



**Impact of Advanced Grade 8 U.S. History on Participation
and Performance in Advanced Placement Social Studies
Courses in Grade 9**

Office of Shared Accountability

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Nyambura Susan Maina, Ph.D.



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. Maria V. Navarro
Chief Academic Officer

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Executive Summary

At the request of the Office of Curriculum and Instructional Programs, the Office of Shared Accountability examined the impact of offering Advanced Grade 8 U.S. History on enrollment and performance in Advanced Placement (AP) social studies courses in Grade 9. The study compared Grade 9 enrollment and performance in AP U.S. History or AP U.S. Government with National, State, and Local (NSL) Government for students who took Advanced Grade 8 U.S. History from 2009–2010 to 2011–2012 with peers who did not. The goal of Advanced Grade 8 U.S. History was to increase student enrollment and academic achievement in AP courses in high school in terms of both diversity and overall number of test takers with a view that access to rigorous instruction has profound implications for closing the academic achievement gaps and increasing college and career readiness for all students.

The study was guided by the following questions:

1. Did enrollment in an AP social studies course in Grade 9 increase over time following implementation of the Advanced Grade 8 U.S. History course in all middle schools?
 - a. Were students who took Advanced Grade 8 U.S. History more likely to enroll in AP social studies courses in Grade 9 than students who took on-level Grade 8 U.S. History?
 - b. Besides taking Advanced Grade 8 U.S. History, what other explanatory factors were associated with enrollment in AP social studies courses in Grade 9?
2. How did students who took Advanced Grade 8 U.S. History perform on AP social studies exams in Grade 9 compared with students without Advanced Grade 8 U.S. History? What other explanatory factors were associated with performance in AP social studies courses in Grade 9?
3. How does participation and performance in AP social studies courses in Grade 9 for Black or African American and Hispanic/Latino students who took Advanced Grade 8 U.S. History compare with their peers without Advanced Grade 8 U.S. History?

Summary of Methodology

Enrollment, report card, and official AP test score data on all students enrolled in three Grade 9 school years (2010–2011, 2011–2012, and 2012–2013) were compiled. Grade 9 course enrollment records and AP performance scores were matched back to Grade 8 enrollment records to flag students who attended MCPS and who took Advanced Grade 8 U.S. History. In addition, students enrolled in an AP social studies course in any semester of Grade 9 were flagged and tallied. Next, students who took AP courses and had AP exam scores on record were divided into two groups: students who earned a score of 3 or higher (AP-ready scores) and students who earned a score of 1 or 2. Following that, logistic regression models were applied to examine factors associated with enrolling in AP social studies courses and earning a college-ready score on an AP social studies course in Grade 9. Lastly, effect sizes were computed to determine the magnitude of effects of taking Advanced Grade 8 U.S. History on enrollment and performance in AP social studies in Grade 9.

Summary of Findings

Question 1. Enrollment in AP Social Studies in Grade 9

The percentage of students who took Advanced Grade 8 U.S. History increased from 28% in 2010 when only 18 middle schools offered the course to 86% in 2013 when all the middle schools offered the course. The universal implementation of the course was intended to create high numbers of AP-ready students.

Across the three years, the proportion of Grade 9 students who took an AP social studies course increased by less than five percentage points (7% to about 11%). While the absolute numbers increased, the relative proportion of students with Advanced Grade 8 U.S. History who later enrolled in AP social studies in Grade 9 (12%) remained stable from 2010–2011 to 2012–2013. The sample of Grade 9 students who enrolled in AP social studies in Grade 9 was comprised mostly of higher proportions of students who were White or Asian, or students with no history of participating in special services—Free and Reduced-priced Meals System (FARMS), English for Speakers of Other Languages (ESOL), or special education services than other subgroups.

Question 1a. and 1b. Impact of Advanced Grade 8 U.S. History and Other Factors

The logistic regression analysis, adjusting for influencing demographic characteristics revealed that students who took Advanced Grade 8 U.S. History were nearly twice as likely to take AP social studies in Grade 9 as peers without the course. Further analyses revealed that Grade 9 students who took Advanced Grade 8 U.S. History performed at the Advanced level on Grade 8 Maryland School Assessment (MSA) Reading, or had a Grade 8 Marking Period 4 (MP4) Grade Point Average (GPA) equal to or greater than 3.0 (Grade 8 MP4 GPA ≥ 3.0), were at least twice as likely to take an AP course as peers without these academic characteristics. The students with this academic profile made up a higher proportion of the students who took AP social studies in Grade 9 than peers who did not. The largest effect of taking Advanced Grade 8 U.S. History on taking AP social studies in Grade 9 was observed for students who performed at the Proficient level on Grade 8 MSA Reading. Students with Advanced Grade 8 U.S. History who performed at the Proficient level on Grade 8 MSA Reading were twice as likely to take AP social studies in Grade 9 as peers who performed at the Proficient level without the course.

The magnitude of effects of taking advanced Grade 8 U.S. History, performing at the Advanced level on Grade 8 MSA Reading, and attaining a Grade 8 MP4 GPA ≥ 3.0 on taking AP social studies in Grade 9 were small to medium and were practically meaningful in an educational setting.

Students who did not take AP social studies in Grade 9 included a large proportion of AP-ready students or students with an academic profile similar to students who took AP courses. Across cohorts, more specifically, more than one half of the students who did not enroll in AP social studies had performed at the Advanced level on Grade 8 MSA Reading, and more than one third had earned Grade 8 MP4 GPA ≥ 3.0 . These findings suggested that the observed stable and low enrollments in AP social studies in Grade 9 were not necessarily related to students not being AP ready.

Question 2. Performance in AP Social Studies in Grade 9

Two thirds or more of the students enrolled in an AP social studies course in Grade 9 earned a score of 3 or higher on their AP tests. Nearly all of 2011–2012 (91%), and 2012–2013 (93%) students who had Advanced Grade 8 U.S. History earned a college-ready score. The logistic regression analyses revealed that students with Advanced Grade 8 U.S. History were equally likely as peers without the course to earn a college-ready score because the two groups had comparable academic achievement profiles. Three factors were significantly associated with earning a college-ready score in AP social studies in Grade 9: performing at the Advanced level on Grade 8 MSA Reading, a Grade 8 MP4 GPA ≥ 3.0 , and having no history of receiving FARMS services. The effect sizes for each of the three factors were large and meaningful in an educational setting.

Question 3. Participation and Performance of Black or African American and Hispanic/Latino Students in AP Social Studies in Grade 9

Overall, the number and proportions of Black or African American (33% to 83%) and Hispanic/Latino (37% to 77%) students who took Advanced Grade 8 U.S. History increased substantially from 2009–2010 to 2012–2013. However, for the years under study, less than 10% of Black or African American (4.6% to 7.3%) and Hispanic/Latino (4.4% to 5.5%) students took AP social studies courses in Grade 9. Notably, Black or African American and Hispanic/Latino students with Advanced Grade 8 U.S. History were twice as likely to take AP social studies in Grade 9 as peers without the course. Other factors associated with significant, meaningful, and practical effects of increased probability of taking AP social studies in Grade 9 for Black or African American and Hispanic/Latino students included Grade 8 MP4 GPA ≥ 3.0 and performance at the Advanced level on Grade 8 MSA Reading.

Black or African American and Hispanic/Latino students who took Advanced Grade 8 U.S. History earned college-ready scores at comparable levels with peers who did not. Black or African American and Hispanic/Latino students with a Grade 8 MP4 GPA ≥ 3.0 were twice as likely as their peers with a lower GPA to earn a college-ready score; those who performed at the Advanced level on Grade MSA 8 Reading were about seven times as likely as their peers who performed at the Proficient or Basic levels to earn a college-ready score. Black or African American and Hispanic/Latino students without a history of receiving FARMS services were three times as likely as Black or African American and Hispanic/Latino students receiving FARMS services to attain a college-ready score on AP social studies in Grade 9. The impacts of the three factors of earning a Grade 8 MP4 GPA ≥ 3.0 , performing at the Advanced level on Grade 8 MSA Reading, or no history of receiving FARMS services on performance on AP exams in Grade 9 for Black or African American and Hispanic/Latino students were large and practically meaningful in educational setting.

Conclusion

This study provided a number of insights into AP social studies in Grade 9 for all students as well as for Black or African American and Hispanic/Latino students. More, not relatively more, but absolutely more students took and earned a college-ready score in AP social studies after Advanced Grade 8 U.S. History was implemented in all middle schools. That is a positive outcome. This makes the stable rates of enrollment in AP social studies for three consecutive years of Grade 9 students very puzzling because the dramatic increase in students with Advanced Grade 8 U.S. History was intended to yield AP-ready students. This suggests that offering Advanced Grade 8 U.S. History to a majority of Grade 8 students was insufficient in and of itself to boost enrollment in AP social studies courses in Grade 9. Examining additional factors accounting for the stable enrollments in AP social studies in Grade 9 may be an important next step.

AP courses cover the breadth of information, skills, and assignments found in corresponding college courses. Students need strong academic preparation in the relevant subject to have a reasonable chance of successfully completing AP courses and passing AP exams. As such, it is worth noting that nearly all of Cohort 2 and Cohort 3 students with Advanced Grade 8 U.S. History earned a score of 3 or greater. These findings suggested that when enrolled in AP social studies, a majority of these students were adequately prepared for the AP social studies courses they took. On the other hand, the small proportion of Cohort 2 and 3 students who took AP courses without Advanced Grade 8 U.S. History had demonstrated very strong academic achievement; hence the comparable rates of attaining college-ready scores between the two groups. Further, given that only a small proportion of Grade 9 students took AP social studies courses, and some high schools do not offer AP social studies to Grade 9 students, increased access/availability of the AP courses to greater number of Grade 9 students is needed to sufficiently gauge the full scope of the impact of Advanced Grade 8 U.S. History on performance on AP tests in Grade 9.

Recommendations

The following recommendations were developed from the findings of this study:

- Examine practices related to AP social studies course availability to Grade 9 students across MCPS high schools to identify factors that are limiting or driving the enrollment patterns in AP social studies in Grade 9.
- Investigate why rates of participation in Advanced Grade 8 U.S. History vary across middle schools and student subgroups.
- Study and disseminate the best practices of middle schools with 100% participation in advanced Grade 8 U.S. History.
- Consider expanding the criteria for students perceived to be ready for AP social studies in Grade 9 to include students who performed at the Proficient level on state assessments who also had Advanced Grade 8 U.S. History and an overall GPA ≥ 3.0 .

Impact of Advanced Grade 8 U.S. History on Participation and Performance in Advanced Placement Social Studies Courses in Grade 9

Nyambura Susan Maina, Ph.D.

At the request of the Office of Curriculum and Instructional Programs, the Office of Shared Accountability examined the impact of taking Advanced Grade 8 United States (U.S.) History on the enrollment and academic performance in Advanced Placement (AP) U.S. History or AP Government and Politics with National, State, and Local (NSL) Government in Grade 9. Specifically, the goals of this study were to: 1) examine the relationship between the implementation of Advanced Grade 8 U.S. History and taking AP social studies courses in Grade 9, and 2) compare performance in AP History courses in Grade 9 during the 2010–2011, 2011–2012, and 2012–2013 school years between students who took Advanced Grade 8 U.S. History and students who did not take the course.

Background

The Montgomery County Public Schools (MCPS) Strategic Planning Framework envisions that students graduate with deep academic knowledge in core subject areas as well as other content areas (MCPS, 2014). Advanced Grade 8 U.S. History was designed to increase student enrollment and academic achievement in AP courses in high school in terms of both diversity and overall number of test takers (MCPS, 2012a). One of the milestones associated with being college and career ready is attaining academic excellence for all students by earning a score of 3 or higher on AP courses. This milestone builds on the ongoing goal of schools to “increase enrollment and performance of all students in gifted, Honors, Advanced Placement, and International Baccalaureate, and other college-level courses, with a focus on improving enrollment and performance of Black or African American and Hispanic/Latino students” (MCPS, 2014). To meet this goal of increasing enrollment and performance of all students in honors and AP courses, MCPS continues to focus on rigorous instruction at all levels. As such, advanced courses in middle school help prepare students for a challenging curriculum in high school. The Advanced Grade 8 U.S. History curriculum emphasizes building the historical thinking skills of students as well as the ability to critically read and write in response to primary and secondary historical sources (MCPS, 2012a). While these skills are included in the on-level curriculum, the content of the advanced curriculum is expected to provide students with additional skills, more rigorous writing expectations, and more challenging materials.

By taking Advanced Grade 8 U.S. History, students are expected to 1) hone the skills developed in earlier years and 2) learn how to respond to complex writing tasks—a central element of AP social studies courses taken in high school (MCPS, 2012a).

