Middle Schools Model: An Initial Brief

May 2013

Department of Accountability

ALEXANDRIA CITY PUBLIC SCHOOLS

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Introduction

The five middle school model within Alexandria City Public Schools (ACPS) was implemented at the beginning of the 2009-10 school year. The overall objectives of the model for ACPS included: a personalized environment by engaging each student through faculty and staff support, opportunities for students to accelerate through the curriculum, and higher achievement for all students. This brief report summarizes specific data measures selected post-hoc as proxies to the original stated objectives of the model. The student program enrollment and academic performance data included are not to imply causal relationships to the changing from two to five middle schools; however, these data can inform stakeholders to overall trends seen within the middle schools both before and after the implementation of the five school model. Information presented in this report enable comparisons among the five individual schools and the:

1) Original two middle schools (FCH and GW),
2) The school campuses (FCH campus and GW campus),
3) ACPS middle schools combined before and after the change, and
4) Comparable results from the state level.

The three overall objectives of the ACPS middle school model were linked to the following specific measurable metrics in an effort to display trends both before and after the implementation of the model.

Objective	Associated Data
Personalized Environment	Youth Risk Behavior Survey Results
	Attendance and Other Indicators for Further Study
Opportunity to Accelerate through Curriculum	Grade 8 Math/EOC Math Enrollment
	Grade 8 Honors Enrollment
	Completion of Level I or II Foreign Language
	AVID Course Enrollment
Higher Achievement for All Students	SOL Assessment Performance
	Final Course Grades

While this brief report provides an overview of the five middle schools and offers insight to current and historical trends, an evaluation is recommended to provide a more complete picture of all components within the model while incorporating the voices of students, teachers, parents, and community members impacted.

Furthermore, future research is suggested to gauge the impact of this model as well as discrete programs/initiatives embedded within the middle schools on student outcomes at the high school and post-secondary levels. To supplement this work, researching current high school students' complete educational records and utilizing that information to identify key indicators along the course of a student's educational career that point to being "on" or "off track" to success at high school and beyond. This analysis would better inform educators at the elementary and middle school level to key indicators within ACPS of future success and the potential implications if a student were to miss these milestones.

Report Overview

The pages that follow present tables and figures that contain data sources linked to one of the three specified objectives in the five middle school model. Data are presented in a way to allow the reader to analyze trends across years both before, and after the implementation of the model when possible.

Table 1 and 2 provide an overall context to the tables and figures that follow by displaying enrollment data by subgroup for each middle school and middle school campus from 2007-08 to 2012-13. Table 3 and Figures 1-5 display historical SOL trends at the middle school level to show the full scope of SOL achievement levels within the ACPS middle schools.

Trend Statement

Enrollment at both middle school campuses have increased over the last 5 years.

The Francis C. Hammond campus experienced a notable increase in their economically disadvantaged population.

Demographic shifts were also present across campuses.

TABLE 1
Alexandria City Public Schools
Middle School Enrollment by Subgroup in 2008 and 2013

	Black		Hispanic		White		Econ. Disadv.		LEP		Special Educ.		ALL	
	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013
FCH 1	_	41%	_	35%	_	11%	_	71%	_	28%	_	14%	_	100%
#		178		154		46		308		122		63		435
FCH 2	_	45%	_	35%	_	9%	_	77%	_	32%	_	10%	_	100%
#		199		154		40		338		141		44		440
FCH 3	_	40%	_	36%	_	13%	_	74%	_	32%	_	12%	_	100%
#		173		156		57		322		137		50		434
FCH Campus	48%	42%	27%	35%	14%	11%	53%	74%	31%	31%	14%	12%	100%	100%
#	543	550	310	464	160	143	606	968	356	400	162	157	1135	1309
GW 1	_	28%	_	28%	_	39%	_	47%	_	18%	_	16%	_	100%
#		148		148		204		246		93		86		527
GW 2	_	28%	_	29%	_	39%	_	47%	_	16%	_	14%	_	100%
#		145		150		204		248		86		71		525
GW Campus	42%	28%	24%	28%	30%	39%	51%	47%	21%	17%	19%	15%	100%	100%
#	406	293	239	298	295	408	494	494	208	179	181	157	977	1052

TABLE 2

Alexandria City Public Schools

Middle School Enrollment Percent Change Within Subgroups from 2008 to 2013

	Percent Change Within Subgroup from 2008 to 2013						
	Black	Hispanic	White	Econ. Disadv.	LEP	Special Educ.	ALL
FCH Campus	1%	50%	-11%	60%	12%	-3%	15%
#	7	154	-17	362	44	-5	174
GW Campus	-28%	25%	38%	0%	-14%	-13%	8%
#	-113	59	113	0	-29	-24	75
All Middle Schools	-6%	40%	22%	37%	4%	-1%	15%
#	-55	222	100	409	21	-4	313

Trend Statement

Recent success in SOL achievement was seen when compared to historical trends since 1998.

TABLE 3
Alexandria City Public Schools
Historical SOL Middle School Results: 1998-2012[1]

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009[3]	2010[4]	2011[5]	2012[6]
FCH Campus[2]	Eng/Rdg	55.3	66	60.7	64	63.2	61.7	75.6	72	81.9	73.7	79.2	86	81.3	84	84.9
	Eng/Wrt	54.9	66.8	73.4	69.2	72.6	65.3	75.7	68.8	89.5	79.2	83.1	82	89.9	81	83
	History	24.4	40.9	42.6	51.8	80.1	78.5	-	-	85	81.9	87.3	87.6	86.8	83.6	85
	Math	52.2	55.4	57.4	68.8	63.2	71	78.2	72	51.6	59.4	60.8	73.3	71.7	65.1	52.4
	Science	51.6	70.6	72.2	79.4	77.9	69.3	82.4	74.3	84.1	81.4	81.8	86.4	88.4	86.1	87.2
GW Campus[2]	Eng/Rdg	51.4	55.7	52.9	59.1	59.7	58.5	67.9	68.7	73.4	70.9	77.5	84.3	86.1	83.8	81.1
	Eng/Wrt	52.6	57.6	67.8	62.6	72.2	60	78.5	68.1	86.1	70.2	81.1	82.9	90.7	88.6	86.9
	History	28	39	37.4	36.5	71.2	70.6	-	-	63.9	67.2	67.8	74.2	82.8	76.8	76.3
	Math	53	46.3	44.6	54.7	59.2	73.8	68.6	70.5	45.3	53.3	59.7	68	73	75.6	57.9
	Science	55.5	70.6	59	70.6	73.4	78.2	88.4	82.7	70.5	75.3	79.4	81.2	88.4	87.8	81.9

Table Key:	Lowest Score in 15 years	Third Highest Score in 15 years (+/-0.1%)	Second Highest Score in 15 years	Highest Score in 15 Years

[1] From 1998 to 2005, spring testing results were reported for the Standards of Learning (SOL) for English, mathematics, history/social science and science for grades 3, 5 and 8, as well as for end-of-course tests. However, beginning in 2006, SOL results were reported as combined results – of all assessments in grades 3, 4, 5, 6, 7 and 8, and end-of-course tests for fall, spring and summer.

[2] Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

[3] 2008-09 was the first Dr. Sherman was Superintendent of ACPS

[4] 2009-10 was the first year that the middle schools were split from two to five.

5 Revised SOL history assessments were first implemented in 2011 to reflect the new and more rigorous Standards of Learning.

