

MEMORANDUM

May 2, 2014

TO: School Board Members

FROM: Terry B. Grier, Ed.D.
Superintendent of Schools

SUBJECT: **2012–2013 AVID PROGRAM**

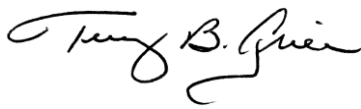
CONTACT: Carla Stevens, 713-556-6700

The Advancement Via Individual Determination (AVID) program was developed to increase the number of secondary students who participate in rigorous academic courses, to accelerate student learning, and to improve student performance. The AVID program in the Houston Independent School District (HISD) targets students who (1) are in the academic middle and earn grades of B, C, and D; (2) desire to go to college; (3) are willing to work hard; (4) are capable of completing rigorous curricula; and (5) are not reaching their full academic potential. During the 2012–2013 school year, Houston Independent School District (HISD) teachers who elected to participate in the AVID program received training on the AVID curriculum to ensure that it was applied appropriately. Students who participated in the AVID program received tutoring twice weekly from volunteer AVID tutors who provided content-specific support and guidance with reading, study skills, note taking, organizational skills, writing, inquiry, collaboration, and critical thinking to enhance learning, including mathematical reasoning.

Key findings are as follows:

- Overall, 1,641 students were enrolled in the 2012–2013 AVID program, a 55.4 percent increase from 2011–2012. The student enrollment increase at the high school level was 85.2 percent and 34.2 percent at the middle school level.
- Results of the performance of students in AVID in comparison to the performance of students not enrolled in AVID on the standardized and dual credit tests presented in this report are varied. Overall, the findings suggest the AVID program is effective in preparing students for success in dual credit courses and on the Stanford 10 assessment in reading and math, STAAR EOC exams, and the Exit Level TAKS. This indicates the strategies and skills learned in the AVID program transferred well to the aforementioned courses and tests. This bodes well for HISD's AVID program given that student mastery on the Exit Level TAKS and earning college credit while still in high school were among the academic performance factors found to be predictive of college success (Huerta, Watt, & Reyes, 2013).
- The generally lower performances of AVID students when compared to the performances of non-AVID students in pre-AP and AP courses and on the STAAR (including Level III advanced performance in general) and AP exams highlight crucial areas for program improvements.

Should you have any further questions, please contact my office or Carla Stevens in Research and Accountability at 713-556-6700.


_____ TBG

Attachment

cc: Superintendent's Direct Reports
Richard Cruz
Shonda Huery Hardman
Mark Shenker



RESEARCH

Educational Program Report

ADVANCEMENT VIA INDIVIDUAL DETERMINATION (AVID) FINDINGS RELATED TO STUDENT PERFORMANCE, 2012–2013

DEPARTMENT OF RESEARCH AND ACCOUNTABILITY
HOUSTON INDEPENDENT SCHOOL DISTRICT



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ADVANCEMENT VIA INDIVIDUAL DETERMINATION (AVID)

FINDINGS RELATED TO STUDENT PERFORMANCE, 2012–2013

Executive Summary

Program Description

The Advancement Via Individual Determination (AVID) program was developed originally in San Diego, California to increase the number of secondary students who participate in rigorous academic courses, such as Advanced Placement (AP) courses, to accelerate student learning, and to improve student performance. The AVID program in the Houston Independent School District (HISD) targets students who (1) are in the “academic middle” and earn grades of B, C, and D; (2) desire to go to college; (3) are willing to work hard; (4) are capable of completing rigorous curricula; and (5) are not reaching their full academic potential. Typically, these students (1) are enrolled in regular (non-gifted and talented, non-special education) classes; (2) are economically disadvantaged or are from non-White families; (3) are underrepresented in four-year colleges; and (4) possess the potential to become first-generation college students. In order to be selected for the AVID program, students must have a GPA between 2.0 and 3.5 and never have taken an AP course. During the 2012–2013 school year, HISD teachers who elected to participate in the AVID program received training on the AVID curriculum to ensure it would be implemented appropriately. Students who participated in the AVID program on 23 HISD middle and high school campuses received tutoring twice weekly from volunteer AVID tutors. All tutors were college students. They provided content-specific support and guidance with reading, study skills, note taking, organizational skills, writing, inquiry, collaboration, and critical thinking to enhance learning, including mathematical reasoning.

The AVID program aligns with the district’s Strategic Direction Core Initiative 3, “Rigorous Instructional Standards and Supports,” and the “College Readiness” aspect of the state’s House Bill 1. There was no budget for the 2012–2013 AVID program. All tutoring was provided by volunteers and work-study students from Houston Community College and the University of Houston-Downtown.

Highlights

- AVID participation increased 55.4 percent from the 2011–2012 (n=1,056) to the 2012–2013 school year (n=1,641), with increases of 34.2 percent and 85.2 percent at the middle and high school levels, respectively.
- Pre-Advanced Placement (pre-AP), Advanced Placement (AP), and dual credit course enrollment rates for students in the AVID program were higher than non-AVID students’ enrollment rates. A total of 72.4 percent of students in AVID enrolled in pre-AP courses, nearly double the rate of non-AVID students’ enrollment (37.7 percent). A total of 17.7 percent of students in AVID enrolled in AP courses, 5.0 percentage points higher than non-AVID students’ enrollment rate (12.7 percent). A total of 17.7 percent of high school students in AVID enrolled in dual credit courses, 11.0 percentage points higher than non-AVID high school students’ enrollment rate (6.7 percent).
- Non-AVID students attained a slightly higher average pre-AP course grade (80.82), but it was not found to be significantly higher than the pre-AP course grade average for students in AVID (80.79).
- Non-AVID students’ average AP course grade (80.79) was significantly higher than the average AP

course grade for students in AVID (79.61).

- The average dual credit course grade for students in AVID (84.62) was significantly higher than the average course grade for non-AVID students' average grade in dual credit courses (82.36).
- The number of AVID students taking AP exams increased 48.9 percent from 176 students in 2011–2012 to 262 in 2012–2013. However, the proportion of AVID participants who took AP exams decreased 0.7 percentage points. Nonetheless, the number of exams taken by students in AVID increased 20.1 percent from 348 in 2011–2012 to 418 in 2012–2013.
- The number of exams on which AVID students scored 3 or higher increased 61.1 percent from 36 in 2011–2012 to 58 in 2012–2013. The percentage of the AP exams taken on which students in AVID scored 3 or higher increased 3.6 percentage points from 10.3 percent in 2011–2012 to 13.9 in 2012–2013.
- The percentage of 2012–2013 AP exams on which students scored 3 or more points was 3.0 percentage points higher among non-AVID students (16.9 percent) than AVID students (13.9 percent).
- On Stanford 10 reading and math assessments, students in AVID in grades six through eight achieved higher average scores than their non-AVID peers, with the exception of grade six reading.
- On STAAR assessments in grades six through eight, seventh-grade AVID students in writing and eighth-grade AVID students in science and social studies achieved higher average scores than their non-AVID peers, but students in AVID achieved higher average scores than their non-AVID peers on STAAR reading and math tests in grades six through eight.
- On Exit Level TAKS assessments, eleventh-grade students in AVID achieved higher average scores than their non-AVID peers in all subjects tested. AVID students also met the commended level of performance in all subjects at a higher rate than students not enrolled in AVID, with the exception of science.
- Eighth-grade students enrolled in AVID met the STAAR Level III advanced standard in science at a higher rate than did their peers who were not enrolled in AVID. However, a higher rate of non-AVID students achieved Level III performance in all other subjects.
- Students in AVID achieved higher average scores than their non-AVID peers on every STAAR End of Course (EOC) assessment (English I Reading, English I Writing, English II Reading, English II Writing, Algebra I, Algebra II, Geometry, Biology, Chemistry, World Geography, and World History).
- Disaggregated by grade level (eight through ten), STAAR EOC results revealed AVID students achieved higher average scores than their AVID peers on all exams, with the exception of English I Writing at grade ten and Algebra I at grades eight and ten.
- Students enrolled in AVID met the Level III advanced standard at a higher rate than did students not enrolled in AVID on the STAAR EOC Algebra II exam.
- Analyses of the program effects on student performance on STAAR EOC exams revealed the differences between students in AVID and their non-AVID peers were substantially significant (i.e.

effect size ≥ 0.25 standard deviations) on 9 (or 81.8 percent) of the eleven exams. Analyses of program effects on student performance on STAAR EOC exams disaggregated by grade level (eight through ten), revealed the performance differences were substantially significant on 10 (or 58.8 percent) of the 17 STAAR EOC exams on which AVID students achieved higher average scores than their non-AVID peers.

Recommendations

- To help the program to recover from the significant loss of funding and decline in AVID high school enrollment in 2011–2012, address funding challenges that may impact student participation in the AVID program.
- Examine the capacity of current AVID recruitment strategies to assess each prospective AVID student's attendance and behavior through culturally sensitive lens, prior to excluding a student from program enrollment.
- Identify strategies to examine factors that contribute to low enrollment rates in advanced courses among students in AVID, such as the 2012–2013 enrollment rates that did not reach 20 percent in AP or dual credit courses.
- To extend the academic success of AVID students and to improve the academic performances of students in AVID who enroll in pre-AP and AP classes and who take AP and STAAR assessments, further examine the extent to which AVID program providers employ the rigorous AVID curriculum and provide the instructional support necessary for AVID students to be highly successful in all their courses. Also, consider replicating best practices (instructional and learning) that contribute to the success of students in AVID who enroll in dual credit courses.
- To further increase program participation and improve the consistency of positive outcomes in achievement among students in AVID, it may prove beneficial to ensure full implementation of each of the eleven factors that have been identified by AVID program developers to guide successful program implementation and enhance the success of AVID students.

Administrative Response

The effectiveness of the AVID program is evident. Student performance and engagement is high among AVID programs nationwide when implemented correctly. Implementation, however, is a costly endeavor with the average cost of year one implementation reaching \$30,000 for a mid-size campus. In the instance where a decrease in student enrollment in AVID occurred from the 2010-11 school year to the 2011-12, grant funds were no longer available and being utilized for AVID at the following campuses: Davis, Sam Houston, Waltrip and Yates. The district also had a further drop in participation shortly after the 2012-13 contract year for AVID as schools reported cancellation of their AVID program due to insufficient funds and/or limited funding.