Implementation of Advanced Grade 8 U.S. History in MCPS

In 2009–2010, 18 middle schools began implementing Advanced Grade 8 U.S. History; another 18 middle schools phased in the course in 2010–2011, and the remaining 2 middle schools implemented the course in 2011–2012 (Appendix Table A1). As such, starting from school year 2011–2012, all middle schools offer Advanced Grade 8 U.S. History.

Description of Advanced Grade 8 U.S. History

Advanced Grade 8 U.S. History enhances the four MCPS Grade 8 U.S. History units through the development of skills that are utilized in high school AP history courses (MCPS, 2012a). In addition to the on-level skills, students in Advanced Grade 8 U.S. History deepen their understanding of key concepts and events by reading, writing, document analysis, and historical thinking through systematic instruction (Appendix Table A2).

Advanced Placement Courses in MCPS

In MCPS, a number of AP social studies courses are available (Appendix Table A3 and A3b). All MCPS AP courses have met the requirements and have been approved by the College Board Audit Committee and include concepts and skills that help students prepare for the AP exams. The two AP social studies courses typically available to Grade 9 students in most of the high schools are: 1) United States History (course code 2114/2124); and 2) Government, United States and Politics with NSL (course codes 2104/2105).

1. *AP U.S. History (2114/2124) A/B*. This course is for students desiring a freshman college-level course in United States history. The course is a survey of this nation's history from 1607 to the present, using a college-level text and requiring college-level writing and discussion. AP U.S. History A/B also satisfies the graduation requirement of a year in U.S. History.
2. *AP U.S. Government with NSL (2104/2105) A/B*. This course is a yearlong survey of American government. AP U.S. Government with NSL may be used to satisfy the graduation requirement for National, State, and Local Government A and B.

Review of Literature

Advanced Placement Courses

Honors, AP, and advanced-level courses provide rigorous and challenging studies for highly able students and students who are capable or motivated to pursue rigorous and challenging instruction (MCPS, 2012b). The AP program offers college-level curricula and examinations to high school students. The purpose of the AP program is to provide academic challenges for high school students with the opportunity to gain college credit in the process, depending on their AP exam scores and the college they choose to attend. The AP curriculum for the various subjects is created for the College Board by a panel of experts and college-level educators in

each subject. For a high school course to have the AP designation, the course must be audited by the College Board to ascertain that it satisfies the AP curriculum. If the course is approved, the school may use the AP designation and the course will be publicly listed on the AP Ledger (College Board, 2012a).

AP exams are administered by the College Board and scored on a 1 to 5 scale as follows:

- 5 – Extremely well qualified
- 4 – Well qualified
- 3 – Qualified
- 2 – Possibly qualified
- 1 – No recommendation

Readiness for and Access to Advanced Placement Courses

Advanced Grade 8 U.S. History may serve as a districtwide pre-AP course by providing access to a challenging curriculum and preparing every student for higher intellectual engagement. Addressed effectively, the middle and high school years can provide a powerful opportunity to help all students acquire the knowledge, concepts, and skills needed to engage in a higher level of learning (College Board, 2012a). In Grades 9–12, students are admitted to Honors and AP classes based on mastery of course prerequisites, willingness to complete challenging assignments, previous grades, teacher recommendations or other appropriate measures (MCPS, 2012b).

Participation and Performance in Advanced Placement Courses in MCPS

Over the past several years, MCPS has made a concerted effort to give more students access to rigorous classes, such as AP. Consequently, a record number of AP exams were taken by MCPS students from 2012 to 2014. Overall, 32,974 AP exams were taken in 2012; 33,642 in 2013, and 33,662 in 2014 (MCPS, 2014b). Also reported was a significant increase in the percentage of exams earning a college-ready score. Across the district, about 75% of those exams received a college-ready score of 3 or higher.

Relationship Between Performance on Advanced Placement Exams and College Readiness

According to the MCPS Strategic Planning Framework, attaining a score of 3, 4, or 5 (on a scale of 1–5) on an AP exam is one of the milestones and an indicator of college and career readiness—a series of benchmarks that indicates a student is ready for postsecondary education and the workplace. A qualifying score of 3 or higher on an AP exam may give the student college credit or advanced standing in the subject in many colleges. American colleges often grant placement and course credit to students who obtain high scores on the examinations (College Board, 2012a).

Other findings reported by College Board studies indicate that earning a score of 3 or higher on AP exams is related to college enrollment; students earning a higher first year grade point average (GPA), are more likely to continue on to a second year of college, and are more likely to graduate from college than students who earn 1 or 2 (Chajewski, Mattern, & Shaw, 2011;

Dougherty, Mellor, & Jian, 2006; Murphy, & Dodd, 2009; Hargrove, Godin, & Dodd, 2008). Students who score a 3 or higher on AP exams also are found to be more likely to attend selective institutions, on average, than students with comparable SAT scores and high school GPAs who do not take AP courses. The results also show that students who score a 1 or 2 on an AP exam are reported to have higher retention rates into their second year of college than non-AP students, as well as being more likely to attend selective institutions. In addition, students who take AP courses and exams tend to outperform students who take the course only (without taking the exam) and students who take other courses, on GPA, college graduation rates, and credit hours earned.

Access and Participation in Advanced Placement Courses

Trends in enrollment in AP courses and attainment of a score of 3, 4, or 5 on AP exams varies by subgroups in MCPS and nationally. The participation and success of Black or African American; Hispanic/Latino; and students participating in ESOL, special education, or FARMS services lag behind that of their White, Asian, and peers who are not receiving special services (College Board, 2012c). At the same time, for MCPS, the numbers of these traditionally underserved student subgroups participating and succeeding in AP increased over the last 10 years, with record participation and performance levels in 2012 (MCPS, 2012c). These College Board reports also commented that simply expanding access to AP is not enough to promote equity. Access to AP courses needs to be within a framework that supports teachers to help these students succeed (College Board, 2012b).

Cost of taking AP exams. A study on the role of fee reduction on AP tests examined college outcomes of low-socioeconomic status students by comparing students who took an AP exam and received a fee reduction to students who took no AP exams (Wyatt & Mattern, 2011). The results indicated that students who completed an AP exam using a College Board–issued fee reduction had higher four-year college-going rates, retention rates, and first-year GPA than did their non-AP peers. Additionally, these results held even when the data were disaggregated by demographic variables (gender, ethnicity, parental income, or parental education) or by academic variables (high school GPA or SAT score).

Scope of the Evaluation

Purpose of Study

This study examined student-level data for the impact of taking Advanced Grade 8 U.S. History on enrollment and performance in AP social studies courses in Grade 9. The study compared Grade 9 enrollment and performance in AP U.S. History or AP U.S. Government with NSL for students who took Advanced Grade 8 U.S. History from 2009–2010 to 2011–2012 with peers who did not.

Evaluation Questions

The study was guided by the following questions:

3. Did enrollment in an AP social studies course in Grade 9 increase over time following implementation of the Advanced Grade 8 U.S. History course?
 - a. Were students who took Advanced Grade 8 U.S. History more likely to enroll in AP social studies courses in Grade 9 than students who took on-level Grade 8 U.S. History?
 - b. Besides taking Advanced Grade 8 U.S. History, what other explanatory factors were associated with enrollment in AP social studies courses in Grade 9?
4. How did students who took Advanced Grade 8 U.S. History perform on AP social studies exams in Grade 9 compared with students without Advanced Grade 8 U.S. History? What other explanatory factors were associated with performance in AP social studies courses in Grade 9?
5. How does participation in AP social studies courses in Grade 9 for Black or African American and Hispanic/Latino students who took Advanced Grade 8 U.S. History compare with their peers without Advanced Grade 8 U.S. History?

Study Design

This study employed a nonequivalent comparison-group design to examine the association between Advanced Grade 8 U.S. History and student enrollment and performance in AP social studies in Grade 9 (Bordens & Abbott, 2008; Fraenkel & Wallen, 2009; Shadish, Cook, & Campbell, 2002). The treatment group was Grade 9 students who took Advanced Grade 8 U.S. History and the comparison group was Grade 9 students without Advanced Grade 8 U.S. History.

There was no random assignment to middle schools offering Advanced Grade 8 U.S. History before all schools started offering the course. Implementation of the advanced courses was phased in over a three-year period, and taking Advanced Grade 8 U.S. History was based on availability of the course in the middle school of attendance. To reduce the effects of any co-occurring influences on the enrollment and performance in AP social studies courses in Grade 9, statistical techniques—multivariate analyses and use of propensity score as covariate where appropriate—were applied. Three cohorts of Grade 9 students were included in the study.

Changes in the Study Design

Initially, the study was designed to examine the impact of Advanced Grade 8 U.S. History on enrollment and performance in AP social studies courses in Grade 9. However, preliminary descriptive analyses revealed that nearly all Cohort 2 and Cohort 3 AP takers had Advanced Grade 8 U.S. History, reducing the proportion of students without Advanced Grade 8 U.S. History significantly. Because of this phenomenon, additional student characteristics that were associated with or explained the enrollment and performance in AP social studies courses in Grade 9 were investigated.

Strength and Limitations

This study has much strength, including study of three cohorts of students, use of propensity scores to balance the two groups of students being studied, and the use of multivariate analyses to explore factors that were associated with taking and succeeding in AP social studies in Grade 9. There are also notable, unanticipated limitations. The treatment group was intended to be Grade 9 students who took Advanced Grade 8 U.S. History, and the comparison group was to be Grade 9 students without Advanced Grade 8 U.S. History. The preliminary descriptive analyses revealed that 80% or more of Cohorts 2 and 3 students took Advanced Grade 8 U.S. History, significantly increasing the proportion that took the course (treatment group) to four fifths or more of the students. In addition, the rate of enrollment in AP social studies in Grade 9 rose slightly from 2010 to 2011, whereas the rates remained stable flat at about 11% for students with Advanced Grade 8 U.S. History. As such, the study cannot directly evaluate why the enrollment in AP social studies classes remained flat despite the increase in AP-ready students. Notably, an outcome study, as opposed to an implementation study, could not ascertain how the schools made decisions with regard to students enrolled in Grade 9 AP social studies classes for any given year. Specifically, from the data at hand, the study could not determine why students who had previously or were currently receiving special services were disproportionately underrepresented among the students who took Advanced Grade 8 U.S. History or AP social studies in Grade 9. Lastly, it must be noted that the propensity score used in equating the students with and without Advanced Grade 8 U.S. History only accounts for observable/recorded differences that exist between students. In a nonequivalent control group design, systematic and more critical differences that are not captured by the available data might exist.

Methodology

Study Sample

Participants in this study were comprised of 31,253 Grade 9 high school students from school years 2010–2011, 2011–2012, and 2012–2013 who were in Grade 8 during school years 2009–2010 (10,520 students), 2010–2011 (10,372 students), and 2011–2012 (10,361 students).

Outcome Measures

To explore factors that explain the enrollment and performance in social studies courses in Grade 9, two outcome or dependent measures were used in this study:

1. *Enrollment in AP U.S. History and AP U.S. Government with NSL in Grade 9.* Specifically, number and percentage of students enrolled in the two social studies courses during school years 2010–2011, 2011–2012, and 2012–2013 were examined. Data on AP enrollment during the same three school years were used.
2. *Performance in AP courses in Grade 9.* Specifically, number and percentage of students attaining a score of 3 or higher on AP exams in Grade 9 for school years 2010–2011, 2011–2012, and 2012–2013 were analyzed.

In addition, the following relevant information on the three cohorts of students were compiled: enrollment in Advanced Grade 8 U.S. History information such as gender; race/ethnicity; English language proficiency; receipt of FARMS, ESOL, or special education services; Grade 8 attendance data; Grade 8 MP4 GPA; and Grade 8 Maryland State Assessment (MSA) Reading scores. These data were compiled from MCPS official records and report card data for school years 2009–2010 to 2013–2014.

Data Management and Analysis Procedures

Data analyzed in this study were compiled from enrollment, report card, and official AP test score files of Grade 9 students in school years 2010–2011, 2011–2012, and 2012–2013. Grade 9 course enrollment records and AP performance scores were matched back to Grade 8 enrollment records to flag students who took Advanced Grade 8 U.S. History. In addition, a variable was created to flag students who took an AP social studies course in any semester of Grade 9. Next, two dichotomous variables were created: a) students who took AP courses versus those who did not, and b) students who earned a 3 or higher on an AP test vs. students with a score of 1 or 2. Following that, descriptive or logistic regression analyses, as described in the following steps, were used to examine trends and assess the impact of taking Advanced Grade 8 U.S. History on enrollment in AP social studies courses and performance in AP social studies courses in Grade 9.