6 Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

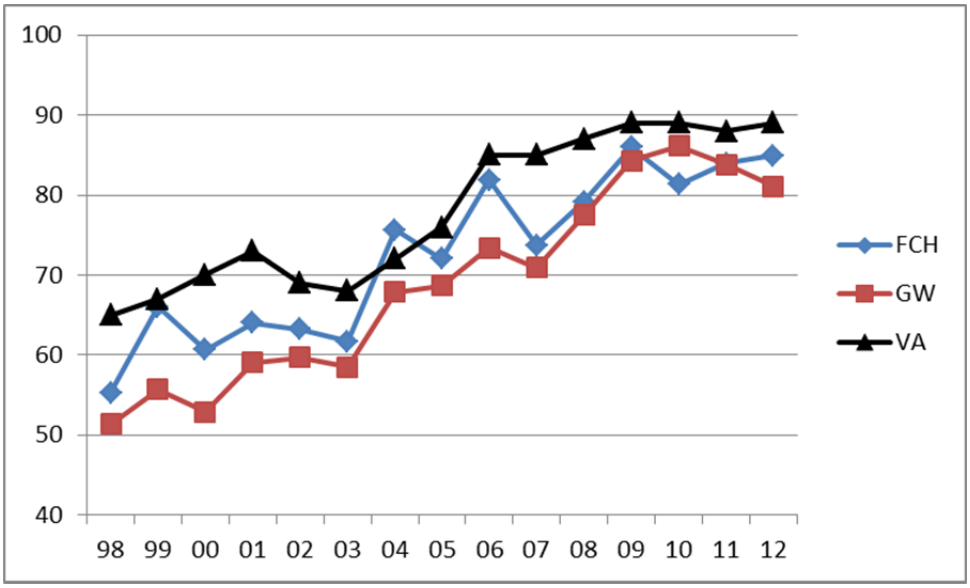

FIGURE 1. SOL Reading Historical Pass Rates for All Students: FCH, GW, & VA

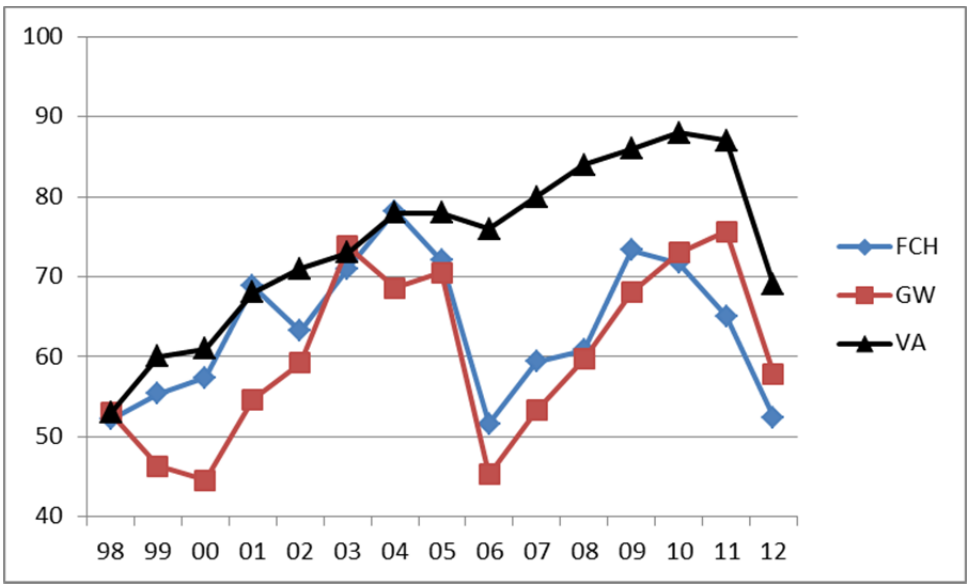

FIGURE 2. SOL Math Historical Pass Rates for All Students: FCH, GW, & VA

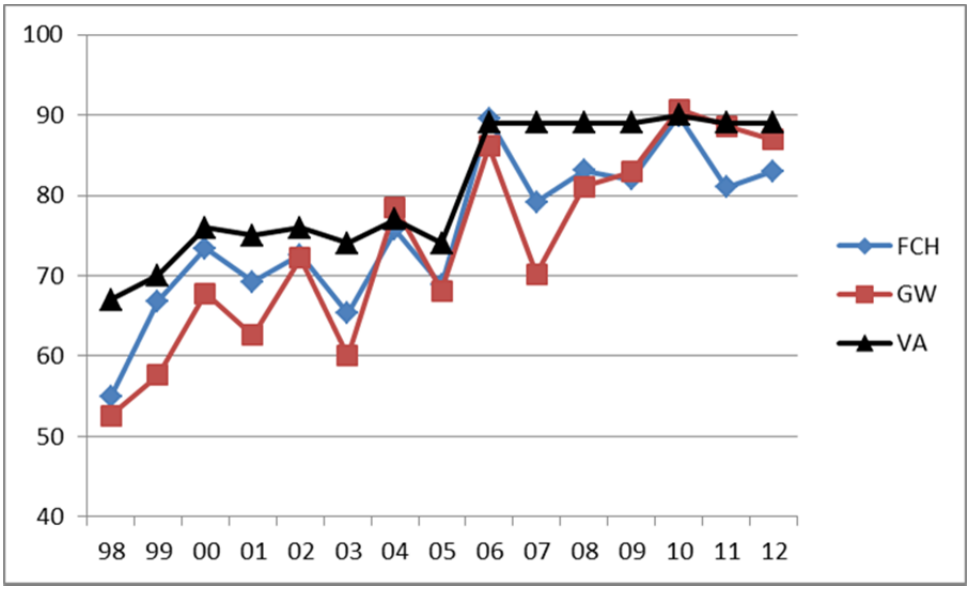

FIGURE 3. SOL Writing Historical Pass Rates for All Students: FCH, GW, & VA

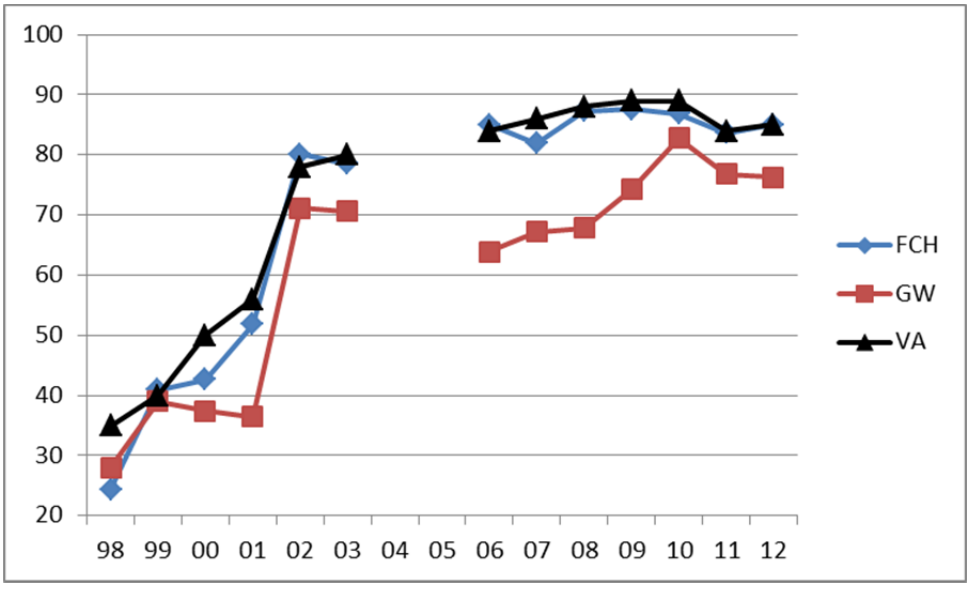

FIGURE 4. SOL Social Studies Historical Pass Rates for All Students: FCH, GW, & VA

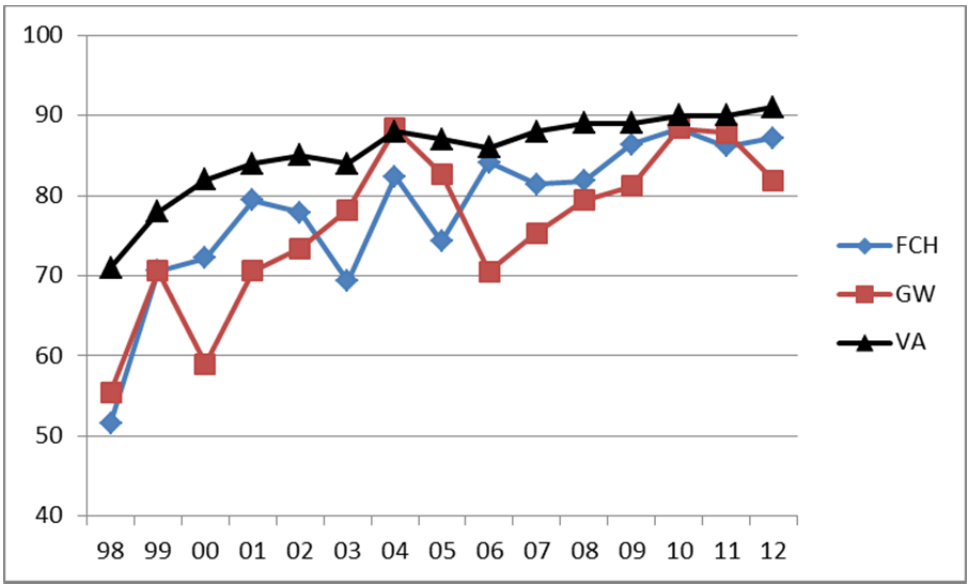

FIGURE 5. SOL Science Historical Pass Rates for All Students: FCH, GW, & VA

Objective: Personalized Environment

Youth Risk Behavior Survey Results

The Youth Risk Behavior Survey (YRBS) is an anonymous, self-administered, survey administered to students in grades 7-12. The YRBS focuses on collecting data for key indicators established by the Centers for Disease Control (CDC) that are linked to priority health risk behaviors established during adolescence.

The YRBS was administered to ACPS students, grades 7-12, in the 2006-07 school year and again in 2011-12. Table 4 shows results from both survey administrations for seventh and eighth grade students focusing on specific indicators from the overall survey constructs of: Sexual Behaviors, Tobacco Use, Alcohol and Other Drug Use, Mental Health, Unintentional Injuries and Violence, and Physical Health.