The 2014-2015 school year has presented HISD with a new opportunity to reinvest in AVID through the Race To The Top grant and commit more campuses to the program for the upcoming year. Currently, a total of 13 HISD campuses offer the AVID program (down 10 from the prior Year) - 13 campuses have committed to the AVID/Rice University two-year grant (funded by the Houston Endowment). The goals of the AVID/ Rice grant includes increasing student participation/enrollment in AVID by 20%, and a 10% increase in the number of students participating in AP school-wide by the end of the two-year grant. The AVID/Rice grant however does not provide funding towards program cost and only covers the cost of professional development offered through Rice and AVID.

Introduction

Advancement Via Individual Determination (AVID) is a secondary education program to prepare students for the rigors of a four-year college or university. The Houston Independent School District (HISD) works to ensure the preparation of AVID students for a four-year college or university through a six-year plan which highlights collaborative learning and critical inquiry with specific focus on reading and writing. The plan was developed in collaboration with HISD's Federal and State Compliance, College Readiness, Career Readiness, and Dropout Prevention departments, and with the secondary lead counselors. It is now the official format for mapping student graduation plans in middle and high schools. AVID utilizes an array of strategies to support HISD students' successful completion of high school and entrance into college.

The AVID program employs four basic strategies to help students to develop their academic skills for success. The strategies: writing, reading, collaboration, and inquiry target students' needs. Writing and reading are emphasized across subjects to help students clarify, organize, understand, and communicate ideas. To improve their writing, students may participate in Cornell note-taking, prewrite, journaling/learning logs, draft and final draft, editing, and reader response activities. Activities to help students become more effective and confident readers include survey/question/read/record/recite/review/reflect (SQ5R), What I Know/Want to Learn/Learned (KWL), reciprocal teaching, and Think-Aloud. Unlike traditional models for teaching and learning, collaborative processes are infused throughout the AVID program and include group projects, study groups, Jigsaw Activities, response/edit/revision groups, and Read-Around. Inquiry or questioning is AVID's foundational strategy and is used to help AVID students critique and synthesize information so they may advance to higher levels of thinking, incrementally. This is achieved through skilled questioning and Socratic Seminars, as well as through critical thinking and open-mindedness activities (Contreras, et al., 2007). Students may apply the techniques they learn in the AVID program in all their courses. During the 2012–2013 school year, students on 23 HISD middle and high school campuses participated in AVID.

There are three program goals outlined for AVID:

- Provide education reform and school improvement to advance student achievement in reading and mathematics.
- Increase Advanced Placement (AP), International Baccalaureate (IB), and dual credit course enrollment and completion for participating students.
- Expand learning opportunities through best practice models to improve teaching and learning (Department of Research and Accountability, 2012).

Methods

- In December 2012, campus-based data collection records of student participation in the AVID program were used to compile a list of 2012–2013 AVID participants. The records were completed by campus-based AVID administrators to identify students enrolled in an AVID elective course between August and December of 2012. Through this process, a list of 821 middle and 900 high school program participants (n=1,721) was generated and used to extract demographic, course, and test data associated with the identified students. AVID participants were matched to their HISD 2012–2013 Public Education Information Management System (PEIMS) student information and their 2012–2013 State of Texas Assessments of Academic Readiness (STAAR), Stanford 10, Texas Assessment of Knowledge and Skills (TAKS), and STAAR End-of-Course

(EOC) scores. AVID participants were also matched to HISD Advanced Placement (AP), International Baccalaureate (IB), and dual credit grades and/or examination (exam) databases. The data were used to determine students' characteristics, participation and grades in advanced courses, and performance on exams.

- Of the 1,721 AVID students initially identified in grades 6–12, 2012–2013 demographic data were available for 1,690 (or 98.1 percent) of them. Campus, grade level enrollment, and AVID course participation and completion data retrieved from Chancery Grades files on November 22, 2013 included 828 middle and 816 high school students (n=1,644). However, the data revealed fewer than five AVID students at Sterling High School. Therefore, the data were omitted from this analysis to mask the students' identities. This resulted in the inclusion of 11 middle and 11 high schools (n=22 or 95.7 percent) of the 23 participating 2012–2013 AVID schools. Included are 828 middle and 813 high school students (n=1,641 or 95.4 percent) of the 1,721 AVID participants who were initially identified. The 2012–2013 course and examination performances of 1,641 AVID students were compared to the performances of 20,386 non-AVID students on the same measures. Grade level enrollment data from Chancery and test files were used in test performance analyses.
- For the purpose of comparison, students in AVID during the 2011–2012 school year and all non-AVID students on AVID campuses enrolled in the same grade levels of the AVID participants during the 2012–2013 school year were included in this analysis. Student performance outcomes for the 2011–2012 school year were obtained from the 2011–2012 evaluation report (Department of Research and Accountability, 2012). All of the 2012–2013 non-AVID peers of AVID students on AVID campuses were used in this analysis to provide real-world student performance comparisons within the context of the student cohorts from which AVID students were identified for program participation and within which AVID students selected courses, performed in courses and on associated tests, and were assessed academically on their campuses.
- Unduplicated grade files for students' pre-Advanced Placement (pre-AP), AP (Advanced Placement), and dual credit courses for 21,770 courses taken by AVID students and 260,576 courses taken by non-AVID students were retrieved. Of them, 3,027 records (310 AVID and 2,717 non-AVID) contained no final grade and were omitted from analyses of course performance. The two HISD schools that provide Inter-baccalaureate (IB) courses were not among the AVID schools; therefore, analysis of IB course performance was not conducted.
- The 2012–2013 course and examination performances of AVID students were compared to the performances of non-AVID students to determine if differences exist between AVID and non-AVID students' performances on the same measures. In addition, comparative analyses using independent *t*-tests, with probability levels set at $p < 0.05$ were conducted to determine the statistical significance of differences found between the mean performances of students in AVID and their non-AVID peers on 2012–2013 state-mandated, criterion-referenced STAAR, STAAR EOC, and TAKS tests (using scale scores) in addition to the norm-referenced assessment, Stanford 10, using normal curve equivalents (NCEs). Test data for groups smaller than five students were not included in the report. TAKS scores for a group greater than 5 students in AVID were available for grade 11. Some high school students take STAAR courses out of sequence (Witte, 2014). Therefore, STAAR EOC exam results were aggregated for all AVID and non-AVID students, as well as disaggregated by grade level to help target instructional improvements. STAAR EOC Level III results for a group greater than 5 students in AVID were

available for grade 10 Algebra II only. The number of students tested is included in statistics tables of results by exam if at least one AVID student was tested.

- Hedge’s *g* effect size statistics were used to determine the magnitude of the AVID program’s effect on student performance-based mean differences between course or test performances of students in AVID and their non-AVID peers. A conservative standard deviation unit of .25 or higher was used to identify substantially important findings (Texas Education Agency, 2014).

Data Limitations

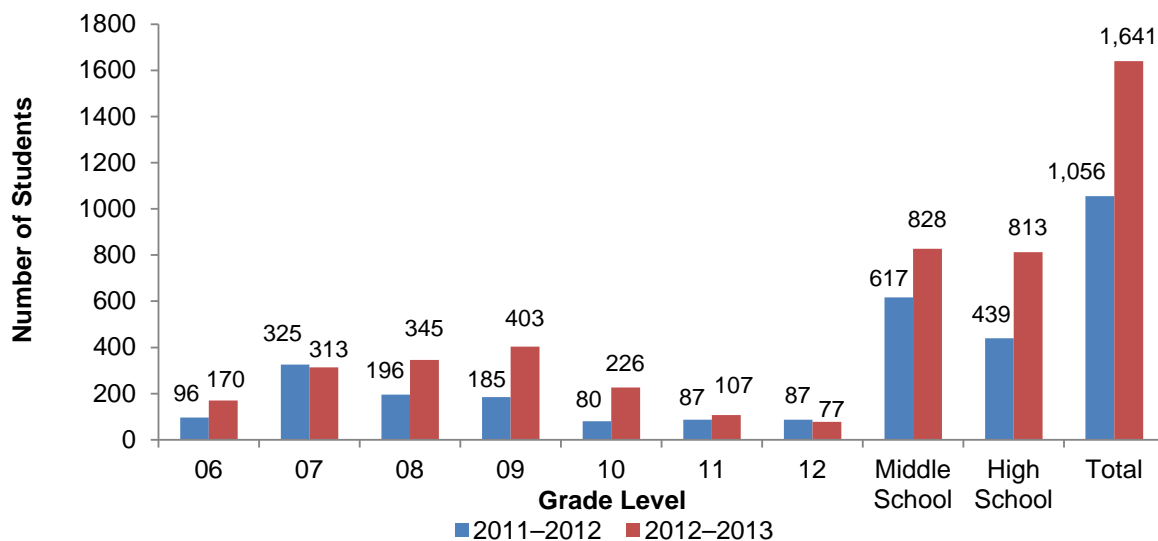
- A complete roster of students enrolled in the AVID program could not be confirmed due to variations in enrollment counts received through program administrators and district databases.