Analyses Procedures for Evaluation Question 1

Analyses procedures for Evaluation Question 1a. To address this question, descriptive statistics were used to summarize information on characteristics of students enrolled in Advanced Grade 8 U.S. History, enrollment trends in AP social studies courses in Grade 9, and demographic characteristics of students in the three Grade 8 cohorts.

Analyses procedures for Evaluation Question 1b. The following two steps were used to address this question.

6. *Logistic regression.* From the descriptive statistics for Evaluation Question 1a, two trends were explicit. First, nearly all Cohort 2 and Cohort 3 students had taken Advanced Grade 8 U.S. History. Second, nearly all Cohort 2 and Cohort 3 students taking AP social

studies courses in Grade 9 had taken Advanced Grade 8 U.S. History. Therefore, a logistic regression model was used to explore other explanatory variables which were associated with students' likelihood of enrolling in AP social studies courses in Grade 9 in addition to Advanced Grade 8 U.S. History. The dependent variable was the categorical dichotomous variable of enrolling in an AP social studies course in Grade 9 or not. Independent variables included Advanced Grade 8 U.S. History, average attendance in Grade 8, Grade 8 MP4 GPA, and performance on Grade 8 MSA Reading. Odds ratios were reported to indicate which factors were associated with increased probability of enrolling in an AP social studies course in Grade 9. Further, these analyses were conducted for students within each cohort.

7. *Effect size computation.* In addition to the odds ratio, effect sizes were computed to assess the magnitude of association between enrollment in AP social studies courses in Grade 9 as well as to determine which differences (if any) in the outcomes were meaningful in an educational setting.

Analyses Procedures for Evaluation Question 2

Three steps were used to address this question.

8. Descriptive statistics were applied to examine the proportion of students who earned a score of 3 or higher (a college-ready score) among students who took Advanced Grade 8 U.S. History and those without.
9. Logistic regression analyses were used to assess any differences in likelihood of earning a score of 3 or higher or not for the two groups of Grade 9 students—those who took Advanced Grade 8 U.S. History or those who did not. Propensity scores were used to address the non-equivalence of students with Advanced Grade 8 U.S. History and those without among the three cohorts of Grade 8 students (Lueleen, Shadish, & Clark, 2005). Because the students choice to enroll in AP courses can be influenced by a variety of factors, the propensity scores were computed using average attendance in Grade 8; Grade 8 MSA Reading scores; Grade 8 MP4 GPA; and receipt of FARMS, ESOL, and special education services. The propensity scores were divided into five categories/quintiles and used as a categorical covariate in the logistic regression models. The use of the propensity scores provided an effective approach for controlling any preexisting differences between the two groups of Grade 9 students and to produce a less biased estimate of the impact of Advanced Grade 8 U.S. History. Odds ratios (OR) were reported to indicate which factors were associated with increased probability of earning a college-ready score in an AP social studies course in Grade 9. A second series of logistic regression models, without propensity scores were used to explore other explanatory variables, which were associated with students' likelihood of earning a college-ready score in AP social studies courses in Grade 9 in addition to Advanced Grade 8 U.S. History. The dependent variable was the categorical dichotomous variable earning a college-ready score or not in AP social studies course in Grade 9. Independent variables included Advanced Grade 8 U.S. History, average attendance in Grade 8, Grade 8 MP4 GPA, and performance on Grade 8 MSA Reading. Odds ratios were reported to indicate which factors were associated with increased probability of earning a college-ready score in Grade 9.

10. Effect sizes were computed¹ to assess the magnitude of association between performance on AP courses and the independent variables as well to determine which differences (if any) in the outcomes were meaningful in an educational setting.

Analyses Procedures for Evaluation Question 3

To address this question, descriptive analyses were used to examine the enrollment and performance trends in AP social studies courses in Grade 9 for Black or African American and Hispanic/Latino students who took Advanced Grade 8 U.S. History and their peers without Advanced Grade 8 U.S. History. The extent of inferential analyses for outcomes for Black or African American and Hispanic/Latino students in AP social studies courses in Grade 9 was limited because of the small numbers of students in some categories.

Results

This section describes demographic characteristics of the study sample followed by presentation of findings addressing the evaluation questions.

Characteristics of Students

The demographic characteristics of the Grade 8 cohorts in the study are provided in Table 1. The dataset of 31,253 was distributed as follows among the cohorts:

- Cohort 1: Grade 8 in 2009–2010 became Grade 9 in 2010–2011
- Cohort 2: Grade 8 in 2010–2011 became Grade 9 in 2011–2012
- Cohort 3: Grade 8 in 2011–2012 became Grade 9 in 2012–2013

Male students slightly outnumbered Female students within each cohort (Table 1). As for race/ethnicity, the overall number and proportion of students from each racial/ethnic subgroup remained stable within each cohort and across the three school years as did the proportion of students participating in FARMS, ESOL, or special education. With respect to race/ethnicity, about 16% were Asian, 23–24% Black or African American, 22% Hispanic/Latino, and 37–39% White across cohorts. With regard to receipt of services, across cohorts about 58–60% had no history of receiving FARMS services; three quarters had no history of receiving ESOL services; and over 80% had no history of receiving special education services. Moreover, about 4% or less were currently receiving ESOL services.

¹ $\text{logit } d = \frac{\ln(OR)}{\pi / \sqrt{3}}$

Table 1
Demographic Characteristics of Students in Study by Cohort

Characteristics		Cohort 1 (n = 10,520)		Cohort 2 (n = 10,372)		Cohort 3 (n = 10,361)	
		n	%	n	%	n	%
Gender	Female	5,115	48.6	5,022	48.4	5,126	49.5
	Male	5,404	51.4	5,350	51.6	5,235	50.5
Race/Ethnicity	American Indian	24	0.2	30	0.3	34	0.3
	Asian	1,688	16.0	1,657	16.0	1,604	15.5
	Black or African American	2,434	23.1	2,540	24.5	2,525	24.4
	Hispanic/Latino	2,315	22.0	2,293	22.1	2,247	21.7
	White	4,058	38.6	3,852	37.1	3,951	38.1
FARMS	Never FARMS	6,291	59.8	6,012	58.0	6,202	59.9
	Prior FARMS	1,157	11.0	1,103	10.6	986	9.5
	FARMS	3,071	29.2	3,257	31.4	3,173	30.6
ESOL	Never ESOL	7,807	74.2	7,799	75.2	7,748	74.8
	Prior ESOL	2,331	22.2	2,160	20.8	2,271	21.9
	ESOL	381	3.6	413	4.0	342	3.3
Special Education	Never SPED	8,539	81.2	8,573	82.7	8,683	83.8
	Prior SPED	754	7.2	630	6.1	543	5.2
	SPED	1,226	11.7	1,169	11.3	1,135	11.0

Evaluation Question 1

Did enrollment in an AP social studies course in Grade 9 increase over time following implementation of the Advanced Grade 8 U.S. History course?

A three-step approach was used to address Evaluation Question 1. The number and proportion of students who took Advanced Grade 8 U.S. History was analyzed separately within each cohort. Then, the number and proportion of Grade 9 students who took AP social studies in Grade 9 (AP U.S. History and AP U.S. Government with NSL) was examined. Finally, the analyses examined if there were any significant associations between taking Advanced Grade 8 U.S. History and enrolling in an AP social studies course in Grade 9 or performance in an AP social studies course in Grade 9.

Implementation of Advanced Grade 8 U.S. History

Figure 1 provides the percentage of students enrolled in Advanced Grade 8 U.S. History by cohort/school year. The implementation of Advanced Grade 8 U.S. History began in 2009–2010 with 18 middle schools. As such, only 28% of the students took Advanced Grade 8 U.S. History during that school year. In 2010–2011, with expansion of the course to an additional 18 middle schools, the enrollment in Advanced Grade 8 U.S. History rose to 78%; nearly triple the rate for 2009–2010. By 2011–2012, all middle schools were expected to offer the course. That year 85% of Grade 8 students took Advanced Grade 8 U.S. History. During 2012–2013, 86% of middle school students took the course.

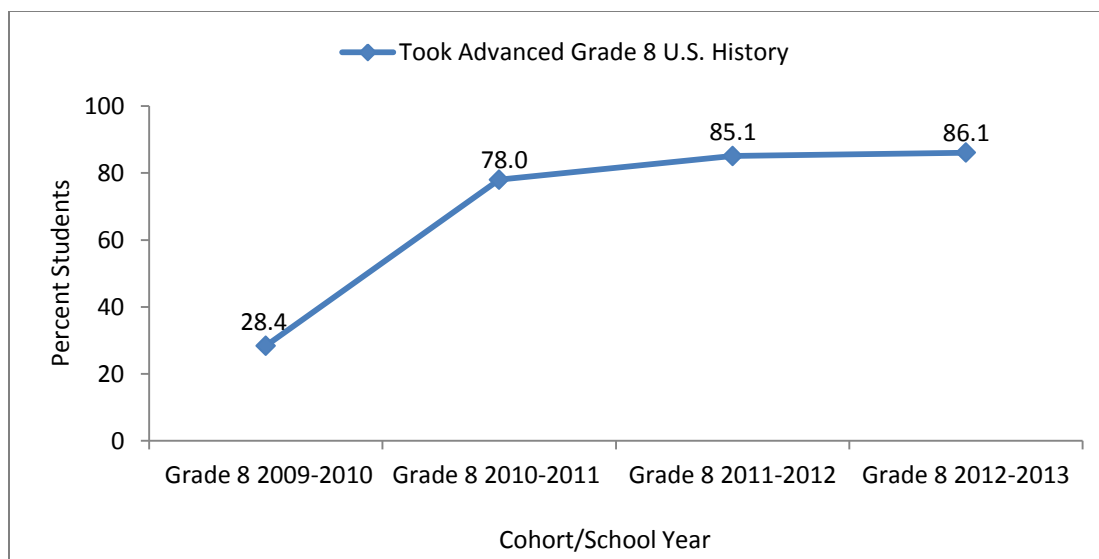


Figure 1. Percentage of Grade 8 students enrolled in Advanced Grade 8 U.S. History.

Table 2 presents information on the demographic composition of students who took Advanced Grade 8 U.S. History within each cohort. Generally, the composition of Cohort 1 students with the advanced courses mirrored closely the demographic composition of the middle school population that year as illustrated in Table 1. In addition, for Cohort 1, the proportions of Black or African American (27%) and Asian (16%) students who took Advanced Grade 8 U.S. History were comparable to their respective proportion within the middle school population for the three cohorts under study. There was one observable difference in the student profiles over time. As the proportion of White students who took Advanced Grade 8 U.S. History increased from 29% to 41% from 2009–2010 to 2011–2012, the proportion of Hispanic/Latino students who took the advanced course decreased from 28% to 19% from 2009–2010 to 2011–2012. Across cohorts, the proportion of students who took Advanced Grade 8 U.S. History with no history of receiving FARMS services increased from 49% to 63% from 2009–2010 to 2011–2012; at the same time, there was a decrease in the proportion of students who had previously or were currently receiving FARMS services. Close to one fifth of students who had previously participated in ESOL took Advanced Grade 8 U.S. History whereas a negligible number of students currently participating in ESOL (~ 3%) took Advanced Grade 8 U.S. History (Appendix Table A4).

In-depth school-level analyses revealed that by 2011–2012 more than one half of the middle schools ($n = 23/38$) offered Advanced Grade 8 U.S. History to all their Grade 8 students. Surprisingly, in three of the middle schools that started offering Advanced Grade 8 U.S. History in 2009–2010, only one third of the Grade 8 students took the course two years later in 2011–2012 (Appendix Table A5). Notably, the school with the lowest proportion of Grade 8 students who took Advanced Grade 8 U.S. History in 2011–2012 and 2012–2013 was offering the course for the first time in 2011–2012, whereas one school with the highest proportion was also offering the course for the first time. In four of the middle schools, less than one half of the students took Advanced Grade 8 U.S. History in 2012–2013.