TABLE 4
Alexandria City Public Schools
Youth Risk Behavior Survey Results for Middle Schools in 2007 & 2012

	2007	2012	Change Over Time
Sexual Activity	(%)	(%)	(%)
Ever had sex	27.1	15.1	-12
Sex prior to age 13	15.6	9.9	-5.7
Number of partners >=4 in lifetime	8	4.1	-3.9
Cigarettes			
Tried smoking	34.1	19.1	-15
Smoked a cigarette prior to age 13	14.6	8.7	-5.9
Alcohol			
Ever used alcohol	44	33	-11
Alcohol use prior to age 13	28.5	24.8	-3.7
Marijuana			
Ever used marijuana	14	8.2	-5.8
Marijuana use prior to age 13	7.7	7.2	-0.5
Other Drug Use			
Ever used inhalants	16.9	11.6	-5.3
Ever used steroids	2.5	2.3	-0.2
Ever used prescription drugs without prescription	NA	5.2	NA
Ever used over-the-counter (OTC) drugs to get high	NA	13.4	NA
Suicide			
Seriously considered suicide	23.1	18.8	-4.3
Made a suicide plan	15.7	11.5	-4.2
Attempted suicide	12.3	9.4	-2.9
Violence			
Carried a weapon	33.5	21.3	-12.2
Fight	66.1	52.5	-13.6
Injury treated by a doctor	9	7	-2
Bullied on school property	NA	37.3	NA
Electronically bullied	NA	15	NA
Weight status			
Described self as overweight ("slightly" or "very")	26.2	23.3	-2.9
Trying to lose weight	48.1	41.6	-6.5
Physical Activity			
5+ days of 60 min of exercise/wk	42.4	53.2	10.8
Watched TV 3+ hrs/day	55.3	40.6	-14.7
Used computer 3+ hrs/day (not for school work)	34.3	39.1	4.8
Played on 1+ sports teams in past 12 months	57.1	67.7	10.6

Trend Statement

Decreases in risk behaviors were seen across key health indicators, as identified by the Centers for Disease Control.

Student Attendance and Other Indicators for Further Study

America's education system is based on the presumption that students are in school on a daily basis to receive a high quality education. Achievement, especially in a highly scaffolded content like mathematics, is highly impacted by attendance. [i]

The Federal accountability system's benchmark for attendance was an average of 94 percent attendance across all school days within the course of a year. This benchmark was removed from the accountability system when Virginia's ESEA Flexibility Waiver Request was accepted by the Federal Government in the summer of 2012. Historically, ACPS middle schools displayed little variance on this measure with ranges varying from 94 to 98 percent from 2008 to 2011 for all students.

Further study is recommended into other key indicators that may be linked to the overall objective of providing a personalized environment within each school to include:

- student discipline,
- student survey of learning environment,
- participation in intramurals,
- participation in school clubs/after-school activities,
- counselor to student ratio,
- ICAPs, and
- staff attendance.

Objective: Opportunity to Accelerate through the Curriculum

End-of-Course and Grade 8 Math Enrollment

Taking algebra by eighth grade remains a strong predictor of college readiness and success. Roth et. al., (2000), showed that taking rigorous math courses increased the probability of success on college math placement tests.[ii]

Figure 6 captures the percentage of eighth grade students who took the Algebra I or Geometry SOL at the conclusion of their eighth grade year, compared to those students who took the Grade 8 Mathematics SOL from 2007 to 2013. The 2013 data are estimates based on current mathematics course enrollment at the middle school level. Figures 7 and 8 display the number of students taking either Algebra I or Geometry at the middle school level by year as well as the associated unadjusted pass percent.

In recent years the School Board approved a policy to accelerate through the math curriculum. The Advanced Mathematics course was added to the middle school curriculum to provide a scaffolded opportunity for students to better access high school level math courses at the middle school grades.

Trend Statement

Eighth grade enrollment has quadrupled in Algebra I and Geometry since 2007, with an estimated 78% participation rate in 2013.

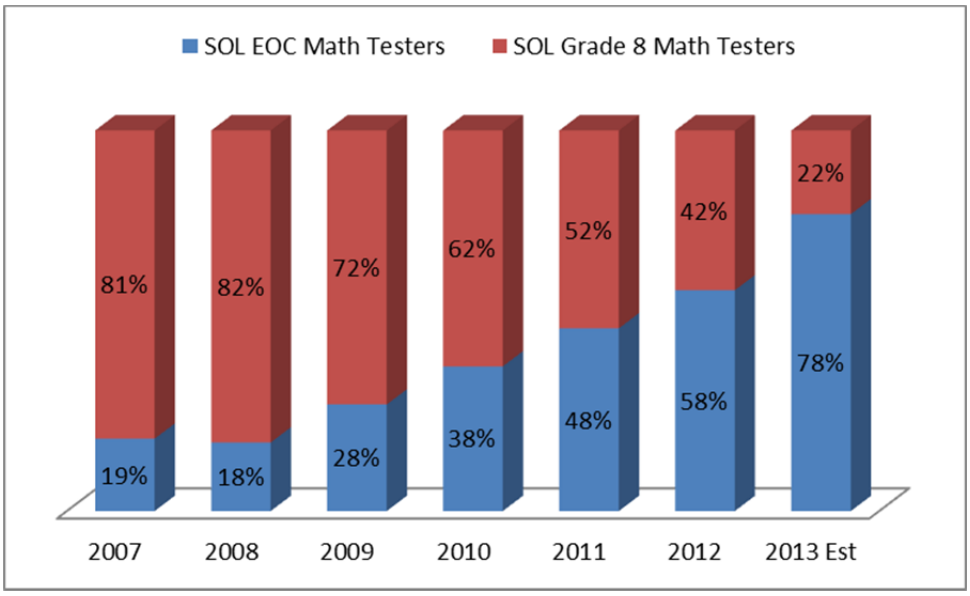

FIGURE 6. Percent of Grade 8 Students taking End-of-Course Mathematics SOL Tests: 2007-2013

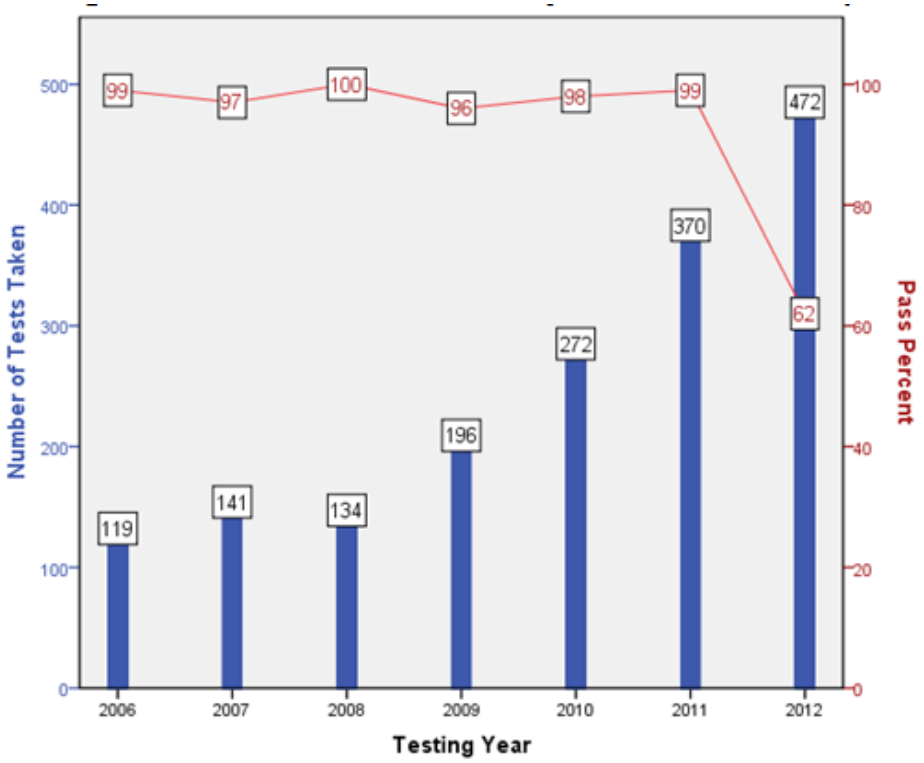

FIGURE 7. Middle School Algebra I Number of Tests Taken & Unadjusted Pass Percent: 2006-2012

