

**BALTIMORE COUNTY PUBLIC SCHOOLS**

**Date:** March 11, 2008

**TO:** **BOARD OF EDUCATION**

**FROM:** Dr. Joe A. Hairston, Superintendent

**SUBJECT:** **INTERIM REPORT ON THE BALTIMORE COUNTY PUBLIC SCHOOLS' VIRTUAL INSTRUCTION PROGRAM (BCVIP)**

**ORIGINATOR:** Dr. Sonia Diaz, Chief Academic Officer

**RESOURCE PERSON(S)** Dale R. Rauenzahn, Acting Assistant Superintendent, STEM  
Vicky Ciulla, Coordinator, Alternative Programs, Summer School, and Dropout Prevention

**INFORMATION**

There are students in Baltimore County, Kindergarten through Grade 12, who are not enrolled in Baltimore County public schools because they are unable to attend and/or learn in a bricks and mortar school for various reasons (i.e. parental choice-home schooling, medical issues, teen pregnancy). BCVIP will enable Baltimore County Public Schools to enroll these students by offering virtual, synchronous, and asynchronous instruction, which allows them to graduate from high school and/or be promoted to the subsequent grade level.

The program was launched in September 2007 as a pilot virtual learning program for Baltimore County Public Schools.

The Board is receiving an Interim Report on the program.

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Attachment I – Interim Report on the Baltimore County Public Schools' Virtual Instruction Program



We are pleased to provide this Interim Report on the Baltimore County Virtual Instruction Program (BCVIP), which launched in September 2007 as a pilot virtual learning program for Baltimore County Public Schools (BCPS). This report provides background information, detailed demographics about the participating students, and an update on BCVIP progress and results.

## **BACKGROUND**

**History of Program:** At the direction of Superintendent Dr. Joe Hairston, BCPS personnel led by Dale Rauenzahn and Vicky Ciulla began exploring virtual learning options in Spring 2006 as part of their overall look at quality alternatives for students with different learning needs (e.g., Home and Hospital, home schooling, credit recovery, and so on). The research process included a close inspection of the instructional and curriculum model offered by Connections Academy, LLC, a leading national virtual public school provider that is based in Baltimore. Connections Academy currently serves more than 10,000 students in fourteen states.

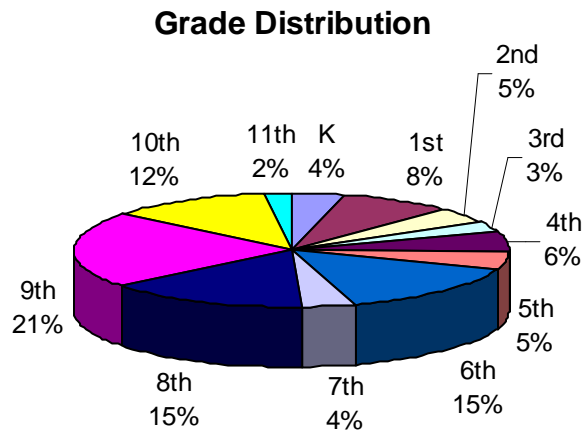
In May 2006, the BCPS team visited the Connections Academy in Pennsylvania, which serves nearly 2,000 students across the state and is headquartered just outside of Harrisburg with a satellite office in Philadelphia. During its visit, the BCPS team saw a demonstration of the Learning Management System, shadowed several teachers as they interacted with students via the technology, and interacted with parents. Subsequently, a larger delegation from BCPS visited Connections Academy's offices in the Harbor East area of Baltimore to more closely inspect the technology platform, business functions, and curriculum development operations. In January 2007, the BCPS team convened district curriculum directors for a detailed demonstration of the Connections Academy virtual school curriculum, which includes substantial print materials as well as online content. Following this demonstration, designated BCPS curriculum personnel conducted in-depth inspections of the curriculum using complete curricula for several grades provided by Connections Academy along with trial accounts for online access.

During spring 2007, Mr. Rauenzahn reported to the BCPS Board of Education on the virtual school opportunity as part of the long-term development of a continuum of options for Baltimore County students in need of alternatives. During the summer, Connections Academy submitted a proposal to BCPS for a small-scale pilot program that would allow BCPS to test out the virtual school concept free of charge and with a minimum of risk to the district. The Board of Education approved this free pilot, Baltimore County Virtual Instruction Program, at its September meeting for an immediate start. Depending on the results of the pilot, the district would consider going out for bid for a larger and longer-term program for future school years.

