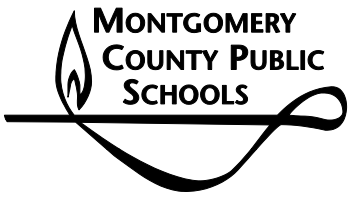

Supporting Students Through Participation in the Regional High School Summer School Program

Office of Shared Accountability

February 2014

Huafang Zhao, Ph. D.; Trisha A. McGaughey, M.Ed.; and Julie Wade, M.S.

Montgomery County Public Schools

OFFICE OF SHARED ACCOUNTABILITY

Mr. Geoffrey T. Sanderson, Associate Superintendent
850 Hungerford Drive
Rockville, Maryland 20850
301-279-3553

Dr. Joshua P. Starr
Superintendent of Schools

Dr. Kimberly A. Statham
Deputy Superintendent
of Teaching, Learning, and Programs

Table of Contents

This page is intentionally left blank.

List of Tables

Executive Summary

The Office of Shared Accountability (OSA) in Montgomery County Public Schools (MCPS) conducted a study of the MCPS Regional High School Summer School Program. The study examined who participated in the 2011–2013 summer school program, how they performed in the courses, how many of them passed October High School Assessments (HSAs), and how many of them graduated or dropped out. In addition, the study examined perspectives of students and staff in Session 1 of the 2013 summer school program based on student and staff surveys. The results of this study may be used to identify areas for improvement.

Regional High School Summer School Participants

From 2011 to 2013, 13,292 students enrolled in the Regional High School Summer School Program. About 61% of the students took a course because they previously failed it, 36% took a course for original credit, and 3% repeated a course for a better grade. The majority of the students (over 99%) were Montgomery County (MC) residents. More than two thirds of the students were in Grades 9–10 (69%), 43% of the students enrolled in a mathematics course and 27% in an English course. There were more male students (59%) enrolled than female students (42%). Among ethnic groups, 39% were Hispanic/Latino, 31% were Black or African American, 17% were White and 10% were Asian. About 45% of the students received services in the form of Free and Reduced-price Meals (FARMS), special education (16%), and English for Speakers of Other Languages (ESOL) (14%). It is important to note that FARMS students increased from 40% in 2011 to 49% in 2013. During the same time period, ESOL students also increased from 10% to 19% of the students in the summer school program.

Passed Summer Course with D or Higher

The summer course passing rate with a grade of D or higher was 88% in 2011, 91% in 2012, and 91% in 2013. Across three years (2011–2013), about 90% of students who took a course in a summer regional high school passed their course with a grade of D or higher. Students who had previously failed the course had a lower passing rate (87%) compared to their counterparts who took the course for original credit (93%) or a better grade (94%). Students with MC residency had a higher course passing rate (90%) compared to non-resident students (77%). Students in Grades 7 and 8 had the highest course passing rates (100% and 95%, respectively) among the grade levels. Among all content subjects, students who took a mathematics course had the lowest passing rate (87%), while those who took a health education course had the highest passing rate (99%). Hispanic/Latino and Black or African American students had a lower course passing rate (88%) than their White (93%) and Asian (95%) counterparts. FARMS and special education students had lower course passing rates (88% and 83%, respectively) than their peers who did not receive these services (92% and 91%, respectively).

Passed Summer Course with B or Higher

Less than half (45%) of all students obtained a course grade of B or higher. From 2011 to 2013, among students who took a course because they failed before, 32% passed the course with a grade of B or higher, compared to 67% for students who took the course for original credit and

68% for those who took the course for a better grade. Among all grade levels, Grade 8 students had the highest percentage with a grade of B or higher (73%). Across content subjects, students who took mathematics and science had the lowest percentages with a grade of B or higher (35%). Black or African American (38%) and Hispanic/Latino students (39%) had a lower course passing rate than White (58%) or Asian (72%) students. FARMS students and special education students had lower course passing rates (38% and 23%, respectively) than their peers who did not receive these services (51% and 50%, respectively).

The performance results show the existence of achievement gaps among student groups by race and services received. The achievement gap was larger for students who obtained a grade of B or higher, compared to those with a grade of D or higher.

Passed October HSA After Summer School

From 2011–2013, among the 1,412 students who took Algebra I in a regional high school summer program, 227 students took the Algebra I HSA the following October and 24% passed. During the same period, among 441 students who took biology in summer school, 85 students were tested in October for the biology HSA and 40% passed. The October English 10 HSA passing rate was 33% for 52 tested students who took English 10 in summer and tested in October. The results show that the summer school program helped some students pass the required HSA tests. However, the HSA passing rates were low overall for the summer school students.

Graduation and Dropping Out After Summer School

The number of students who graduated immediately at the end of summer increased slightly from 226 in 2011 to 233 in 2013. Across three years, 693 students who took courses in summer regional high school graduated immediately after the summer program. Students who registered in English 10 made up almost half (48%) of the summer graduates, larger than their representation of 27% in the summer school enrollment population. The large numbers of students who graduated after summer indicated the summer regional high school program provided a graduation opportunity for some students.

In addition, the number of students who dropped out immediately after summer school has decreased, from 241 in 2011 to 59 in 2013. Across three years, 448 students who took summer courses in regional high schools dropped out of school immediately after summer school. Among them, 61% were males and 39% were females. Hispanic/Latino students and students eligible for FARMS were overrepresented among the students who dropped out compared with their proportions among enrolled students. Most students who dropped out took English or mathematics courses, consistent with overall program enrollment, in which English and mathematics courses had the largest numbers of students in the summer school program. The number of students who dropped out immediately after summer school demonstrated that additional help beyond summer school might be necessary for some struggling students.

Students' Experiences in Summer School

In Session 1 of the 2013 Regional High School Summer School Program, 1,627 of 1,850 students (88%) responded to the student survey. Over one third of the respondents were Hispanic/Latino (38%) and one fourth of them were Black or African American (25%). Nearly half of the students indicated they had taken a summer school course before (42%), and the two reasons given most frequently for taking a summer course were to take a course failed previously (48%) or to take a course they needed for graduation (44%).

Students were positive in their perceptions of all areas of the summer school program. Two thirds of respondents said they would recommend summer school to other students (66%). About 88% of students indicated that summer school registration was easy and over three fourths said they received help from their school counselor to select their summer course (79%), and the school office staff helped refer them to the right resources (78%) or provided them timely assistance (75%). A majority of student respondents (92%) agreed or strongly agreed that their teacher was well prepared for the summer course; they also said their teacher helped them to succeed (89%) and cared about their success (89%).

Overall, 91% of student respondents agreed or strongly agreed that success in this summer course was important for them to achieve their future goals, and 89% indicated that this summer course met their needs. They also indicated they felt safe (83%) and the pace of instruction was right (81%). A smaller percentage of students agreed or strongly agreed that the location (67%) and start time (66%) in summer school was convenient for them and that the activities in their summer course were engaging (66%). However, about one third did not agree that the summer course was engaging (34%), and more than half of the survey respondents disagreed (59%) that their summer course was challenging for them.

Teachers' Experiences in Summer School

During Session 1 of the 2013 Regional High School Summer School Program, 75 teachers from 4 regional high school sites responded to the teacher's survey, representing a 70% response rate. The responding teachers were an experienced group; over 70% had been teaching in MCPS for six years or more, and a similar percentage had taught summer school previously (71%). About two thirds of the respondents taught mathematics (33%) or English (32%).

Teachers were positive in their perceptions of all areas of the summer school program. About 96% of the responding teachers rated their summer school experience as "excellent" or "good," 85% of the respondents agreed that summer school meets the needs of students, and 96% of respondents agreed that it is a good way for students to make up credit for a course previously failed. Most of them agreed that the enrollment process, start time, location, and weeks in the session work well. The issues that generated the most negative responses among the teachers were about students' tardiness and attendance. Nearly half of the responding teachers agreed that tardiness is a problem (47%) and that attendance is a problem (45%).

The largest percentage of survey respondents agreed the potential ways to improve the summer school program included: 1) enforcing attendance requirements, 2) improving the summer school teacher pay system, and 3) rotating regional summer school sites every year.

The overall teacher experience was positive in the 2013 Regional High School Summer School Program. However, student absence and tardiness were serious issues.

Recommendations

The following recommendations are proposed based on the results of the study:

1. Enforce policies for student attendance and on-time arrival.
2. Examine the summer school teacher pay system.
3. Provide transparency in the hiring process for the summer program and notify teachers as soon as possible.
4. Continue to rotate summer regional school sites every year within each cluster.
5. Ensure that additional support is provided to struggling students or students at risk of failing a summer course.
6. Ensure activities and lessons are provided to engage and challenge students in summer courses.

Supporting Students Through Participation in the 2013 Regional High School Summer School Program

Huafang Zhao, Ph. D.; Trisha A. McGaughey, M.Ed.;
and Julie Wade, M.S.

Background

At the request of the former deputy superintendent of schools and the chief operating officer, the Office of Shared Accountability (OSA) in Montgomery County Public Schools (MCPS) conducted a study of the MCPS Regional High School Summer School Program. Academic intervention programs (AIPs) in MCPS, including the Regional High School Summer School Program, aim to help students gain lost credits and earn credits needed for graduation. The intent of this study was to: 1) examine how students in the summer regional high schools performed from 2011 to 2013, and 2) examine perspectives of staff and students in the 2013 Regional High School Summer School Program. The results may be used to identify areas for improving support to students in the summer programs.

Literature Review

Students who enter high school with poor academic skills are more likely to drop out of school. As documented in the literature, dropping out of high school is related to a number of negative outcomes such as low income, poor health, high unemployment, high reliance on welfare, and high rates of criminal activity (Levin & Belfield, 2007). Even among students who do graduate from high school, inadequate academic skills may force them to take remedial courses in college or pursue unsatisfying careers.

For many, the high school years provide a last chance to build sufficient academic skills for postsecondary success (Biancarosa & Snow, 2006; Joftus, 2002). AIPs may provide an opportunity for struggling students to gain the skills they need to achieve success in high school.

AIPs are found in the literature in five categories: accelerated learning, extended learning time, personalized learning environment, dropout prevention and recovery, and incorporation of literacy instruction into the curriculum (Chait, Muller, Goldware, & Housman, 2007; Carver & Lewis, 2011). The Regional High School Summer School Program in MCPS fits the categories of extended learning time and dropout prevention and recovery.

Extended Learning Time

Extended learning time programs provide additional instruction time to at-risk students for personal and academic improvement. Such programs include summer school, after-school programs, and other preparatory courses. Some studies find that extended learning time is associated with increased academic achievement and attendance (Council of Chief State School

Officers, 2006; American Youth Policy Forum, 2006; Silva, 2007). Extended learning time programs take place outside of the regular school day schedule to help students improve their academic skills in areas that the regular class does not have time to address. The programs may be provided by schools or community organizations to reach disengaged students. Extended learning programs can improve academic achievement only when the programs provide high quality instruction and engage students in the learning process (Chait et al., 2007). Because high school exit exams are common, academic areas required for graduation, such as reading, mathematics, social studies, and science are often the first areas to be addressed for academic intervention. The MCPS Regional High School Summer School Program is an example of an extended learning time program.

Dropout Prevention and Recovery

MCPS summer school also serves as a dropout prevention and recovery program. Dropout prevention and recovery programs target students most at risk or who have already fallen behind or disengaged from school. The existing research has not provided conclusive evidence about the effectiveness of dropout prevention programs. A literature review on academic interventions found very little rigorous evidence that they help to raise high school graduation rates (Levin & Belfield, 2007). Similarly, little research, or even reports of numbers of courses and students, have been produced about credit recovery programs. Part of the reason so little information has been reported about credit recovery programs is that there is little federal oversight, and states typically do not report district- and school-level course offerings and participation (McCabe & St. Andrie, 2012). However, in a survey of students who had left school before graduation (Bridgeland, Dilulio, & Morison, 2006), a large majority of the former students indicated that they might have been able to stay in school if more support and opportunities for catching up had been available. Of the survey participants, 70% believed that more or additional opportunities at school, such as after-school tutoring, Saturday school, summer school, and extra help from teachers, would have helped them stay in school (Bridgeland, et al., 2006). More than a third of the students (35%) reported that one of the reasons for dropping out was that they were failing in school.