Results

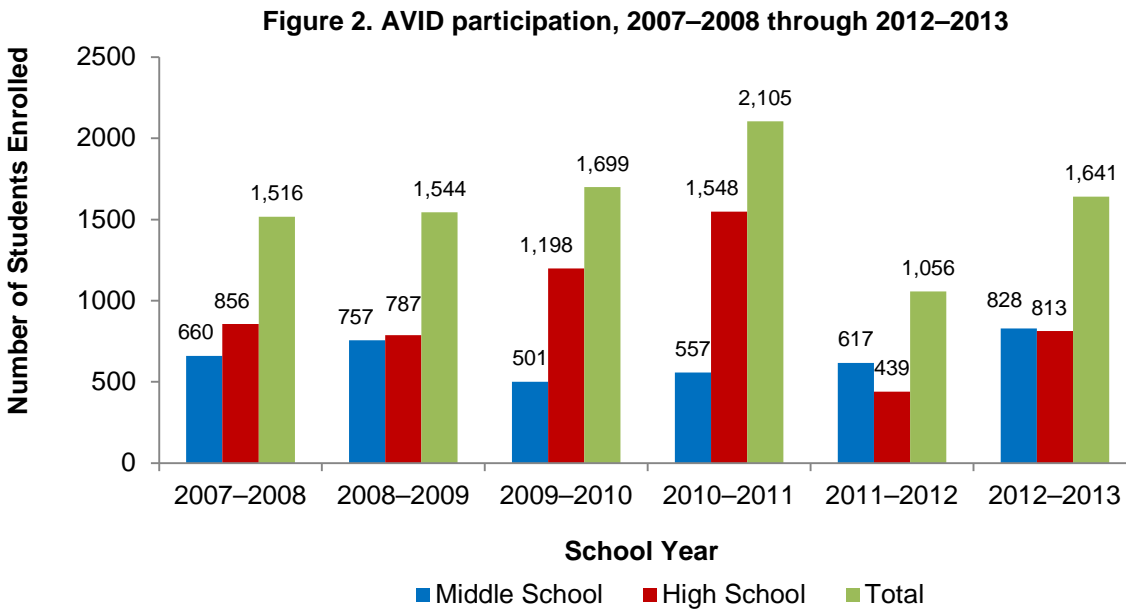
What were the levels of participation in the AVID program during the 2011–2012 and 2012–2013 school years?

- **Figure 1** shows AVID participation increased 55.4 percent, from 1,056 students in 2011–2012 to 1,641 students in 2012–2013, with an increase at the middle grades (six through eight) of 34.2 percent and at the high school grades (nine through twelve) of 85.2 percent.
- AVID participation increased at grades six and eight through eleven from the 2011–2012 to the 2012–2013 school year. Specifically, the number of ninth- and tenth-grade AVID participants more than doubled (117.8 percent and 182.5 percent, respectively). The number of participants increased 77.1 percent at sixth grade, 76.0 percent at eighth-grade, and 23.0 at eleventh grade. However, AVID participation decreased among seventh-grade students (3.7 percent) and twelfth-grade students (11.5 percent) from 2011–2012 to 2012–2013 (Figure 1).

Figure 1. AVID participation by grade level, 2011–2012 and 2012–2013

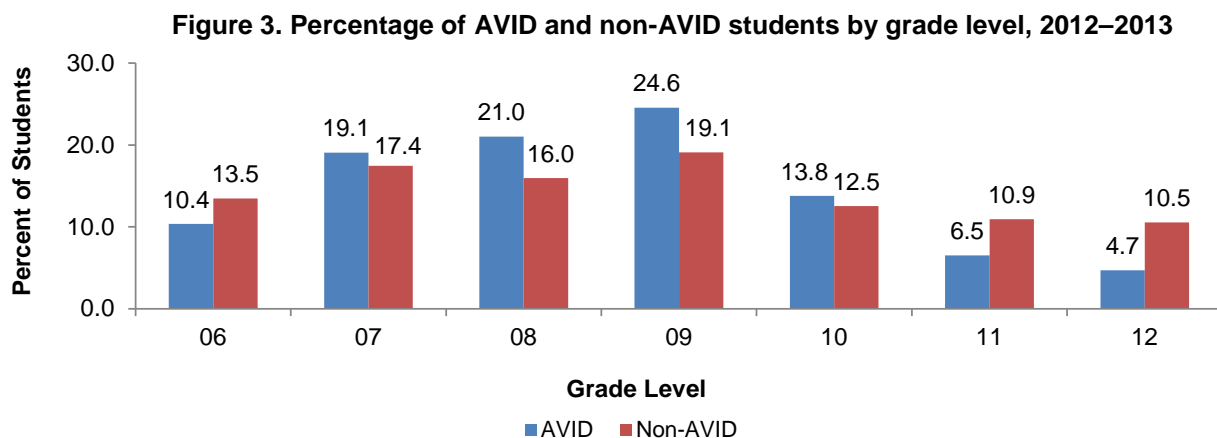


- **Figure 2** reveals AVID program enrollment increased 8.2 percent over the last six years from 2007–2008 to 2012–2013, including a 25.5 percent increase among middle school students (with a low of 501 in 2009–2010 and a high of 828 in 2012–2013) and a 5.0 percent decrease among high school students (with a low of 439 in 2011–2012, due to the loss of funding for Smaller Learning Communities on several AVID high school campuses, and a high of 1,548 students in 2010–2011).



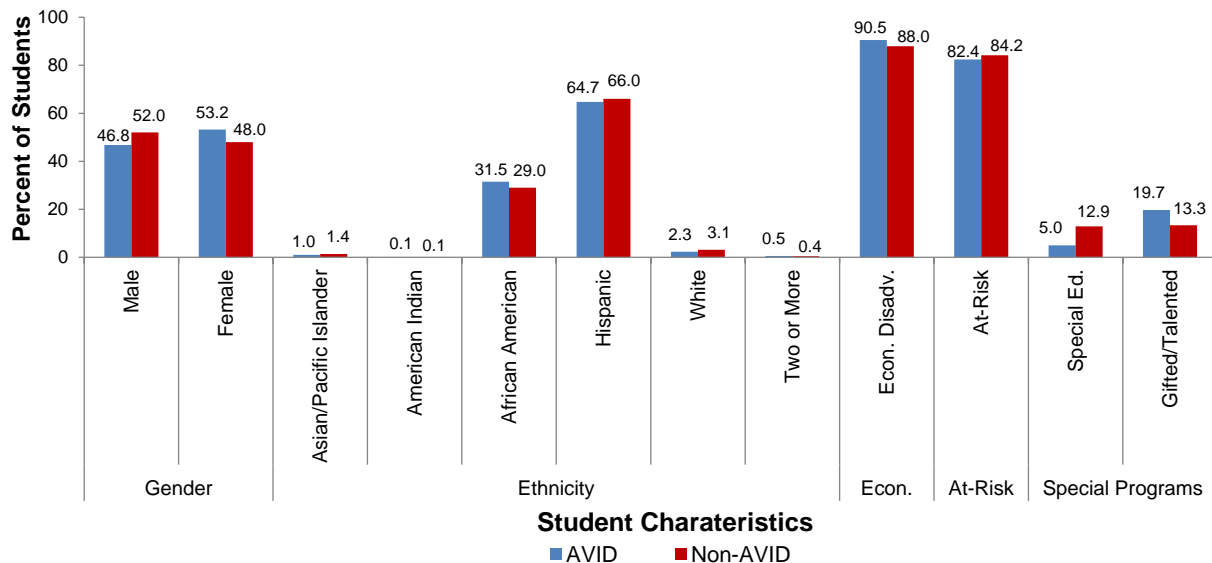
How do the characteristics of 2012–2013 AVID participants compare to the characteristics of their non-AVID counter-parts?

- There were 1,641 AVID participants and 20,386 non-AVID students on AVID campuses for whom grade level and demographic data were available. **Figure 3** shows, across groups, the largest proportion of AVID students were the ninth grade, followed by students in the seventh and eighth grades. The proportions of AVID and non-AVID students were most comparable at grades seven and ten, with differences of 1.7 and 1.3 percentage points, respectively. At grades six and eleven, the proportions of students differed by 3.1 and 4.4 while the differences were increasingly greater at grades eight (5.0), nine (5.5), and twelve (5.8). (**Table 1**, page 24; **Table 2**, page 25.)



- To assess the similarities and differences between the characteristics of AVID and their non-AVID peers, **Figure 4** shows the percentage of students in AVID and non-AVID students by their demographic characteristics. A total of 96.2 percent of students in AVID and 95.0 percent of non-AVID students were Hispanic or African American, with more than twice the number of Hispanic than African American students in each group. Across groups, approximately 90 percent of the students were economically disadvantaged and 82.4–84.2 percent at-risk students. The proportions of at-risk students, Asian/Pacific Islander, American Indian, Hispanic, White, and students of two or more ethnicities were comparable across groups, with differences between 0.0 and 1.8 percentage points. A total of 5.0 percent of AVID and 12.9 percent of non-AVID students were special education students, while 19.7 percent of students in AVID and 13.3 percent of non-AVID students were gifted/talented students. Other notable differences between the groups included greater proportions of AVID students among female (5.2), African American (2.5), economically disadvantaged (2.5), and gifted and talented students (6.4) than among non-AVID students. In addition, non-AVID students comprised greater proportions of male (5.3) and special education (7.9) students. (**Table 3**, page 26.)

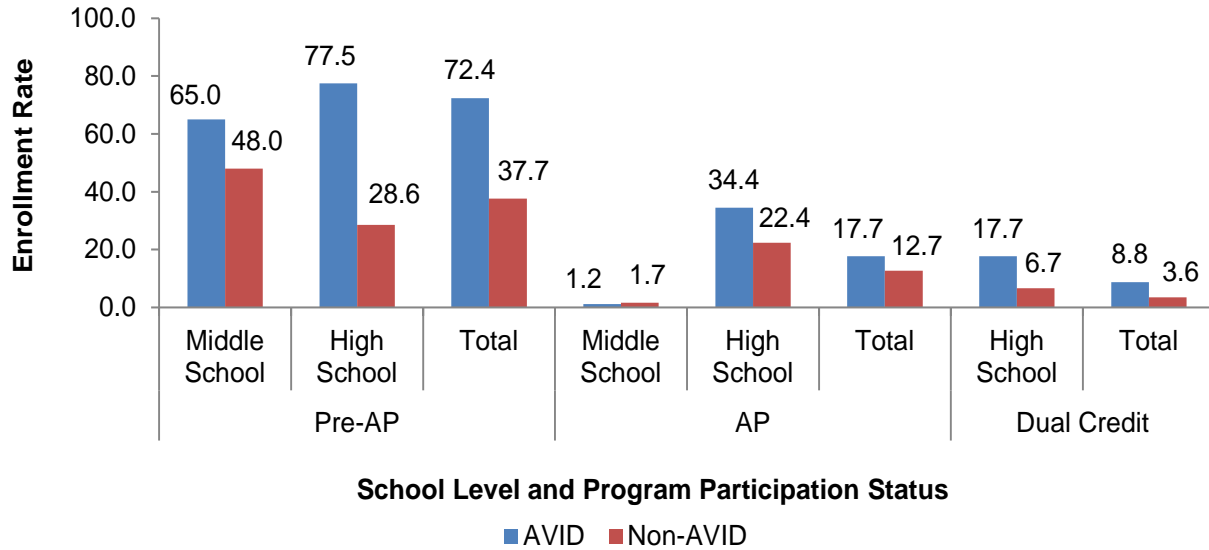
Figure 4. Demographic characteristics of AVID and non-AVID students, 2012–2013



Do AVID students enroll in more pre-AP, AP, and dual credit courses than non-AVID students enroll in these courses?