Table 2
Demographic Characteristics of Students Who Took Advanced Grade 8 U.S. History by Cohort

		Cohort 1 (n = 2,984)		Cohort 2 (n = 8,086)		Cohort 3 (n = 8,819)	
		n	%	n	%	n	%
All		2,984	28.4	8,086	78.0	8,819	85.1
Gender	Female	1,460	48.9	3,940	48.7	4,399	49.9
	Male	1,524	51.1	4,146	51.3	4,420	50.1
Race/Ethnicity	American Indian	7	0.2	21	0.3	24	0.3
	Asian	468	15.7	1,382	17.1	1,432	16.2
	Black or African American	813	27.2	1,851	22.9	2,106	23.9
	Hispanic	844	28.3	1,523	18.8	1,731	19.6
	White	852	28.6	3,309	40.9	3,526	40.0
FARMS	Never FARM	1,469	49.2	5,128	63.4	5,547	62.9
	Prior FARMS	420	14.1	804	9.9	784	8.9
	FARMS	1,095	36.7	2,154	26.6	2,488	28.2
ESOL	Never ESOL	2,054	68.8	6,344	78.5	6,781	76.9
	Prior ESOL	838	28.1	1,504	18.6	1,811	20.5
	ESOL	92	3.1	238	2.9	227	2.6
Special Education	Never SPED	2,523	84.6	6,870	85.0	7,535	85.4
	Prior SPED	205	6.9	506	6.3	469	5.3
	SPED	256	8.6	710	8.8	815	9.2

Evaluation Q1a

Were students who took Advanced Grade 8 U.S. History more likely to enroll in AP social studies courses in Grade 9 than students who took on-level Grade 8 U.S. History?

Analyzed separately by Grade 8 cohort, Figure 2 illustrates trends in enrollment in AP social studies in Grade 9 from 2010–2011 to 2012–2013. Overall, 783 of the Grade 8 students from Cohort 1 (7%); 1,097 from Cohort 2 (11%); and 1,109 from Cohort 3 (11%) enrolled in AP social studies courses in Grade 9. The greatest increase in enrollment in AP social studies courses in Grade 9 was observed from 2010–2011 to 2011–2012. This corresponds to a surge from 18 (2009–2010) to 36 (2010–2011) of the middle schools offering the course.

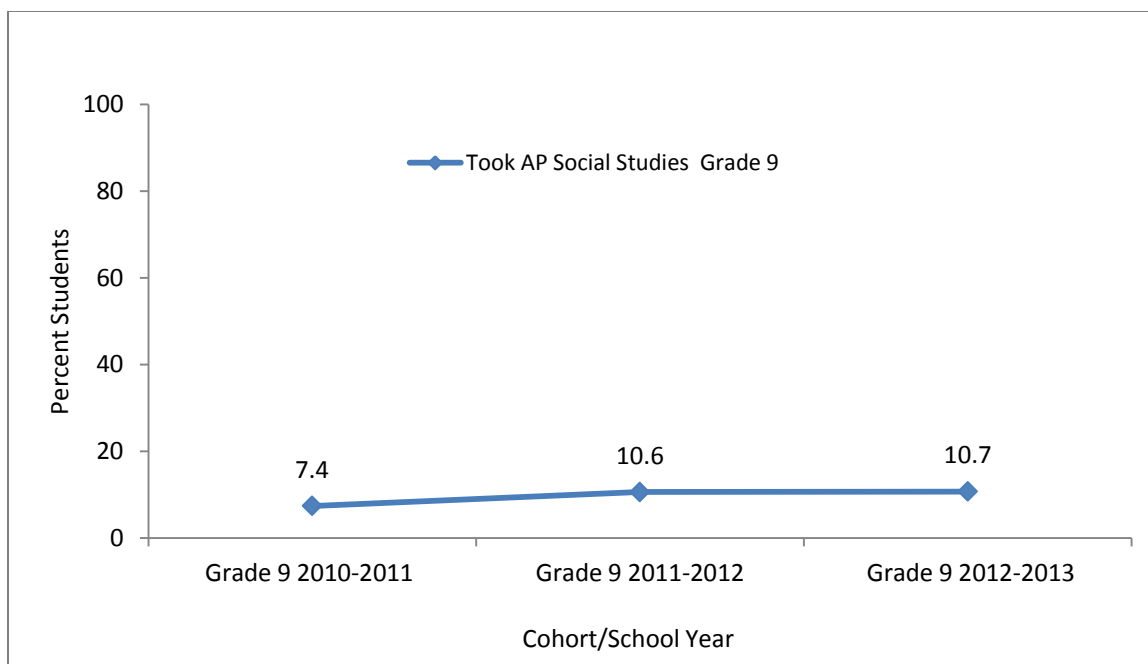


Figure 2. Participation in AP social studies courses in Grade 9.

Relationship Between Taking Advanced Grade 8 U.S. History and Enrollment in AP Social Studies in Grade 9. Figure 3 shows trends in AP social studies enrollment in Grade 9 for students who had Advanced Grade 8 U.S. History and those without the course from 2010–2011 to 2012–2013. Within each cohort, the proportion of students with Advanced Grade 8 U.S. History who also subsequently took an AP social studies course in Grade 9 was about 12% compared with only 3%–6% of students without Advanced Grade 8 U.S. History. Surprisingly, offering the course in all the middle schools and having 85% or more of the Grade 8 students taking Advanced Grade 8 U.S. History did not necessarily result in a significant increase in the overall relative proportion of Cohort 2 and Cohort 3 Grade 9 students who enrolled in an AP social studies courses. The absolute numbers of students taking AP courses increased whereas the percentages remain stable.

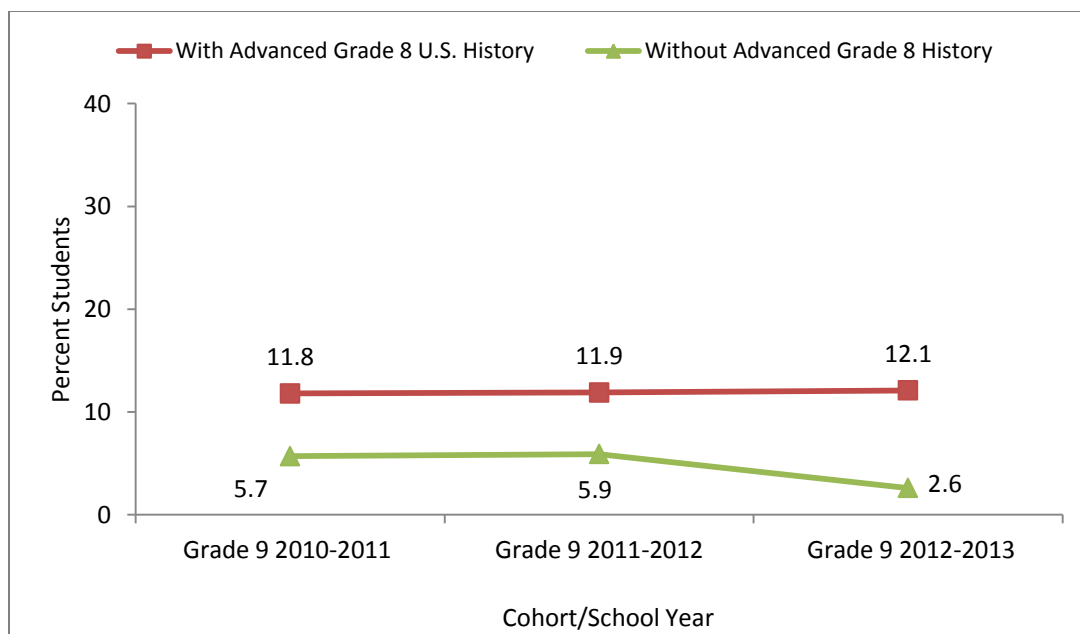


Figure 3. Enrollment in AP social studies course in Grade 9 for students with Advanced Grade 8 U.S. History.

Table 3 presents information specific to the 12% of Grade 9 students who enrolled in AP courses in 2010–2011 ($n = 782$), 2011–2012 ($n = 1,097$), or 2012–2013 ($n = 1,109$). Because Advanced Grade 8 U.S. History was offered in 18 of the 38 middle schools in 2009–2010, 45% of Cohort 1 AP scholars had Advanced Grade 8 U.S. History. The situation was reversed for the two successive Grade 9 cohorts in 2011–2012 and 2012–2013. During 2011–2012 and 2012–2013 school years, 88% of the Grade 9 students who took AP social studies courses in 2011–2012 and nearly all students enrolled in AP social studies courses in Grade 9 in 2012–2013 (96%) had taken Advanced Grade 8 U.S. History (Table 3). At the same time, the majority of Cohorts 2 and 3 students with Advanced Grade 8 U.S. History did not take AP social studies in Grade 9 (Appendix Table B1).

Table 3
Proportion of Students Who Took AP Social Studies in Grade 9 by
Advanced Grade 8 U.S. History Status and School Year

		Cohort 1		Cohort 2		Cohort 3	
		No AP	Took AP	No AP	Took AP	No AP	Took AP
With Advanced Grade 8 U.S. History	<i>n</i>	2,633	351	7,124	962	7,750	1,069
	%	27.0	44.9	76.8	87.7	83.8	96.4
Without Advanced Grade 8 U.S. History	<i>n</i>	7,104	431	2,151	135	1,502	40
	%	73.0	55.1	23.2	12.3	16.2	3.6

Characteristics of Students Who Took AP Social Studies in Grade 9. Table 4 provides descriptive statistics on demographic and academic information for students who took AP social studies courses in Grade 9. Table A6 in the Appendix has information on students who did not

enroll in AP social studies in Grade 9. The data showed differences in proportions of students with regard to race/ethnicity and receipt of services. Within each cohort, a larger proportion of Asian students; White students; and students without a history of participation in FARMS, ESOL, or special education services; as well as students who placed at the Advanced level on Grade 8 MSA Reading comprised the group of students who took AP social studies courses in Grade 9. Conversely, students who did not take AP social studies in Grade 9 were made up of a higher proportion of Black or African American students; Hispanic/Latino students; and students who had previously received or were receiving FARMS, ESOL, or special education services; as well students who placed at either the Proficient or Basic levels on Grade 8 MSA Reading. A negligible (five or fewer) number of Grade 9 ESOL students took an AP social studies course. This pattern was observed for the three cohorts of Grade 9 students in the study (Table 4).

Table 4
Profile of All Grade 9 Students Who Took AP Course Status by Cohort

		Cohort 1		Cohort 2		Cohort 3	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender	Female	408	52.1	552	50.3	605	54.6
	Male	374	47.8	545	49.7	504	45.4
Race/Ethnicity	American Indian	0	0.0	1	0.1	3	0.3
	Asian	212	27.1	304	27.7	299	27.0
	Black or African American	112	14.3	172	15.7	184	16.6
	Hispanic/Latino	101	12.9	126	11.5	111	10.0
	White	357	45.7	494	45.0	512	46.2
FARMS	Never FARMS	597	76.3	819	74.7	887	80.0
	Prior FARMS	77	9.8	108	9.8	62	5.6
	FARMS	108	13.8	170	15.5	160	14.4
ESOL	Never ESOL	623	79.7	897	81.8	921	83.0
	Prior ESOL	156	19.9	198	18.0	184	16.6
	ESOL	3	0.4	2	0.2	4	0.4
Special Education	Never SPED	724	92.6	1014	92.4	1031	93.0
	Prior SPED	48	6.1	74	6.7	63	5.7
	SPED	10	1.3	9	0.8	15	1.4
Grade 8 MSA Reading	Basic	6	0.8	3	0.3	6	0.5
	Proficient	60	7.7	107	9.8	103	9.3
	Advanced	715	91.5	985	90.0	998	90.2
Had Advanced Grade 8 U.S. History	Yes	431	55.1	135	12.3	40	3.6
	No	351	44.9	962	87.7	1069	96.4

Evaluation Question 1b

What other explanatory variables are associated with enrollment in AP social studies courses in Grade 9?

Table 5 displays the estimates from logistic regression models to examine which student characteristics were associated with the probability or likelihood of enrolling in AP social studies courses in Grade 9.

The analyses were conducted for all students and separately by cohort. The findings showed that students who had Advanced Grade 8 U.S. History (Odds ratio [OR] = 1.96) were nearly twice as likely as students without Advanced Grade 8 U.S. History to take AP courses in Grade 9. Students with a Grade 8 MP4 GPA ≥ 3.0 were nearly four times (OR = 3.6) as likely to take AP social studies in Grade 9 as peers with a lower GPA. Students who placed at the Advanced level on Grade 8 MSA Reading (OR = 3.8) were nearly four times as likely to take AP social studies in Grade 9 as students who performed at the Proficient or Basic levels. The effects associated with taking Advanced Grade 8 U.S. History yielded a small positive effect on enrollment in AP social studies courses in Grade 9 ($d = 0.37$). When other students' measures were added separately into the model, the results revealed that: placing at the Advanced level on Grade 8 MSA Reading ($d = 0.74$), or earning a Grade 8 MP4 GPA ≥ 3.0 ($d = 0.70$) were significantly associated with an increased likelihood of students taking AP social studies in Grade 9. The effect sizes for each of these two factors were large and meaningful in an educational setting (Table 5).