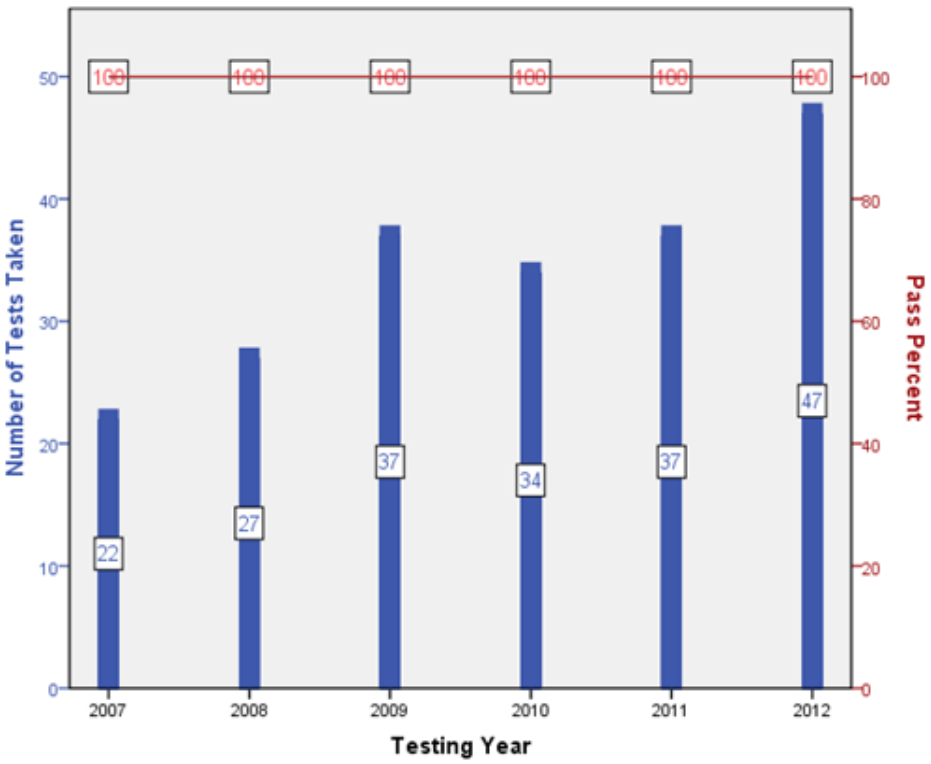

FIGURE 8. Middle School Geometry Number of Tests Taken & Unadjusted Pass Percent: 2007-2012

Grade 8 Honors Enrollment

Wimberly and Noeth (2005) found that students who completed a challenging curriculum in secondary school were better prepared for college level work, developed effective study habits, and learned critical thinking and writing skills needed for college success.[iii]

Figures 9-12 show overall, as well as within ethnicity, enrollment percentages of eighth grade students in honors level and high school level mathematics courses for the school years 2009-10 and 2012-13. Due to recent student information system migrations the 2009-10 school year was the last year readily available for analysis. While outside the scope of this brief, further investigation is warranted to compare academic achievement outcomes for the students enrolled in the various honors courses across the two comparison years.

Trend Statement

Increases were seen across all content areas and race/ethnic groups for grade 8 students accessing honors courses from 2010 to 2013.

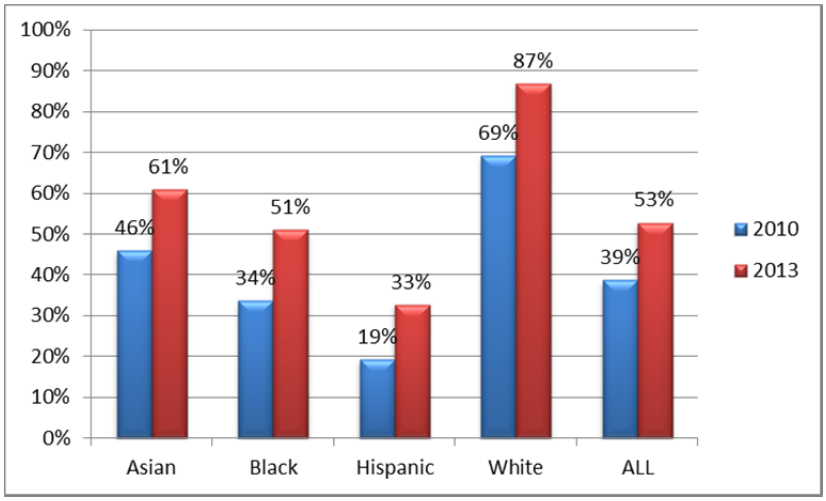

FIGURE 9. Percent of Grade 8 Students within Ethnicity taking Language Arts Honors Course 2010 & 2013

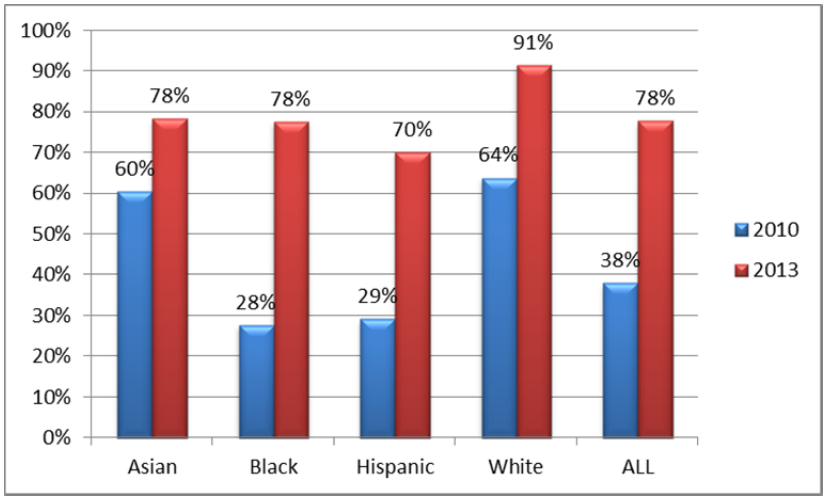

FIGURE 10. Percent of Grade 8 Students within Ethnicity taking End-of-Course Math 2010 & 2013

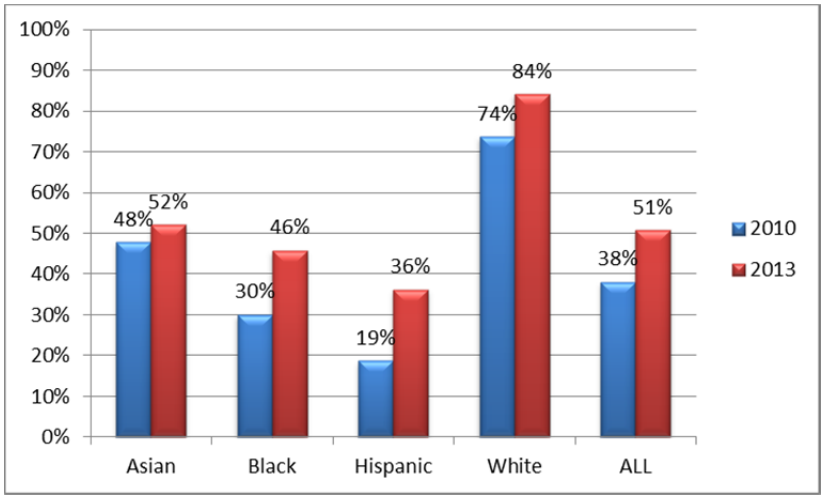

FIGURE 11. Percent of Grade 8 Students within Ethnicity taking History Honors Course 2010 & 2013

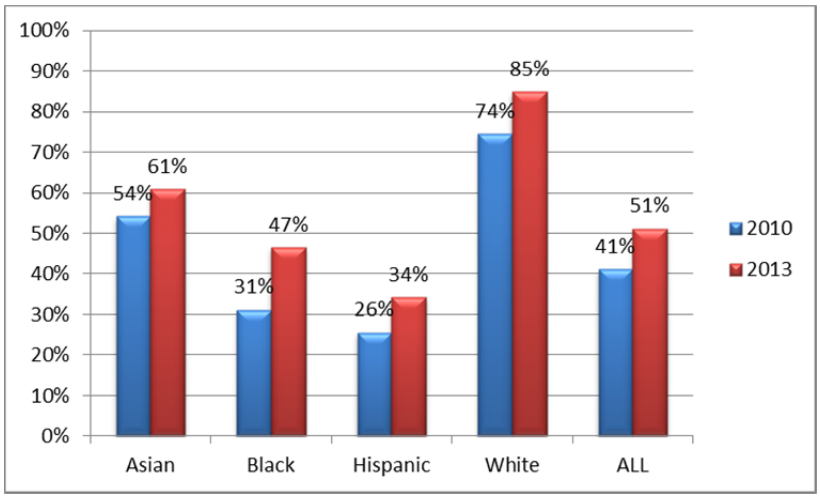

FIGURE 12. Percent of Grade 8 Students within Ethnicity taking Science Honors Course 2010 & 2013

Completion of Level I or II Foreign Language

Foreign language along with honors math and science courses are college preparatory courses that students should be encouraged to enroll in. However, research shows disparities in the course taking patterns for lower achieving students. Shifrer et. al. (2013), noted that students needed to be directed into these gate-keeper courses in order to fairly compete and perform in high school and college.[iv]

Figure 13 contains the percentage of eighth grade students overall, as well as within ethnicity, that was enrolled in a high school level foreign language course in 2009-10 and 2012-13. In the 2009-10 school year, the maximum number of high school foreign language credits a student could exit middle school with was one. By 2013 this policy had shifted, with students being allowed to take a high school level foreign language in grade 7 as well as grade 8, which affords students the opportunity to exit middle school with two high school credits in foreign language.