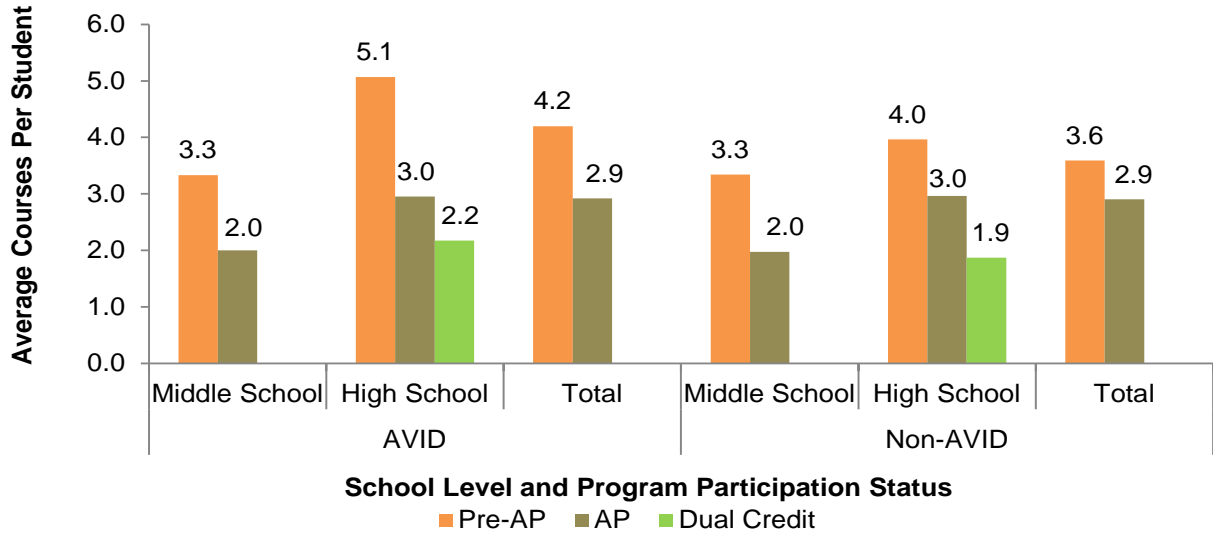
- Figure 5** (page 9) shows pre-AP, AP, and dual credit course enrollment rates of the 1,641 students in AVID were higher than the enrollment rates of the 20,386 non-AVID students, with the exception of AP courses at the middle school level. Pre-AP course enrollment for students in AVID was 72.4 percent, 34.7 percentage points higher than the non-AVID student enrollment rate (37.7 percent), with differences at the middle and high school levels of 17.0 percentage points and 48.9 percentage points, respectively. AP course enrollment for students in AVID was 17.7 percent, 5.0 percentage points higher than the non-AVID student enrollment rate (12.7 percent), with differences at the middle and high school levels of -0.5 percentage points and 12.0 percentage points, respectively. Dual credit course enrollment rate for high school students in AVID was 17.7 percent, 11.0 percentage points higher than the non-AVID student enrollment rate of 6.7 percent. Dual credit courses were not offered at middle schools.

Figure 5. Enrollment rates for AVID and non-AVID students in pre-AP, AP, and dual credit courses, 2012–2013



- Figure 6** reveals AVID and non-AVID students' average courses per student enrollment rates in pre-AP, AP, and dual credit courses based on the number of AVID or non-AVID students who took the courses. Overall, students in AVID had higher enrollment rate in pre-AP courses per student (4.2 courses) than the non-AVID student enrollment rate per student (3.6 courses), with very comparable rates at the middle school level (3.3 courses per AVID and non-AVID student) and a higher rate for students in AVID than for their non-AVID peers at the high school level (5.1 courses versus 4.0 courses). AVID and non-AVID enrollment in AP courses per student was essentially equal at each school level. Dual credit course enrollment per high school student for students in AVID (2.2 courses) was slightly higher than the enrollment rate of their non-AVID peers (1.9 courses).

Figure 6. Average courses per student enrollment rate for AVID and non-AVID students who were enrolled in pre-AP, AP, and dual credit courses, 2012–2013



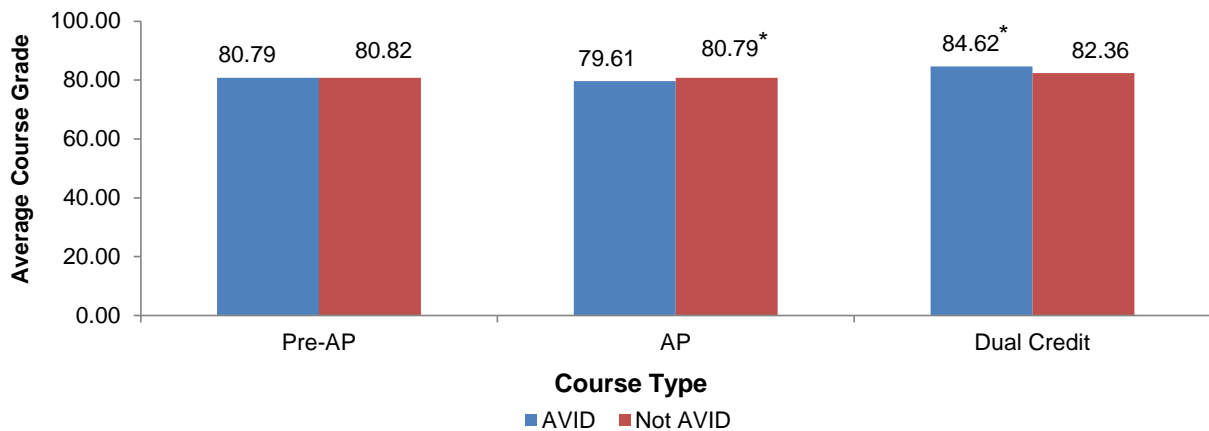
Note: Courses per student enrollment rates are based on the number of AVID or non-AVID students who took pre-AP, AP, and dual credit courses.

- A total of 1,188 (558 middle school and 630 high school) students of the 1,641 students in AVID enrolled in a total of 4,987 (1,793 middle school and 3,194 high school) pre-AP courses and 7,683 (4,590 middle school and 3,093 high school) students of the 20,386 non-AVID students enrolled in 27,611 (15,345 middle school and 12,266 high school) pre-AP courses. (Table 4, page 27.)
- A total of 290 (10 middle school and 280 high school) students in AVID enrolled in a total of 847 (20 middle school and 827 high school) AP courses and 2,588 (167 middle school and 2,421 high school) non-AVID students enrolled in a total of 7,511 (330 middle school and 7,181 high school) AP courses. A total of 144 students in AVID enrolled in a total of 313 dual credit courses and 726 non-AVID students enrolled in a total of 1,360 dual credit courses. (Table 4, page 27.)

Do students in AVID make higher course grades in AP, IB, and dual credit courses than their non-AVID counterparts?

- **Figure 7** depicts the aggregated average course grades of AVID and non-AVID students who enrolled in pre-AP, AP, and dual credit courses. AVID students attained a higher grade average than non-AVID students in dual credit courses only.
- Figure 7 also reveals students in AVID attained a lower average grade in pre-AP courses (80.79) than the average course grade (80.82) achieved by non-AVID students enrolled in pre-AP courses. (Table 5, Page 28.)

Figure 7. Average pre-AP, AP, and dual credit course grades for AVID and non-AVID students, 2012–2013



Note: *Indicates statistical significance, $p < 0.05$.

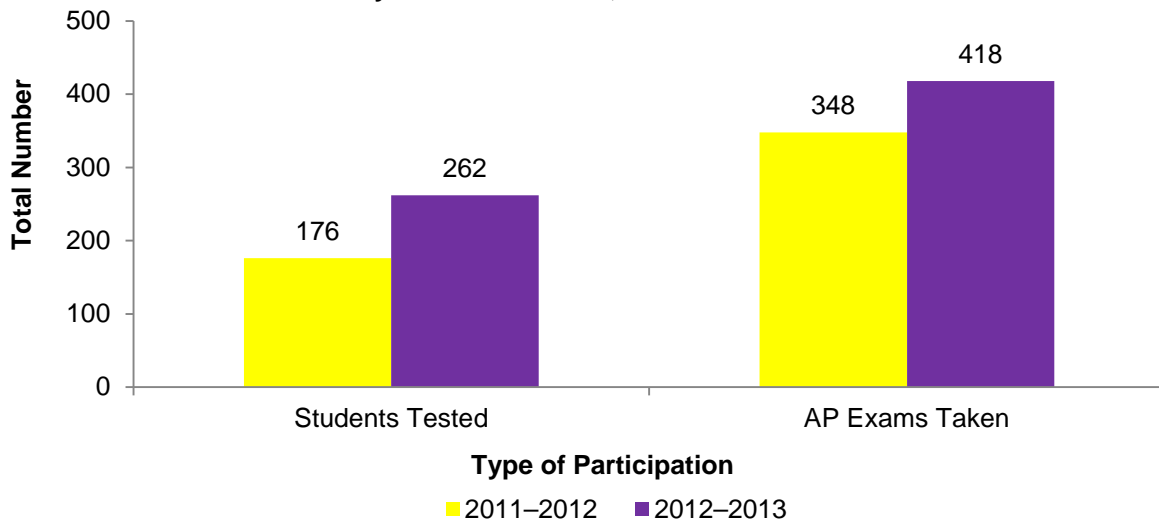
- The average AP course grade (79.61) for students in AVID was statistically significantly lower than the average course grade (80.79) for non-AVID students enrolled in AP courses. (Table 5, Page 28.)
- The average dual credit course grade (84.62) for students in AVID was statistically significantly higher than the average course grade (82.36) for non-AVID students enrolled in dual credit courses. (Table 5, Page 28.)
- Analyses of the program effects on students' AP and dual credit course grades revealed the

performance differences were not substantially significant (i.e. effect size not ≥ 0.25 standard deviations). (Table 5, Page 28.)