**Program Launch:** BCVIP launched with student outreach and recruitment in September 2007, with an initial focus on home schooling children known to BCPS but not currently enrolled in district schools. Under the leadership of Dr. Francine Schaffer, BCPS sent materials about the program to home schooling families within the district and collaborated with Connections Academy personnel to conduct more than fifteen information and enrollment sessions around the County. BCPS staff trained Connections Academy personnel in requirements for residency and immunization in order for families to enroll their children in BCVIP in person at these sessions. In addition, Connections Academy and BCPS student data systems personnel worked together to ensure complete entry of student information into the STAR system. By September 30, 123 students were fully enrolled and had begun attending virtual classes in BCVIP. In November, targeted outreach to students identified by the Home and Hospitals program resulted in transfer of six of these students into the BCVIP program.

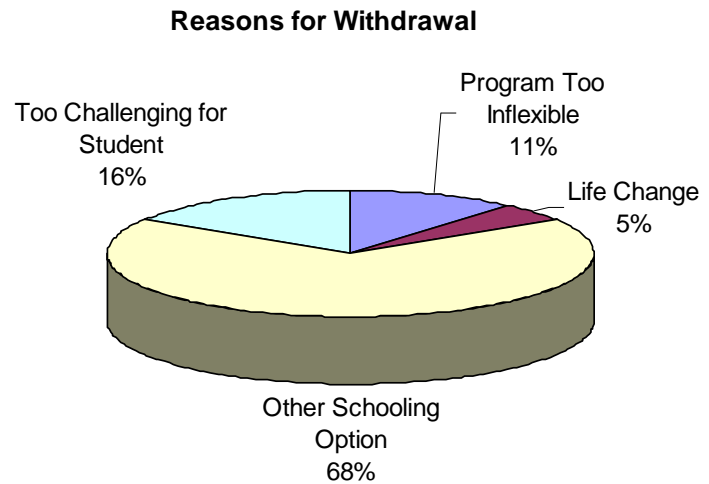
**STUDENT DEMOGRAPHICS**

**Enrollment:** The table below shows the grade distribution of students in BCVIP, with a specific breakdown of those “enrolled at start” (the formerly home schooled students) and those entering the program mid-fall from the Home and Hospital program. The pie chart shows the percentage distribution of students by grade. (Note that the Connections Academy curriculum in 2007-08 covers Grades K-11, thus no 12<sup>th</sup> graders were included in BCVIP for this year. Connections Academy will expand nationally to K-12 in 2008-09.) While Connections Academy schools across the country typically see a “bulge” in enrollment in the middle school grades, the concentration of students in Grades 6-11 in BCVIP is particularly pronounced. We believe this reflects the need among former home schoolers for professional instruction in the upper grades as well as the preponderance of secondary school students from the Home and Hospital group, including pregnant students.

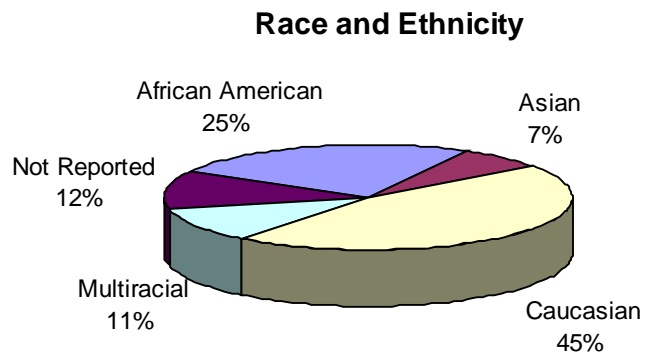


<b>Enrollment 1/23/2008</b>													
<i>Grade Level</i>	<i>K</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>Grand Total</i>
Enrolled at Start	4	9	5	2	6	5	16	4	15	22	12		100
Home/Hospital				1					1	1	1	2	6
<b>Total</b>	<b>4</b>	<b>9</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>16</b>	<b>4</b>	<b>16</b>	<b>23</b>	<b>13</b>	<b>2</b>	<b>106</b>
Withdrawn		2	4	1	2	2	4	2	3	2	2	1	25

The enrollment table also includes an accounting of students who have withdrawn from BCVIP, which total twenty-five as of January 23, 2008. This attrition rate of 19% is on the low end of the norm for full-time virtual school programs. The reasons for withdrawal include “life changes” (for example, a move out of the district or the need for the parent serving as the student’s “learning coach” to go to work outside the home); lack of fit of the curriculum because it is too challenging for the student or not flexible enough for the family’s lifestyle; or a switch to another schooling option. The percentages of students falling into each of these reasons for withdrawal are shown in the chart at right.