Program Description

High School Summer Program

The High School Summer Program (HSSP) consists of both regional and local programs and is open to all resident MC students whether enrolled in an MCPS school or not. Non-MCPS students are enrolled on a first-come, first-served basis. The HSSP is intended to serve students who are presently enrolled in Grades 9–12; however, students who have completed Grades 7 and 8 may take a credit course with the recommendation of their home school principal (or designee) and the approval of their receiving high school's principal (or designee) (MCPS, 2012).

There are two sessions for the summer school program. Summer school classes are filled on a first-come, first-served basis. Students may take summer courses for original credit or for a

better grade. Students who failed a course may retake the course(s) in the summer. Some high schools may offer their local summer programs based on student needs. The focus of this study is the Regional High School Summer School Program.

In the summer of 2013, Session 1 was held from June 24 to July 12, and Session 2 from July 16 to August 2. Classes were held from 8:10 a.m. to 1:00 p.m. at four sites: John F. Kennedy (Kennedy), Rockville, Seneca Valley, and Springbrook high schools.

Evaluation Design

A multi-method research design was used for the evaluation, including both summative and formative components. The summative evaluation is to examine whether the Regional High School Summer School Program meets the program goals. The formative evaluation is designed to collect data to reflect perspectives of staff and students and to identify areas for improvement. The multi-method design may complement and triangulate the evaluation results.

The evaluation study is guided by the following questions:

1. Who took summer school courses (2011–2013)?
2. How many students passed their summer courses with a grade of D or higher (2011–2013)?
3. How many students passed their summer courses with a grade of B or higher (2011–2013)?
4. How many summer school students who took Algebra I, Biology, and English 10 passed the corresponding HSA in the October administration immediately after summer school (2011–2013)?
5. How many 2013 summer school students graduated immediately after summer school?
6. How many 2013 summer school students dropped out by the fall following summer school enrollment?
7. What was the students' experience in Session 1 of the 2013 Regional High School Summer School Program?
8. What was the teachers' experience in Session 1 of the 2013 Regional High School Summer School Program?

Summative Evaluation

The summative evaluation examined whether the Regional High School Summer School Program was successful in meeting its goals, including student course completion, passing HSAs, dropping out, and graduation. Summer school participation and student performance were examined via several outcome measures as described below.

Measures for Summative Evaluation

Outcome measures included summer course grades, passing HSAs, and high school graduation and dropout rates. A description of the measures is listed below.

Course grade. Course grades in summer school were used as outcome measures in this evaluation. A student may pass a course by earning a grade of D or higher. The percentage of students who passed their course(s) with a grade of D or higher were described first, followed by those who obtained a course grade of B or higher.

HSA. All students who entered Grade 9 in fall 2005 and later, were expected to meet the HSA graduation requirement by passing all three HSA tests (Algebra I, Biology, and English 10), or earning a combined score of 1208 or higher on the three HSAs, or completing the required Bridge Plan projects (Maryland State Department of Education [MSDE], 2011 & 2012). Since scale scores are not comparable across subjects in regular HSA, Modified HSA, and Alternate HSA, October HSA passing rates were used as outcome measures. October HSA results were examined for students who took the HSA related courses and the October HSA tests after the summer.

Graduation. Maryland students may graduate with a high school diploma or with a high school certificate. Students who are admitted to college through early admission also are counted as graduates. Graduation rate is usually calculated based on each graduating class. For summer school graduates, the student's graduating class was not available. As a result, it was not possible to calculate graduation rates for the summer school students, but the number of students who graduated immediately after summer school (by the end of August) was used as an outcome measure. Characteristics of graduates were described in the study.

Dropout. The number of summer school students who dropped out of school by the end of August was used as an outcome measure. Their characteristics were also described.

Analytical Samples for Summative Evaluation

Summer school outcome analytical sample. The summer school outcome analytical sample included all students who enrolled in Sessions 1 and 2 in the Regional High School Summer School Program in 2011, 2012, and 2013. The file was obtained from MCPS summer school databases. A student grade level was obtained from June enrollment each year. If students were new to MCPS, their grade levels were based on their summer school registration form.

Data Analyses

Outcome analysis. Descriptive analyses were used to report the demographic characteristics, course grades, HSA results, and graduation or dropout rates of students who attended the Regional High School Summer School Program in 2011, 2012, and 2013. The descriptive information on outcome measures were presented by reasons taking the courses, county residency, grades, and content subjects, as well as student groups.

Formative Evaluation

The data collection for the formative evaluation was conducted in 2012–2013. Data collection methods included the following:

Student survey. To answer the seventh evaluation question, students who were enrolled in Session 1 of the 2013 Regional High School Summer School Program and remained enrolled in the last week of summer school were surveyed. The surveys examined student experiences in the program. OSA staff administered a paper-and-pencil survey to students in all classes at each summer regional high school in July 2013. Level 1 ESOL classes were not surveyed because school staff determined that their English skills were not strong enough to read and respond to the survey. The student response rate was 88%.

Teacher survey. To answer the last evaluation question, teachers who taught during Session 1 in one of the four 2013 summer regional high schools were asked to complete an online survey in July 2013. The teacher survey resulted in a response rate of 70%.

Development of survey questions. The survey questions were developed by OSA in consultation with program staff based on staff interviews, previous OSA studies, and the literature. To ensure validity of the student and teacher surveys, questions (or statements) were reviewed by program staff, principals, and teachers.

Survey analysis. Descriptive information was calculated and presented for the respondent selected responses in the surveys. Wherever appropriate, similar questions were asked of students and teachers through the surveys in order to examine where perceptions about the program might differ. For open-ended items in the surveys, results were presented according to themes.

Results

Results are presented in the order of evaluation questions. Summer regional high school students and their performance are described first, followed by results from student and staff surveys.

Question 1—Who took summer school courses (2011–2013)?

As shown in Table 1, 13,292 students enrolled in summer regional high schools from 2011 to 2013. Over three years, a higher percentage of students were in Session 2 (54%) than Session 1 (46%). About 61% of the students took a course because they failed it previously, 36% took a course for original credit, and 3% repeated a course for a better grade. The majority of the students (over 99%) were MC residents. Over two thirds of the students were in Grades 9–10 (69%), 43% of the students enrolled in mathematics and 27% in English.

Table 1
Students Who Took a Summer School Course by Session, Reason, County Residency, Grade, and Content Subject From 2011–2013

	Summer 2011 (*N* = 4,555)		Summer 2012 (*N* = 4,093)		Summer 2013 (*N* = 4,644)		Three-year Total (*N* = 13,292)	
	n	%	*n*	%	*n*	%	*n*	%
Summer Session								
Session 1	2,036	44.7	1,906	46.6	2,146	46.2	6,088	45.8
Session 2	2,519	55.3	2,187	53.4	2,498	53.8	7,204	54.2
Reasons for Taking Summer Course								
Failed before	2,941	64.6	2,553	62.4	2,618	56.4	8,112	61.0
Original credit	1,489	32.7	1,420	34.7	1,905	41.0	4,814	36.2
Repeat for better grade	125	2.7	120	2.9	121	2.6	366	2.8
County Residency								
MC Resident	4,535	99.6	4,065	99.3	4,619	99.5	13,219	99.5
Not MC Resident	20	0.4	28	0.7	25	0.5	73	0.5
Grade Level								
7*	4	0.1	6	0.1	2	0.0	12	0.1
8*	173	3.8	120	2.9	176	3.8	469	3.5
9	1,396	30.6	1,404	34.3	1,781	38.4	4,581	34.5
10	1,575	34.6	1,441	35.2	1,536	33.1	4,552	34.2
11	1,121	24.6	873	21.3	900	19.4	2,894	21.8
12	286	6.3	249	6.1	249	5.4	784	5.9
Content Subject								
English	1,211	26.6	1,112	27.2	1,223	26.3	3,546	26.7
ESOL	163	3.6	195	4.8	568	12.2	926	7.0
Health Education	215	4.7	195	4.8	190	4.1	600	4.5
Foundation of Technology	138	3.0	147	3.6	138	3.0	423	3.2
Mathematics	2,026	44.5	1,821	44.5	1,848	39.8	5,695	42.8
Science	388	8.5	286	7.0	340	7.3	1,014	7.6
Social Studies	414	9.1	337	8.2	337	7.3	1,088	8.2

*Grades 7 and 8 students must seek prior approval for enrollment in the Regional High School Summer School Program.

The demographic characteristics of summer school students are shown in Table 2. Across three years, more male students (59%) enrolled in summer schools than female students (42%). Among ethnic groups, 39% were Hispanic/Latino, 31% were Black or African American, 17% were White, and 10% were Asian. About 45% of the students received FARMS services, 16% received special education, and 14% received ESOL services. About a quarter of the 1,861 ESOL students were in Level 5 (25%), and about one fifth of the students were in each of ESOL Levels 2, 3, and 4 (22%, 20%, and 21%, respectively).

Table 2
Students Who Enrolled in Summer Regional High Schools by Student Group From 2011–2013

	Summer 2011 (*N* = 4,555)		Summer 2012 (*N* = 4,093)		Summer 2013 (*N* = 4,644)		Three-year Total (*N* = 13,292)	
	n	%	*n*	%	*n*	%	*n*	%
Gender								
Female	1,910	41.9	1,671	40.8	1,935	41.7	5,516	41.5
Male	2,645	58.1	2,422	59.2	2,709	58.3	7,776	58.5
Race/Ethnicity								
American Indian or Alaskan Native	10	0.2	9	0.2	13	0.3	32	0.2
Asian	447	9.8	439	10.7	479	10.3	1,365	10.3
Black or African American	1,474	32.4	1,258	30.7	1,418	30.5	4,150	31.2
Hispanic/Latino	1,634	35.9	1,594	38.9	1,933	41.6	5,161	38.8
Native Hawaiian or Other Pacific Islander	4	0.1	4	0.1	2	0.0	10	0.1
White	849	18.6	686	16.8	675	14.5	2,210	16.6
Two or More Races	137	3.0	103	2.5	124	2.7	364	2.7
Free and Reduced-price Meals System (FARMS)								
FARMS	1,842	40.4	1,785	43.6	2,292	49.4	5,919	44.5
No FARMS	2,713	59.6	2,308	56.4	2,352	50.6	7,373	55.5
Special Education (SPED)								
SPED	739	16.2	685	16.7	701	15.1	2,125	16.0
No SPED	3,816	83.8	3,408	83.3	3,943	84.9	11,167	84.0
English for Speakers of Other Languages (ESOL)								
ESOL	458	10.1	527	12.9	876	18.9	1,861	14.0
No ESOL	4,097	89.9	3,566	87.1	3,768	81.1	11,431	86.0
ESOL Level								
1	23	5.0	11	2.1	70	8.0	104	5.6
2	76	16.6	81	15.4	258	29.5	415	22.3
3	99	21.6	88	16.7	187	21.3	374	20.1
4	103	22.5	127	24.1	165	18.8	395	21.2
5	146	31.9	166	31.5	144	16.4	456	24.5
10*	11	2.4	54	10.2	52	5.9	117	6.3

*Level 10 students include those who did not meet the ESOL exit criteria but did not receive ESOL services at their parents' request. MSDE regards Level 10 as ESOL.

It is important to note that FARMS students increased from 40% in 2011 to 49% in 2013. During the same time period, ESOL students also increased from 10% to 19% in summer school program.

Courses offered in regional high school summer schools from 2011 to 2013 may be found in Appendix A. In these three years, the largest number of students took Geometry B (*n* = 1,178), followed by Algebra 1B (*n* = 903).

Question 2—How many students passed their summer courses with a grade of D or higher (2011–2013)?

If a student earns a final course grade of D or higher, they have passed the course. Table 3 shows that across three years, about 90% of 13,292 students who took courses in summer regional high schools passed their courses. Students who failed the course previously had a lower passing rate (87%) compared to their counterparts who took the course for original credit (93%) or a better grade (94%). Students with MC residency had a higher course passing rate (90%) compared to non-residency students (77%). Students in Grades 7 and 8 had the highest course passing rates (100% and 95%, respectively) compared to students in other grades. Among all content subjects, students who took mathematics courses had the lowest passing rate (87%), while those who took health education had the highest passing rate (99%).