How do the levels of AP exam participation and performance of students in the AVID program compare between the 2011–2012 and 2012–2013 school years?

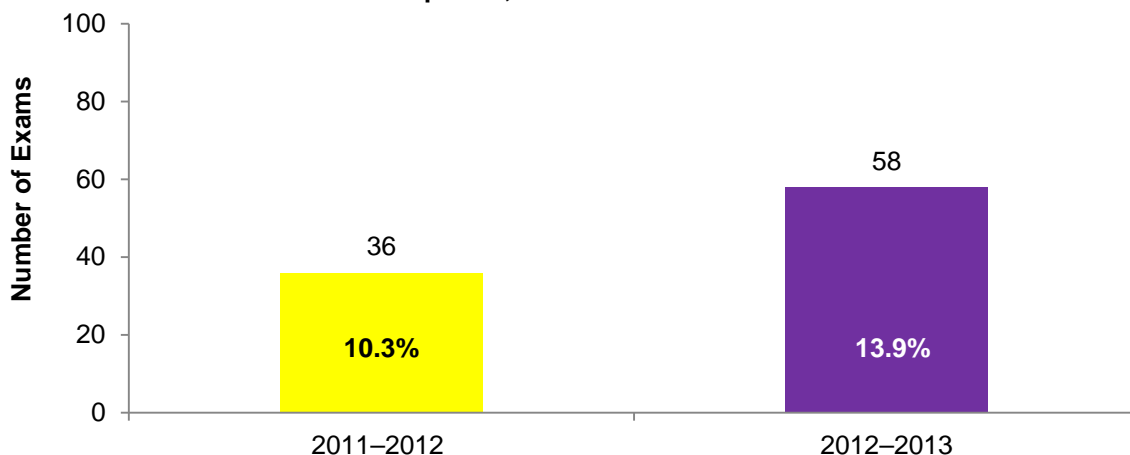
- Figure 8** shows the number of AVID students taking AP exams increased 48.9 percent from 176 students in 2011–2012 to 262 in 2012–2013. However, the percentage of the total number of AVID participants who took AP exams decreased 0.7 percentage points. Nonetheless, the number of exams taken by students in AVID increased 20.1 percent from 348 in 2011–2012 to 418 in 2012–2013. (Table 6, page 28.)

Figure 8. Number of students in AVID tested on AP exams and the number of AP exams taken by students in AVID, 2011–2012 and 2012–2013



- Figure 9** shows the number of exams on which AVID students scored 3 or higher increased 61.1 percent from 36 in 2011–2012 to 58 in 2012–2013. The percentage of the AP exams taken on which students in AVID scored 3 or higher increased 3.6 percentage points from 10.3 percent in 2011–2012 to 13.9 in 2012–2013. (Table 6, page 28.)

Figure 9. Number and percentage of AP exams on which AVID students scored three or more points, 2011–2012 and 2012–2013



Do students in AVID complete more AP exams than their non-AVID counterparts?

- In 2012–2013, 262 AVID participants took a total of 418 AP exams. This represented 16.0 percent of the 1,641 students enrolled in AVID (**Figure 10**). AVID students completed an average of 1.6 AP exams per student. This compared to a lower percentage (2,256 or 11.1 percent) of the 20,386 non-AVID participants who took 3,726 AP exams in 2012–2013. However, non-AVID students completed a slightly higher average of 1.7 AP exams per student (**Figure 11**). (**Table 7**, page 28.)

Figure 10. Percentage of students in AVID and their non-AVID peers who took AP exams, 2012–2013

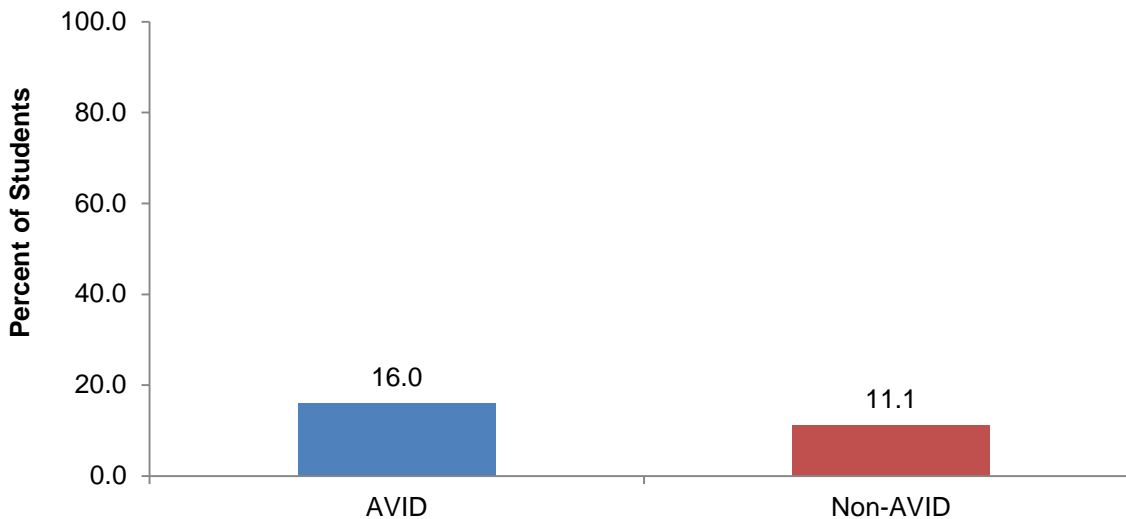
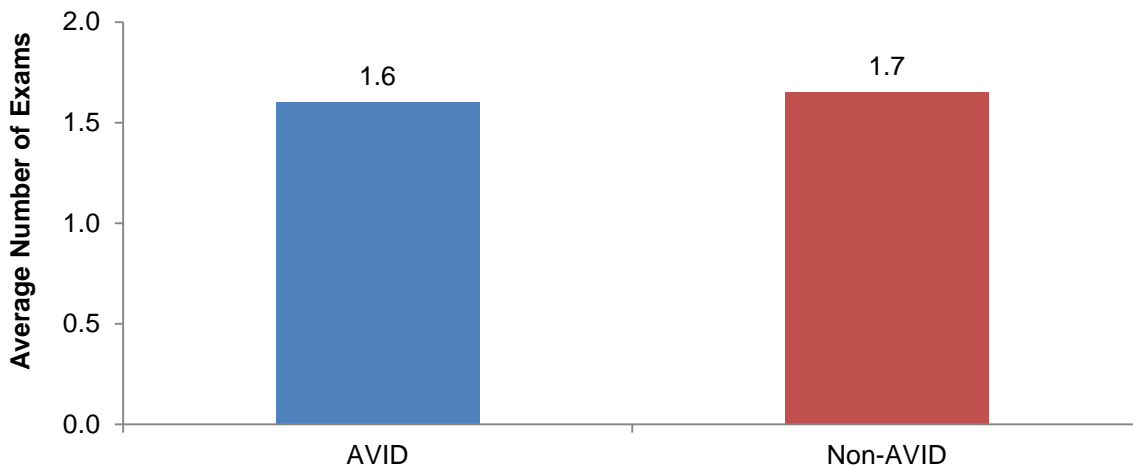


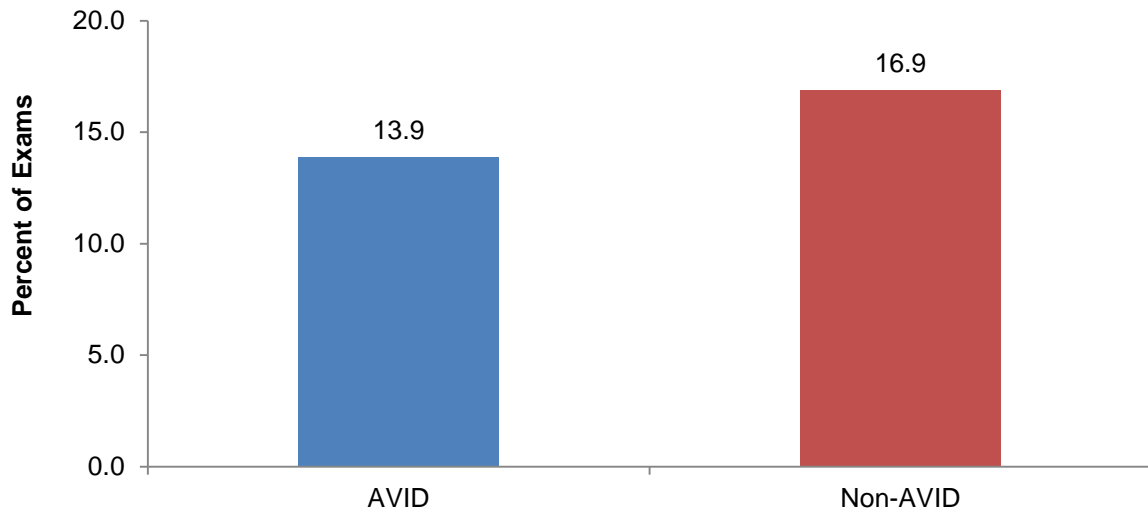
Figure 11. Average number of AP exams taken per student by students in AVID and their non-AVID peers, 2012–2013



Do students in AVID score higher on AP exams than their non-AVID counterparts?

- **Figure 12** (page 13) shows the percentage of exams on which students scored 3 or more points was 3.0 percentage points higher among non-AVID (16.9 percent) than AVID students (13.9 percent). (**Table 7**, page 28.)