**Demographics:** The students participating in BCVIP are ethnically diverse, representing a fair cross-section of the county. The BCVIP student body is almost evenly divided between Caucasian and minority students (45% and 43%, respectively), with 12% of students not reporting their ethnicity. There are no Hispanic or Native American students reporting ethnicity in BCVIP.



The gender breakdown on BCVIP students shows a slight concentration of males (57%) to females (43%). Connections Academy programs often show a small male skew as parents often are in need of additional options and alternatives for boys who have issues in other education settings.

Approximately 41% of BCVIP students are low-income, as documented by family income forms indicated qualification for free or reduced lunch. Of these 41%, 30% qualify for free lunch, while an additional 11% qualify for reduced price lunch. It should be noted that the BCVIP program does not actually provide lunch service since students are attending school from home.

Enrolled home schooled students appear to be evenly distributed across regions served by Baltimore County Public Schools.

**BC-VIP  
Student Enrollment by Area and by School**

Area	Home School	# of Students	% of Students Enrolled by Area
<b>C E N T R A L</b>	Dulaney High	4	<b>12%</b>
	Hereford High	2	
	Jacksonville Elementary	2	
	Loch Raven High	1	
	Pot Spring Elementary	2	
	Ridgely Middle	1	
<b>TOTAL # STUDENTS</b>		<b>12</b>	

Area	Home School	# of Students	% of Students Enrolled by Area
<b>N O R T H E A S T</b>	Red House Run Elementary	1	<b>13%</b>
	Shady Spring Elementary School	1	
	Golden Ring Middle	1	
	Kenwood High	2	
	Loch Raven Technical Academy	1	
	Middlesex Elementary	1	
	Overlea High	2	
	Perry Hall Middle	1	
	Pine Grove Elementary	1	
	Stemmers Run Middle	2	
<b>TOTAL # STUDENTS</b>		<b>13</b>	

Area	Home School	# of Students	% of Students Enrolled by Area
<b>N O R T H W E S T</b>	Bedford Elementary	4	<b>35%</b>
	Church Lane Elementary Technology	1	
	Deer Park Middle	7	
	Franklin High	4	
	Franklin Middle School	4	
	Hernwood Elementary	4	
	New Town High	2	
	Old Court Middle	2	
	Owings Mills High	1	
	Pikesville Middle	2	
	Randallstown High	2	
	Reisterstown Elementary	1	
Woodholme Elementary	1		
<b>TOTAL # STUDENTS</b>		<b>35</b>	

**BC-VIP**  
**Student Enrollment by Area and by School**  
*(continued)*

Area	Home School	# of Students	% of Students Enrolled by Area
<b>S O U T H E A S T</b>	Chase Elementary	1	<b>17%</b>
	Chesapeake High	1	
	Deep Creek Elementary	1	
	Deep Creek Middle	2	
	Dundalk High	3	
	General John Stricker Middle	4	
	Norwood Elementary	2	
	Patapsco High	2	
	Sparrows Point High	1	
<b>TOTAL # STUDENTS</b>		<b>17</b>	

Area	Home School	# of Students	% of Students Enrolled by Area
<b>S O U T H W E S T</b>	Arbutus Middle	1	<b>23%</b>
	Catonsville Elementary	1	
	Catonsville High	1	
	Chadwick Elementary	1	
	Edmondson Heights Elementary	2	
	Featherbed Lane Elem	1	
	Lansdowne Elementary	1	
	Lansdowne High	1	
	Lansdowne Middle	1	
	Powhatan Elementary	2	
	Southwest Academy	3	
	Windsor Mill Middle	2	
	Woodlawn High	6	
<b>TOTAL # STUDENTS</b>		<b>23</b>	

In terms of language spoken at home, 97% of BCVIP students are in homes where the primary language is English, while 3% are in homes where another language is spoken. While the non-English languages are not specified because they are not the major choices of Spanish, Chinese, French, or Russian, these languages may be assumed to include Urdu or Arabic since a number of Pakistani-American and Arab-American children are enrolled in BCVIP.