Table 3
Students From 2011–2013 Who Passed their Summer School Courses With a Grade of D or Higher by Session, Reason, County Residency, Grade Level and Content Subject

	Three-year Total (N = 13,292)		
	N	*n* Passed	% Passed
Total	13,292	11,932	89.8
Summer Session			
Session 1	6,088	5,519	90.7
Session 2	7,204	6,413	89.0
Reasons for Taking Summer Course			
Failed before	8,112	7,092	87.4
Original credit	4,814	4,496	93.4
Repeat for better grade	366	344	94.0
County Residency			
MC Resident	13,219	11,876	89.8
Not MC Resident	73	56	76.7
Grade Level			
7*	12	12	100.0
8*	469	446	95.1
9	4,581	4,001	87.3
10	4,552	4,119	90.5
11	2,894	2,650	91.6
12	784	704	89.8
Content Subject			
English	3,546	3,181	89.7
ESOL	926	857	92.5
Health Education	600	591	98.5
Foundation of Technology	423	407	96.2
Mathematics	5,695	4,972	87.3
Science	1,014	915	90.2
Social Studies	1,088	1,009	92.7

*Grades 7 and 8 students must seek prior approval for enrollment in the Regional High School Summer School Program.

The summer course passing rate with a grade of D or higher was 88% in 2011, and 91% in 2012 and 2013. For passing rates of subgroups of students by each year from 2011–2013, see Tables A2 and A3 in Appendix A.

As shown in Table 4, male students had a slightly lower course passing rate (89%) than female students (92%) across three years. Hispanic/Latino and Black or African American students had a lower course passing rate (88%) than their White (93%) and Asian (95%) counterparts. FARMS and special education students had lower course passing rates (88% and 83%, respectively) than their peers who did not receive these services (92% and 91%, respectively). The course passing rates among ESOL students ranged from 88% for ESOL Level 10 to 93% for Level 4 students.

Table 4
Students From 2011–2013 Who Passed their Summer School Courses with a Grade of D or Higher by Student Group

	Three-year Total (N = 13,292)		
	N	n Passed	% Passed
Total	13,292	11,932	89.8
Gender			
Female	5,516	5,047	91.5
Male	7,776	6,885	88.5
Race/Ethnicity			
American Indian or Alaskan Native	32	30	93.7
Asian	1,365	1,302	95.4
Black or African American	4,150	3,657	88.1
Hispanic/Latino	5,161	4,555	88.3
Native Hawaiian or Other Pacific Islander	10	9	90.0
White	2,210	2,048	92.7
Two or More Races	364	331	90.9
Free and Reduced-price Meals System (FARMS)			
FARMS	5,919	5,185	87.6
No FARMS	7,373	6,747	91.5
Special Education (SPED)			
SPED	2,125	1,768	83.2
No SPED	11,167	10,164	91.0
English for Speakers of Other Languages (ESOL)			
ESOL	1,861	1,695	91.1
No ESOL	11,431	10,237	89.6
ESOL Level			
1	104	96	92.3
2	415	378	91.1
3	374	332	88.8
4	395	367	92.9
5	456	419	91.9
10*	117	103	88.0

*Level 10 students include those who did not meet the ESOL exit criteria but did not receive ESOL services at their parents' request. MSDE regards Level 10 as ESOL.

Question 3—How many students passed their summer courses with a grade of B or higher (2011–2013)?

To gain a more complete understanding of student performance in summer school, it is not only necessary to examine the course passing rate for students obtaining a grade of D or higher, but it is also important to examine a higher level of student performance for students who obtain a course grade of B or higher.

Table 5
Students From 2011–2013 Who Obtained a Grade of B or Higher in Their Summer School Courses by Session, Reason, County Residency, Grade Level and Content Subject

	Three-year Total (N = 13,292)		
	N	n B or Higher	% B or Higher
Total	13,292	6,040	45.4
Summer Session			
Session 1	6,088	2,925	48.0
Session 2	7,204	3,115	43.2
Reasons for Taking Summer Course			
Failed before	8,112	2,575	31.7
Original credit	4,814	3,217	66.8
Repeat for better grade	366	248	67.8
County Residency			
MC Resident	13,219	6,003	45.4
Not MC Resident	73	37	50.7
Grade Level			
7*	12	8	66.7
8*	469	340	72.5
9	4,581	2,112	46.1
10	4,552	1,921	42.2
11	2,894	1,365	47.2
12	784	294	37.5
Content Subject			
English	3,546	1,552	43.8
ESOL	926	686	74.1
Health Education	600	555	92.5
Foundation of Technology	423	305	72.1
Mathematics	5,695	1,989	34.9
Science	1,014	356	35.1
Social Studies	1,088	597	54.9

*Grades 7 and 8 students must seek prior approval for enrollment in the Regional High School Summer School Program.

Across three summers, a higher percentage of students in Session 1 (48%) obtained a course grade of B or higher than those in Session 2 (43%) as shown in Table 5. Among students who took a course because they failed previously, 32% passed the course with a grade of B or higher, compared to 67% for students who took the course for original credit and 68% for those who took the course for a better grade. Among all grade levels, Grade 8 students had the highest percentage with a grade of B or higher (73%), while Grade 12 students had the lowest

percentage (38%). Across content subjects, students who took health education had the highest percentage with a grade of B or higher (93%), while those who took mathematics and science had the lowest percentage (35%).

As shown in Table 6, male students had a lower passing rate (41%) than female students (52%) across three years. Black or African American (38%) and Hispanic/Latino (39%) students had a lower course passing rate than White (58%) or Asian (72%) students. FARMS and special education students had lower course passing rates (38% and 23%, respectively) than their peers who did not receive these services (51% and 50%, respectively).

Table 6
Students From 2011–2013 Who Obtained a Course Grade of B or Higher in Their Summer School Courses by Student Group

	Three-year Total (N = 13,292)		
	N	n B or higher	% B or higher
Total	13,292	6,040	45.4
Gender			
Female	5,516	2,890	52.4
Male	7,776	3,150	40.5
Race/Ethnicity			
American Indian or Alaskan Native	32	20	62.5
Asian	1,365	979	71.7
Black or African American	4,150	1,557	37.5
Hispanic/Latino	5,161	2,011	39.0
Hawaiian or Other Pacific Islander	10	6	60.0
White	2,210	1,281	58.0
Two or More Races	364	186	51.1
Free and Reduced-price Meals System (FARMS)			
FARMS	5,919	2,270	38.4
No FARMS	7,373	3,770	51.1
Special Education (SPED)			
SPED	2,125	491	23.1
No SPED	11,167	5,549	49.7
English for Speakers of Other Languages (ESOL)			
ESOL	1,861	1,104	59.3
No ESOL	11,431	4,936	43.2
ESOL Level			
1	104	76	73.1
2	415	296	71.3
3	374	233	62.3
4	395	238	60.3
5	456	228	50.0
10*	117	33	28.2

*Level 10 students include those who did not meet the ESOL exit criteria but did not receive ESOL services at their parents' request. MSDE regards Level 10 as ESOL.

As seen in Table 6, for students receiving ESOL services, the Level 1 students had the highest percentage (73%) of students with a grade of B or higher, while Level 5 students had the lowest percentage (50%). For students who did not meet the ESOL exit criteria but did not receive ESOL services due to the parents' request (Level 10), the percentage with a grade of B or higher

was 28%. For more information on students who obtained a course grade of B or higher by each year of 2011–2013, see Tables A4 and A5 in Appendix A.

Question 4—How many summer school students who took Algebra I, Biology, and English 10 passed the corresponding HSA in the October administration immediately after summer school (2011–2013)?

Not every summer school student needs to take an HSA test in October after taking summer courses so it is not appropriate to calculate an HSA participation rate based on summer enrollees. Table 7 shows the students who took summer Algebra I, Biology, and English 10 courses; took the corresponding HSA administered in October; and passed it. For instance, 509 students took Algebra I in summer regional high schools in 2011. Among them, 90 students took the October HSA Algebra I test and 23% passed the test. Across three years, 1,412 students took Algebra I in the summer. Among them, 227 students took the HSA Algebra I test in October and 24% passed. From 2011 to 2013, 441 students took biology, 85 students took the HSA Biology test and 40% passed. The passing rate across 2011–2013 for the 52 students who took the English 10 HSA was 33%.

Table 7
Students Who Took Summer Courses and Passed Related HSA Tests in October Administration after Summer School by Content (2011–2013)

	Summer 2011			Summer 2012			Summer 2012			Three-year Total (2011–2013)		
	Took course *N*	Took HSA *n*	Passed HSA %	Took course *N*	Took HSA *n*	Passed HSA %	Took course *N*	Took HSA *n*	Pass HSA %	Took course *N*	Took HSA *n*	Passed HSA %
Algebra I	509	90	23.3	414	70	27.1	489	67	22.4	1,412	227	24.2
Biology	159	27	40.7	109	23	47.8	173	35	34.3	441	85	40.0
English 10	312	24	48.0	353	15	27.3	371	13	24.5	1,036	52	32.9

Question 5—How many 2013 summer school students graduated immediately after summer school?

There were 693 students who took courses in summer regional high school and graduated immediately after summer school from 2011 to 2013 (Table 8). Among the 693 students who graduated, 53% were males and 47% were females, compared to the summer high school enrollment percentage for the same three year period of 59% and 42%, respectively (Table 2). Proportionately the racial/ethnic subgroups among the 2011–2013 students who graduated were similar to those who enrolled to take a summer school course. Most of them were either Hispanic/Latino students (41%) or Black or African American students (29%). The majority of the 693 students did not receive FARMS (62%), special education (89%) and ESOL services (93%). Students who registered in English courses made up 48% of the summer graduates, followed by students in mathematics courses (30%). The number of students who graduated immediately after summer school increased slightly from 226 in 2011 to 233 in 2013.

Table 8
Summer School Students Who Graduated
Immediately after Summer School (2011–2013)

	Summer 2011 (*N* = 226)		Summer 2012 (*N* = 234)		Summer 2013 (*N* = 233)		Three-year Total (*N* = 693)	
	n	% Graduated	*n*	% Graduated	*n*	% Graduated	*n*	% Graduated
Gender								
Female	125	55.3	99	42.3	99	42.5	323	46.6
Male	101	44.7	135	57.7	134	57.5	370	53.4
Race/Ethnicity[a]								
Asian	12	5.3	16	6.8	18	7.7	46	6.6
Black or African American	76	33.6	67	28.6	60	25.8	203	29.3
Hispanic/Latino	81	35.8	96	41.0	104	44.6	281	40.5
Two or More Races	5	2.2	1	.4	9	3.9	15	2.2
White	52	23.0	54	23.1	42	18.0	148	21.4
Free and Reduced-price Meals System (FARMS)								
FARMS	85	37.6	93	39.7	87	37.3	265	38.2
No FARMS	141	62.4	141	60.3	146	62.7	428	61.8
Special Education (SPED)								
SPED	19	8.4	26	11.1	34	14.6	79	11.4
No SPED	207	91.6	208	88.9	199	85.4	614	88.6
English for Speakers of Other Languages (ESOL)								
ESOL	11	4.9	22	9.4	17	7.3	50	7.2
No ESOL	215	95.1	212	90.6	216	92.7	643	92.8
ESOL Level[b]								
3	2	18.2	0	0.0	0	0.0	2	4.0
4	2	18.2	3	13.6	3	17.6	8	16.0
5	7	63.6	7	31.8	11	64.7	25	50.0
10*	0	0.0	12	54.5	3	17.6	15	30.0
Content Subject								
English	122	54.0	96	41.0	112	48.1	330	47.6
ESOL	0	0.0	1	0.4	0	0.0	1	0.1
Health Education	2	0.9	4	1.7	2	0.9	8	1.2
Foundation of Technology	6	2.7	10	4.3	13	5.6	29	4.2
Mathematics	57	25.2	80	34.2	70	30.0	207	29.9
Science	22	9.7	17	7.3	21	9.0	60	8.7
Social Studies	17	7.5	26	11.1	15	6.4	58	8.4

*Level 10 ESOL students include those who did not meet exit criteria but were not receiving ESOL services at the parents' request. MSDE regards Level 10 as ESOL.
[a]There were no American Indian or Pacific Islander students who graduated immediately after summer school.
[b]There were no Level 1 or 2 students who graduated immediately after summer school.