Table 5
Results of Logistic Regression Model of Enrollment in AP Social Studies in Grade 9: Effects of Advanced U.S. Grade 8 History and Other Explanatory Factors

All Predictors	β	S.E.	Wald	Odds ratio	P value Sig	Logit d (ES)
Advanced Grade 8 U.S. History	.675	.049	192.779	1.964	.000	0.37
Performance at Advanced level on Grade 8 MSA Reading	1.334	.061	473.639	3.797	.000	0.74
Grade 8 average attendance	.061	.007	87.218	1.063	.000	0.03
Grade 8 MP4 GPA ≥ 3.0	1.276	.069	343.179	3.582	.000	0.70
Cohort	.004	.029	.019	1.004	.889	0.00

In a separate model, when the ability level of students was controlled using Grade 8 MSA Reading proficiency level, having Advanced Grade 8 U.S. History had the largest effect (OR = 2.4; $d = 0.49$) on probability of enrolling in AP social studies for students who performed at the Proficient level (Appendix Table A7). Students who performed at the Proficient level on Grade 8 MSA Reading were twice as likely as students without Advanced Grade 8 U.S. History to enroll in AP courses. This finding suggested that having Advanced Grade 8 U.S. History was more beneficial and probably had a compensatory effect for students who performed at the Proficient level on Grade 8 MSA Reading. Having the advanced course was probably used as an additional criterion to ascertain that the students were AP ready. Notably, no cohort gave students an advantage; the rates of enrolling in AP courses were comparable across ($d = 0.00$) the three cohorts.

Table 6 displays the results for logistic analyses presenting the odds ratio and effect sizes for factors associated with taking AP social studies in Grade 9 courses by cohort. Cohort 1 (OR = 2.56) and Cohort 3 (OR = 2.52) students with Advanced Grade 8 U.S. History were nearly

three times as likely to take AP social studies in Grade 9 as students without the course. The medium effect sizes for Advanced Grade 8 U.S. History on taking AP social studies in Grade 9 for students in Cohort 1 ($d = 0.53$) and Cohort 3 ($d = 0.53$) were large and meaningful in an educational setting.

Within each cohort, students who performed at the Advanced level on Grade 8 MSA Reading were at least twice as likely to take AP social studies in Grade 9 as students who performed at the Proficient or Basic levels. Students who attained a Grade 8 MP4 GPA ≥ 3.0 were at least three times as likely as students who did not to take AP social studies in Grade 9. As with the total sample, across the cohorts, the effect sizes each of these factors ranged from 0.51 to 0.75 demonstrating that the effects were practically meaningful in an educational setting.

Notably, students who took AP courses had very similar academic performance profiles. Less than one third of Cohort 1 students had taken the Advanced Grade 8 U.S. History course; as such, schools must have used other criteria for determining AP-ready students. Within each cohort, the group of students without Advanced Grade 8 U.S. History was made up of larger proportions of students receiving ESOL services or who performed at the Basic level on Grade 8 MSA Reading or who earned a Grade 8 MP4 GPA ≤ 3.0 compared with peers who took Advanced Grade 8 U.S. History (Table 6). Conversely, for Cohort 3 students, all middle schools were offering Advanced Grade 8 U.S. History, and the demographic and academic profile of students who did not take Advanced Grade 8 U.S. History that year was different from those who did on several aspects (Appendix Table A4).

Table 6
Estimating Effects of Factors Associated with Enrolling in AP Social Studies in Grade 8 by Cohort

Cohort Year/Predictors	β	S.E.	Wald	P Value	Odds ratio	Logit d (ES)
Cohort 1 (2009–2010)						
Advanced U.S. History Grade 8	.954	.080	142.863	.000	2.595	0.53
Performance at Advanced level on Grade 8 MSA in reading	1.158	.127	83.124	.000	3.184	0.64
Grade 8 average attendance	.023	.012	3.767	.052	1.023	0.01
Grade 8 MP4 GPA ≥ 3.0	1.134	.088	166.203	.000	3.107	0.63
Cohort 2 (2010–2011)						
Advanced U.S. History Grade 8	.034	.102	.111	.739	1.035	0.02
Performance at Advanced level on Grade 8 MSA in reading	1.045	.105	99.798	.000	2.844	0.58
Grade 8 average attendance	.056	.011	24.653	.000	1.057	0.03
Grade 8 MP4 GPA ≥ 3.0	1.182	.078	230.991	.000	3.262	0.65
Cohort 3 (2011–2012)						
Advanced U.S. History Grade 8	.923	.169	29.676	.000	2.516	0.51
Performance at Advanced level on Grade 8 MSA in reading	.956	.103	86.327	.000	2.601	0.53
Grade 8 average attendance	.031	.011	7.743	.005	1.031	0.02
Grade 8 MP4 GPA ≥ 3.0	1.363	.083	270.670	.000	3.907	0.75

Summary

The findings revealed that the percentage of students who took Advanced Grade 8 U.S. History increased from 28% in 2010 when only 18 middle schools offered the course to 86% in 2013 when all middle schools offered the course. The implementation of the course was intended to create AP-ready students. Surprisingly, across the three years, the overall enrollment in AP social studies in Grade 9 increased less steeply from 7% to about 11%. The relative enrollment among students with Advanced Grade 8 U.S. History (12%) remained stable for the three years. Results indicated that Grade 9 students who took Advanced Grade 8 U.S. History, placed at the Advanced level on Grade 8 MSA Reading, or had a Grade 8 MP4 GPA ≥ 3.0 , were at least twice as likely to take an AP social studies course as peers without these academic characteristics. Moreover, students with these characteristics made up a higher proportion of the students who took AP social studies in Grade 9 than peers who did not. The largest effect of having Advanced Grade 8 U.S. History on taking AP social studies in Grade 9 was observed for students who placed at the Proficient level on Grade 8 MSA Reading. The probability of taking AP social studies in Grade 9 was significantly higher for students who placed at the Proficient level on Grade 8 MSA Reading and had Advanced Grade 8 U.S. History, relative to peers without the course. Students with Advanced Grade 8 U.S. History who performed at the Proficient level on Grade 8 MSA Reading were twice as likely as peers without the course to take AP social studies in Grade 9.

Evaluation Question 2

How did students who took Advanced Grade 8 U.S. History perform on AP social studies exams in Grade 9 compared with students without Advanced Grade 8 U.S. History?

To examine the performance in AP social studies courses in Grade 9, only students who enrolled in AP U.S. History and AP U.S. Government with NSL in Grade 9 in 2010–2011, 2011–2012, and 2012–2013 were included in the analyses. Next, the number of students with AP scores, indicating they had taken the AP exam, in AP U.S. History and AP U.S. Government with NSL was tabulated (Table 7). The results revealed nearly all of Cohort 1 ($n = 743$, 95%), Cohort 2 ($n = 1,010$, 92%), and Cohort 3 ($n = 1,049$, 95%) students, had scores in AP social studies, indicating that these students completed the course and also took the AP tests. Following that, the proportion of students who earned a score of 3 or greater was computed for students with AP scores (Table 8). Lastly, logistic regression models were used to compare the likelihood of earning a college-ready score between students with Advanced Grade 8 U.S. History and peers without the course and to explore additional factors associated with earning a college-ready score in AP social studies in Grade 9.

Table 7
Distribution of Grade 9 Students With AP Scores in Social Studies

Cohort	Students with Score for AP Social Studies Course Taken in Grade 9	
	<i>n</i>	%
Cohort 1 Grade 9 2010–2011 ($n = 783$)	743	94.9
Cohort 2 Grade 9 2011–2012 ($n = 1,097$)	1,010	92.1
Cohort 3 Grade 9 2012–2013 ($n = 1,109$)	1,049	94.6

Table 8 provides information on students who earned a college-ready score of 3 or higher on the social studies AP courses taken in Grade 9. More than 60% of Cohort 1 (62%), Cohort 2 (68%), and Cohort 3 (67%) students earned a college-ready score in the AP social studies courses taken in Grade 9.

Further analyses examined the distribution of the students with college-ready scores of 3 or higher among students with Advanced Grade 8 U.S. History and those without.

Overall, the proportion of students with Advanced Grade 8 U.S. History who took AP courses in Grade 9 and who earned a college ready score rose from 45% to 63% from 2011 to 2013. About 159 (35%) of Cohort 1 students who had Advanced Grade 8 U.S. History earned a 3 or higher on their AP social studies course in Grade 9. Subsequently, 621 (91%) Cohort 2 students and 672 (96%) Cohort 3 students with Advanced Grade 8 U.S. History earned a college-ready score (Table 8).

Table 8
Number and Proportion of Grade 9 Students with AP Scores in Social Studies

AP Cohort	Students with college-ready score for AP Social Studies Taken in Grade 9		Students With Advanced Grade 8 U.S. History who earned college-ready score	
	<i>n</i>	%	<i>n</i>	%
Cohort 1 Grade 9 2010–2011 (<i>n</i> = 743)	460	61.9	159	35.0
Cohort 2 Grade 9 2011–2012 (<i>n</i> = 1,010)	684	67.7	621	91.0
Cohort 3 Grade 9 2012–2013 <i>n</i> = 1,049)	699	66.6	672	96.0

What Explanatory Variables Were Associated With Performance in AP Social Studies Courses in Grade 9?

Because nearly all students from Cohorts 2 and 3 who took AP social studies in Grade 9 had Advanced Grade 8 U.S. history, logistic regression models examined factors associated with earning a college-ready score among Grade 9 students. The findings revealed that students with Advanced Grade 8 U.S. History were equally likely as peers without Advanced Grade 8 U.S. History to earn a college-ready score in AP social studies (Table 9). Notably, students who demonstrated high academic performance by performing at the Advanced level on Grade 8 MSA Reading (OR = 4.9), or earned a Grade 8 MP4 GPA \geq 3.0 (OR = 3.6), as well as students with no history of receiving FARMS services (OR = 3.1), were at least 3 to 5 times as likely as students without these characteristics to earn a college-ready score on AP social studies courses in Grade 9. The effects associated with these three characteristics were medium to large ($d = 0.5$ to $d = 0.88$) and educationally meaningful. Students without any history of receiving FARMS services were three times as likely (OR = 3.07) to earn a college-ready score as students receiving FARMS services.

Table 9
Factors Associated With Earning a College-Ready Score of 3 or Higher in AP Social Studies Courses
Taken in Grade 9

Student Characteristics	β	S.E.	Wald	df	Sig.	Odds ratio	Logit <i>d</i> (ES)
Advanced Grade 8 U.S. History	-.188	.124	2.303	1	.129	.829	-0.10
Performed at Advanced level on Grade 8 MSA Reading	1.586	.159	99.306	1	.000	4.882	0.88
Grade 8 attendance	.071	.014	27.324	1	.000	1.074	0.04
Grade MP4 GPA \geq 3.0	1.280	.166	59.562	1	.000	3.598	0.71
Never FARMS			84.571	2	.000		---
FARMS	1.122	.136	68.044	1	.000	3.070	0.62
Ever FARMS	.261	.183	2.025	1	.155	1.298	0.14

Table A8 in the Appendix presents the results for a logistic regression model predicting earning a college-ready score in AP social studies courses taken in Grade 9 by cohort. Consistently across cohorts, the results showed that large and positive mean effects of earning a college-ready score were associated with: a) overall class performance as indicated by Grade 8 MP4 GPA \geq 3.0, b) performance on Grade 8 MSA Reading, and c) not participating in FARMS services. That is, students with Grade 8 MP4 GPA \geq 3.0, students who scored at the Advanced level on Grade 8 MSA Reading, and students not participating in FARMS services were at least twice as likely to earn a college-ready score as students who did not share these characteristics.

Summary

Two thirds or more of the students enrolled in AP social studies classes in Grade 9 from 2011 to 2013 earned a college-ready score (3 or higher) on their AP social studies tests. More (absolutely more as well as relatively more) students took and passed AP social studies after Advanced Grade 8 U.S. History course was implemented. Nearly all of Cohort 2 (91%) and Cohort 3 (93%) with Advanced Grade 8 U.S. History, earned a score of 3 or greater. For all students and across cohorts, students who placed at the Advanced level on Grade 8 MSA Reading, with a Grade 8 MP4 GPA \geq 3.0, or students without history of receiving FARMS services were at least twice as likely to earn a college-ready score in AP social studies in Grade 9 as counterparts not sharing these characteristics.

Evaluation Question 3

How does participation and performance in AP social studies courses in Grade 9 for Black or African American and Hispanic/Latino students who took Advanced Grade 8 U.S. History compare with their peers without Advanced Grade 8 U.S. History?

To address Evaluation Question 3, Black or African American and Hispanic/Latino students were selected from the dataset. Then descriptive statistics of demographic characteristics of Black or African American and Hispanic/Latino students and those who took Advanced Grade 8 U.S. History are presented. Then, enrollment and performance of Black or African American and

Hispanic/Latino students in AP social studies in Grade 9 was compared among students with Advanced Grade 8 U.S. History and peers without.

