147
Hearing Impairment		6
Library Media		15
Music Education (Vocal & Instrumental)	1	63
Special Education		80
Technology Education		1
Theatre Arts	17	8
Visual Arts	16	48

**Question 3** – *What is the current capacity, i.e., the number of VCCS transfer students enrolled in your GRADUATE education programs? Please indicate by endorsement area and level below.*

Most *graduate* teacher education programs are offered at public institutions. Elementary Education is by far the largest program at the graduate level, with Old Dominion University (ODU) and George Mason University (GMU) accounting for the bulk of those enrollments. English and History and Social Science are the largest endorsement areas at the 6-12 level, with somewhat lesser enrollments for Mathematics and Biology. Averett University had the largest enrollments of all the private four-year institutions in both the 6-12 and PK-12 levels. Special Education, a recurring shortage area during the last several years, had substantial enrollments at GMU and ODU. Enrollments for another recurring shortage area, English as a Second Language (ESL), were reported almost exclusively at GMU.

**Table 4: Current *Graduate* Enrollment by Endorsement Area and Level  
(VCCS transfer students)**

<b>Endorsement Area – Level: PreK &amp; Elementary</b>	<b>Private 4-year</b>	<b>Public 4-year</b>
Early/Primary Education (PreK-3)		56
Elementary Education (PreK-6)	17	325
Special Education/Early Childhood (Birth-Age 5)		22
<b>Endorsement Area – Level: Middle-High School</b>	<b>Private 4-year</b>	<b>Public 4-year</b>
Agriculture Education		7
Computer Science	15	
English	16	70
Family and Consumer Science		1
History and Social Science	16	60
Mathematics	15	38
Science/Biology	16	28
Science/Chemistry		11

Science/Earth Science		13
Science/Physics		9
Technology Education		3
<b>Endorsement Area – Level: preK-12 or K-12</b>	<b>Private 4-year</b>	<b>Public 4-year</b>
Administration and Supervision		19
English as a Second Language (ESL)		24
Foreign Language/French		7
Foreign Language/German		7
Foreign Language/Latin		8
Foreign Language/Spanish		10
Health and Physical Education	15	9
Library Science		21
Music Education (Vocal and Instrumental)		4
Reading Specialist	15	16
School Counselor		2
Special Education/Adaptive Curriculum (K-12)		5
Special Education/Emotional Disabilities *		8
Special Education/General Curriculum (K-12)	1	118
Special Education/Learning disabilities *		8
Special Education/Mental Retardation *		2
Special Education/Severe Disabilities *		2
Speech-Language Pathology		32
Theatre Arts	15	
Visual Arts	15	9

\*These programs were discontinued in September 2007; however, there are still students finishing the programs.

**Question 4** – *Would your institution be able or willing to expand capacity if the number of qualified applicants from Virginia’s community colleges should increase? If yes, please detail capacity by specific endorsement area and level, and the number of additional students you can accommodate in each.*

Thirteen institutions reported that they would be able to expand capacity to enroll qualified transfer students from the VCCS; the remaining institutions indicated they would not. GMU, James Madison University (JMU), Longwood University (LU), and ODU were the institutions that reported the largest possible increases in capacity. Elementary Education and Middle School Education were listed as high priority areas for expanded capacity for most of the institutions reporting an ability to expand. Other endorsement areas available for expansion in a large number of institutions include discipline-based endorsement for levels 6-12 and Special Education. *Many of these endorsement areas match those endorsements reported as shortage areas by the Virginia Department of Education.*

**Table 5: Additional Capacity by Endorsement Area and Level**  
**(Six institutions replied they would have no additional capacity)**

<b>Endorsement Area – Level: Elementary</b>	<b>Private 4-year</b>	<b>Public 4-year</b>
Elementary Education	75	245
<b>Endorsement Area – Level: Middle-High School</b>	<b>Private 4-year</b>	<b>Public 4-year</b>
Agriculture		10
Business Education	5	30
English		24
Family and Consumer Science		10
Foreign Language/French		30
Foreign Language/German		30
Foreign Language/Spanish	2	30
History and Social Science	20	12
Mathematics	22	44
Science/Biology	2	35
Science/Chemistry	12	35
Science/Earth Science		10
Science/Geography and Earth Science	10	20
Science/Physics	10	15
<b>Endorsement Area – Level: preK-12</b>	<b>Private 4-year</b>	<b>Public 4-year</b>
Dance Arts		5
English as a Second Language (ESL)		30
Health and Physical Education		25
Hearing Impaired		6
Music Education (Vocal and Instrumental)		10
Reading Specialist		5
Special Education	20	40
Theatre Arts		20
Visual Arts		18

Question 5 – Do you have articulation agreements for teacher education with Virginia’s two-year institutions? If yes, please indicate for each agreement the following details.