Question 6—How many 2013 summer school students dropped out by the fall following summer school enrollment?

From 2011 to 2013, 448 students who took summer courses in regional high schools dropped out of school immediately after summer school ended based on September enrollment (Table 9). This represents 3% of the students who attended summer school over the three-year period. The number of students who dropped out immediately after summer school has decreased from 241 (5% of summer school enrollees) in 2011 to 59 (1% of summer school enrollees) in 2013.

Table 9
Summer School Students Who Dropped out of School Immediately After Summer School (2011–2013)

	Summer 2011 (*N* = 241)		Summer 2012 (*N* = 148)		Summer 2013 (*N* = 59)		Three-year Total (*N* = 448)	
	N	% Dropout	*N*	% Dropout	*N*	% Dropout	*N*	% Dropout
Gender								
Female	94	39.0	59	39.9	21	35.6	174	38.8
Male	147	61.0	89	60.1	38	64.4	274	61.2
Race/Ethnicity[a]								
Asian	7	2.9	11	7.4	6	10.2	24	5.4
Black or African American	83	34.4	47	31.8	15	25.4	145	32.4
Hispanic/Latino	114	47.3	64	43.2	25	42.4	203	45.3
White	30	12.4	22	14.9	11	18.6	63	14.1
Two or More Races	7	2.9	4	2.7	2	3.4	13	2.9
Free and Reduced-price Meals System (FARMS)								
FARMS	120	49.8	68	45.9	36	61.0	224	50.0
No FARMS	121	50.2	80	54.1	23	39.0	224	50.0
Special Education (SPED)								
SPED	26	10.8	30	20.3	10	16.9	66	14.7
No SPED	215	89.2	118	79.7	49	83.1	382	85.3
English for Speakers of Other Languages (ESOL)								
ESOL	16	6.6	21	14.2	9	15.3	46	10.3
No ESOL	225	93.4	127	85.8	50	84.7	402	89.7
ESOL Level								
1	3	18.8	0	0.0	0	0.0	3	6.5
2	2	12.5	2	9.5	1	11.1	5	10.9
3	5	31.3	3	14.3	1	11.1	9	19.6
4	2	12.5	4	19.0	1	11.1	7	15.2
5	2	12.5	9	42.9	5	55.6	16	34.8
10*	2	12.5	3	14.3	1	11.1	6	13.0
Content Subject								
English	105	43.6	58	39.2	26	44.1	189	42.2
ESOL	5	2.1	3	2.0	1	1.7	9	2.0
Health Education	2	0.8	2	1.4	1	1.7	5	1.1
Foundation of Technology	9	3.7	7	4.7	4	6.8	20	4.5
Mathematics	88	36.5	57	38.5	15	25.4	160	35.7
Science	11	4.6	7	4.7	9	15.3	27	6.0
Social Studies	21	8.7	14	9.5	3	5.1	38	8.5

*Level 10 ESOL students include those who did not meet exit criteria but were not receiving ESOL services at the parents' request. MSDE regards Level 10 as ESOL.
[a]There were no American Indian or Alaskan Native or Hawaiian or Other Pacific Islander students who dropped out of school immediately after summer school.

Among the students who dropped out immediately after summer school (Table 9), 61% were male and 39% were female, similar to their representation in the summer school enrollment (see Table 2). About 45% of them were Hispanic/Latino, a higher proportion than reflected in the summer school enrollment (39%); other race groups were represented in the same proportion as the overall enrollment. Of the 448 who dropped out, the students receiving FARMS services (50%) represented a slightly higher proportion than reflected in the overall enrollment (45%).

Only 10% of the students who dropped out were ESOL students, proportionally fewer than represented in the summer school population (14%). Students who registered in English courses made up 42% of the dropouts, followed by students in mathematics courses (36%).

Question 7—What was the students' experience in Session 1 of the 2013 Regional High School Summer School Program?

Students' experience was based on a student survey administered during the last week of Session 1 of the 2013 Regional High School Summer School Program (July 8–July 11, 2013).

Survey participants. During the first week of Session 1 of 2013 summer school, 2,182[1] students were enrolled in four regional high schools: Kennedy, Rockville, Seneca Valley, and Springbrook. At the advice of the summer school ESOL teachers, students with limited English skills who were enrolled in ESOL Lab A, ESOL Level 1A, and ESOL Level 2A were excluded from the survey sample.

After the exclusion of 332 ESOL students from the survey sample, 1,850 students remained to take the student survey. Of those students, 1,627 (88%) responded to the student survey. Table 10 shows the response rates of students in each of the summer school sites as well as overall.

Table 10
Students Who Responded to the 2013 Session 1
Summer School Survey by Site

Summer School Site	Students Enrolled[a] *N*	Students Responding *n*	Response Rate %	Percent from Site in Survey Sample %
All sites	1,850	1,627	87.9	
Rockville HS	563	499	88.6	30.7
Seneca Valley HS	527	456	86.5	28.0
Kennedy HS	499	438	87.8	26.9
Springbrook HS	261	234	89.7	14.4

[a]Number enrolled does not include ESOL students with limited English language skills.

Table 10 also describes students who responded to the survey by summer school site. Students who responded to the survey were enrolled in a summer school course at Rockville (*n* = 499, 31%), Seneca Valley (*n* = 456, 28%), Kennedy (*n* = 438, 27%), or Springbrook (*n* = 234, 14%).

Characteristics of survey respondents. About a third of student survey respondents indicated they were in Grade 11 (*n* = 524 of 1,545, 34%) and another third were in Grade 12 (*n* = 500 of 1,545; 32%) as shown in Table 11. The largest percentages of respondents were Hispanic/Latino (*n* = 572 of 1,512; 38%) and Black or African American (*n* = 374 of 1,512; 25%). Nearly half (*n* = 636 of 1,518; 42%) responded they had taken a summer school course before. The course subject most respondents were taking was mathematics (*n* = 654 of 1,627; 40%).

[1] The number of students enrolled is based on enrollment data for the first week of Session 1 of 2013 summer school because student surveys had to be counted and organized for distribution.

Table 11
Characteristics of Students Who Responded to the 2013 Session 1 Summer School Survey by Grade and Ethnicity

Characteristics	Respondents (N = 1,627) n	%
Grade (N = 1,545)		
7 and 8*	7	0.5
9	96	6.2
10	418	27.1
11	524	33.9
12	500	32.4
Race/Ethnicity (N = 1,512)		
American Indian or Alaskan Native	12	0.8
Asian	145	9.6
Black or African American	374	24.7
Hispanic/Latino	572	37.8
White	219	14.5
Two or More Races	101	6.7
Other	89	5.9
Took Summer School class previously (N = 1,518)		
Yes	636	41.9
Subject (N = 1,627)		
Mathematics	654	40.2
English	497	30.5
Technology or Health	162	10.0
Social Studies	160	9.8
Science	154	9.5

*Grades 7 and 8 students must seek prior approval for enrollment in the Regional High School Summer School Program.

Reasons for attending summer school. Students were provided responses in the survey and asked to select all reasons that applied to their decision to take a summer course. The largest percentage of respondents stated that they had previously failed a course (n = 776, 48%) or it was a course they needed to graduate from high school (n = 714, 44%). Table 12 contains all reasons students could choose.

Table 12
Reasons for Taking Summer Courses by Student Survey Respondents in Session 1 of the 2013 Regional High School Summer School Program (N = 1,627)

Reason	n	%
I am taking the course I previously failed.	776	47.7
I need the course to graduate from high school.	714	43.9
I am taking the course so I don't have to take it during the school year.	498	30.6
My parents want me to take the course.	244	15.0
I am taking the course to graduate early.	169	10.4
The course schedule is convenient for me.	131	8.1

Note. Respondents could choose all responses that applied so percentage may add to more than 100.

Although virtually all regional high school summer courses are needed by students to graduate from high school, of the students who selected the response "I need the course to graduate from high school," 525 were in Grades 11 or 12. This leads to the assumption that students in earlier grades don't think of their summer school course in terms of need for graduation.

Student perceptions of their summer school experience. Students were asked a series of questions about their experiences in the summer regional high school program and their perceptions of the program's benefits. The responding students were positive in their perceptions of most areas of the summer school program. To help with the examination and discussion of the students' responses to the questions, the survey items have been organized into "Registration and scheduling" (Table 13a), "Teacher support" (Table 13b), and "Overall experience" (Table 13c). The survey did not organize the questions in the same categories as the following results.

Student perceptions of their summer school experience: Registration and scheduling. A majority of student survey respondents indicated they agreed or strongly agreed that summer school registration was easy (*n* = 1,407 of 1,606; 88%) and that the location (*n* = 1,068 of 1,595; 67%) and start time (*n* = 1,055 of 1,597; 66%) in summer school was convenient for them (Table 13a). They also indicated they received help from their school counselor in selecting their summer course (*n* = 1,271 of 1,610; 79%) and that the school office staff helped refer them to the right resources (*n* = 1,245 of 1,587; 78%) or provided them timely assistance when needed (*n* = 1,182 of 1,585; 75%).

Table 13a
Student Perceptions about Registration and Scheduling (*N* = 1,627)

	Strongly Agree		Agree		Disagree		Strongly Disagree	
Experience	*n*	%	*n*	%	*n*	%	*n*	%
The summer school registration was easy for me. (*N* = 1,606)	496	30.9	911	56.7	149	9.3	50	3.1
I received help from my high school counselor to select this summer course. (*N* = 1,610)	629	39.1	642	39.9	207	12.9	132	8.2
The school office staff refers me to the right resources if I need help. (*N* = 1,587)	263	16.6	982	61.9	253	15.9	89	5.6
The school office staff provides timely assistance when needed. (*N* = 1,585)	228	14.4	954	60.2	309	19.5	94	5.9
The location of this summer school is convenient for me. (*N* = 1,595)	401	25.1	667	41.8	314	19.7	213	13.4
The summer course start time is convenient for me. (*N* = 1,597)	279	17.5	776	48.6	335	21.0	207	13.0

Student perceptions of their summer school experience: Teacher support. Nearly all student respondents (*n* = 1,471 of 1,605; 92%) agreed or strongly agreed that their teacher was well prepared for the course (Table 13b). A majority of survey respondents (89%) also indicated that their teacher helped them to succeed (*n* = 1,438 of 1,614) and cared about their success in the summer course (*n* = 1,436 of 1,615). In addition, respondents reported that they agreed or strongly agreed that:

- They felt comfortable asking for help in their course (*n* = 1,404 of 1,609; 87%).

- The teacher made the course easy to understand (*n* = 1,401 of 1,611; 87%).
- The teacher made the course interesting (*n* = 1,253 of 1,607; 78%).

Table 13b
Student Perceptions about Teacher Support (*N* = 1,627)

Experience	Strongly Agree		Agree		Disagree		Strongly Disagree	
	n	%	*n*	%	*n*	%	*n*	%
The teacher is well prepared for the course. (*N* = 1,605)	762	47.5	709	44.2	92	5.7	42	2.6
The teacher helps me succeed in this summer course. (*N* = 1,614)	672	41.6	766	47.5	125	7.7	51	3.2
The teacher cares about my success in this summer course. (*N* = 1,615)	660	40.9	776	48.0	114	7.1	65	4.0
I feel comfortable asking for help in this summer course. (*N* = 1,609)	522	32.4	882	54.8	157	9.8	48	3.0
The teacher makes the course easy to understand. (*N* = 1,611)	690	42.8	711	44.1	150	9.3	60	3.7
The teacher makes the course interesting. (*N* = 1,607)	579	36.0	674	41.9	257	16.0	97	6.0

Student perceptions of their summer school experience: Overall experience. Of the student survey respondents, 91% (*n* = 1,466 of 1,612) agreed or strongly agreed that success in this summer course was important for them to achieve their future goals and 89% (*n* = 1,421 of 1,599) indicated that this summer course met their needs (Table 13c). Student respondents also shared they agreed or strongly agreed with the following statements:

- I felt safe in this summer school (*n* = 1,329 of 1,605; 83%).
- The pace of instruction is right for me (*n* = 1,295 of 1,606; 81%).