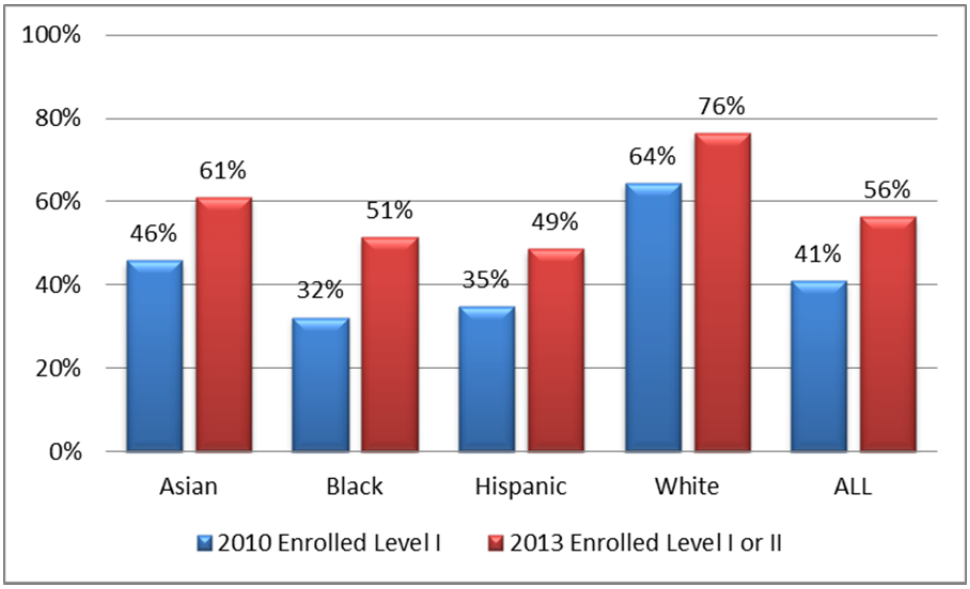

FIGURE 13. Percent of Grade 8 Students within Ethnicity Enrolled in High School Level Foreign Language 2010 & 2013

AVID Course Enrollment

Advancement Via Individual Determination (AVID) is a seventh through twelfth grade elective designed to prepare students in the academic middle for four-year college eligibility. AVID has been researched proven in improving participating students' outcomes in both secondary and post-secondary achievement. The three main components of this course are academic instruction, tutorial support, and motivational activities.

Figure 14 provides the percentage of seventh and eighth grade students overall, as well as within ethnicity, that were enrolled in the AVID course in 2009-10 and 2012-13.

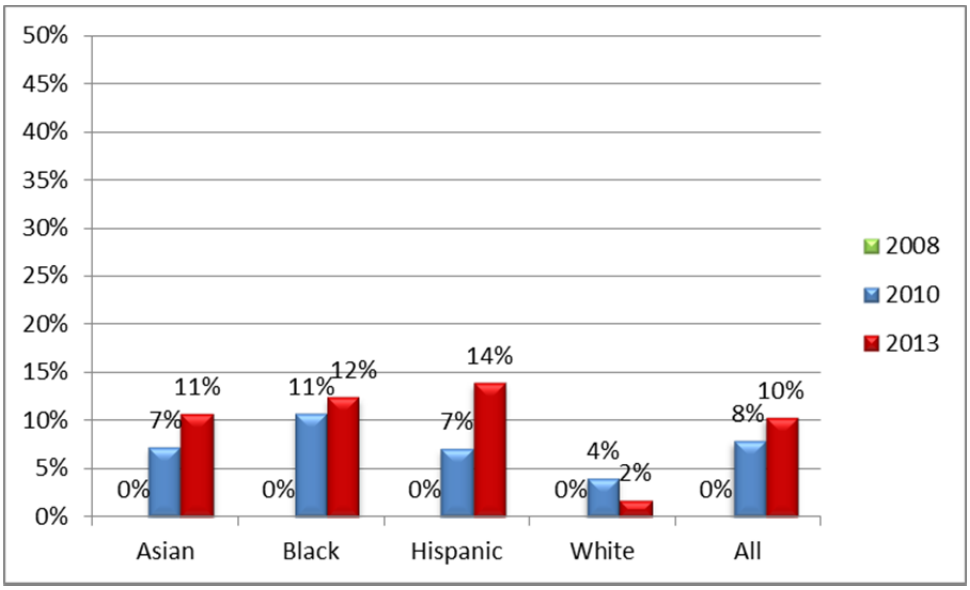

FIGURE 14. Percent of Students within Ethnicity Enrolled in AVID Course 2010 & 2013

Objective: Higher Achievement for All Students

SOL Assessment Performance

SOL assessment results for the ACPS middle schools, as well as Virginia are provided in each tested content area from 2008 through 2012. Passing percentages are 'adjusted' in that failing scores for some English as a Second Language students or transfer students may be excluded from the calculations. Both the State accreditation system and the Federal No Child Left Behind accountability system provide score adjustments for certain students. From one year to another, unadjusted scores could contain varying percentages of ESL and transfer students. Therefore, adjusted scores offer a more consistent basis for longitudinal comparison.

Tables 5-9 and Figures 15-19 display SOL results for all students by middle school in the SOL assessment areas of: reading, mathematics, writing, history, and science. Tables 10-21 go on to display SOL Reading and Mathematics results by: Black, Hispanic, White, Economically Disadvantaged, Limited English Proficient (LEP), and Special Education subgroups.

Campus results were calculated within each table by reporting the average score across the schools within each respective campus. This is an estimate only, as it does not account for small weighting differences within the school level pass percentages. As an external point of comparison, the Virginia overall pass percentage was reported for each year and content area.

A confounding variable in recent years when looking at SOL achievement data is the use of the Virginia Grade Level Alternative (VGLA) assessment instead of the SOL assessment by some Special Education and Limited English Proficiency students. The VGLA requires students to build portfolios of work demonstrating their achievement on grade level standards throughout the course of the year. Historically, the VGLA pass rate across the state and with ACPS was significantly higher than the pass rates on the SOL assessment for Special Education and LEP students. ACPS middle schools showed the highest use of the VGLA assessment in the 2008-09 and 2009-10 school years, and a significant decline in use of the VGLA the past two school years.

TABLE 5
Alexandria City Public Schools
SOL Reading Pass Percentages All Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	79	86	83	81	86
FCH 2	79	86	80	87	86
FCH 3	79	86	81	84	83
FCH Campus[1]	79	86	81	84	85
GW 1	77	84	87	85	83
GW 2	77	84	85	83	79
GW Campus[1]	77	84	86	84	81
VA	87	89	89	88	89

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

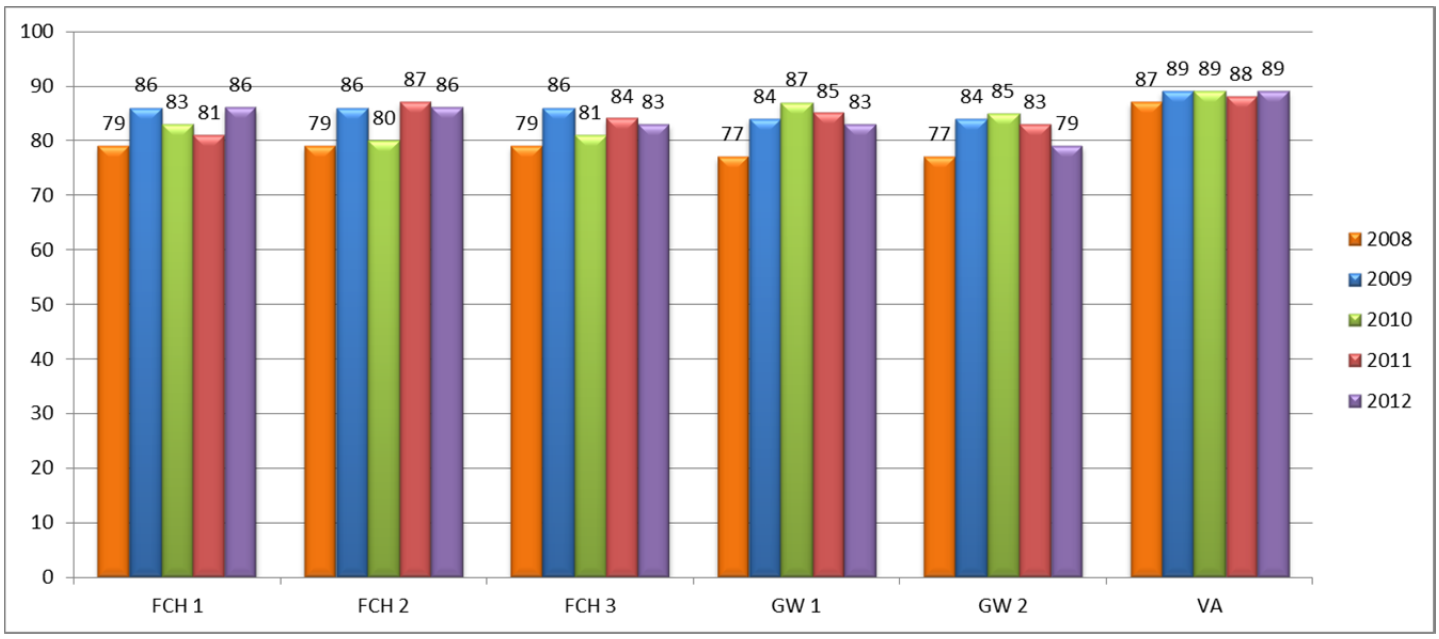

FIGURE 15. SOL Reading Pass Percentages All Students: 2008-2012

TABLE 6
Alexandria City Public Schools
SOL Mathematics Pass Percentages All Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012[2]
FCH 1	61	73	73	66	56
FCH 2	61	73	68	64	56
FCH 3	61	73	75	65	45
FCH Campus[1]	61	73	72	65	52
GW 1	60	68	76	79	64
GW 2	60	68	70	72	52
GW Campus[1]	60	68	73	76	58
VA	84	86	88	87	69