Seven institutions reported not having articulation agreements with Virginia community colleges. Of those reporting, most had agreements with the community colleges in geographic proximity. Two public four-year institutions (ODU and UVA-Wise) have agreements with all the institutions in the VCCS. When listing individual agreements, Longwood University (with one of the largest teacher education programs) had the most individual agreements (6) with community colleges.

Comments on the merits of having articulation agreements were uniformly positive, indicating that having these agreements facilitates better advisement of students and more efficient completion of programs at the four-year institutions.

**Table 6: Articulation Agreements with two-year Institutions per Endorsement Area & Level**

Note: Community colleges (full names and abbreviations) listed below.

Institution	Community College*	Endorsement and Level	Students/ Last 3 Years
Averett University	DCC	n/a	12
	PHCC	n/a	23
College of William and Mary	Richard Bland	All areas	3
George Mason University	LFCC	Health & Physical Education	1
	NVCC	Health & Physical Education	15
	PVCC	Health & Physical Education	0
James Madison University	BRCC	Articulation Agreements in eight areas—not specified	14
	LFCC		5
	PVCC		1
Longwood University	SVCC	All Areas	72
	CVCC		17
	DCC		15
	PHCC		41
	GCC		10
	JSRCC		19
Old Dominion University	Systemwide Agreement	Early Childhood Education (PK-3)	10
		Elementary Education (PK-6)	120
		Special Education (K-12)	98
		English (6-12)	10
		History & Social Science (6-12)	9
		Mathematics	5
		Pre-Teacher/Elementary Education	2
Radford University	VWCC	Elementary Education (PK-6)	44
Randolph-Macon College	JSRCC	Not specified	n/a
Regent University	TCC	Elementary Education (PK-6)	80
	NVCC	Elementary Education (PK-6)	5
University of Virginia	None	UVA “honor(s) the agreement for high academic students from VCCS to enter automatically into UVA”	n/a
University of Virginia-Wise	Systemwide Agreement	Elementary Education	10
		Special Education	
Virginia Commonwealth	JSRCC	Elementary Education	5

Institution	Community College*	Endorsement and Level	Students/ Last 3 Years
University		Biology (6-12)	0
		Chemistry (6-12)	0
		English (6-12)	0
Virginia State University	JTCC	All Areas	24

*\*Community Colleges—Full names and abbreviations:*

(BRCC) Blue Ridge Community College; (CVCC) Central Virginia Community College; (DCC) Danville Community College; (GCC) Germanna Community College; (JSRCC) J. Sargeant Reynolds Community College; (JTCC) John Tyler Community College; (LFCC) Lord Fairfax Community College; (NVCC) Northern Virginia Community College; (PHCC) Patrick Henry Community College; (PVCC) Piedmont Virginia Community College; (SVCC) Southside Virginia Community College; (TCC) Tidewater Community College; (VWCC) Virginia Western Community College

Question 6 – *Please comment on the degree to which the above mentioned articulation agreements contribute to a successful transfer pathway.*

Four private four-year and eight public four-year institutions addressed this question. All of the institutions reporting had positive feedback, confirming the productive effects that articulation agreements have on the performance and success of transfer students from the community college system. Selected comments included:

- Articulation agreements have been very fruitful in the quantity and quality of the applicants;
- The institution has had very good success with transfer students and continues to recruit them;
- The majority of the transfer students come from an accredited Virginia community college, therefore contributing largely to the success of the institution's annual enrollment goals;
- Articulation agreements allow community college transfer students to enter the teacher education program in the junior year on a par with the university's native students; and
- Articulation agreements allow students to enter the university with the lower general education requirements already met, thus permitting them to focus on the content required for the desired education programs.