**Special Learning Needs:** Approximately 10% of BCVIP students have identified special needs. Of these, 3% are Gifted, and 7% are special education students with IEPs (6%) or 504 Plans (1%). This is a lower concentration of special learners than is typically seen in Connections Academy programs because such a high percentage of BCVIP students are coming to the program from a home school setting, where they would not have had an official designation nor documentation of special needs. BCPS staff and Connections Academy's special education team have together developed a process for retrieving and updating IEPs and 504 Plans for previously home schooled students who may have had such documentation at a local BCPS school before withdrawing to home school. In addition, seven students have been identified by their parents or BCVIP staff as needing evaluation for possible special learning needs. BCPS and Connections Academy are working together to arrange such evaluations at BCPS school sites or Child Find locations.

Of the special education students with IEPs, 50% have Specific Learning Disabilities, while the remainder are evenly divided (17% each) between Autistic, Developmentally Delayed, and Speech/Language Impaired. The concentration of Specific Learning Disabilities is typical of both Connections Academy programs nationally and public schools in general.

**Teachers:** The BCVIP pilot program for 2007-08 is staffed entirely by Connections Academy with Maryland-certified professional teachers working under the direction of a principal at Connections Academy's Harbor East headquarters. The program is currently served by 7.1 FTE teachers, each with an average of 14.5 students in his or her caseload. The average experience of the BCVIP teachers is seven years (almost all in the traditional classroom) and four of the teachers hold advanced degrees. The BCVIP teachers underwent intensive initial training in teaching in an online environment and participate in ongoing professional development conducted by Connections Academy staff for teachers in Connections Academy programs across the country.

**Socialization Activities:** Since BCVIP launched relatively late in fall 2007, the staff, students and families were appropriately concentrated on academics for the first several months of school. However, BCVIP did hold its first field trip in January 2008, to the Baltimore Aquarium, which was attended by 110 students, siblings and parents, representing 65 families. A second field trip to the Reginald F. Lewis Museum of African American History took place on February 8, 2008. Additional field trips are planned for this spring. In addition, BCVIP students are actively participating in online clubs and activities, including Chess Club (in which a remarkable 10% of BCVIP students are participating!), Science in the Kitchen, Middle School Quiz Bowl, and Arts and Crafts.

**PRELIMINARY RESULTS**

BCVIP students will participate in Maryland School Assessments in March 2008, so their academic achievement as measured by standardized testing results is yet to be documented. In addition, BCVIP parents are currently participating in a comprehensive Parent Satisfaction survey administered across Connections Academy by a third-party opinion research firm, with results expected in March. Pending these two very important objective measures of program results, the following provides important baseline and ongoing progress data for BCVIP students.

**Pre-Testing Achievement Levels:** Connections Academy measures gains in student achievement by utilizing a pre-test/post-test model requiring students to take our Longitudinal Evaluation of Academic Progress (LEAP). The LEAP program consists of two parts, reading and mathematics. To satisfy the reading portion, the Scholastic Reading Inventory (SRI) is administered to students in Grades 3-8.

The SRI is a measure of ability to read different kinds of material with understanding. The SRI uses the Lexile scoring system to match the child’s level of reading skill with reading materials that are at an appropriate level of difficulty. The score is reported as a number within the range of Lexile values, which extends from 0 (a non-reader) to 1600 (the ability to comprehend the most complex text). The child should be able to read successfully and independently a text with a Lexile value that approximates his/her Lexile score. The table below is provided to show the range of Lexile scores typical of students at each grade level over the course of a year. These ranges are based upon national norms and are published by Scholastic in cooperation with MetaMetrics, Inc., the creator of the Lexile scoring system.

Proficient Lexile ranges per grade level:

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
BR-299	300-599	500-799	600-866	700-999	800-1049	850-1099	900-1149

In the table below, the Lexile scores are averaged by grade level and reported in the “Mean Lexile Score” column.

For the math portion, a Connections Academy assessment is administered to all students in Grades K-8, with percentages of correct answers reported below

The post-test will be administered in May 2008, at which time gains can be measured for students over the course of the year.