Demographic Characteristics of Black or African American and Hispanic Students

When combined, students identified as Black or African American ($N = 7,499$) and Hispanic/Latino ($N = 6,855$) made up 14,354 (46%) of the middle school population ($N = 31,415$) during the three years. The number and proportion of students in the two subgroups were evenly distributed in very similar proportions across the three cohorts (Table 10).

Table 10
Distribution of Black or African American and Hispanic Students by Cohort

Race	Cohort 1 ($N = 4,749$)		Cohort 2 ($N = 4,833$)		Cohort 3 ($N = 4,772$)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Black or African American ($N = 7,499$)	2,434	51.3	2,540	52.6	2,525	52.9
Hispanic/Latino ($N = 6,855$)	2,315	48.7	2,293	47.4	2,247	47.1

Appendix Table A9 provides summary information on demographic and academic performance of Black or African American and Hispanic/Latino students in middle school for the years under study. Within each cohort, two thirds of Black or African American (>66%) and four fifths of the Hispanic/Latino (>80%) groups were made up of students who had either previously or were currently participating in FARMS services. Over 60% of the Hispanic/Latino subgroup and 20% of the Black or African American subgroup was comprised of students who had either previously or were currently receiving ESOL services. For every cohort, the proportion of Black or African American or Hispanic/Latino students who performed at the Advanced level on Grade 8 MSA Reading ranged from 33 to 39%.

Enrollment of Black or African American and Hispanic/Latino Students in Advanced Grade 8 U.S. History 2009–2010 to 2012–2013

Figure 3 presents data for the proportion of Black or African American and Hispanic/Latino students who took Advanced Grade 8 U.S. History from 2009–2010 to 2012–2013. Overall, the proportions of Black or African American (33% to 83%) and Hispanic/Latino (37% to 77%) students who took Advanced Grade 8 U.S. History increased from 2009–2010 to 2012–2013.

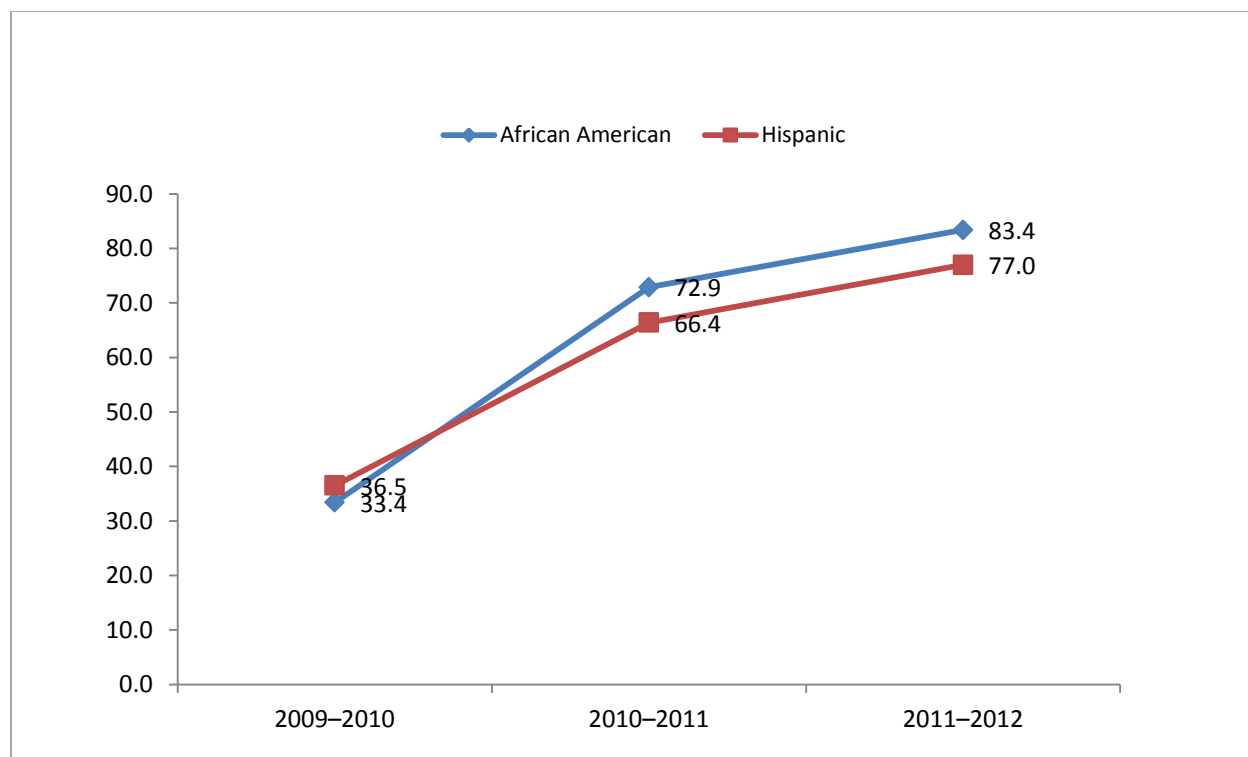


Figure 3. Percentage of Black or African American and Hispanic students who took Advanced Grade 8 U.S. History by school year.

Black or African American and Hispanic/Latino Students in AP Social Studies Courses in Grade 9

For each cohort, less than 10% of the middle school proportion of Black or African American (4.6% to 7.3%) and Hispanic/Latino (4.4% to 5.5%) students took AP social studies courses in Grade 9 (Table 11). Overall, the proportion of middle school students who took AP social studies in Grade 9 increased from 7.4 to 10.7% for the years under study (Figure 2).

Table 11

Number and Percentage of Black or African American and Hispanic/Latino Students Who Took AP Social Studies Courses in Grade 9 and Students Who Took AP and had Advanced Grade 8 U.S. History

Cohort	Race/Ethnicity	Took AP Courses		Took AP and had Advanced Grade 8 U.S. History	
		<i>n</i>	%	<i>n</i>	%
Cohort 1	Black or African American (<i>N</i> = 2,434)	112	4.6	72	64.3
	Hispanic/Latino (<i>N</i> = 2,315)	101	4.4	62	61.4
Cohort 2	Black or African American (<i>N</i> = 2,540)	172	6.8	144	83.7
	Hispanic/Latino (<i>N</i> = 2,293)	126	5.5	111	88.1
Cohort 3	Black or African American (<i>N</i> = 2,525)	184	7.3	176	95.7
	Hispanic/Lation (<i>N</i> = 2,347)	111	4.9	106	95.5

Table 11 also presents the proportions of Black or African American and Hispanic/Latino students who enrolled in AP social studies courses in Grade 9 distributed among students with and without Advanced Grade 8 U.S. History. Among students who enrolled in AP social studies classes in Grade 9, over 60% of Cohort 1 Black or African American (64%) or Hispanic/Latino (61%) students had Advanced Grade 8 U.S. History. Over 80% of Cohort 2 Black or African American (84%) and Hispanic/Latino (88%) students had Advanced Grade 8 U.S. History, and nearly all Black or African American (96%) and Hispanic/Latino (96%) students from Cohort 3 had Advanced Grade 8 U.S. History.

Profile of Black or African American and Hispanic/Latino Students who Took AP Social Studies Courses in Grade 9

Table 12 presents demographic characteristics of Black or African American and Hispanic/Latino students who took an AP social studies course in Grade 9 from 2010–2011 to 2012–2013. Female students outnumbered Male students in both groups except for Cohort 3. About one half of the Black or African American students who took AP courses had previously (17%) or were currently (37%) participating in FARMS services. At the same time, four fifths or more of the Black or African American students who took AP social studies in Grade 9 had no history of participating in ESOL (82%) or special education (95%) services. About 80% of Black or African American students had scored at the Advanced level on Grade 8 MSA Reading or earned a Grade 8 MP4 GPA of 3 or higher. Across the three cohorts, few students (fewer than 10) who were participating in ESOL services enrolled in AP social studies courses in Grade 9.

Notably, close to one half of the Hispanic/Latino students (46%) who took AP social studies had previously participated in ESOL services, whereas the remaining had no history of participating in ESOL services. In addition, when combined, the Hispanic/Latino group was made up of more than one half of students who were participating in FARMS (47%) or had previously participated in FARMS (15%) services. Similar to the Black or African American students, more than 82% of Hispanic/Latino students taking AP courses in Grade 9 had scored at the Advanced level on Grade 8 MSA Reading (82%) or earned a Grade 8 MP4 GPA of 3 or higher. For the three cohorts, few Hispanic/Latino students (fewer than 5) participating in ESOL services were enrolled in AP social studies courses in Grade 9.

Table 12
Profile of Black or African American and Hispanic/Latino Students who Took AP Social Studies Courses in Grade 9

Characteristics		Black or African American						Hispanic/Latino					
		Cohort 1		Cohort 2		Cohort 3		Cohort 1		Cohort 2		Cohort 3	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender	Female	67	59.8	98	57.0	107	58.2	61	60.4	60	47.6	55	49.5
	Male	45	40.2	74	43.0	77	41.8	40	39.6	66	52.4	56	50.5
FARMS	Never FARMS	58	51.8	69	40.1	91	49.5	35	34.7	44	34.9	46	41.4
	Prior FARMS	18	16.1	35	20.3	24	13.0	23	22.8	20	15.9	9	8.1
	FARMS	36	32.1	68	39.5	69	37.5	43	42.6	62	49.2	56	50.5
ESOL	Never ESOL	93	83.0	145	84.3	146	79.3	48	47.5	68	54.0	63	56.8
	Prior ESOL	19	17.0	27	15.7	37	20.1	51	50.5	57	45.2	47	42.3
	ESOL	0	0.0	0	0.0	1	0.5	2	2.0	1	0.8	1	0.9
SPED	No SPED	106	94.6	161	93.6	177	96.2	94	93.1	119	94.4	105	94.6
	Prior SPED	6	5.4	10	5.8	5	2.7	5	5.0	6	4.8	6	5.4
	SPED	0	0.0	1	0.6	2	1.1	2	2.0	1	0.8	0	0.0
Grade 8 MSA Reading Proficiency Level	Basic	0	0.0	2	1.2	2	1.1	2	2.0	1	0.8	0	0.0
	Proficient	17	15.3	36	20.9	34	18.5	14	13.9	25	19.8	18	16.5
	Advanced	94	84.7	134	77.9	148	80.4	85	84.2	100	79.4	91	83.5
Advance Grade 8 U.S. History		72	64.3	144	83.7	176	95.7	62	61.4	111	88.1	106	95.5
Grade 8 MP4 GPA \geq 3.0		90	80.4	139	80.8	157	85.3	80	79.2	103	81.7	94	84.7

Relationship Between Having Advanced Grade 8 U.S. History and Enrollment and Performance of Black or African American and Hispanic/Latino in AP Social Studies in Grade 9

Table 13 represents results from logistic regression that estimated the effect of Advanced Grade 8 U.S. History on enrollment of Black or African American and Hispanic/Latino students in AP social studies, separately by race/ethnicity. Hispanic/Latino (OR = 2.4) and Black or African American (OR = 2.3) students with Advanced Grade 8 U.S. History were at least twice as likely to take AP social studies in Grade 9 as peers without the course. The large effects indicated that having Advanced Grade 8 U.S. History significantly increased the probability of the combined Black or African American and Hispanic/Latino group and separately for Black or African American ($d = 0.72$) and Hispanic/Latino ($d = 0.67$) students taking AP social studies courses relative to peers without the course. These effects are meaningful in an educational setting (Table 13).

Table 13
Factors Explaining Enrollment in AP Social Studies in Grade 9 for Black or African American and Hispanic/Latino Students

	β	S.E.	Wald	df	Sig.	Exp(B)	Logit <i>d</i> Effect Sizes
Black or African American							
Grade 8 MPA4 Grade 8 MP4 GPA \geq 3.0	1.304	.106	150.729	1	.000	3.685	0.72
Grade 8 attendance	.060	.018	11.486	1	.001	1.062	0.03
Advanced on Grade 8 MSA Reading	.942	.117	64.415	1	.000	2.566	0.52
Advance Grade 8 U.S. History	.844	.146	33.214	1	.000	2.325	0.72
Hispanic/Latino							
Grade 8 MP4 GPA \geq 3.0	1.214	.120	102.284	1	.000	3.368	0.67
Grade 8 attendance	.032	.018	3.313	1	.069	1.033	0.02
Advanced on Grade 8 MSA Reading	1.242	.142	76.662	1	.000	3.463	0.69
Advance U.S. History Grade 8	.870	.162	28.827	1	.000	2.387	0.67

Factors Associated With Performance of Black or African American and Hispanic/Latino Students in AP Social Studies in Grade 9

Table 14 represents results from logistic regression that estimated the effect of Advanced Grade 8 U.S. History on earning a college-ready score on AP social studies exams taken in Grade 9 for Black or African American and Hispanic/Latino students. This finding was expected because over 80% of Black or African American and Hispanic/Latino students in this study who took AP courses had scored at the Advanced level on Grade 8 MSA Reading or earned a Grade 8 MP4 GPA \geq 3.0, indicating a very similar academic profile for AP readiness for students between the two groups.