Question 7 – *Please share any innovative strategies you use to recruit or retain transfer students (including under-represented minorities in teaching, i.e., gender, racial or ethnic) into teacher education programs, especially those transferring from the VCCS.*

Ten institutions (one private four-year and the others public four-year) shared information regarding their successful and innovative practices. These practices include:



Institution	Innovative Strategies
Averett University	Averett personnel attend <i>Transfer Day</i> activities at community colleges and bring prospective teacher education majors to campus to attend education classes, tour the facilities, eat in dining hall, hear financial aid information, etc.
Ferrum College	There is personal contact by faculty at Ferrum's <i>Open House</i> , with special attention to those interested in attending teacher education programs; provide testing preparation for VCLA, Praxis I & II and VRA.
George Mason University (GMU)	The university has a program entitled <i>Today's Students, Tomorrow's Teacher</i> . The program is a partnership with Prince William County Schools focusing on students from minority and low-income households. Students are mentored at the high school level and then when they enroll at GMU; small scholarships are also available.
James Madison University (JMU)	There is a special password-protected website link between JMU and the three community colleges with which the university has agreements. This allows the community college students to access and update their information online. Also, special recruitment and informational materials go to the feeder high schools of these three community colleges, and there is an annual joint faculty meeting to review curriculum changes, troubleshoot problems, revise procedures, etc.
Longwood University	Longwood has instituted the highly acclaimed <i>Call Me MISTER</i> program, designed to attract a more diverse group of candidates from under-served, socio-economically disadvantaged, and educationally at-risk communities, with special emphasis on recruiting young men. In addition, a new partnership with the New College Institute involves Patrick Henry Community College and Longwood in teacher preparation programs on site.
Old Dominion University (ODU)	ODU has a teacher education faculty member with a joint appointment assigned to Thomas Nelson Community College to teach teacher preparation courses on site.
Radford University	Radford representatives speak at the EDU100 Virginia Western Community College class. Teacher education students at Virginia Western Community College are required to attend an additional special orientation session at Radford, where the student's faculty advisor teaches the first class in which she/he enrolls. This advisor then also acts as the student's first field supervisor.
University of Mary Washington (UMW)	The institution has special advisors and conducts specific meetings for transfer students to acquaint them with its teacher preparation programs.
Virginia Commonwealth University (VCU)	The staff of VCU's Office of Admissions makes routine visits to local community colleges to talk about the university's teacher preparation programs. In addition, VCU partners with JSRCC to offer an Urban Institute designed to address critical needs of area teachers.

Virginia State University (VSU)	A faculty member has been assigned to recruit at John Tyler Community College. This faculty member also serves as the advisor for all transfer pre-candidates for the Professional Education Unit.
Virginia Tech (VT)	The university has specific strategies designed to recruit or retain students, including those who are part of the community college system: open house and orientation sessions; programs and advisors designed to assist all incoming students, including community college transfers; and supportive programs/services, such as the Writing Center, career guidance, and technology support.

Question 8 – Please use this space to provide any additional relevant information regarding your institution’s programs as they relate to the topic of the study.

Several institutions took advantage of this question to address some points which did not clearly “fit in” with any of the previous questions. Three private and five public four-year institutions furnished comments, with the majority positively expressing the importance of transfer students populating and successfully completing their teacher education programs. Indeed, one institution stated that it would be pleased to fill each endorsement area to capacity and would welcome assistance in order to meet its available capacity.

Three public four-year institutions used this question to offer comments addressing areas of concern:

1. One institution reported that monitoring articulation agreements is a challenge; it is difficult to keep track of changes. For example, students requesting courses which are not part of the agreement or failing to sign the original letter of intent, which then does not officially include them as part of the agreement. This is especially troublesome in popular specialties with waiting lists, as a student cannot be entered on the list unless he/she appears as part of the original agreement. This causes students to lose valuable time while waiting. In addition, when students change their mind, they may forget to withdraw their names from the list, thus causing them to be listed as active when they are in fact inactive.
2. Another reported that predicting future capacity is difficult, given the current budgetary constraints. At this juncture, the responding institution stated that it would need additional staff and resources in order to increase capacity.
3. One institution reported that there might be an undercounting of the transfer population depending on the way undergraduate programs may be interpreted, specifically referring to the 4+1 teacher education preparation programs. Students in the 4+1 teacher education programs may be misreported as graduate students when they are actually undergraduates completing that additional fifth year necessary to obtain full licensure.

## VI. Models of Exemplary Practices

Nationally, there is great interest and concern in improving the pipeline preparing future teachers. Efforts typically address such issues as how to recruit more qualified students into teaching, especially in shortage areas such as special education, mathematics and science; how to improve the preparation of teachers so they are more effective in their teaching and satisfied in their careers; and how to foster under-represented groups going into teaching, so that the teaching workforce more closely mirrors the students it is teaching.