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.
[2]Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

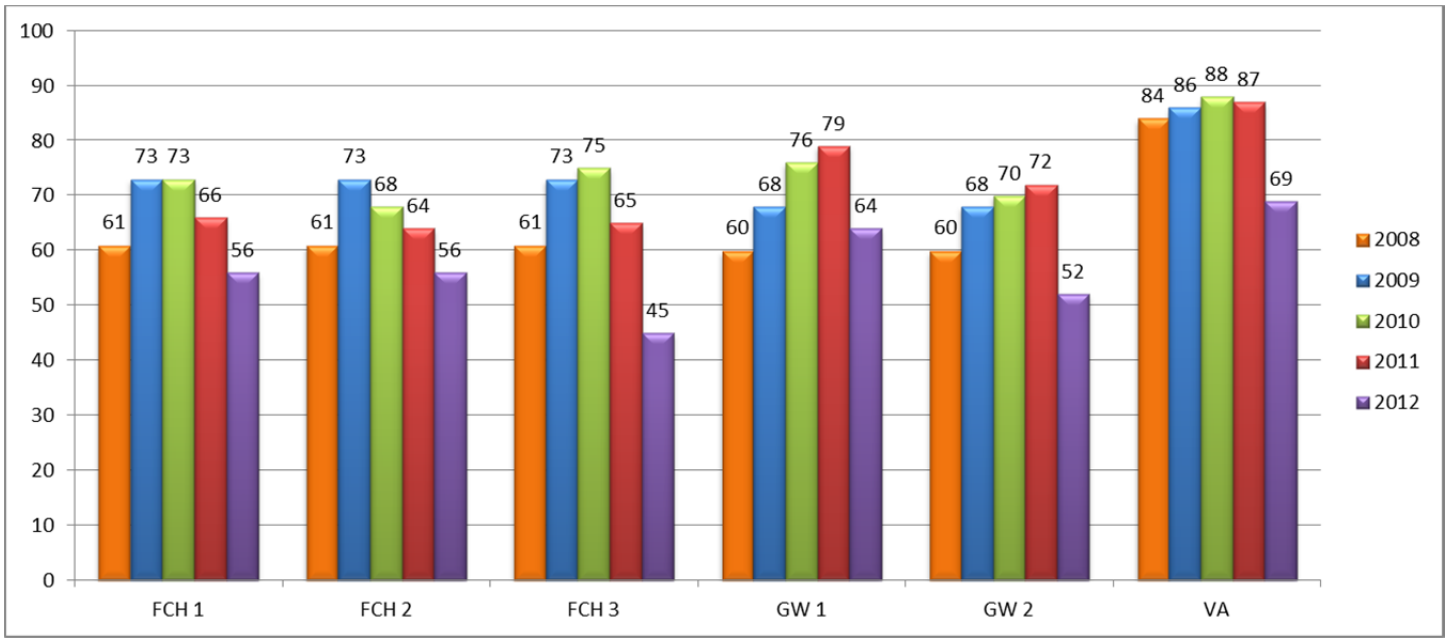

FIGURE 16. SOL Mathematics Pass Percentages All Students: 2008-2012

TABLE 7
Alexandria City Public Schools
SOL Writing Pass Percentages All Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	83	82	90	80	87
FCH 2	83	82	93	82	83
FCH 3	83	82	87	81	78
FCH Campus[1]	83	82	90	81	83
GW 1	81	83	91	87	90
GW 2	81	83	90	90	84
GW Campus[1]	81	83	91	89	87
VA	89	89	90	89	89

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

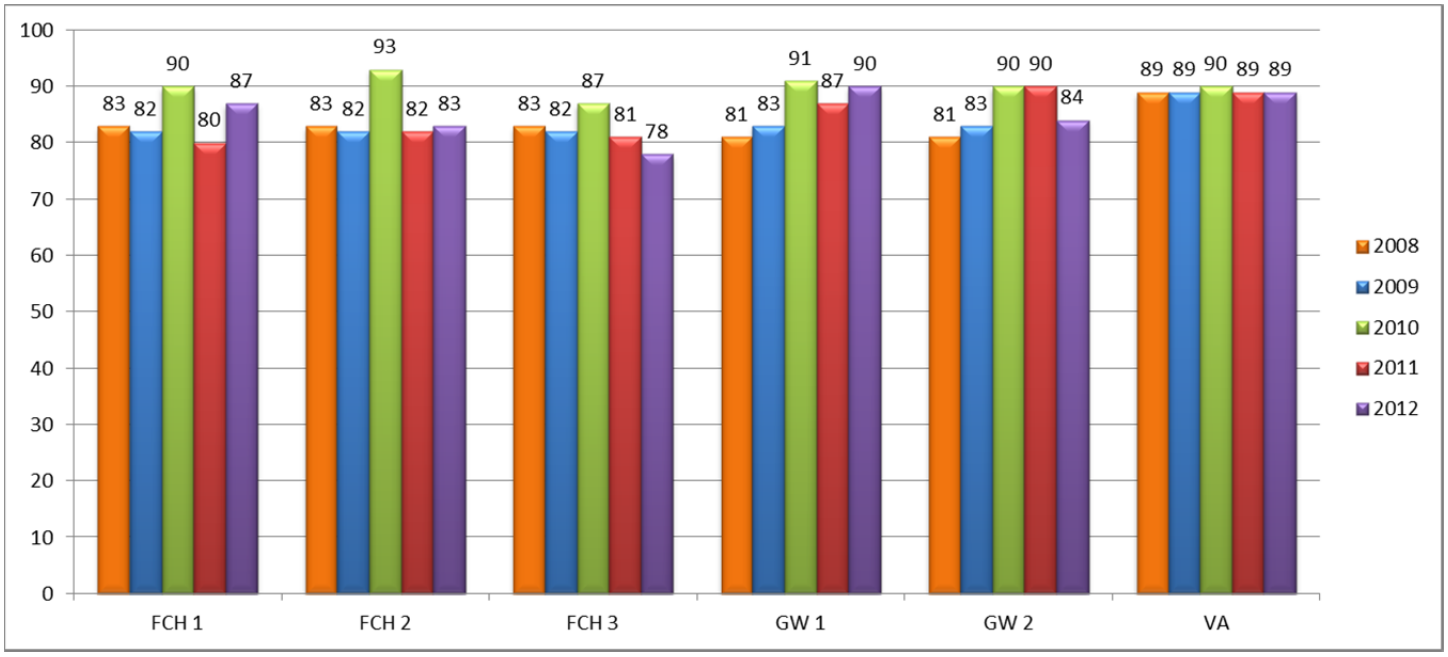

FIGURE 17. SOL Writing Pass Percentages All Students: 2008-2012

TABLE 8
Alexandria City Public Schools
SOL History Pass Percentages All Students: 2008-2012

	Years				
	2008	2009	2010	2011[2]	2012
FCH 1	87	88	88	86	85
FCH 2	87	88	87	82	88
FCH 3	87	88	85	82	82
FCH Campus[1]	87	88	87	83	85
GW 1	68	74	84	75	80
GW 2	68	74	81	79	73
GW Campus[1]	68	74	83	77	77
VA	88	89	89	84	85

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.
[2]Revised SOL History assessments were first implemented in 2011 to reflect the new and more rigorous Standards of Learning.