The findings revealed that Black or African American and Hispanic/Latino students who performed at the Advanced level on Grade 8 MSA Reading earned a college-ready score at comparable rates with peers without the course. The findings also revealed that Black or African American and Hispanic/Latino students who performed at the Advanced level on Grade 8 MSA Reading (OR = 6.90) were nearly seven times as likely as peers who performed at the Proficient or Basic levels. Black or African American and Hispanic/Latino students without a history of receiving FARMS services were twice as likely as peers receiving FARMS services (OR = 2.4) to earn a college-ready score.

Table 14

Factors associated with earning a college-ready score for Black or African American and Hispanic/Latino students

Combined Black or African American and Hispanic/Latino	Variables in the Equation						Logit <i>d</i> Effect Sizes
	β	S.E.	Wald	df	Sig.	Odds ratio	
Advanced Grade 8 U.S. History	.056	.212	.071	1	.790	1.058	0.03
Performance at Advanced level on Grade 8 MSA Reading	1.933	.315	37.587	1	.000	6.907	1.07
Grade 8 average daily attendance	.071	.030	5.666	1	.017	1.074	0.04
Grade 8 MP4 GPA ≥ 3.0	.946	.265	12.723	1	.000	2.575	0.52
Never FARMS			25.550	2	.000		
FARMS	.879	.177	24.753	1	.000	2.408	0.49
Ever FARMS	.314	.241	1.704	1	.192	1.369	0.17

Students with a Grade 8 MP4 GPA ≥ 3.0 were twice as likely (OR = 2.57) as their peers to earn a college-ready score. Students who performed at the Advanced level on Grade MSA 8 Reading were about seven times more likely as their peers who performed at the Proficient or Basic levels to earn a college-ready score. Students without a history of receiving FARMS services (OR = 2.4) were three times as likely to attain a college-ready score on AP social studies in Grade 9 as students receiving FARMS services. That is, having a high Grade 8 MP4 GPA ($d = 0.52$), or performing at the Advanced level on Grade 8 MSA Reading ($d = 1.07$), and not receiving FARMS services ($d = 0.49$) were associated with practically medium to large meaningful impacts on earning a college-ready score for Black or African American and Hispanic/Latino students.

Summary

Taking Advanced Grade 8 U.S. History significantly increased the probability of Black or African American and Hispanic/Latino students enrolling in AP social studies in Grade 9. Black or African American and Hispanic/Latino students with Advanced Grade 8 U.S. History earned college-ready scores on comparable levels as peers without the course. Notably, these students were very similar in the academic profile associated with performance on AP social studies. As such, the comparable performance between students with and without Advanced Grade 8 U.S. History should not be taken as an indication that Advanced Grade 8 U.S. History was not beneficial.

Conclusion

This study provided a number of insights into AP social studies in Grade 9 for all students as well as for Black or African American and Hispanic/Latino students. More, not relatively more, but absolutely more students took and earned a college-ready score in AP social studies after Advanced Grade 8 U.S. History was implemented in all middle schools. That is a positive outcome. However, the intended outcome of increasing the number and percentage of students from all groups enrolling in an AP social studies course in Grade 9 was not achieved for the three cohorts in this study. This makes the stable rates of enrollment in AP social studies for three consecutive years of Grade 9 students very puzzling given that the dramatic increase in students with Advanced Grade 8 U.S. History was intended to yield AP-ready students.

It is likely that additional factors not related to AP readiness are limiting the enrollments and scheduling for AP social studies in Grade 9. Indeed, there are high proportions of students who did not take AP social studies in Grade 9 with academic performance levels similar to students who took AP social studies. More than one half of students who did not take AP social studies in Grade 9 scored at the Advanced level on Grade 8 MSA Reading, and a third had earned a MP4 GPA greater than 3.0. Therefore, having Advanced Grade 8 U.S. History was insufficient in and of itself to boost enrollment in AP social studies courses in Grade 9. These findings suggest a need to examine AP social studies course availability in high schools or use of data for course placement and staffing decisions from middle to high school. Examining additional factors accounting for the stable enrollments in AP social studies in Grade 9 may be an important next step.

Recommendations

The following recommendations were developed from the findings of this study:

- Examine practices related to AP social studies course availability to Grade 9 students across MCPS high schools to identify factors that are limiting or driving the enrollment patterns in AP social studies courses in Grade 9.
- Investigate why rates of participation in Advanced Grade 8 U.S. History vary across middle schools and student subgroups.
- Study and disseminate the best practices of middle schools with 100% participation in advanced Grade 8 U.S. History.
- Consider expanding the criteria for students perceived to be ready for AP social studies in Grade 9 to include students who performed at the Proficient level on state assessments who also had Advanced Grade 8 U.S. History and an overall GPA ≥ 3.0 .

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Appendix

Table A1
Implementation of Advanced Grade 8 U.S. History by Middle School and Year

2009–2010	2010–2011	2011–2012
Argyle	John T. Baker	Francis Scott Key
Benjamin Banneker	Briggs Chaney	Gaithersburg
Roberto W. Clemente	Cabin John	
Eastern	William H. Farquhar	
Dr. Martin Luther King, Jr.	Robert Frost	
Col. E. Brooke Lee	Herbert Hoover	
A. Mario Loiederman	Kingsview	
Montgomery Village	Lakelands Park	
Newport Mill	North Bethesda	
Parkland	Neelsville	
Shady Grove	John Poole	
Silver Spring International	Thomas W. Pyle	
Sligo	Redland	
Tilden	Ridgeview	
Julius West	Rocky Hill	
White Oak	Rosa M. Parks	
Earle B. Wood	Westland	
Forest Oak	Takoma Park	

Table A2
Curriculum Quick Reference –Social Studies Grade 8 (*Advanced skills in italics*)

Is the MCPS curriculum being taught? Curriculum Elements from Instructional Guides		Are instructional practices consistent with MCPS curriculum? Are assessments being used as described in instructional guides?
August September October	<p>Unit 1 – Democracy: Political System of the People 1763-1783</p> <ul style="list-style-type: none"> <input type="checkbox"/> The principles of political systems and the purposes of government <input type="checkbox"/> Sequence of events leading to the American Revolution <input type="checkbox"/> Impact and results of the war on American political, economic, and social systems <input type="checkbox"/> <i>Historical Thinking: Categorizing Evidence, Multiple Perspectives</i> <input type="checkbox"/> <i>Source Analysis: Analyzing Documents for Content, Perspective, Corroboration, and context</i> <input type="checkbox"/> <i>Writing: Writing a Thesis Statement, Supporting Thesis with Evidence, Determining Relevance of Evidence, Timed-Response</i> <input type="checkbox"/> <i>Learning Skill: Note-Taking</i> 	<p>Is the MCPS curriculum being taught?</p> <p>Are assessments being used as described in the instructional guide?</p> <p><i>The teacher:</i></p> <ul style="list-style-type: none"> • uses all class time for purposeful instruction. • helps students make connections to prior knowledge. • uses modeling to deliberately and explicitly teach thinking skills and academic content and concepts. • directly provides instruction in reading and writing to support student mastery of course content and concepts. • facilitates interactive, thoughtful discussions about course concepts and content and requires students to support their thinking with evidence. • uses advanced assessments to guide instruction. • differentiates instruction to meet students’ needs. • uses varied, yet appropriate strategies to convey complex content and ideas • provides rigorous instruction as described in MCPS Look Fors. (see reverse)
November December January	<p>Unit 2 – Creating a National Political System and Culture 1783-1815</p> <ul style="list-style-type: none"> <input type="checkbox"/> An American national culture bonded by shared democratic values and beliefs <input type="checkbox"/> Principles of federalism, separation of power, checks and balances, and representative government established in the Constitution <input type="checkbox"/> Presidencies of Washington, Jefferson, Adams <input type="checkbox"/> Unifying national culture through the War of 1812 <input type="checkbox"/> <i>Historical Thinking: Evaluation of Evidence for Relevance, Historical Interpretation</i> <input type="checkbox"/> <i>Source Analysis: Continuation of 8.1 Skills, Image Analysis</i> <input type="checkbox"/> <i>Writing: Task Analysis, Persuasion</i> <input type="checkbox"/> <i>Learning Skill: Reading and Questioning an Interpretation</i> 	
January February March	<p>Unit 3 – Geographic and Economic Change Shape the Nation 1815-1850</p> <ul style="list-style-type: none"> <input type="checkbox"/> The principles and influence of geography and economics <input type="checkbox"/> Impact of the westward expansion on regional economies and groups including Native Americans <input type="checkbox"/> Jacksonian Democracy expands rights for some; and states’ rights challenges to national unity <input type="checkbox"/> Responses to economic growth including industrialization, expanding slavery, immigration, and social reform movements. <input type="checkbox"/> <i>Historical Thinking: Identifying Patterns, Analyzing Current Events</i> <input type="checkbox"/> <i>Source Analysis: Interpreting Statistics</i> <input type="checkbox"/> <i>Writing: Document Based Question Essays</i> <input type="checkbox"/> <i>Learning Skill: Information Literacy</i> 	

Table A2
Curriculum Quick Reference –Social Studies Grade 8 (*Advanced skills in italics*)

<p>April May June</p>	<p>Unit 4 – A Nation Divided and Rebuilt 1840-1877</p> <ul style="list-style-type: none"> <input type="checkbox"/> Unity and division in American culture <input type="checkbox"/> Role of sectionalism and events leading to rising tensions within the nation <input type="checkbox"/> Causes and effects of the Civil War <input type="checkbox"/> The goals of Reconstruction and its successes and failures <input type="checkbox"/> <i>Historical Thinking: Multiple Causation</i> <input type="checkbox"/> <i>Culminating Assessment: Independent Document Based Question Essay</i> 	<p><i>The students:</i></p> <ul style="list-style-type: none"> • can demonstrate the big ideas and major content of the unit. • independently respond to complex writing tasks. • revise written responses to the highest levels. • show short and long-term improvement in written responses (e.g., journal responses/exit card responses). • work actively as individuals, in pairs, in small groups, and as a whole class to make meaning of social studies content. • engage in classroom discussions that focus on developing course content and conceptual understandings. • interpret primary and secondary sources and effectively use them to support a response. • employ <i>before, during, and after</i> reading strategies to learn social studies content. • monitor their own learning.
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Table A3a
Social Studies Advanced Placement Courses

<i>Social Studies</i>	
2315	Economics, Macroeconomics, Advanced Placement
2316	Economics, Microeconomics, Advanced Placement
2132/2145	Government, Comparative Government and Politics A/B, Advanced Placement
2104/2105	Government, United States and Politics with NSL, Advanced Placement A/B
2131	Government, United States Government and Politics, Advanced Placement
2216/2217	History, European, Advanced Placement A/B
2114/2124	History, United States, Advanced Placement A/B
2240/2241	History, World, Advanced Placement A/B
2332/2333	Human Geography, Advanced Placement A/B
2330/2331	Psychology, Advanced Placement A/B
2225	Seminar in Peace Studies
7829	Superintendent's Leadership Program
7830	Superintendent's Leadership Program
7831	Superintendent's Leadership Program
7832	Superintendent's Leadership Program

Source. MCPS, 2013. Advanced Placement and Advanced Level Courses.

Table A3b
High Schools that do not Offer AP Social Studies Courses to Grade 9 Students

School	AP course Offered to Grade 9
Blair	We do not offer AP social studies courses to Grade 9 students.
Clarksburg*	We do not offer AP social studies courses to Grade 9 students.
Damascus	We do not offer AP social studies courses to Grade 9 students.
Richard Montgomery	We do not offer AP social studies courses to 9th grade students.
Rockville**	AP U.S. History

*Clarification: AP Government is offered to Grade 9 students who are accepted into the Advanced Placement Power Scholars program, but Grade 9 students are not allowed to voluntarily sign up for it.

**Clarification: Although AP U.S. History is offered to Grade 9 students, it is by invite only based on data from middle school, input from middle school teachers, and MSA scores; so it is not open to all.