A recent NEA report, *Strengthening and Diversifying the Teacher Recruitment Pipeline (2009)*, highlighted four strategies to increase the supply of teachers, especially in high need areas (i.e., certain academic subjects and teachers of color):

- College fellows programs
- High school teacher cadet programs
- High school teacher academies
- Community colleges

Following are examples of national and state initiatives that include some of these strategies, as well as other innovations directed toward improving the teacher education pipeline.

### National Initiatives

- The *Teaching by Choice Program* initiated by the American Association of Community Colleges (AACC) focuses on the nation's community colleges as a potential resource to solve the teacher shortage problem. Funded by the National Science Foundation, the program provides resources for community colleges to expand K-12 STEM pathways in teacher education.
- The U.S. Department of Education offers the *Teacher Quality Partnership Grant* program designed to raise student achievement and improve learning to promote fundamental change and improvement in teacher education. At least one state, South Carolina, has utilized the grant funds to ensure that the teaching force reflects the ethnic diversity of the student population.

### Out-of-State Initiatives

- The *Call Me MISTER* (**Mentors Instructing Students Toward Effective Role models**) program, originating at Clemson University, is a national initiative to increase the pool of available teachers from a broader more diverse background. Student participants are largely selected from among under-served, socio-economically disadvantaged and educationally at-risk communities. In Virginia, the *Call Me MISTER* program is offered at Longwood University.

- The *North Carolina Teaching Fellows Program* recruits up to 500 academically successful high school seniors per year. The program provides annual scholarships of up to \$6,500, which can be used at 18 public and private colleges. The program requires participants to commit to teaching in North Carolina for four years.

### State System Initiatives

- In 2003, the Texas Higher Education Coordinating Board initiated the *Associate of Arts in Teaching (AAT)* degree. This is a collegiate degree consisting of lower-division courses that transfer to baccalaureate degree programs leading to initial Texas teacher licensure.
- Like Texas, Maryland has also instituted an *Associate of Arts in Teaching (AAT)* degree in elementary education. The degree ensures a seamless transfer of students from two- to four-year institutions. It is offered both in the classroom and online.
- Arizona offers an *Associate of Arts in Elementary Education (AAEE)* degree, designed for students planning to transfer into four-year teacher education programs. The AAEE and all of its credits transfer to any Arizona public four-year institution.

### Virginia Community College Initiatives

- *EducateVA* is a statewide initiative designed to address critical shortage areas in the teaching profession. The *Career Switcher Program*, a part of the initiative, is offered by Virginia community colleges throughout the Commonwealth. Begun in 2004 as an accelerated, statewide, flexibly delivered program, it adheres to a rigorous theory-into-practice curriculum that is an alternative pathway to licensure for qualified post-baccalaureate professionals. Hosted by the Community College Workforce Alliance of Virginia's community colleges, the program has provided over 500 teachers to the Commonwealth in mathematics, science, middle grades, English, foreign language, and English as a second language (ESL). The program began with financial support from a federal grant administered by the Virginia Department of Education (VDOE) and was one of a small number of Career Switcher Programs approved by the VDOE. The program structure includes an initial semester of coursework, followed by one year of paid full-time teaching while still a program participant.

The accomplishments of the *EducateVA* program are worth noting. For example, seven recent program completers from seven different school divisions were nominated for *New Teacher of the Year* or *Teacher of the Year* at their individual schools; the endorsements offered align with critical shortage teaching areas such as mathematics and science in order to meet the needs of the state's teaching workforce; and, program collaborations with school divisions are strong, enabling successful field placement opportunities and teaching positions. In addition, the program has received national attention with invited presentations at three national conferences in 2009 and profiles in numerous publications including *The New York Times*.

- *Student Virginia Education Association (SVEA)* is a professional pre-service teacher organization. It provides opportunities for college students to explore education as a profession. Active chapters are located at 40 colleges and universities in Virginia, nine of which are community colleges.
- *Virginia's Teachers for Tomorrow Program* is offered to high school juniors and seniors interested in pursuing a career in education. The program is designed to attract teacher candidates from high school students to the field of education through exposure to a world-class curriculum and hands-on experience that focuses on teaching. In partnership with Norfolk Public Schools, ODU offers a dual-enrollment course in teacher education at Granby High School to attract high school students into teacher education.
- In 2009, SCHEV reported that there were at least 14 active teacher education articulation agreements. These are formal agreements between two- and four-year colleges designed to aid students' movement from one institutional level to another while minimizing duplication of academic work and increasing student access.