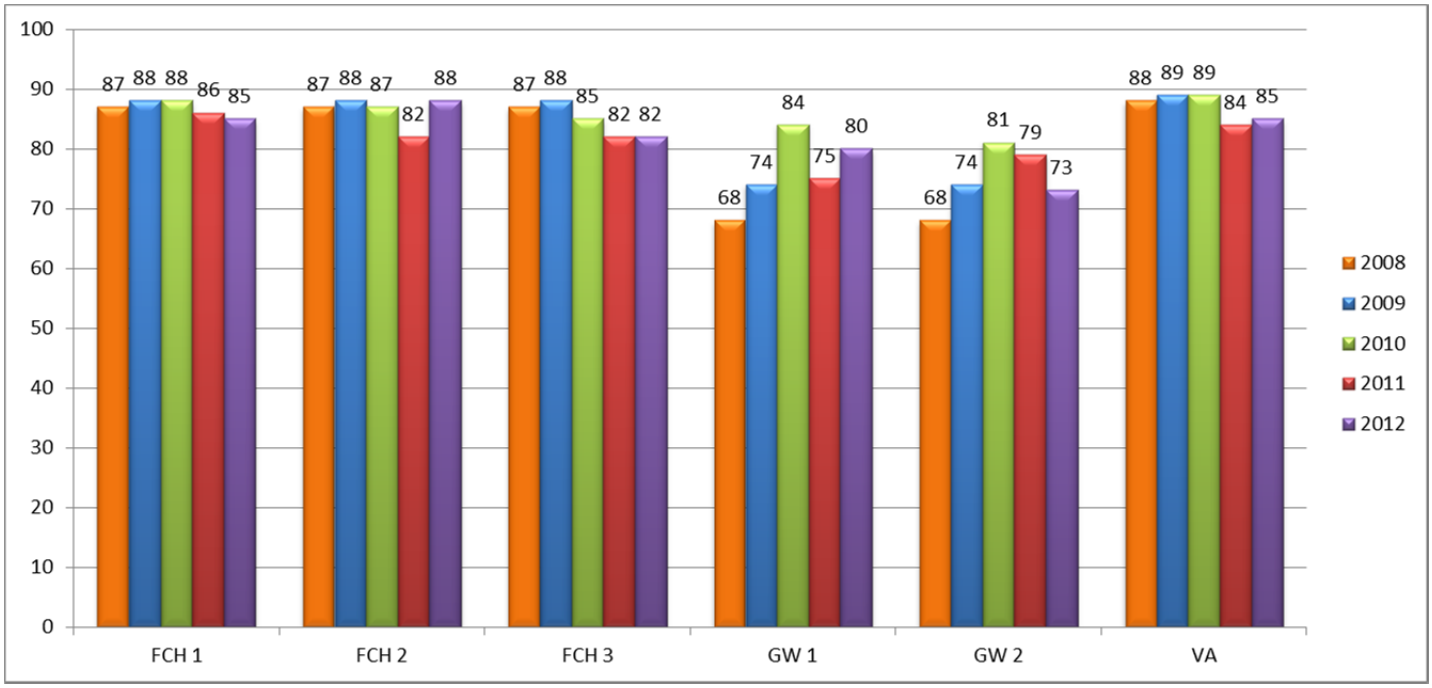

FIGURE 18. SOL History Pass Percentages All Students: 2008-2012

TABLE 9
Alexandria City Public Schools
SOL Science Pass Percentages All Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	82	86	87	88	91
FCH 2	82	86	90	84	90
FCH 3	82	86	89	86	81
FCH Campus[1]	82	86	89	86	87
GW 1	79	81	87	86	85
GW 2	79	81	90	90	79
GW Campus[1]	79	81	89	88	82
VA	89	89	90	90	91

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

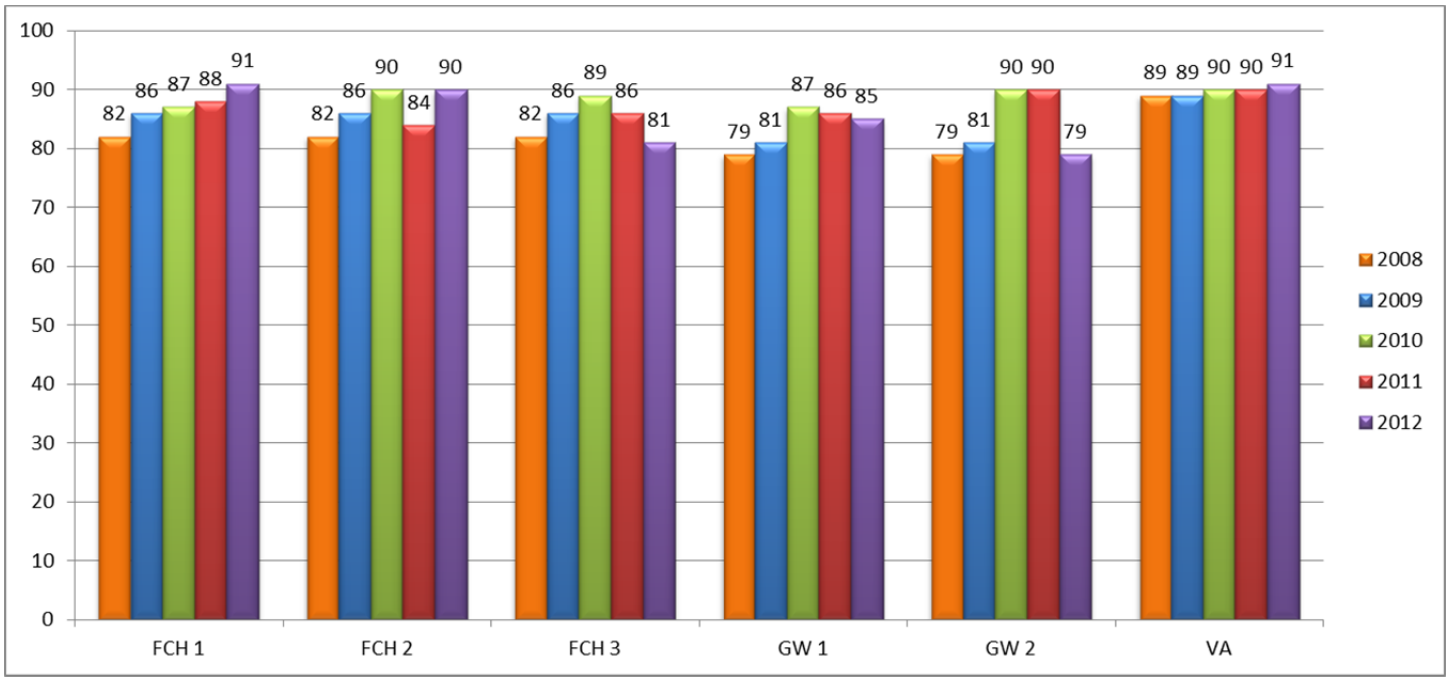

FIGURE 19. SOL Science Pass Percentages All Students: 2008-2012

TABLE 10
Alexandria City Public Schools
SOL Reading Pass Percentages Black Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	75%	84%	85%	82%	84%
FCH 2	75%	84%	82%	85%	86%
FCH 3	75%	84%	83%	86%	79%
FCH Campus[1]	75%	84%	83%	84%	83%
GW 1	70%	77%	87%	83%	80%
GW 2	70%	77%	76%	73%	65%
GW Campus[1]	70%	77%	82%	78%	72%
VA	78%	81%	81%	80%	80%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

TABLE 11
Alexandria City Public Schools
SOL Reading Pass Percentages Hispanic Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	77%	86%	77%	75%	83%
FCH 2	77%	86%	70%	90%	80%
FCH 3	77%	86%	74%	78%	79%
FCH Campus[1]	77%	86%	74%	81%	81%
GW 1	69%	77%	77%	72%	69%
GW 2	69%	77%	80%	74%	60%
GW Campus[1]	69%	77%	79%	73%	64%
VA	81%	85%	85%	84%	84%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

TABLE 12

Alexandria City Public Schools

SOL Reading Pass Percentages White Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	92%	91%	85%	87%	93%
FCH 2	92%	91%	91%	85%	98%
FCH 3	92%	91%	86%	87%	92%
FCH Campus[1]	92%	91%	87%	86%	94%
GW 1	94%	98%	95%	96%	96%
GW 2	94%	98%	99%	99%	99%
GW Campus[1]	94%	98%	97%	97%	97%
VA	91%	93%	93%	92%	93%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

TABLE 13

Alexandria City Public Schools

SOL Reading Pass Percentages Economically Disadvantaged Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	77%	82%	77%	78%	83%
FCH 2	77%	82%	77%	84%	82%
FCH 3	77%	82%	77%	81%	81%
FCH Campus[1]	77%	82%	77%	81%	82%
GW 1	68%	77%	80%	73%	72%
GW 2	68%	77%	75%	71%	61%
GW Campus[1]	68%	77%	78%	72%	67%
VA	77%	81%	81%	80%	81%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

TABLE 14
Alexandria City Public Schools
SOL Reading Pass Percentages LEP Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	68%	74%	74%	72%	80%
FCH 2	68%	74%	70%	86%	81%
FCH 3	68%	74%	71%	81%	80%
FCH Campus[1]	68%	74%	72%	80%	80%
GW 1	57%	70%	74%	64%	58%
GW 2	57%	70%	76%	66%	52%
GW Campus[1]	57%	70%	75%	65%	55%
VA	79%	83%	83%	79%	80%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

TABLE 15
Alexandria City Public Schools
SOL Reading Pass Percentages Special Education Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012
FCH 1	41%	74%	68%	48%	47%
FCH 2	41%	74%	62%	52%	40%
FCH 3	41%	74%	72%	53%	64%
FCH Campus[1]	41%	74%	67%	51%	50%
GW 1	51%	78%	85%	54%	50%
GW 2	51%	78%	88%	51%	42%
GW Campus[1]	51%	78%	86%	53%	46%
VA	67%	73%	73%	67%	66%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

TABLE 16
Alexandria City Public Schools
SOL Mathematics Pass Percentages Black Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012[2]
FCH 1	55%	69%	75%	69%	53%
FCH 2	55%	69%	68%	64%	49%
FCH 3	55%	69%	70%	63%	38%
FCH Campus[1]	55%	69%	71%	65%	47%
GW 1	48%	55%	71%	69%	52%
GW 2	48%	55%	58%	54%	24%
GW Campus[1]	48%	55%	64%	61%	38%
VA	73%	77%	80%	77%	52%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

[2]Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

TABLE 17
Alexandria City Public Schools
SOL Mathematics Pass Percentages Hispanic Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012[2]
FCH 1	56%	71%	62%	57%	51%
FCH 2	56%	71%	56%	58%	49%
FCH 3	56%	71%	73%	57%	39%
FCH Campus[1]	56%	71%	64%	57%	46%
GW 1	42%	54%	60%	68%	40%
GW 2	42%	54%	55%	60%	26%
GW Campus[1]	42%	54%	57%	64%	33%
VA	75%	79%	82%	83%	61%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.