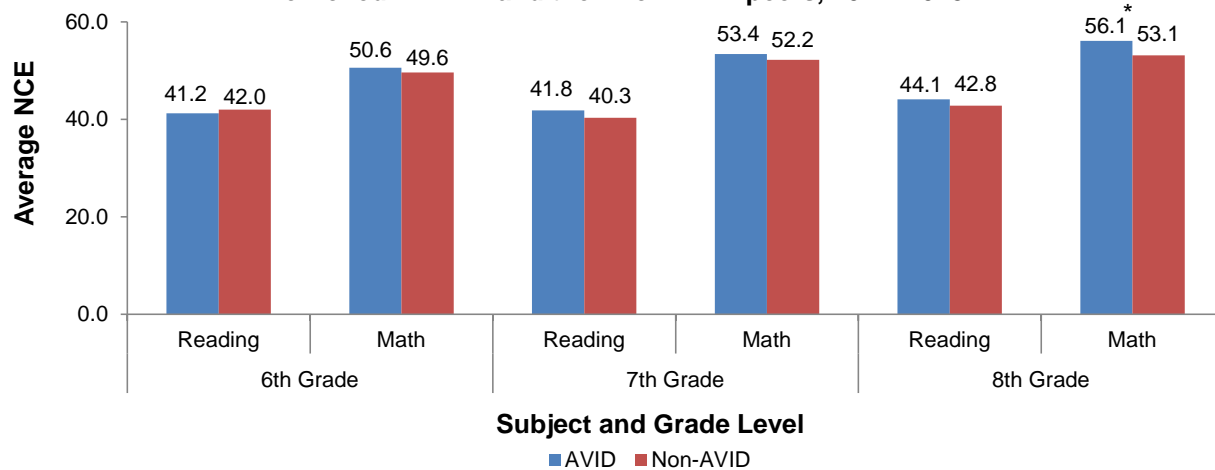
Figure 12. Percentage of AP exams of AP Exams scored three or more points for students in AVID and their non-AVID peers, 2012–2013



Do students in AVID receive higher scores on the Stanford 10, STAAR, and TAKS, than their non-AVID counterparts?

- Figure 13** shows students in AVID in grades six through eight achieved higher average scores than their non-AVID peers on Stanford 10 reading and math assessments, with the exception of sixth-grade students in reading. The difference between the groups in eighth-grade mathematics was statistically significant. However, analyses of the program effect on students' Stanford 10 scores revealed the differences between AVID and non-AVID students' scores were not substantially significant (i.e. effect size not ≥ 0.25 standard deviations). (**Table 8**, page 29.)

Figure 13. Stanford 10 reading and math performance of students in grades six through eight who enrolled in AVID and their non-AVID peers, 2012–2013

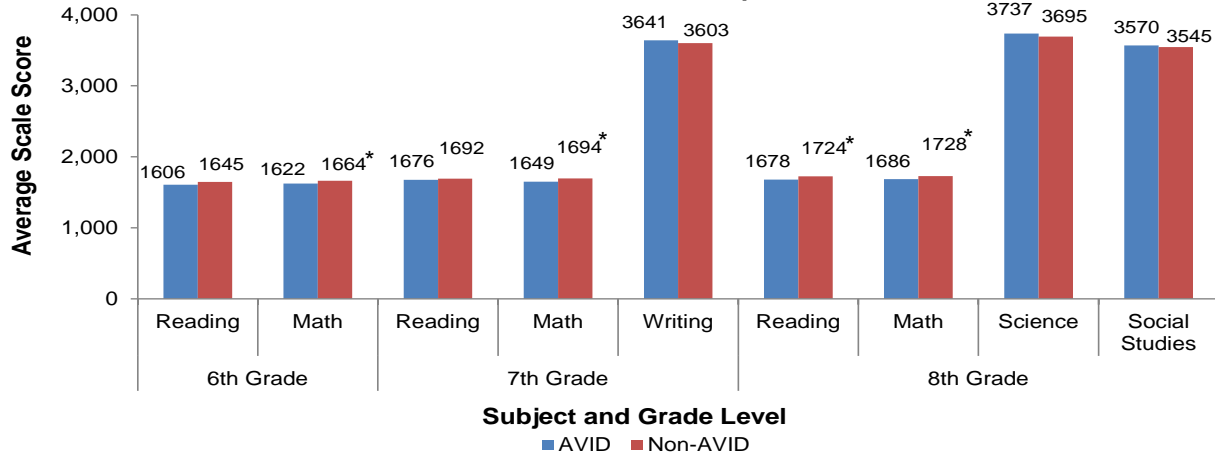


Note: *Indicates statistical significance, $p < 0.05$.

- Figure 14** (page 14) shows that AVID students achieved a higher average scale score than their non-AVID peers on the STAAR writing test in grade seven, but their non-AVID peers achieved higher average scores on STAAR reading and math tests in grades six through eight. However, eighth-grade AVID students achieved higher average scores than their peers in science and

social studies. Differences between the groups' average scores were statistically significant in math at grades six through eight and reading at grade eight. Analyses of program effects on students' STAAR scores revealed performance differences between AVID and non-AVID students were not substantially significant (i.e. effect size not ≥ 0.25 standard deviations). (Table 8, page 29.)

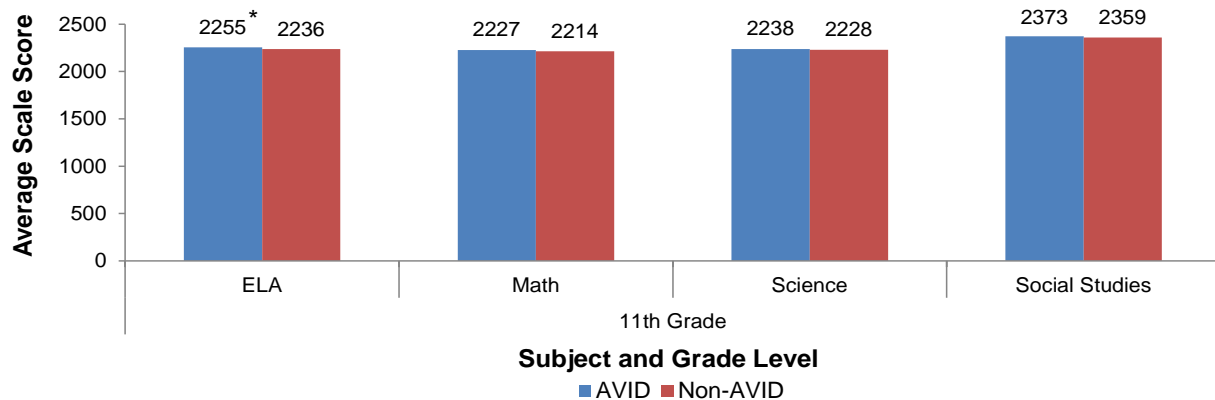
Figure 14. STAAR performance in all subjects tested in grades six through eight for students who enrolled in AVID and their non-AVID peers, 2012–2013



Note:*Indicates statistical significance, $p < 0.05$.

- **Figure 15** reveals eleventh-grade students in AVID achieved higher average scale scores than their non-AVID peers on Exit Level TAKS assessments in all subjects tested. The difference between the groups' average scale scores was statistically significant in English language arts (ELA). Analyses of the program effects on students' TAKS scores revealed the performance differences between AVID and non-AVID students were not substantially significant (i.e. effect size not ≥ 0.25 standard deviations). (Table 9, page 30.)

Figure 15. Exit Level TAKS performance in all subjects tested for eleventh-grade students who enrolled in AVID and their non-AVID peers, 2012–2013

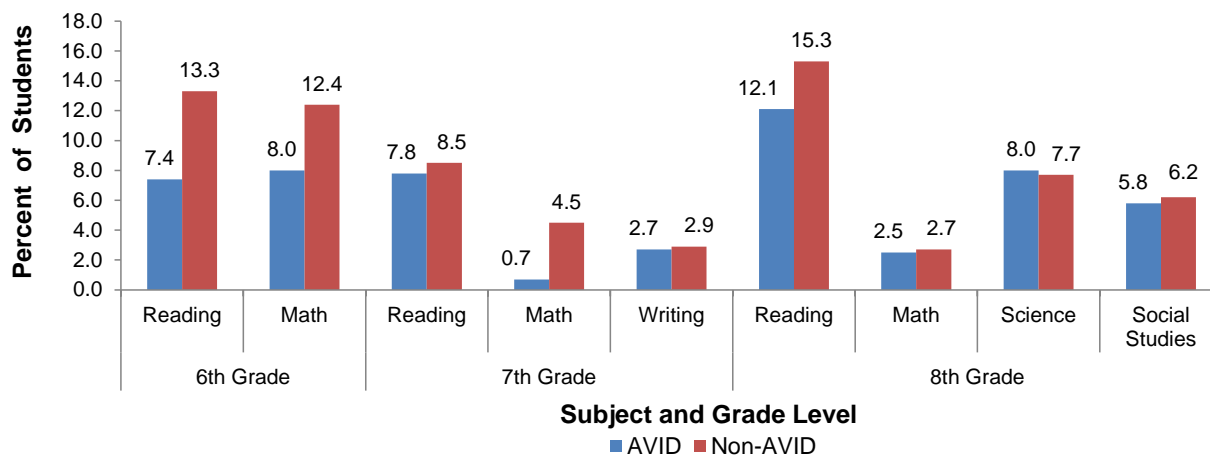


Note:*Indicates statistical significance, $p < 0.05$.

Do students in AVID receive more Level III Advanced scores on the STAAR and Commended scores on TAKS than their non-AVID counterparts?