Table 13c
Student Perceptions About Their Overall Experience in 2013 Summer School (*N* = 1,627)

Experience	Strongly Agree		Agree		Disagree		Strongly Disagree	
	n	%	*n*	%	*n*	%	*n*	%
Success in this summer course is important for me to achieve my future goals. (*N* = 1,612)	851	52.8	615	38.2	103	6.4	43	2.7
This summer course meets my needs. (*N* = 1,599)	507	31.7	914	57.2	138	8.6	40	2.5
I feel safe in this school. (*N* = 1,605)	397	24.7	932	58.1	180	11.2	96	6.0
The pace of instruction is right for me. (*N* = 1,606)	502	31.3	793	49.4	213	13.3	98	6.1
The activities in this summer course are engaging. (*N* = 1,598)	252	15.8	800	50.1	424	26.5	122	7.6
This summer course is challenging for me. (*N* = 1,592)	151	9.5	503	31.6	628	39.4	310	19.5

Two thirds (*n* = 1,052 of 1,598; 66%) of student respondents indicated the activities in their summer course were engaging, but 34% did not agree (Table 13C). Also, more than half of the survey respondents (*n* = 938 of 1,592; 59%) disagreed that their summer course was challenging for them.

Overall, students responding to questions about their experiences in the summer school program and their perceptions of the program's benefits were very positive. When students were asked if they would recommend summer school to other students, two thirds of them (*n* = 985 of 1,499; 66%) reported that they would (Table B1, Appendix B).

Asked to rate their overall summer school experience, 1,596 students responded with:

- 18% (*n* = 292) said "Excellent."
- 45% (*n* = 724) said "Good."
- 29% (*n* = 460) said "Average."
- 8% (*n* = 120) said "Poor or Very Poor."

At the four summer school sites, ratings of "Excellent" or "Good" ranged from 61% to 67% (Table C1, Appendix C). Students enrolled in technology or health (*n* = 126 of 161, 78%) or science (*n* = 122 of 158, 77%) rated their overall experience the highest followed by students taking courses in social studies (*n* = 101 of 149, 68%) or English (*n* = 313 of 486, 64%). Student respondents also rated the quality of their summer course (*n* = 986 of 1,592; 62%) (Table C2, Appendix C) and the presentation of their summer course content (*n* = 988 of 1,585; 62%) as excellent or good (Table C3, Appendix C).

Most student respondents rated the quality of their summer course (*n* = 986 of 1,592; 62%) as excellent or good (Appendix C2) with:

- 17% (*n* = 263) said "Excellent."
- 45% (*n* = 723) said "Good."
- 31% (*n* = 490) said "Average."
- 7% (*n* = 116) said "Poor or Very Poor."

And most student respondents also rated the presentation of their summer course content (*n* = 988 of 1,585; 62%) as excellent or good (Appendix C3) with:

- 18% (*n* = 278) said "Excellent."
- 45% (*n* = 710) said "Good."
- 31% (*n* = 485) said "Average."
- 7% (*n* = 112) said "Poor or Very Poor."

Suggestions for improvement. Students were asked to provide one or two suggestions to improve the summer school program. Of the 1,053 students who provided at least one suggestion, the most common categories of comments were:

- Improve the lunch (food offered, length of lunch time, long lunch lines) (*n* = 273, 26%).
- Change the length of class, the length of summer school day, or the length of summer school session (*n* = 200, 19%).
- Adjust length or frequency of breaks (*n* = 161, 15%).
- Change summer school start time (*n* = 123, 12%).

Further categories of students' comments on summer school improvement are shown in Appendix D.

Question 8—What was the teachers' experience in Session 1 of the 2013 Regional High School Summer School Program?

Description of Respondents

The summer school teacher survey was sent to all 107 teachers in the four regional high school sites during Session 1. Seventy-five teachers completed and returned surveys by mid-July 2013, reflecting an overall response rate of 70%. Table 14 displays the number of teachers at each summer school site and the number of responses received from each school.

Table 14
Numbers of Teachers and Survey Responses from Regional High School Summer School Sites

School site	Number of teachers *N*	Number of surveys received *n*	Survey Response rate %	Percent from Site in Survey Sample %
Kennedy HS	34	23	67.6	30.7
Rockville HS	26	20	76.9	26.7
Seneca Valley HS	32	19	59.4	25.3
Springbrook HS	15	13	86.7	17.3
Total	107	75	70.1	100.0

As shown in Table 15, most of the teachers responding to the summer program survey were teachers at other MCPS schools during the school year (*n* = 61, 81%). The responding summer program teachers were, on the whole, an experienced group: nearly half (*n* = 34, 45%) had been teaching in MCPS for more than 10 years; another 27% (*n* = 20) reported teaching 6 to 10 years in MCPS. More than half (*n* = 43, 58%) had taught in the summer program for three or more years; 37% (*n* = 27) had taught five or more years in the summer program.

The largest groups of responding teachers taught mathematics (*n* = 24, 33%) and English (*n* = 23, 32%). All of the responding teachers reported being certified in the subject they were teaching in the summer program.

Table 15
Characteristics of Teachers in 2013 Session 1 of Regional High School Summer School Program Who Responded to Survey (N = 75)

	n	%
Position prior to summer school		
Teacher in another MCPS school	61	81.3
Teacher in this school	12	16.0
Other	2	2.7
Years teaching in MCPS		
2 years or less	7	9.3
3 to 5 years	14	18.7
6 to 10 years	20	26.7
More than 10 years	34	45.3
Years teaching summer school (N = 74)		
This is my first summer	21	28.4
For two summers	10	13.5
For three to four summers	16	21.6
For five summers or more	27	36.5
Subject area taught in summer school (N = 73)		
Mathematics	24	32.9
English	23	31.5
Science	10	13.7
ESOL	6	8.2
Social Studies	6	8.2
Health, Technology	4	5.5
Professional certification		
Certified in subject taught in summer school	75	100.0

Teacher Perceptions of the Summer School Program

Teachers were asked a series of questions about their experiences in the summer school program and their perceptions of the program's benefit for students. The responding teachers were positive in their perceptions of all areas of the summer school program. To aid the examination and discussion of the teachers' responses to the large number of questions, the survey items have been organized into "Benefit for students" (Table 16a), "Collegiality" (Table 16b), and "Administrative" (Table 16c). The survey did not organize the questions in the same categories as the following results.

Teacher perceptions of the summer school program: Benefit for students. In response to questions about benefits to students, 85% (n = 63 of 74) of the responding teachers agreed that "Overall, summer school meets the needs of students." (Table 16a) An even higher percentage (n = 72 of 75, 96%) of responding teachers agreed that "Summer school is a good way for students to earn credit for a course they previously failed."

Table 16a
Teacher Perceptions About Summer School Benefit for Students (*N* = 75)

	Strongly Agree		Agree		Don't Know		Disagree		Strongly Disagree	
Benefit for students	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Overall, summer school meets the needs of students. (*N* = 74)	21	28.4	42	56.8	1	1.3	10	13.4	0	0.0
Summer school is a good way for students to earn credit for a course they previously failed.	29	38.7	43	57.3	1	1.3	2	2.7	0	0.0
Students take the course I teach seriously.	21	28.0	41	54.7	0	0.0	10	13.3	3	4.0
The course I teach has a curriculum that challenges students.	30	40.0	42	56.0	1	1.3	2	2.7	0	0.0
The expectations for students in the summer course I teach are the same as in the course during the regular school year. (*N* = 74)	29	39.2	34	45.9	1	1.3	9	12.2	1	1.3
Standards for grading the course I teach in summer school are the same as those for the course during the regular school year.	25	33.3	38	50.7	2	2.7	10	13.3	0	0.0
I am able to address the needs of individual students in the summer course I teach. (*N* = 74)	18	24.4	36	48.7	0	0.0	19	25.6	1	1.3

Teacher perceptions of the summer school program: Collegiality. The responding teachers also reported positive perceptions of the collegiality within the summer school program (Table 16b). Support among teachers appeared to be high: 88% (*n* = 66 of 75) of the respondents agreed that teachers supported each other during summer school. Almost all of the responding teachers indicated that teachers treated one another with respect during summer school (*n* = 74 of 75, 99%).

Table 16b
Teacher Perceptions About Summer School Collegiality (*N* = 75)

	Strongly Agree		Agree		Don't Know		Disagree		Strongly Disagree	
Collegiality	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Teachers support each other during summer school.	24	32.0	42	56.0	1	1.3	7	9.3	1	1.3
Teachers treat one another with respect during summer school.	41	54.7	33	44.0	0	0.0	0	0.0	1	1.3
Summer school administrators value what teachers have to say.	28	37.3	39	52.0	2	2.7	6	8.0	0	0.0
I welcome contact from parents during summer school. (*N* = 74)	35	47.3	38	51.4	0	0.0	0	0.0	1	1.3

Teacher perceptions of the summer school program: Administrative issues. Most of the administrative and institutional issues outside of direct instruction were also viewed by the responding teachers in a positive way, although concerns in some areas were noted (Table 16c). Overall, 87% (*n* = 65 of 75) of the respondents agreed that they have the support they need to teach the course, and over 90% of the respondents agreed that the start time (*n* = 74 of 74, 100%), dates (*n* = 73 of 75, 97%), and location (*n* = 70 of 75, 93%) of the summer program were convenient. However, nearly half of the respondents indicated that tardiness (*n* = 35 of 75, 47%) and student attendance (*n* = 34 of 75, 45%) are problems in the summer course they teach.

Table 16c
Teacher Perceptions About Administration of Summer School (*N* = 75)

	Strongly Agree		Agree		Don't Know		Disagree		Strongly Disagree	
Administrative	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
The enrollment process works well. (*N* = 74)	20	27.0	31	41.9	17	23.0	5	6.7	1	1.3
The start time for class is convenient for me. (*N* = 74)	44	59.4	30	40.5	0	0.0	0	0.0	0	0.0
The weeks of Session 1 classes are convenient for me.	41	54.7	32	42.7	0	0.0	2	2.7	0	0.0
The location for Session 1 is convenient for me.	48	64.0	22	29.3	0	0.0	3	4.0	2	2.7
I have the materials to teach the course.	35	46.7	23	30.7	0	0.0	11	14.7	6	8.0
I have the support I need to teach the course.	28	37.3	37	49.3	0	0.0	5	6.7	5	6.7
There is enough time to cover the course content I teach.	25	33.3	38	50.7	1	1.3	10	13.3	1	1.3
I feel summer school is safe.	39	52.0	35	46.7	0	0.0	1	1.3	0	0.0
The school administrators for this site are supportive.	39	52.0	30	40.0	0	0.0	5	6.7	1	1.3
Student discipline policies during summer school are fair. (*N* = 73)	31	42.4	33	45.2	3	4.2	6	8.1	0	0.0
Students' tardiness is a problem in the summer course I teach.	16	21.3	19	25.3	0	0.0	31	41.3	9	12.0
Student attendance is a problem in the summer course I teach.	13	17.3	21	28.0	0	0.0	29	38.7	12	16.0

Challenges. Teachers were asked, "Based on your experience, what are the biggest challenges for you as a teacher in Session 1 of Summer School?" A list of potential problems was presented, and teachers were asked to check all that apply. Table 17 shows the percentage of responding teachers who indicated the biggest challenges in summer school.

Table 17
Percentage of Teacher Survey Respondents Indicating Challenges in Summer School (*N* = 75)

Based on your experience, what are the biggest challenges for you as a teacher in Session 1 of Summer School? (Check ALL that apply.)	*n*	%
Students do not attend their classes regularly.	24	32.0
Students are not motivated to succeed.	20	26.7
There is not enough support for ESOL students.	19	25.3
It is difficult to contact parents when a student is struggling.	17	22.7
I have to use teaching time for behavior management.	14	18.7
I do not have enough time to get to know students as individuals.	11	14.7
I do not have enough time to cover the course content.	11	14.7
Students with discipline problems are not handled consistently.	8	10.7
Other: I do not have the materials I need to teach this course.	4	5.3

The challenge identified by the largest percentage of respondents was attendance; 32% (*n* = 24 of 75) of the teachers indicated that "Students do not attend their classes regularly" was a challenge in summer school. A lack of student motivation to succeed (*n* = 20 of 75, 27%), insufficient support for ESOL students (*n* = 19 of 75, 25%), and difficulty contacting parents (*n* = 17 of 75, 23%) all were identified as challenges by respondents.