Student Grade Level	Total Enrolled Students	Total Students Completed Reading	% of Students Completed Reading	Mean Lexile Score	Total Student Completed Math	% of Students Completed Math	Mean Math % Correct
K	4			N/A	4	100	87
1	9			N/A	9	100	82
2	5	5	100	618	5	100	88
3	3	2	66	635	3	100	67
4	6	6	100	833	6	100	72
5	5	4	80	1056	5	100	70
6	16	13	81	1011	14	87	72
7	4	2	50	792	4	100	65
8	16	10	62	1256	11	68	61
9	23			N/A			N/A
10	14			N/A			N/A
11	2			N/A			N/A

N/A indicates that grade level is not assessed. LEAP Reading: grades 3-8 are assessed, LEAP Math: grades K-8 are assessed. Please use caution when making generalizations from these percentages for the number of students assessed at each grade level is very small.

**Student Progress in Courses:** Another way to measure ongoing student progress is to look at the average grade (GPA) of students in particular courses. Overall average grade for BCVIP students was 72% as of the end of January 2008. The tables below show the specific courses in which the BCVIP students are enrolled and their average grades in each course. This data apply to students who are currently enrolled. If the “Average Grade” is blank, a course grade is not applicable at this time either because the course is a non-graded (pass/fail) elective or grades for the course have not yet been entered into our Learning Management System.

### *Kindergarten - 5*

Course	Average Grade
Activities-0	
Activities-1	
Art-0	
Art-1	
Art-2	
Art-3	100%
Art-4	92%
Art-5	82%
Educational Technology and Online Learning 1	100%
Educational Technology and Online Learning 2	100%
Educational Technology and Online Learning 3	
Educational Technology and Online Learning 4	100%
Educational Technology and Online Learning 5	100%
Educational Technology and Online Learning K	
Geography-3	84%

Course	Average Grade
Geography-4	90%
Geography-5	88%
Hooked on Phonics C	
Hooked on Phonics D	
Maryland State History	70%
Math-0	98%
Math-1	98%
Math-2	97%
Math-3	90%
Math-4	86%
Math-5	88%
Music I	
Music II	
Music IV	60%
Physical Education C (first graders)	100%
Physical Education D (second graders)	100%
Physical Education E (third graders)	100%
Physical Education F (fourth graders)	100%
Physical Education G (fifth graders) 2	100%
Reading and Writing B(K)	99%
Reading and Writing C(1)	99%
Reading and Writing D(2)	96%
Reading-3	91%
Reading-4	94%
Reading-5	77%
Science-0	100%
Science-1	96%
Science-2	92%
Science-3	89%
Science-4	87%
Science-5	85%
Social Studies-0	98%
Social Studies-1	93%
Social Studies-2	90%
Social Studies-3	94%
Social Studies-5	89%
Writing-3	89%
Writing-4	87%
Writing-5	92%

### **Grades 6 - 8**

Course	Average Grade
Art 7	81%
Art 8	80%
Art-6	68%
Educational Technology and Online Learning 6	100%
Educational Technology and Online Learning 7	

Educational Technology and Online Learning 8	
Gifted and Talented Language Arts J (8)	89%
Gifted and Talented Literature Study H	100%
Gifted and Talented Literature Study J	90%
Gifted and Talented Math-6	80%
Gifted and Talented Math-8	74%
Gifted and Talented Reading and Literature-6	90%
Gifted and Talented Writing-6	91%
Language Arts I (7)	76%
Language Arts J (8)	75%
Math-6	67%
Math-7	73%
Math-8 Pre-Algebra	71%
Middle French I	
Middle Spanish I	
Physical Education 6	89%
Physical Education 7	93%
Physical Education 8	88%
Reading and Literature H (6)	80%
Science 7	75%
Science 8	77%
Science-6	78%
Social Studies-6	82%
Social Studies-7	84%
Social Studies-8	80%
Writing-6	78%

## 9 – 11

*Note: These are first semester courses to be completed on January 31.*

Course	Average Grade
Algebra 1 A	59%
Algebra 1 B	82%
Algebra 2 A	56%
American Government A (07-08)	75%
Basic American Government A (07-08)	88%
Biology A	63%
Chemistry A	66%
English 10 A (Basic)	92%
English 10 A (Honors)	73%
English 10 A (Standard)	69%
English 11 A (Standard)	59%
English 9 A (Basic)	49%
English 9 A (Honors)	84%
English 9 A (Standard)	65%
Explorations in Mathematics A	93%
Basic Biology A	81%
Environmental Science A	92%
Health, Fitness, and Nutrition A	82%