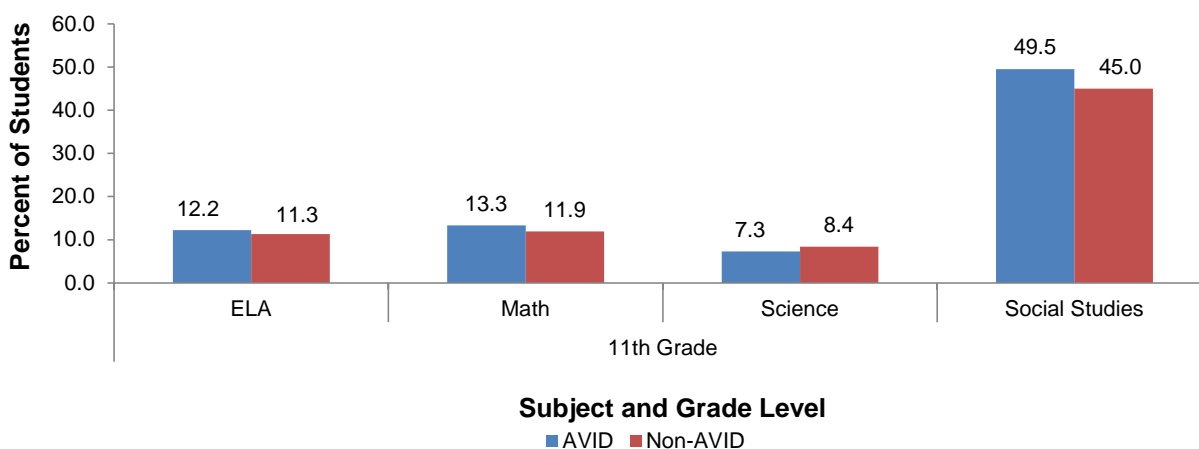
- **Figure 16** indicates eighth-grade students enrolled in AVID met the Level III advanced performance standard in science at a higher rate than their peers who were not enrolled in AVID. However, a higher rate of non-AVID students achieved Level III performance in all other subjects. The largest difference was in grade six reading where students not enrolled in AVID achieved higher average scores than students enrolled in AVID by 5.9 percentage points. (**Table 10**, page 30.)

Figure 16. STAAR Level III advanced performance for students in grades six, seven, and eight who enrolled in AVID and their non-AVID peers, 2012–2013



- On the Exit Level TAKS, AVID students in grade eleven met the commended level of performance in all subjects at a higher rate than eleventh-grade students not enrolled in AVID, with the exception of science (**Figure 17**). The largest difference was in social studies where students enrolled in AVID achieved higher average scores than students not enrolled in AVID by 4.5 percentage points. (**Table 11**, page 31.)

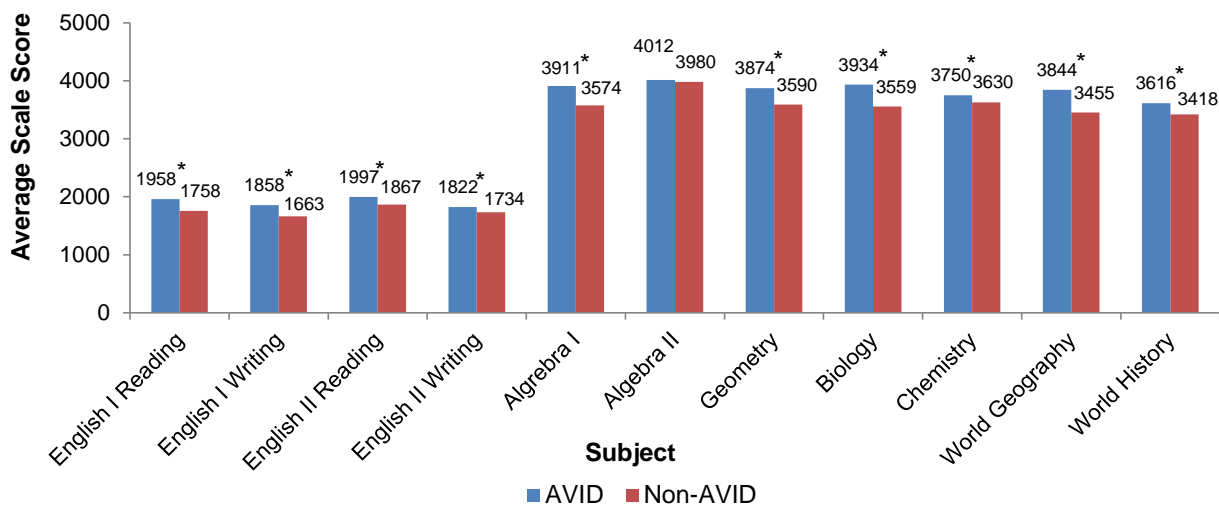
Figure 17. Exit Level TAKS Commended performance for grade eleven students who enrolled in AVID and their non-AVID peers, 2012–2013



Do students in AVID receive higher scores on the STAAR End-of-Course (EOC) examinations and receive more Level III scores than their non-AVID counterparts?

- **Figure 18** shows students in AVID achieved higher average scores than their non-AVID peers on all eleven STAAR EOC assessments administered in 2012–2013 (English I Reading, English I Writing, English II Reading, English II Writing, Algebra I, Algebra II, Geometry, Biology, Chemistry, World Geography, and World History). Differences between the groups' average scale scores were statistically significant on all exams with the exception of Algebra II. (**Table 12**, page 32.)

Figure 18. STAAR End of Course performance in all subjects for students who enrolled in AVID and their non-AVID peers, 2012–2013



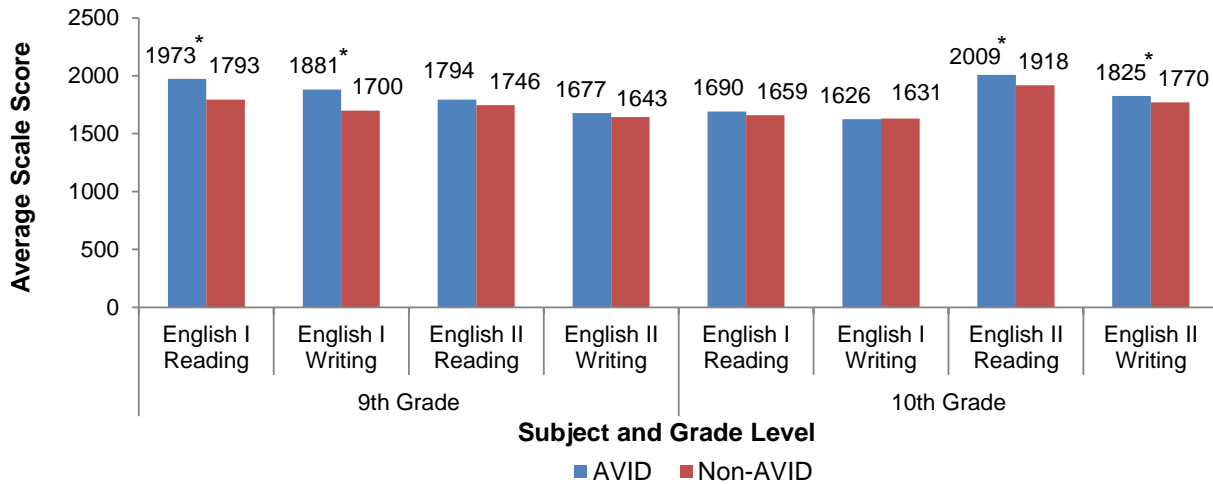
Note: *Indicates statistical significance, $p < 0.05$.

- Analyses of the program effects on student performance on STAAR EOC exams revealed the differences between students in AVID and their non-AVID peers were substantially significant (i.e. effect size ≥ 0.25 standard deviations) on 9 (or 81.8 percent) of the eleven exams. (**Table 12**, page 32.)
- Some high school students take STAAR courses out of sequence. To help target instructional improvements, STAAR EOC exam results are presented by grade level (eight through ten) in Figures 19 through 23 (pages 18–20). Overall, students in AVID achieved higher average scale scores than their non-AVID peers on English I Reading, English I Writing, English II Reading, English II Writing, Algebra I, Algebra II, Geometry, Biology, Chemistry, World Geography, and World History STAAR EOC exams, with the exception of English I Writing at grade ten and Algebra I at grades eight and ten. However, students in AVID met the Level III advanced performance standard in Algebra II only, and achieved Level III performance at a higher rate than their non-AVID peers. (**Table 13**, page 33.)
- Sufficient STAAR EOC exam data to allow statistical comparisons of the performances of students in AVID and students not enrolled in AVID were available for students in grades nine and ten in ELA. **Figure 19** (page 17) shows students enrolled in AVID achieved higher average scale scores than their peers who were not enrolled in AVID on every ELA exam, with the exception of grade ten English I Writing. Differences between the groups' average scale scores

were statistically significant in English I and II Reading and English I and II Writing which were given at the appropriate grade levels, consistent with the standard course sequence.

- Analyses of program effects on student performance on STAAR EOC exams disaggregated by grade level, revealed the performance differences were substantially significant (i.e. effect size ≥ 0.25 standard deviations) on 10 (or 58.8 percent) of the 17 STAAR EOC exams on which AVID students achieved higher average scores than their non-AVID peers. (Table 13, page 33.)

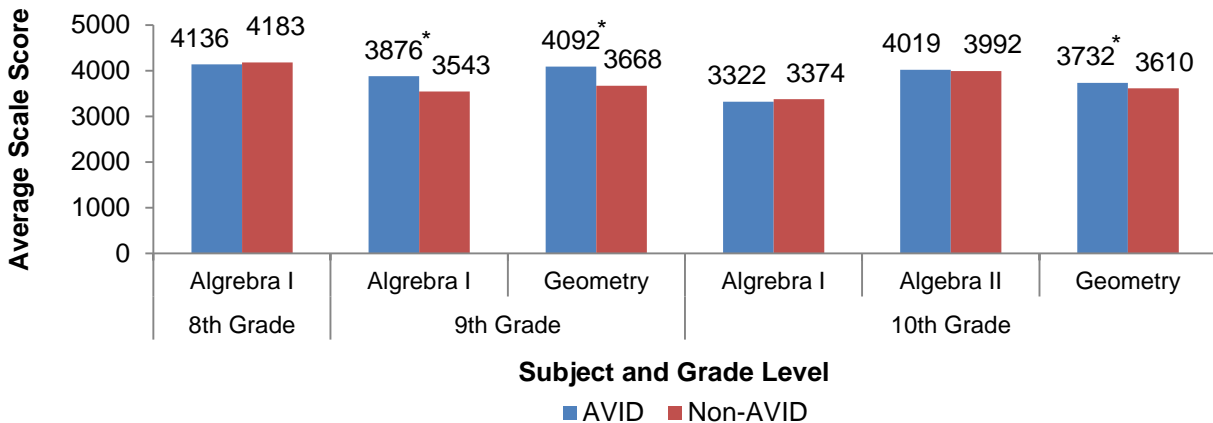
Figure 19. STAAR End of Course performance in ELA for students in grades nine and ten who enrolled in AVID and their non-AVID peers, 2012–2013



Note: *Indicates statistical significance, $p < 0.05$.