Ways to improve the summer school program. Teachers were asked to indicate their agreement or disagreement with possible ways to improve the summer school program. Table 18 shows how teachers responded.

Consistent with the challenges identified by teachers, the potential improvement that the largest percentage of responding teachers (*n* = 64 of 72, 89%) endorsed was "Enforce attendance requirements for summer school." Other potential improvements that a majority of respondents agreed with were "Rotate regional summer school sites every year" (*n* = 47 of 72, 65%), "Improve the pay system for summer school teachers" (*n* = 50 of 73, 69%), and "Provide more opportunities for parent involvement during summer school" (*n* = 45 of 73, 62%). The largest percentage of respondents disagreed with the survey-provided option, "Have a later start time for class" (*n* = 64 of 73, 88% disagreed). A majority of respondents also disagreed with "Restrict summer school enrollment to MCPS students only" (*n* = 46 of 73, 63% disagreed).

Table 18
Percentage of Teacher Survey Respondents Agreeing with Potential Ways to Improve the Summer School Program (N = 75)

How could MCPS improve the summer school program?	Strongly Agree/Agree		Don't Know		Disagree/Strongly Disagree	
	n	%	*n*	%	*n*	%
Have a later start time for class. (N = 73)	9	12.3	0	0.0	64	87.6
Rotate regional summer school sites every year. (N = 72)	47	65.3	8	11.1	17	23.6
Improve the pay system for summer school teachers. (N = 73)	50	68.5	5	6.8	18	24.6
Enforce attendance requirements for summer school. (N = 72)	64	88.9	1	1.4	7	9.7
Restrict summer school enrollment to MCPS students only. (N = 73)	14	19.2	13	17.8	46	63.0
Provide more opportunities for parent involvement during summer school. (N = 73)	45	61.6	9	12.3	19	26.0

Teachers' overall experience with the summer school program. Most of the survey respondents indicated that they would like to teach again next summer. All 75 of the responding teachers answered the question, "Would you like to teach summer school again next year?" Their responses were:

- 77% (n = 58) said "Definitely would."
- 20% (n = 15) said "Probably would."
- 3% (n = 2) said "Probably would not."
- No respondents (n = 0) said "Definitely would not."

Asked to rate their summer school Session 1 experience as a teacher, 74 teachers responded in this way:

- 48% (n = 36) said "Excellent."
- 48% (n = 36) said "Good."
- 3% (n = 2) said "Fair."
- No respondents (n = 0) said "Poor."

Teachers' comments. Two survey questions invited teachers to provide comments or explanations in an open-ended format. Teachers were asked why they would or would not like to teach summer school again next year. Fifty-one teachers responded with reasons why they would teach again; Table 19 summarizes the teachers' comments.

Table 19
Reasons Shared by Summer School Teachers as to Why They Would Teach Summer School Again (N = 51)

Reasons	*n*	%
Enjoy teaching, seeing success for variety of students	21	41.2
Allows creative lessons and experimentation with strategies and assessments	14	27.5
Money earned, added income	13	25.5
Calm environment, few discipline problems, and students' good work attitude	12	23.5
Summer school scheduling (length day and sessions)	10	19.6
Working with administrators, teachers, and other staff	7	13.7
Smaller class size/group	3	5.9
Proximity to home	2	3.9
Other	8	15.7

Note. Respondents could provide more than one response so percent may add to more than 100.

The most common reasons for teaching summer school again was enjoying teaching and seeing students succeed (n = 21 of 51, 41%). Teachers expressed their satisfaction with the summer school experience in comments such as this: "What an amazing experience getting to help struggling students in a class that was a manageable size." Another teacher explained: "It is really great to be able to focus and encourage at-risk students. Summer school gives me the opportunity to do what I like best in teaching—connecting and helping students to reach their potential."

Some teachers offered responses why they would not want to teach in the summer program the following year even though they had not selected "Probably would not" for the survey question, "Would you like to teach summer school again next year?" Their reasons were:

- Need for travel, vacation, break from teaching (n = 2)
- Need rules to be enforced or for administrator to be available to help (n = 2)
- Not treated professionally (n = 2)
- Need more planning/grading time to be offered to teachers (n = 2)

Teachers also were asked to share their thoughts or suggestions for improving the summer school program. Forty teachers provided responses; their comments are summarized in Table 20.

Table 20
Additional Thoughts or Suggestions Shared by Summer School Teachers to Improve the Summer School Program (N = 40)

Suggestions	*n*	%
Clarity on how teachers are selected for the program and tell them sooner if selected or not	10	25.0
Policy for student attendance/behavior needs to be clear, shared, and enforced	8	20.0
Need materials (copying, classroom materials, lesson materials)	7	17.5
Change length of day/session/lunch/break time	6	15.0
Opportunity provided for teachers to share planning, grading, and teaching ideas	4	10.0
Program needs good administrators/security	4	10.0
Special Education students need supports and teachers need IEP provided	4	10.0
Need for availability of same technology and support as provided during school year	3	7.5
Need to maintain small class size	3	7.5
Provide teachers access to parent contact information	2	5.0
Pay teachers during the summer for holidays or at better rate	2	5.0
Other	5	12.5

Note. Respondents could provide more than one suggestion so percent may add to more than 100.

Among the responses from teachers who provided suggestions, the largest percentage was about selection and hiring for the program (*n* = 10 of 40, 25%). Teachers described the need for more clarity in the process in comments such as this: "The criteria for hiring are not clear or transparent—if it is not based on seniority in the county or prior summer school teaching, what then?" Another teacher noted that, "Teachers need to know soon if they have a job for both sessions or not, so they can plan their summer with family accordingly." The same teacher went on to say, however, that "This year is much better…than last year in terms of getting confirmation from the summer school office in a timely manner for both sessions one and two."

Conclusion

Summer School Participants

From 2011 to 2013, 13,292 students enrolled in the Regional High School Summer School Program. A majority of them (61%) took a course because they previously failed it. The majority of students (99%) were MC residents. More than two thirds of the students were enrolled in mathematics and English courses. About 70% of the students were Hispanic/Latino or Black or African American. About 45% of the students received FARMS services, 16% received special education services, and 14% received ESOL services.

Student Performance in Summer Courses

From 2011 to 2013, 90% of 13,292 students who took courses in the Regional High School Summer School Program passed their courses with a grade of D or higher. Students who failed the course previously had a lower passing rate (87%) compared to their counterparts who took

the course for original credit or a better grade (93% and 94%, respectively. For Grades 9–12 students, Grade 11 students had the highest course passing rate with a grade of D or higher compared to students in the other high school grade levels. Among all content subjects, students who took mathematics courses had the lowest passing rate (87%). Hispanic/Latino and Black or African American students (88%) had a lower course passing rate than their Asian and White counterparts (95% and 93%, respectively). FARMS students (88% vs 92%) and special education students (83% vs 91%) had lower course passing rates with a D or higher than their peers who did not receive these services.

From 2011 to 2013, among students who took a course because they failed previously, one third obtained a course grade of B or higher, compared to two thirds of students who took the course for original credit or for a better grade. Among Grades 9–12, Grade 11 students had the highest percentage with a grade of B or higher (47%), and Grade 12 students had the lowest (38%). Across content subjects, students who took mathematics and science had the lowest percentage with a grade of B or higher (35%).

The performance results for students passing a course with a D or higher or with a B or higher, shows the existence of achievement gaps among student groups by grade level, race, and services received. The achievement gap was larger among student groups with a grade of B or higher, compared to those with a grade of D or higher.

Passing HSAs in October

From 2011 to 2013, among 227 students who took Algebra I in summer school and the Algebra I HSA in October, 24% passed. Among 85 students who took Biology in summer school and the Biology HSA in October, 40% passed. The English 10 HSA passing rate was 33% for 52 tested students who took the English 10 course in summer school and the test in October. This shows that the summer school course helped some students pass the required HSA tests. However, the HSA passing rates were low overall.

Graduation and Dropout

From 2011 to 2013, 693 students who took a course in summer school graduated immediately after the summer ended. Students who took English 10 made up of almost half the graduates after summer school, larger than their representation of 27% in the summer school enrollment population. The large number of students who graduated after taking a summer course indicated the summer school program met the needs of this group of students.

From 2011 to 2013, 448 students who took summer courses in regional high schools dropped out of school immediately after summer school. Hispanic/Latino students (45%) and students eligible for FARMS (50%) were over-represented among the students who dropped out compared with their proportions among enrolled students. Most students who dropped out took English or mathematics courses, consistent with the overall program enrollment in which English and mathematics courses had the largest number of students in the summer school program. The number of students who dropped out immediately after summer school

demonstrated that additional help might be necessary for some struggling students beyond summer school.

Students' Experience

Of the 1,850 students surveyed for the 2013 summer school program, 88% responded to the student survey. Nearly half of the students indicated they had taken a summer school course before. The two reasons given most frequently by students for taking a summer course were to 1) take a course failed previously, and 2) take a course they needed for graduation.

Students were positive in their perceptions of all areas of the summer school program. Two thirds of respondents said they would recommend summer school to other students. Nearly 90% of the students indicated that summer school registration was easy, and three fourths said they received help from their school counselor to select their summer courses, the school office staff helped refer them to the right resources and provided them timely assistance. A majority of student respondents agreed or strongly agreed that their teacher was well prepared for the summer course and their teacher helped them to succeed and cared about their success.

Over 90% of student respondents agreed or strongly agreed that success in this summer course was important for them to achieve their future goals and 89% indicated that this summer course met their needs. Most of the students felt safe in school and the pace of instruction was right. More than half of students agreed or strongly agreed that the location and start time in summer school was convenient for them, and that the activities in their summer course were engaging. However, one third did not agree that the summer course was engaging and more than half of the survey respondents disagreed that their summer course was challenging for them.

Teachers' Experience

During Session 1 of 2013 summer school, 75 teachers from the four regional high school sites responded to the teacher's survey, representing a 70% response rate. The responding teachers were an experienced group; over 70% had been teaching in MCPS for six years or more, and a similar percentage had taught summer school previously (71%). About two thirds of the respondents taught mathematics (33%) or English (32%).

Teachers were positive in their perceptions of all areas of the Regional High School Summer School Program. About 96% of the responding teachers rated their summer school experience as "excellent" or "good," 85% of the respondents agreed that summer school meets the needs of students, and 96% of respondents agreed that it is a good way for students to make up credit for a course previously failed. Most of them agreed that the enrollment process, start time, location, and weeks in the session work well. The issues that generated the most negative responses among the teachers were students' tardiness and attendance. Nearly half of the responding teachers agreed that tardiness is a problem. The challenge named by the largest percentage of the responding teachers was student attendance.

The largest percentage of survey respondents agreed the potential ways to improve the Regional High School Summer School Program included: 1) enforcing attendance requirements, 2) improving the summer school teacher pay system, and 3) rotating regional summer school sites every year.

Overall, teachers' summer school experiences were positive. However, student tardiness and attendance were serious issues to address.

Recommendations

The following recommendations are proposed based on the study:

1. Enforce policies for student attendance and on-time arrival.
2. Examine the summer school teacher pay system.
3. Provide transparency in the hiring process for the summer program and notify teachers as soon as possible.
4. Continue to rotate summer regional school sites every year within each cluster.
5. Ensure that additional support is provided to struggling students or students at risk of failing a summer course.
6. Ensure activities and lessons are provided to engage and challenge students in summer courses.

Strengths and Limitations

This study has benefited from a multi-method approach. The formative evaluation examined perspectives of teachers and students in the 2013 Regional High School Summer School Program. The survey items were reviewed by the program staff, high school administrators, and teachers. The stakeholders' input improved the internal validity of the study. The relatively high response rates of the surveys have strengthened the external validity of survey findings. It should be noted that the formative study focused on teachers and students in Session 1 of the 2013 Regional High School Summer School Program. If Session 2 summer school students or teachers had been surveyed, their responses may have been different from those of Session 1 respondents.