[2]Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

TABLE 18
Alexandria City Public Schools
SOL Mathematics Pass Percentages White Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012[2]
FCH 1	78%	87%	77%	71%	70%
FCH 2	78%	87%	76%	75%	85%
FCH 3	78%	87%	93%	77%	69%
FCH Campus[1]	78%	87%	82%	74%	75%
GW 1	89%	94%	92%	95%	86%
GW 2	89%	94%	95%	97%	84%
GW Campus[1]	89%	94%	93%	96%	85%
VA	88%	90%	91%	90%	75%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.
[2]Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

TABLE 19
Alexandria City Public Schools
SOL Mathematics Pass Percentages Economically Disadvantaged Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012[2]
FCH 1	59%	68%	67%	59%	50%
FCH 2	59%	68%	60%	59%	52%
FCH 3	59%	68%	73%	58%	40%
FCH Campus[1]	59%	68%	67%	59%	47%
GW 1	44%	52%	63%	67%	43%
GW 2	44%	52%	52%	54%	21%
GW Campus[1]	44%	52%	58%	60%	32%
VA	73%	77%	80%	78%	54%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.
[2]Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

TABLE 20
Alexandria City Public Schools
SOL Mathematics Pass Percentages LEP Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012[2]
FCH 1	44%	56%	69%	56%	50%
FCH 2	44%	56%	56%	55%	50%
FCH 3	44%	56%	67%	58%	37%
FCH Campus[1]	44%	56%	64%	56%	46%
GW 1	29%	43%	56%	56%	35%
GW 2	29%	43%	54%	55%	23%
GW Campus[1]	29%	43%	55%	55%	29%
VA	75%	79%	82%	82%	59%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.
[2]Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

TABLE 21
Alexandria City Public Schools
SOL Mathematics Pass Percentages Special Education Students: 2008-2012

	Years				
	2008	2009	2010	2011	2012[2]
FCH 1	26%	69%	58%	37%	30%
FCH 2	26%	69%	41%	27%	13%
FCH 3	26%	69%	78%	40%	44%
FCH Campus[1]	26%	69%	59%	35%	29%
GW 1	33%	63%	78%	35%	31%
GW 2	33%	63%	77%	29%	12%
GW Campus[1]	33%	63%	77%	32%	21%
VA	65%	71%	73%	66%	40%

[1]Campus results from 2010-2012 represent an average of pass percentages from the individual schools given the proximity in numbers across schools.
[2]Revised SOL math assessments were first implemented in 2012 to reflect the new and more rigorous Standards of Learning.

Final Course Grades

Middle school math and English grades proved to be a stronger predictor for ninth grade performance than standardized test results (Balfanz, Herzog, & Mac Iver, 2007). Neild and Balfanz (2006a) reported that student subsequent high school completion (or drop out) status could be predicted by middle school course grades and attendance. Further, Neild and Balfanz (2006b) found that more than half of students who dropped out of high school in their Philadelphia study could have been identified before entering high school based on their middle school grades.[v]

Final course grade distributions of eighth grade students in the content areas of Language Arts, Mathematics, History, and Science are provided in Figure 20 for the 2009-10 and 2011-12 school years. Due to the student information system migrations in recent years, final grade information prior to 2009-10 was not readily available. Student grades presented across years are susceptible to a multitude of confounding variables outside of student achievement which should be considered when analyzing these data. Some examples include: policy changes, cohort differences (student and teacher), and course enrollment trends.

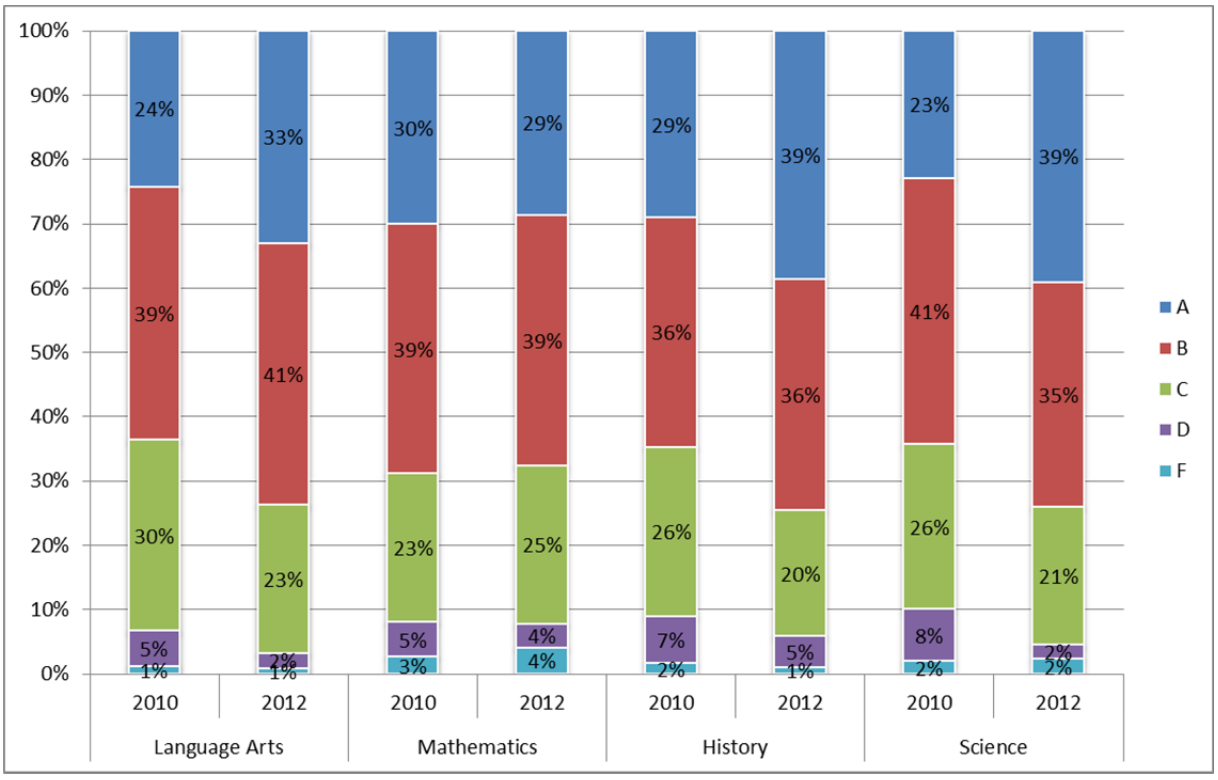

FIGURE 20. Final Course Grades for Grade 8 Students in 2010 & 2012

Endnotes

[i] Balfanz, R., & Byrnes, V. (2012). Chronic absenteeism: Summarizing what we know from nationally available data. *Baltimore: Johns Hopkins University Center for Social Organization of Schools.*

[ii] Roth, J., Crans, G. G., Carter, R. L., Ariet, M., & Resnick, M. B. (2000). Effect of high school course-taking and grades on passing a college placement test. *The High School Journal*, *84*(2), 72-87.

[iii] Wimberly, G. L., & Noeth, R. J. (2005). College readiness begins in middle school. *ACT, Washington, DC*.

[iv] Shifrer, D., Callahan, R. M., & Muller, C. (2013). Equity or Marginalization? The High School Course-Taking of Students Labeled With a Learning Disability. *American Educational Research Journal*.

[v] Balfanz, R. & Byrnes, V. (2006). Closing the mathematics achievement gap in high poverty middle schools: Enablers and constraints*. Journal of Education for Students Placed at Risk, 11, 143–159.*

Neild, R. C., & Balfanz, R. (2006a). *Unfulfilled promise: The causes and consequences of high school dropout in Philadelphia 2000-2005.* Philadelphia: The Philadelphia Youth Network.

Neild, R. C., & Balfanz, R. (2006b). *Unfulfilled promises: The dimensions and characteristics of Philadelphia's dropout crisis, 2000–2005.* Baltimore, MD: Johns Hopkins University, Center for Social Organization of Schools.