Course	Average Grade
Intro. to Computers and Applications A 0708	91%
Geometry A	76%
Honors Algebra 1 A	98%
Honors American Government A (07-08)	90%
Honors Biology A	89%
Honors Chemistry A	96%
Honors Geometry A	76%
Honors World History A (07-08)	95%
HS French I A	
HS Latin I A	
HS Mandarin Chinese I A	
HS Spanish I A	
HS Spanish II A	
Physical Science A	71%
Pre-Algebra A	41%
United States History A (07-08)	83%
Art History A	63%
Business Systems Technology 0708	79%
Emergent Computer Technology 2007-2008	81%
Personal Fitness	71%
Physical Education	83%
World History A	78%

**Attendance:** The Connections Academy Learning Management System (LMS) closely monitors student attendance, which is recorded by parents/learning coaches and verified by teachers based on student work completed. For BCVIP, the following table represents the percent of school days present, excused, and unexcused for all students as of late January 2008. Given the relatively late start of the program, student attendance was negatively affected by the first two weeks of school when materials were being shipped to students and some students were unable to work full days. Since October 15, average student attendance has been consistently above 95%.

Percent Present	Percent Excused	Percent Unexcused
92.5	0.7	6.8

Percent of school days present by grade level.

Grade	Present	Excused	Unexcused
0	97%	1%	3%
1	96%	1%	3%
2	96%	0%	4%
3	94%	0%	6%
4	96%	3%	1%
5	92%	0%	8%
6	94%	1%	5%
7	97%	0%	3%

Grade	Present	Excused	Unexcused
8	92%	1%	8%
9	91%	1%	9%
10	88%	0%	12%
11	67%	0%	33%

Note: 11<sup>th</sup> grade values are from two students only. Both were formerly Home & Hospital students who have struggled after they enrolled in late November.

**Escalation Status:** The Connections Academy LMS assigns an “escalation status” to each student based on a combination of student attendance and participation in required program tasks by students and parents. At a minimum, parents must mark the number of hours their children have invested in learning each day and they must review and approve their children’s completed lessons. As of the end of January, 84% of BCVIP students were considered “On Track” in the escalation system. Of the students in “Approaching Alarm” and “Alarm” status, there were seven (7) students for whom the parents have not entered sufficient hours of work, and five (5) students who are not completing sufficient lessons each day. There is one (1) student who meets both criteria. Of these thirteen (13) students, the parents of three (3) students have indicated that they plan to withdraw from the program.

## PROGRAM CHALLENGES AND OPPORTUNITIES

On the whole, implementation of the BCVIP pilot has been smooth, given the very concentrated timeframe for launching the program and the “newness” of the full-time virtual school concept for both participating families and for BCPS. The program has faced several challenges which benefited from collaborative solutions by BCPS and Connections Academy personnel.

- ***Serving students with special learning needs:*** The high concentration of returning home schoolers in BCVIP has posed challenges in obtaining and updating necessary documentation (such as IEPs) for students with special needs. Families who have long been away from public school, or who have never before enrolled their children in a public school program, may need extra assistance in this area. BCPS and Connections Academy Special Education staff have been working closely together to address this issue and to communicate information about the program to local school personnel who may be called upon to provide services for BCVIP students.
- ***Limited enrollment by Home and Hospital students:*** The BCVIP opportunity was extended to selected Home and Hospital students in November 2007, and while a small number of such students are participating, all involved with BCVIP believe that a far greater number could ultimately benefit. Future program planning will focus on early identification and processing for these students to allow BCVIP to be a workable choice for Home and Hospital students who would most benefit.

- ***Turnover of program principal:*** In January 2008, the founding principal of the BCVIP program at Connections Academy received an unexpected advancement opportunity to teach in a higher education setting. He will be replaced by a comparably credentialed administrator. In the meantime, BCVIP is being overseen by a very experienced member of the Connections Academy original leadership team who has returned to the company specifically to assist in this transition. The Connections Academy executive team remains closely involved with the program.