The outcome evaluation examined three years of student performance from 2011 to 2013. The consistency of the trend across years has contributed to the generalizability of the study findings. The limitation associated with the outcome findings includes data inaccuracy for grade level in the regional summer school records. As a result, findings by grade level should be interpreted with caution.

Acknowledgment

The authors would like to thank Dr. Shahpar Modarresi, supervisor, Program Evaluation unit, for her guidance; Natalie Wolanin for constructing survey data files and reviewing the report; Kai Liu for providing outcome data; and Ruth Green for her program support and comments on the study plan, survey instruments, and the report.

References

American Youth Policy Forum (2006). *Helping youth succeed through out of school time programs,* Washington DC: Author.

Biancarosa, G., & Snow, C.E. (2006). *Reading next: A vision for action and research in middle and high school literacy. A report from Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.

Bridgeland, J.M., Dilulio, J.J., & Morison, K.B. (2006). *The Silent Epidemic: Perspectives of High School Dropouts.* A report to the Bill & Melinda Gates Foundation.

Carver, P.R., and Lewis, L. (2011). *Dropout Prevention Services and Programs in Public School Districts: 2010–11* (NCES 2011-037). U.S. Department of Education, National Center for Education Statistics. Washington, DC: Government Printing Office.

Chait, R., Muller, R.D., Goldware, S., & Housman, N.G. (2007). *Academic interventions to help students meet rigorous standards state policy options*. Washington, DC: The National High School Alliance.

Council of Chief State School Officers (2006). *Extended opportunities, a policy statement of the Council of Chief State School Officers,* Washington DC: Author.

Joftus, S. (2002). *Every child a graduate: A framework for an excellent education for all middle and high school students*. Washington, DC: Alliance for Excellent Education.

Levin, H.M., & Belfield, C.R. (2007). Educational interventions to raise high school graduation rates. In C.R. Belfield and H.M. Levin (Eds.), *The price we pay: Economic and social consequences of inadequate education* (pp. 177–199). Washington, DC: Brookings Institution Press.

Maryland State Department of Education (2011). *High school graduation requirements questions & answers,* retrieved from http://hsaexam.org/img/HS_Grad_Q_A_Summer2011.pdf.

Maryland State Department of Education (2012). *The Maryland testing requirement for graduation & the Bridge Plan for academic validation,* retrieved from http://hsaexam.org/bridge_overview_09.html.

McCabe, J., & St. Andrie, R. (2012). Credit recovery programs: Full report. Posted January 26, 2012. http://www.centerforpubliceducation.org.

Montgomery County Public Schools (2012). *2012 regional high school summer school programs.* Rockville, MD: Author. Retrieved from http://www.montgomeryschoolsmd.org/uploadedFiles/departments/extendedhours/summerschool/HS_SummerSchoolBrochure.pdf.

Silva, E. (2007). *On the clock: Rethinking the way schools use time*, Washington, DC: Education Sector.

Appendix A

Table Al
Students Enrolled in Regional High School Summer School Program
Courses Offered from 2011 to 2013

Summer Courses Offered from 2011 to 2013	*N*	*%*
ALGEBRA 1A	509	3.8
ALGEBRA 1B	903	6.8
ALGEBRA 2A	535	4.0
ALGEBRA 2B	696	5.2
BIOLOGY A	215	1.6
BIOLOGY B	226	1.7
BRIDGE TO ALG2 A	403	3.0
BRIDGE TO ALG2 B	368	2.8
CHEMISTRY A	87	0.7
CHEMISTRY B	107	0.8
EARTHSPACE SYS A	24	0.2
EARTHSPACE SYS B	23	0.2
ENGLISH 10A	467	3.5
ENGLISH 10B	569	4.3
ENGLISH 11A	512	3.9
ENGLISH 11B	498	3.7
ENGLISH 12A	175	1.3
ENGLISH 12B	306	2.3
ENGLISH 9A	478	3.6
ENGLISH 9B	541	4.1
ESOL LAB A	405	3.0
ESOL LAB B	197	1.5
ESOL LEVEL 1A	71	0.5
ESOL LEVEL 1B	44	0.3
ESOL LEVEL 2A	89	0.7
ESOL LEVEL 2B	59	0.4
ESOL LEVEL 3A	32	0.2
ESOL LEVEL 3B	24	0.2
ESOL LEVEL 4B	5	0.0
FOUND OF TECH A	205	1.5
FOUND OF TECH B	218	1.6
GEOMETRY A	697	5.2
GEOMETRY B	1178	8.9
HEALTH EDUCATION	600	4.5
HONOR GEOMETRY B	95	0.7
MATTER/ENERGY A	145	1.1
MATTER/ENERGY B	187	1.4
MOD WRLD HIST A	117	0.9
MOD WRLD HIST B	142	1.1
NSL GOVERNMENT A	183	1.4
NSL GOVERNMENT B	159	1.2
PRECALCULUS A	147	1.1
PRECALCULUS B	164	1.2
US HISTORY A	254	1.9
US HISTORY B	233	1.8
TOTAL	13,292	100.0

Table A2
Students Who Passed Their Regional High School Summer School Program
Courses with a Course Grade of D or Higher by Session, Reason, County Residency,
Grade Level and Content Subject from 2011 to 2013

	Summer 2011 (*N* = 4,555)		Summer 2012 (*N* = 4,093)		Summer 2013 (*N* = 4,644)		Three-year Total (*N* = 13,292)	
	N	% Passed	*N*	% Passed	*N*	% Passed	*N*	% Passed
Total	4,555	87.7	4,093	90.8	4,644	90.9	13,292	89.8
Summer Session								
Session 1	2,036	88.5	1,906	91.7	2,146	91.8	6,088	90.7
Session 2	2,519	87.0	2,187	90.0	2,498	90.2	7,204	89.0
Reasons for Taking Summer Course								
Failed before	2,941	85.8	2,553	88.1	2,618	88.7	8,112	87.4
Original credit	1,489	90.9	1,420	95.3	1,905	93.9	4,814	93.4
Repeat for better grade	125	93.6	120	95.8	121	92.6	366	94.0
County Residency								
MC Resident	4,535	87.9	4,065	90.8	4,619	90.9	13,219	89.8
Not MC Resident	20	40.0	28	89.3	25	92.0	73	76.7
Grade								
7*	4	100.0	6	100.0	2	100.0	12	100.0
8*	173	92.5	120	97.5	176	96.0	469	95.1
9	1,396	85.6	1,404	88.3	1,781	87.9	4,581	87.3
10	1,575	87.6	1,441	91.3	1,536	92.7	4,552	90.5
11	1,121	90.1	873	92.7	900	92.3	2,894	91.6
12	286	85.7	249	92.0	249	92.4	784	89.8
Content Subject								
English	1,211	88.3	1,112	90.5	1,223	90.4	3,546	89.7
ESOL	163	90.2	195	93.8	568	92.8	926	92.5
Health Education	215	98.6	195	97.4	190	99.5	600	98.5
Foundation of Technology	138	92.0	147	98.6	138	97.8	423	96.2
Mathematics	2,026	85.1	1,821	88.0	1,848	89.1	5,695	87.3
Science	388	87.4	286	93.7	340	90.6	1,014	90.2
Social Studies	414	90.8	337	95.5	337	92.3	1,088	92.7

*Grades 7 and 8 students must seek prior approval for enrollment in the Regional High School Summer School Program.

Table A3
Students Who Passed Their Regional High School Summer School Program Courses with a Course Grade of D or Higher by Student Group from 2011 to 2013

	Summer 2011 (*N* = 4,555)		Summer 2012 (*N* = 4,093)		Summer 2013 (*N* = 4,644)		Three-year Total (*N* = 13,292)	
	N	% Passed	*N*	% Passed	*N*	% Passed	*N*	% Passed
Total	4,555	87.7	4,093	90.8	4,644	90.9	13,292	89.8
Gender								
Female	1,910	89.2	1,671	92.3	1,935	93.1	5,516	91.5
Male	2,645	86.6	2,422	89.8	2,709	89.4	7,776	88.5
Race/Ethnicity								
American Indian or Alaskan Native	10	90.0	9	100.0	13	92.3	32	93.7
Asian	447	94.0	439	96.1	479	96.0	1,365	95.4
Black or African American	1,474	86.2	1,258	88.8	1,418	89.5	4,150	88.1
Hispanic/Latino	1,634	86.8	1,594	88.5	1,933	89.2	5,161	88.3
Native Hawaiian or Other Pacific Islander	4	75.0	4	100.0	2	100.0	10	90.0
White	849	88.9	686	95.5	675	94.5	2,210	92.7
Two or More Races	137	85.4	103	95.1	124	93.5	364	90.9
Free and Reduced-price Meals System (FARMS)								
FARMS	1,842	85.9	1,785	87.4	2,292	89.1	5,919	87.6
No FARMS	2,713	88.9	2,308	93.4	2,352	92.6	7,373	91.5
Special Education (SPED)								
SPED	739	80.2	685	85.1	701	84.5	2,125	83.2
No SPED	3,816	89.1	3,408	91.9	3,943	92.1	11,167	91.0
English for Speakers of Other Languages (ESOL)								
ESOL	458	89.5	527	91.8	876	91.4	1,861	91.1
No ESOL	4,097	87.5	3,566	90.6	3,768	90.8	11,431	89.6
ESOL Level								
1	23	82.6	11	90.9	70	95.7	104	92.3
2	76	86.8	81	91.4	258	92.2	415	91.1
3	99	83.8	88	88.6	187	91.4	374	88.8
4	103	91.3	127	92.9	165	93.9	395	92.9
5	146	94.5	166	93.4	144	87.5	456	91.9
10*	11	90.9	54	90.7	52	84.6	117	88.0

*Level 10 ESOL students include those who did not meet exit criteria but were not receiving ESOL services at the parents' request. MSDE regards Level 10 as ESOL.

Table A4
Students Who Obtained a Course Grade of B or Higher in Their Regional High School Summer School Program Courses by Session, Reason, County Residency, Grade Level, and Content Subject from 2011 to 2013

	Summer 2011 (*N* = 4,555)		Summer 2012 (*N* = 4,093)		Summer 2013 (*N* = 4,644)		Three-year Total (*N* = 13,292)	
	N	% B or Higher	*N*	% B or Higher	*N*	% B or Higher	*N*	% B or Higher
Total	4,555	42.1	4,093	45.8	4,644	48.4	13,292	45.4
Summer Session								
Session 1	2,036	44.8	1,906	49.0	2,146	50.3	6,088	48.0
Session 2	2,519	40.0	2,187	43.1	2,498	46.7	7,204	43.2
Reasons for Summer Course								
Failed before	2,941	29.6	2,553	32.6	2,618	33.3	8,112	31.7
Original credit	1,489	64.5	1,420	67.6	1,905	68.0	4,814	66.8
Repeat for better grade	125	68.8	120	69.2	121	65.3	366	67.8
County Residency								
MC Resident	4,535	42.2	4,065	45.8	4,619	48.3	13,219	45.4
Not MC Resident	20	30.0	28	53.6	25	64.0	73	50.7
Grade								
7*	4	50.0	6	83.3	2	50.0	12	66.7
8*	173	67.6	120	77.5	176	73.9	469	72.5
9	1,396	41.6	1,404	45.4	1,781	50.1	4,581	46.1
10	1,575	39.4	1,441	44.6	1,536	42.8	4,552	42.2
11	1,121	43.9	873	47.9	900	50.6	2,894	47.2
12	286	37.1	249	31.7	249	43.8	784	37.5
Content Subject								
English	1,211	43.4	1,112	44.3	1,223	43.7	3,546	43.8
ESOL	163	74.2	195	74.4	568	73.9	926	74.1
Health Education	215	91.6	195	93.8	190	92.1	600	92.5
Foundation of Technology	138	72.5	147	69.4	138	74.6	423	72.1
Mathematics	2,026	32.5	1,821	35.7	1,848	36.8	5,695	34.9
Science	388	31.7	286	37.1	340	37.4	1,014	35.1
Social Studies	414	47.1	337	57.9	337	61.4	1,088	54.9

*Grades 7 and 8 students must seek prior approval for enrollment in the Regional High School Summer School Program.