## **Virginia's Community College/University Teacher Education Partnerships**

### ***Blue Ridge Community College***

Blue Ridge Community College (BRCC) has a regional agreement with James Madison University (JMU) for teacher education majors. The agreement guarantees teaching majors in pre-K through 12 a seat in the teacher education program when the student transfers to JMU. The students must see the BRCC teaching major's advisor, sign a letter of intent, and follow a specific approved set of courses, which both JMU and BRCC have agreed upon, complete the associate degree with these courses, and maintain a GPA of 3.0 or higher along with appropriate SAT, ACT, or Praxis I scores. The BRCC advisor, the student, and the JMU Department of Education faculty share reports that follow the students through their program of study at the community college and university level.

### ***J. Sargeant Reynolds Community College***

The *Center for Teacher Education* at J. Sargeant Reynolds Community College serves students interested in becoming teachers or teacher aids. The Center assists aspiring teachers in developing the skills, attitudes, and behaviors needed to be highly qualified teachers. The Center partners with Virginia Commonwealth University (VCU) to offer an *Urban Institute*. The Institute is designed to address critical needs of area teachers by providing an annual weeklong program to enrich teachers' understanding of students in urban school settings. In addition, the institute offers initiatives to strengthen content knowledge in math and science.

### ***Northern Virginia Community College***

Northern Virginia Community College (NVCC) has a Social Sciences with Teacher Education Specialization associate degree that is designed to articulate with many of the universities in Virginia. It is specifically for NVCC students who want to become

elementary or special education teachers. Teacher education students at NVCC have the same curriculum the first two years that any pre-teacher education student would have at a Virginia four-year institution. Northern Virginia's associate degree was designed to help students fulfill their first two years of endorsement courses for licensure.

NVCC has also developed an effective partnership with George Mason University (GMU). Their undergraduate advisor for education comes to speak to NVCC's Introduction to Education classes every semester. The GMU advisor helps the community college students to better understand the state endorsement and licensure requirements and facilitates a smooth transition to the university for Northern Virginia's students. Additionally, GMU has created an undergraduate education club. They have invited any interested students to attend their meetings and join the education club while they are still at NVCC.

***Old Dominion University Partnerships with all VCCS Community Colleges, including Wytheville Community College***

For several years, Old Dominion University (ODU), through its Distance Learning program, has offered a "five-year" program leading to a license with an endorsement in elementary education. Students enrolled in this program complete the following:

- An Associate of Arts and Science in Education at Wytheville Community College;
- A Bachelor of Science in Interdisciplinary Studies: Teacher Preparation Concentration Primary/Elementary Education Emphasis through Old Dominion University; and
- A Master of Science in Education: Elementary Education with PK-6 Licensure through Old Dominion University.

Beginning in Fall 2009, Old Dominion began offering a "four-year" option via distance learning leading to licensure in Special Education. Students enrolled in this program complete the following:

- An Associate of Arts and Science in Education at Wytheville Community College and
- A Bachelor of Science in Interdisciplinary Studies: Teacher Preparation with Licensure in Special Education (General Curriculum K-12) with Highly Qualified Designation in Elementary Education through Old Dominion University.

Students who express interest in either ODU program can meet with their Wytheville academic advisor and with the Old Dominion University site director. The ODU staff member is available to meet with students to discuss the program and to provide guidance on what courses to take at WCC that will satisfy both the AA&S requirements as well as content requirements (and in some instances, professional education requirements). A large number of these "content" requirements can be satisfied by

community college courses and a few professional education courses can also be completed at the community college. These programs also are offered at ODU's higher education centers in Hampton Roads and in other higher education centers in Virginia. Additionally, similar programs are offered on military bases in Virginia by ODU.

## **VII. Recommendations**

This research effort outlines the need for additional students in the teacher education pipeline in order to address the teacher shortage in the Commonwealth. Currently, Virginia's community colleges play an important role in supplying this pipeline. However, just increasing the number of students in teacher education programs at our community colleges will not be enough to increase the number of classroom teachers. Steps must be taken to facilitate the transfer of these students to teacher education programs at four-year institutions. Once students transfer, the receiving institutions need to provide appropriate student support services to assist these students with the transition and follow through to completion of the baccalaureate and necessary licensure. The following are a series of recommendations that require communication and collaboration between Virginia's community colleges and the four-year institutions that offer teacher licensure programs. Both sectors should work together to implement the recommendations:

1. Active pursuit of new guaranteed admissions agreements between Virginia's community colleges and four-year institutions with teacher education programs. A key component to increasing the number of students is to smooth the pathway to teacher licensure for those students who begin their postsecondary education at a community college. Four-year institutions should pay particular attention to removing any barriers that might prevent a successful path to baccalaureate degree completion. For example, it is important that accurate and timely advising on academic as well as social issues, including internship hours, course sequencing, and meeting specific course requirements of teacher education programs, is available to community college students.
2. Four-year institutions with teacher preparation programs should actively recruit community college students who are enrolled in teacher education and associate degree programs. Cooperation between the community colleges and four-year colleges and universities to organize events for teacher education students is important. Regular contact between community college students enrolled in the teacher education pipeline and the four-year institutions helps to provide early advising to ensure that students transfer without loss of credit.
3. Regular communication between teacher education faculty and advisers at four-year institutions and community colleges should be promoted. Specifically, special scholarships and financial incentive programs at the four-year institutions should be created for community college transfer students enrolled in teacher education programs.

4. In order to best prepare teacher education students prior to transfer, it is essential that education programs at the community colleges have accurate data about the success of their students upon transfer. To that end, articulation agreements developed in teacher education should include a regular reporting mechanism that incorporates student success information. Community colleges and four-year partners should work collaboratively to develop recommendations for program improvement based on the student success data.
5. Promote collaborative development between four-year institutions with teacher education programs and their community college partners of baccalaureate degree completion programs to be delivered on site at community college campuses and regional higher education centers, and via distance learning. If community college students are afforded the opportunity to remain in their community while completing a teacher licensure program, research shows that there is an increased likelihood that the student will remain to teach in that community. Similar 'Grow Your Own' teacher education programs have demonstrated much success in other parts of the country.
6. Community colleges should use their foundations of education course (EDU 200 – Introduction to Teaching as a Profession) as a mechanism to recruit students into the teaching profession, especially in those high demand areas like special education. The EDU 200 course requires students to complete a 40 clock-hour internship in a K-12 classroom. Students should be encouraged to fulfill the internship hours in high-demand areas. In addition, internship hours completed by the community college student should be applicable to the required internship hours at the transfer institution. If a student is required to do a second internship at the receiving institution before admission to the teacher education program, it will significantly increase the time it takes transfer students to complete their degree.
7. Community colleges should reach out to high school students who express interest in the teaching profession and actively recruit these students to teacher education programs at their institutions. The *Future Teachers of America* clubs, which are regularly active on high school campuses, are a good vehicle for this outreach. Specific materials should be created by the community colleges for high school students outlining the pathway to licensure beginning with the community college and then transferring into a four-year institution. Students who participate in the *Student Virginia Education Association*, a club for future teachers at higher education institutions, can provide peer support once the high school students enroll at a community college.
8. Community colleges, as they prepare future teachers, should be mindful of the assessments that students must complete in order to enroll in a licensure program at a four-year institution. In this regard, the community colleges should assist students in preparing for and completing the Praxis I and the Virginia Communication and Literacy Assessment (VCLA) instruments prior to graduation from the community college.



9. In implementing all of the above recommendations, community colleges and four-year institutions should facilitate improved success of students from underrepresented groups. SCHEV and VCCS should work with VDOE and appropriate higher education groups such as the Instructional Programs Advisory Committee (IPAC), the General Professional Advisory Committee (GPAC) **and others**, to develop a coordinated systemwide approach to bringing more students from under-represented groups into the teacher education pipeline.

SCHEV and the VCCS will share this report and its recommendations with Virginia higher education institutions. Institutions will be asked to review the recommendations and implement those that fit the needs of their institution and their student population. SCHEV will follow up with all institutions that provide teacher education coursework after the conclusion of the 2010-11 academic year to request a progress report on the implementation process.

As with the majority of SCHEV initiatives, the production of this report is a collaborative and cooperative effort within and beyond the agency. First, SCHEV would like to thank the institutions who participated in the study, whose program personnel generously provided the information requested to produce this document. Second, we would also like to acknowledge the contributions of Drs. Susan Wood and Gretchen Schmidt of the VCCS, and Mrs. Patty Pitts of VADOE.

Drs. Maricel Quintana-Baker and Carmen Johansen (Academic Affairs and Planning) were the principal researchers and authors of the study. Dr. Joseph DeFilippo also contributed to this report.