Table A4
Characteristics of Students who Took Advanced Grade 8 U.S. History by Year

		Cohort 1				Cohort 2				Cohort 3			
		Cohort		Took Advanced U.S. History		Cohort		Took Advanced U.S. History		Cohort		Took Advanced U.S. History	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender	Female	5,115	48.6	1,460	48.9	5,022	48.4	3,940	48.7	5,126	49.5	4,399	49.9
	Male	5,404	51.4	1,524	51.1	5,350	51.6	4,146	51.3	5,235	50.5	4,420	50.1
Race/Ethnicity	American Indian	24	0.2	7	.2	30	0.3	21	.3	34	0.3	24	.3
	Asian	1,688	16	468	15.7	1,657	16	1,382	17.1	1,604	15.5	1,432	16.2
	Black or African American	2,434	23.1	813	27.2	2,540	24.5	1,851	22.9	2,525	24.4	2,106	23.9
	Hispanic/Latino	2,315	22	844	28.3	2,293	22.1	1,523	18.8	2,247	21.7	1,731	19.6
	White	4,058	38.6	852	28.6	3,852	37.1	3,309	40.9	3,951	38.1	3,526	40.0
FARMS	Never FARMS	6,291	59.8	1,469	49.2	6,012	58	5,128	63.4	6,202	59.9	5,547	62.9
	Prior FARMS	1,157	11	420	14.1	1,103	10.6	804	9.9	986	9.5	784	8.9
	FARMS	3,071	29.2	1,095	36.7	3,257	31.4	2,154	26.6	3,173	30.6	2,488	28.2
ESOL	Never ESOL	7,807	74.2	2,054	68.8	7,799	75.2	6,344	78.5	7,748	74.8	6,781	76.9
	Prior ESOL	2,331	22.2	838	28.1	2,160	20.8	1,504	18.6	2,271	21.9	1,811	20.5
	ESOL	381	3.6	92	3.1	413	4	238	2.9	342	3.3	227	2.6
Special Education	Never SPED	8,539	81.2	2,523	84.6	8,573	82.7	6,870	85.0	8,683	83.8	7,535	85.4
	Prior SPED	754	7.2	205	6.9	630	6.1	506	6.3	543	5.2	469	5.3
	SPED	1,226	11.7	256	8.6	1,169	11.3	710	8.8	1,135	11	815	9.2

Table A5
Number and Percentage of Students who Took Advanced Grade 8 U.S. History by Year and School

Middle school	Took Advanced Grade 8 U.S. History							
	2009–2010		2010–2011		2011–2012		2012–2013	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
A. Mario Loiderman	320	99.1	240	100.0	263	100 ^a	244	100.0
Argyle	96	35.3	245	99.6	239	100 ^a	266	98.9
Baker	0	.0	230	100.0	284	100 ^b	246	99.6
Benjamin Banneker	265	100.0	276	100.0	274	100 ^a	252	100.0
Briggs Chaney	0	.0	306	100.0	304	100 ^b	298	100.0
Cabin John	0	.0	287	97.0	313	97.2 ^b	293	97.7
Earle B. Wood	139	47.6	211	74.0	187	64.9 ^a	164	60.1
Eastern	66	25.8	61	24.0	59	22.6 ^a	81	30.1
Forest Oak	0	.0	18	6.2	107	39.1 ^a	95	39.6
Francis Scott Key	0	.0	0	.0	288	99.3 ^c	285	96.3
Frost	0	.0	393	100.0	407	100 ^b	387	100.0
Gaithersburg	0	.0	0	.0	30	14.4 ^c	34	15.5
Herbert Hoover	0	.0	341	100.0	380	100 ^b	312	100.0
John Poole	0	.0	104	100.0	126	100 ^b	123	100.0
Julius West	174	54.0	184	52.0	201	55.8 ^a	218	56.6
Kingsview	0	.0	290	100.0	310	100 ^b	292	100.0
Lakeland Park	0	.0	189	69.7	228	79.2 ^b	248	76.8
Lee	0	.0	102	50.2	195	100 ^a	199	100.0
Martin Luther King	95	48.7	204	100.0	224	100 ^a	194	100.0
Montgomery Village	111	48.7	199	99.0	217	96 ^a	176	97.8
Neelsville	1	.3	118	40.4	277	100 ^b	277	100.0
Newport Mill	217	95.6	222	95.7	190	99.5 ^a	158	100.0
North Bethesda	0	.0	193	71.2	173	63.8 ^b	234	88.3
Parkland	187	64.0	156	56.1	146	55.1 ^a	120	46.7
Pyle	0	.0	401	98.5	422	95 ^b	466	99.8
Redland	0	.0	193	98.5	173	100 ^b	184	98.4
Ridgeview	0	.0	228	100.0	231	100 ^b	243	100.0
Roberto Clemente	308	83.7	326	83.0	308	83.5 ^a	299	83.3
Rocky Hill	0	.0	240	59.0	198	60.2 ^b	211	62.2
Rosa Parks	0	.0	299	100.0	318	100 ^b	300	100.0
Shady Grove	216	100.0	192	100.0	204	100 ^a	172	100.0
Silver Spring International	248	100.0	266	100.0	233	100 ^a	269	99.6
Sligo	100	50.0	111	62.7	69	52.3 ^a	79	65.3
Takoma Park	0	.0	277	100.0	271	100 ^b	270	100.0
Tilden	233	100.0	229	97.4	250	97.3 ^a	242	100.0
Westland	0	.0	431	100.0	401	100 ^b	452	99.8
White Oak	208	99.5	215	99.1	219	99.1	236	97.1
William H Farquhar	0	.0	109	51.2	99	51.8 ^b	227	92.3

^a Three years of offering Advanced Grade 8 U.S. History by 2011–2012

^b Two years of offering Advanced Grade 8 U.S. History by 2011–2012

^c Three years of offering Advanced Grade 8 U.S. History by 2011–2012

Table A6
Profile of All Grade 9 Students Who Did not Enroll for AP Course by Cohort

Student characteristics		Cohort 1		Cohort 2		Cohort 3	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender	Female	4,707	48.3	4,470	48.2	4,521	48.9
	Male	5,030	51.7	4,805	51.8	4,731	51.1
Race/Ethnicity	American Indian	24	.2	29	.3	31	.3
	Asian American	1,476	15.2	1,353	14.6	1,305	14.1
	Black or African American	2,322	23.8	2,368	25.5	2,341	25.3
	Hispanic	3,701	38.0	3,358	36.2	3,439	37.2
	White	2,214	22.7	2,167	23.4	2,136	23.1
FARMS	Never FARMS	5,694	58.5	5,193	56.0	5,315	57.4
	Prior FARMS	1,080	11.1	995	10.7	924	10.0
	FARMS	2,963	30.4	3,087	33.3	3,013	32.6
ESOL	Never ESOL	7,184	73.8	6,902	74.4	6,827	73.8
	Prior ESOL	2,175	22.3	1,962	21.2	2,087	22.6
	ESOL	378	3.9	411	4.4	338	3.7
SPED	Never SPED	7,815	80.3	7,559	81.5	7,652	82.7
	Prior SPED	706	7.3	556	6.0	480	5.2
	SPED	1,216	12.5	1,160	12.5	1,120	12.1
Grade 8 MSA Reading	Basic	1,178	12.3	1,054	11.6	1,202	13.2
	Proficient	3,096	32.4	3,156	34.7	3,121	34.3
	Advanced	5,286	55.3	4,884	53.7	4,782	52.5
Had Advanced Grade 8 U.S. History	No	7,104	73.0	2,151	23.2	1,502	16.2
	Yes	2,633	27.0	7,124	76.8	7,750	83.8

Table A7
Results of Logistic Regression Models of Enrollment in AP Social Studies in Grade 9: Effects of
Advanced U.S. Grade 8 History by Grade 8 MSA Reading Proficiency Level

Grade 8 MSA proficiency level	β	S.E.	Wald	df	Sig.	Exp(B)	Logit <i>d</i> Effect Size
Basic							
Took Advanced Grade 8 U.S. History	.767	.610	1.578	1	.209	2.152	0.42
Grade 8 Average Attendance	-.061	.053	1.342	1	.247	.940	-0.03
Grade 8 MP4 GPA	2.772	.517	28.731	1	.000	15.987	1.53
Proficient							
Took Advanced Grade 8 U.S. History	.878	.178	24.309	1	.000	2.406	0.49
Grade 8 Average Attendance	.011	.021	.250	1	.617	1.011	0.01
Grade 8 MP4 GPA	1.640	.127	167.397	1	.000	5.155	0.91
Advanced							
Took Advanced Grade 8 U.S. History	.519	.055	90.041	1	.000	1.680	0.29
Grade 8 Average Attendance	.012	.008	2.278	1	.131	1.012	0.01
Grade 8 MP4 GPA	1.132	.051	495.147	1	.000	3.103	0.63

Table A8
Results of Regression Model of Factors Associated with Earning a College Ready Score in AP Social Studies Performance in Grade 9

Cohort Year/Predictors	Odds ratio	P value	Logit d (ES)
Cohort 1 (2009–2010)			
Advanced Grade 8 U.S. History	0.685	.233	-0.21
Performance at the Advanced level on Grade 8 MSA	5.352	.007	0.93
Grade 8 attendance	1.063	.095	0.03
Grade 8 MPA4 GPA ≥ 3.0	3.294	.000	0.66
Being Black or African American or Hispanic/Latino	.414	.000	-0.49
FARMS recipient	.593	.000	-0.29
Cohort 2 (2010–2011)			
Advanced Grade 8 U.S. History	1.902	.003	0.36
Performance at the Advanced level on Grade 8 MSA	7.117	.002	1.08
Grade 8 attendance	1.088	.036	0.05
Grade 8 MPA4 GPA ≥ 3.0	3.932	.000	0.76
Being Black or African American or Hispanic/Latino	.554	.001	-0.33
FARMS receipt	.509	.000	0.36
Cohort 3 (2012–2013)			
Advanced Grade 8 U.S. History	1.107	.813	0.36
Performance at the Advanced level on Grade 8 MSA	9.062	.000	1.08
Grade 8 attendance	1.132	.000	0.05
Grade 8 MPA4 GPA ≥ 3.0	5.143	.000	0.76
Being Black or African American or Hispanic/Latino	.546	.001	-0.33
FARMS receipt	.683	.001	-0.37

Table A9
Demographic characteristics of all Black or African American and Hispanic Students by Cohort

Characteristics		Cohort 1 (N = 4,749)				Cohort 2 (N = 4,833)				Cohort 3 (N = 4,833)			
		Black or African American		Hispanic		Black or African American		Hispanic		Black or African American		Hispanic	
		n	%	n	%	n	%	n	%	n	%	n	%
Gender	Females	1,182	48.6	1,153	49.8	1,243	48.9	1,108	48.3	1,267	50.2	1,099	48.9
	Males	1,252	51.4	1,162	50.2	1,297	51.1	1,185	51.7	1,258	49.8	1,148	51.1
FARMS	Never FARMS	881	36.2	452	19.5	870	34.3	448	19.5	891	35.3	465	20.7
	Prior FARMS	386	15.9	431	18.6	393	15.5	373	16.3	348	13.8	360	16.0
	FARMS	1,167	47.9	1,432	61.9	1,277	50.3	1,472	64.2	1,286	50.9	1,422	63.3
ESOL	Never ESOL	2,068	85.0	791	34.2	2,156	84.9	879	38.3	2,140	84.8	828	36.8
	Prior ESOL	287	11.8	1,338	57.8	296	11.7	1,217	53.1	327	13.0	1,261	56.1
	ESOL	79	3.2	186	8.0	88	3.5	197	8.6	58	2.3	158	7.0
SPED	No SPED	1,901	78.1	1,822	78.7	2,045	80.5	1,822	79.5	2,071	82.0	1,829	81.4
	Prior SPED	150	6.2	146	6.3	120	4.7	112	4.9	102	4.0	108	4.8
	SPED	383	15.7	347	15.0	375	14.8	359	15.7	352	13.9	310	13.8
Advanced Grade 8 U.S. History	No	1,621	66.6	1,471	63.5	689	27.1	770	33.6	419	16.6	516	23.0
	Yes	813	33.4	844	36.5	1,851	72.9	1,523	66.4	2,106	83.4	1,731	77.0
AP Grade 9	No	2,322	95.4	2,214	95.6	2,368	93.2	2,167	94.5	2,341	92.7	2,136	95.1
	Yes	112	4.6	101	4.4	172	6.8	126	5.5	184	7.3	111	4.9
Grade 8 MSA Reading Proficiency Level	Basic	447	18.9	474	20.9	414	16.6	440	19.7	481	19.3	487	22.0
	Proficient	968	40.9	936	41.3	1,082	43.4	1,012	45.4	1,018	40.9	994	44.9
	Advanced	954	40.3	858	37.8	995	39.9	777	34.9	987	39.7	731	33.0