Table A5
Students in the Regional High School Summer School Program Who Obtained a Course Grade of B or Higher by Student Group from 2011 to 2013

	Summer 2011 (*N* = 4,555)		Summer 2012 (*N* = 4,093)		Summer 2013 (*N* = 4,644)		Three-year Total (*N* = 13,292)	
	n	% B or higher	*n*	% B or higher	*n*	% B or higher	*n*	% B or higher
Total	4,555	42.1	4,093	45.8	4,644	48.4	13292	45.4
Gender								
Female	1,910	48.5	1,671	52.4	1,935	56.2	5,516	52.4
Male	2,645	37.5	2,422	41.2	2,709	42.8	7,776	40.5
Race/Ethnicity								
American Indian or Alaskan Native	10	60.0	9	66.7	13	61.5	32	62.5
Asian	447	72.5	439	71.3	479	71.4	1,365	71.7
Black or African American	1,474	33.6	1,258	36.8	1,418	42.2	4,150	37.5
Hispanic	1,634	34.5	1,594	38.9	1,933	42.8	5,161	39.0
Native Hawaiian or Other Pacific Islander	4	50.0	4	50.0	2	100.0	10	60.0
White	849	53.9	686	60.8	675	60.1	2,210	58.0
Two or More Races	137	51.1	103	52.4	124	50.0	364	51.1
Free and Reduced-price Meals System (FARMS)								
FARMS	1,842	34.6	1,785	36.0	2,292	43.2	5,919	38.4
No FARMS	2,713	47.2	2,308	53.4	2,352	53.4	7,373	51.1
Special Education (SPED)								
SPED	739	20.8	685	22.8	701	25.8	2,125	23.1
No SPED	3,816	46.3	3,408	50.4	3,943	52.4	11,167	49.7
English for Speakers of Other Languages (ESOL)								
ESOL	458	54.6	527	59.2	876	61.9	1,861	59.3
No ESOL	4,097	40.7	3,566	43.8	3,768	45.2	11,431	43.2
ESOL Level								
1	23	78.3	11	54.5	70	74.3	104	73.1
2	76	57.9	81	67.9	258	76.4	415	71.3
3	99	55.6	88	65.9	187	64.2	374	62.3
4	103	55.3	127	66.1	165	58.8	395	60.3
5	146	51.4	166	53.6	144	44.4	456	50.0
10*	11	9.1	54	37.0	52	23.1	117	28.2

*Level 10 ESOL students include those who did not meet exit criteria but were not receiving ESOL services at the parents' request. MSDE regards Level 10 as ESOL.

Appendix B

Table B1
Student Respondents Who Would Recommend Summer School to Other Students

Would you recommend summer school to other students?	*N*	Recommend		Not Recommend	
		n	%	*n*	%
Total Respondents	1,499	985	65.7	514	34.3
School Site					
Kennedy	408	289	70.8	119	29.2
Rockville	476	295	62.0	181	38.0
Seneca Valley	395	256	64.8	139	35.2
Springbrook	220	145	65.9	75	34.1
Subject					
English	454	286	63.0	168	37.0
Mathematics	600	357	59.5	243	40.5
Science	147	115	78.2	32	21.8
Social Studies	147	106	72.1	41	27.9
Technology or Health	151	121	80.1	30	19.9
Failed the Course Before					
Yes	753	478	63.5	275	36.5
No	746	507	68.0	239	32.0
Early Graduation					
Yes	160	125	78.1	35	21.9
No	1,339	860	64.2	479	35.8
Race/Ethnicity (*N* = 1,455)					
American Indian or Alaskan Native	11	8	72.7	3	27.3
Asian	140	90	64.3	50	35.7
Black or African American	358	226	63.1	132	36.9
Hispanic/Latino	558	398	71.3	160	28.7
White	206	131	63.6	75	36.4
Two or More Races	97	59	60.8	38	39.2
Other	85	48	56.5	37	43.5
Grade (*N* = 1,479)					
7 and 8*	7	5	71.4	2	28.6
9	94	62	66.0	32	34.0
10	397	252	63.5	145	36.5
11	499	328	65.7	171	34.3
12	482	325	67.4	157	32.6

*Grades 7 and 8 students must seek prior approval for enrollment in the Regional High School Summer School Program.

Appendix C

Table C1
Student Respondent's Rating of the Overall Experience in Their Summer Course

My overall experience in the summer course is		Excellent		Good		Average		Poor		Very Poor	
	N	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Total Respondents	1,596	292	18.3	724	45.4	460	28.8	75	4.7	45	2.8
School Site											
Kennedy	429	99	23.1	178	41.5	127	29.6	13	3.0	12	2.8
Rockville	498	96	19.3	236	47.4	138	27.7	16	3.2	12	2.4
Seneca Valley	441	61	13.8	207	46.9	127	28.8	29	6.6	17	3.9
Springbrook	228	36	15.8	103	45.2	68	29.8	17	7.5	4	1.8
Subject											
English	486	89	18.3	224	46.1	132	27.2	29	6.0	12	2.5
Mathematics	642	83	12.9	271	42.2	222	34.6	39	6.1	27	4.2
Science	158	50	31.6	72	45.6	34	21.5	1	0.6	1	0.6
Social Studies	149	30	20.1	71	47.7	43	28.9	4	2.7	1	0.7
Technology or Health	161	40	24.8	86	53.4	29	18.0	2	1.2	4	2.5
Failed the Course Before											
Yes	776	127	16.4	347	44.7	241	31.1	40	5.2	21	2.7
No	820	165	20.1	377	46.0	219	26.7	35	4.3	24	2.9
Early Graduation											
Yes	168	48	28.6	78	46.4	27	16.1	8	4.8	7	4.2
No	1,428	244	17.1	646	45.2	433	30.3	67	4.7	38	2.7
Race/Ethnicity (*N* = 1,508)											
American Indian or Alaskan Native	12	6	50.0	3	25.0	3	25.0	0	0.0	0	0.0
Asian	144	29	20.1	66	45.8	39	27.1	4	2.8	6	4.2
Black or African American	374	75	20.1	164	43.9	109	29.1	18	4.8	8	2.1
Hispanic/Latino	569	101	17.8	263	46.2	167	29.3	26	4.6	12	2.1
White	219	33	15.1	107	48.9	62	28.3	12	5.5	5	2.3
Two or More Races	101	20	19.8	46	45.5	25	24.8	5	5.0	5	5.0
Other	89	17	19.1	35	39.3	25	28.1	8	9.0	4	4.5

Table C2
Student Respondent's Rating of the Quality of Their Summer Course

		Excellent		Good		Average		Poor		Very Poor	
The quality of the summer course is	*N*	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Total Respondents	1,592	263	16.5	723	45.4	490	30.8	67	4.2	49	3.1
School Site											
Kennedy	428	82	19.2	192	44.9	122	28.5	22	5.1	10	2.3
Rockville	496	90	18.1	244	49.2	142	28.6	8	1.6	12	2.4
Seneca Valley	440	55	12.5	182	41.4	156	35.5	26	5.9	21	4.8
Springbrook	228	36	15.8	105	46.1	70	30.7	11	4.8	6	2.6
Subject											
English	485	81	16.7	227	46.8	143	29.5	18	3.7	16	3.3
Mathematics	641	85	13.3	259	40.4	227	35.4	40	6.2	30	4.7
Science	157	39	24.8	81	51.6	35	22.3	2	1.3	0	0.0
Social Studies	149	24	16.1	78	52.3	39	26.2	6	4.0	2	1.3
Technology or Health	160	34	21.3	78	48.8	46	28.8	1	0.6	1	0.6
Failed the Course Before											
Yes	775	106	13.7	355	45.8	245	31.6	41	5.3	28	3.6
No	817	157	19.2	368	45.0	245	30.0	26	3.2	21	2.6
Early Graduation											
Yes	167	43	25.7	76	45.5	39	23.4	3	1.8	6	3.6
No	1425	220	15.4	647	45.4	451	31.6	64	4.5	43	3.0
Race/Ethnicity (*N* = 1,506)											
American Indian or Alaskan Native	12	4	33.3	5	41.7	2	16.7	1	8.3	0	0.0
Asian	144	23	16.0	63	43.8	51	35.4	4	2.8	3	2.1
Black or African American	373	62	16.6	184	47.5	103	27.6	16	4.3	8	2.1
Hispanic/Latino	569	89	15.6	258	45.3	183	32.2	23	4.0	16	2.8
White	219	41	18.7	99	45.2	68	31.1	7	3.2	4	1.8
Two or More Races	101	17	16.8	40	39.6	31	30.7	5	5.0	8	7.9
Other	88	15	17.0	40	45.5	19	21.6	8	9.1	6	6.8

Table C3
Student Respondent's Rating of the Presentation of Their Summer Course Content

The presentation of the summer course content is	*N*	Excellent		Good		Average		Poor		Very Poor	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
Total Respondents	1,585	278	17.5	710	44.8	485	30.6	75	4.7	37	2.3
School Site											
Kennedy	426	80	18.8	191	44.8	133	31.2	14	3.3	8	1.9
Rockville	493	93	18.9	232	47.1	138	28.0	17	3.4	13	2.6
Seneca Valley	438	62	14.2	195	44.5	140	32.0	27	6.2	14	3.2
Springbrook	228	43	18.9	92	40.4	74	32.5	17	7.5	2	0.9
Subject											
English	481	78	16.2	220	45.7	148	30.8	21	4.4	14	2.9
Mathematics	638	86	13.5	270	42.3	217	34.0	45	7.1	20	3.1
Science	158	52	32.9	64	40.5	41	25.9	1	0.6	0	0.0
Social Studies	148	24	16.2	76	51.4	41	27.7	5	3.4	2	1.4
Technology or Health	160	38	23.8	80	50.0	38	23.8	3	1.9	1	0.6
Failed the Course Before											
Yes	770	111	14.4	342	44.4	255	33.1	39	5.1	23	3.0
No	815	167	20.5	368	45.2	230	28.2	36	4.4	14	1.7
Early Graduation											
Yes	168	45	26.8	80	47.6	32	19.0	8	4.8	3	1.8
No	1417	233	16.4	630	44.5	453	32.0	67	4.7	34	2.4
Race/Ethnicity (*N* = 1,502)											
American Indian or Alaskan Native	12	3	25.0	7	58.3	2	16.7	0	0.0	0	0.0
Asian	144	18	12.5	67	46.5	47	32.6	8	5.6	4	2.8
Black or African American	371	67	18.1	168	45.3	114	30.7	15	4.0	7	1.9
Hispanic/Latino	566	97	17.1	255	45.1	177	31.3	28	4.9	9	1.6
White	219	42	19.2	109	49.8	57	26.0	8	3.7	3	1.4
Two or More Races	101	20	19.8	39	38.6	32	31.7	4	4.0	6	5.9
Other	89	19	21.3	32	36.0	25	28.1	9	10.1	4	4.5

Appendix D

Table D1
Suggestions Shared by Summer School Students to Improve the Regional High School Summer School Program (N = 1,053)

Improvements	*n*	%
Improve lunch (food offered, length of lunch time, long lunch lines)	273	25.9
Change length of class, summer school day, summer school session	200	19.0
Adjust length or frequency of breaks	161	15.3
Change summer school start time	123	11.7
Make different choices for locations of summer school programs	98	9.3
Reduce homework, writing, lessons, slow class down, too much curriculum to cover	74	7.0
Provide transportation (school bus)	71	6.7
Need to hire good teachers, administrators and office staff for summer school program	69	6.6
Add fun activities to program, make classes interesting	65	6.2
Concern about attendance policy and tardiness causing loss of credit	44	4.2
Improve facilities (air conditioning, restrooms, dirty school)	43	4.1
Offer more variety of courses and levels of courses	27	2.6
Allow more freedom of building and outside	22	2.1
Need respectful security officers	16	1.5
Provide supplies and materials (paper, calculators, lab equipment)	15	1.4
Cost of a summer school class	14	1.3
Better organization of summer school program and information	11	1.0
Crowded school	10	1.0
Disruptive students interrupting class	10	1.0
Improve traffic flow (drop off and pick up) at school	5	0.5
General comments	39	3.7
Other suggestions for improvement	39	3.7

Note. Survey respondents could provide multiple responses. Fifty-one students said they were happy with summer school.