- Sufficient STAAR EOC exam data in math to allow statistical comparisons of the performances of students in AVID and students not enrolled in AVID were available for students in grades eight, nine, and ten. **Figure 20** shows students enrolled in AVID had higher average scale scores than non-AVID students on Algebra I exams at grade nine, Algebra II exams at grade ten, and Geometry exams at grades nine and ten. Differences between the groups' average scale scores were of statistical significance in Algebra I at grade nine and Geometry at grades nine and ten. (Table 13, page 33.)

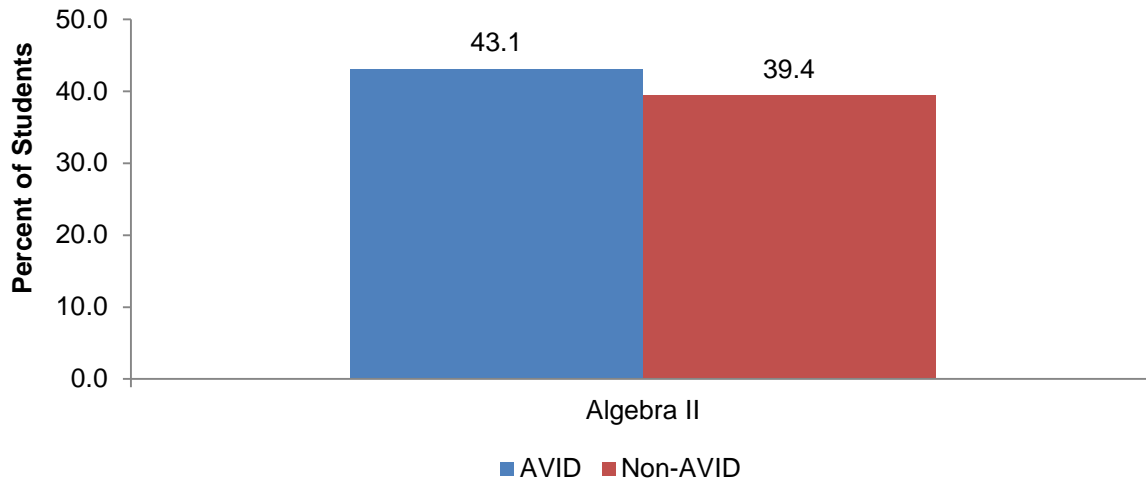
Figure 20. STAAR End of Course performance in math for students enrolled in AVID and their non-AVID peers, 2012–2013



Note: *Indicates statistical significance, $p < 0.05$.

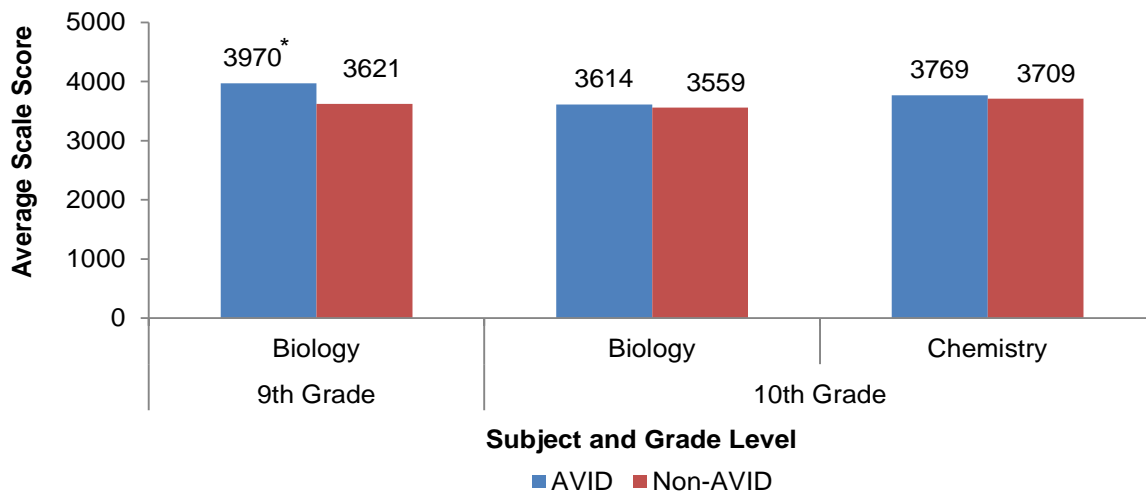
- STAAR EOC Level III advanced math results sufficient for statistical comparisons (groups greater than 5 students) were available for grade 10 Algebra II only. The STAAR EOC Algebra II performance of 58 AVID students and 348 non-AVID students were analyzed. A total of 25 or 43.1 percent of AVID students and 137 or 39.4 percent of non-AVID students met the Level III advanced standard (**Figure 21**), with a difference of 3.7 percentage points. It is important to note that these were advanced students who took Algebra II out of the standard course sequence.

Figure 21. STAAR EOC Level III advanced performance in Algebra II for tenth-grade students enrolled in AVID and their non-AVID peers, 2012–2013



- Sufficient STAAR EOC exam results in science to allow statistical comparisons of the performances of students in AVID and non-AVID students were available for grades nine and ten. **Figure 22** shows AVID students achieved higher average scores than students not enrolled in AVID on biology exams at grades nine and ten, and chemistry exams at grade ten. The difference between the groups' average scale scores was statistically significant at grade nine in biology, consistent with the standard course sequence. (Table 13, page 33.)

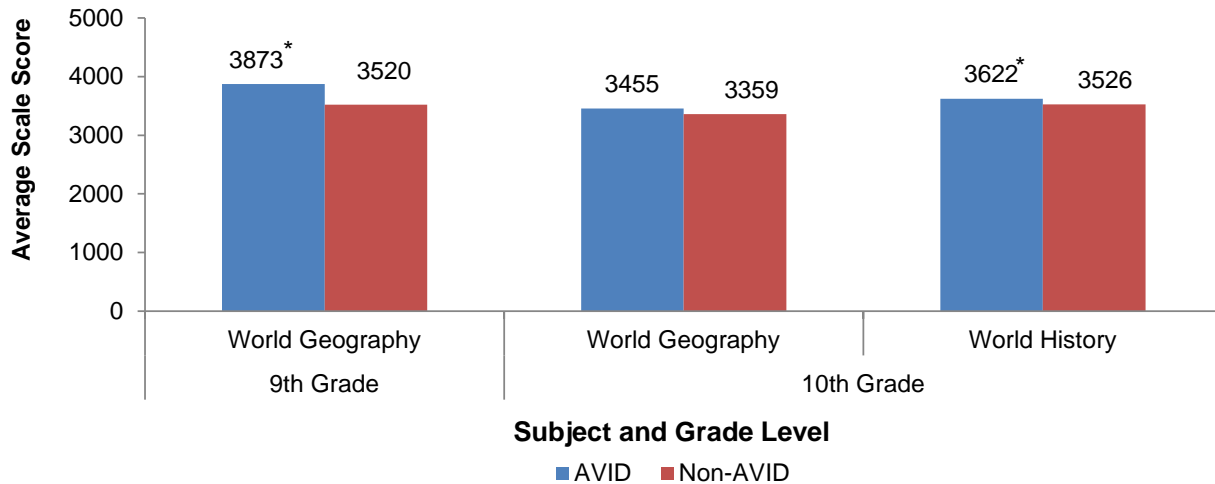
Figure 22. STAAR End of Course performance in science for students enrolled in AVID and their non-AVID peers, 2012–2013



Note: *Indicates statistical significance, $p < 0.05$.

- Sufficient STAAR EOC social studies exam results to allow statistical comparisons of the performances of students in AVID and non-AVID students were available for grades nine and ten. **Figure 23** shows students in AVID achieved higher average scores than students not enrolled in AVID on world geography exams at grades nine and ten, and world history at grade ten. The differences between the groups' average scale scores were of statistical significance in world geography at grade nine and world history at grade ten, which were administered at the appropriate grade levels consistent with the standard course sequence. (Table 13, page 33.)

Figure 23. STAAR End of Course performance in social studies for students enrolled in AVID and their non-AVID peers, 2012–2013



Note: *Indicates statistical significance, $p < 0.05$.

Discussion

Student participation in the AVID program increased 8.2 percent from 2007–2008 to 2012–2013. Middle school participation increased 25.5 percent and high school participation decreased 5.0 percent during these years. Moreover, from the 2011–2012 school year to the 2012–2013 school year, AVID participation increased 55.4 percent, with increases of 34.2 and 85.2 percent at the middle and high school levels, respectively. While this increase in program participation is impressive, the program's level of high school student participation has not yet recovered from its significant decline from 2010–2011 to 2011–2012, when high school enrollment in the AVID program dropped nearly 50 percent due to the loss of funding for Smaller Learning Communities on several AVID high school campuses (Department of Research and Accountability, 2012). It is important to address funding challenges that may impact student participation in the AVID program. In addition, to increase enrollment, perhaps one remedy is to ensure that AVID recruitment strategies employ culturally sensitive perspectives when making student selection decisions that involve assessments of student attendance and behavior. This suggestion echoes a recommendation made in last year's report and may prove beneficial, particularly in light of the cultural diversity that exists among the district's "middle" performing, economically-disadvantaged, and non-White students who are enrolled in regular education classes and who are underrepresented in four-year colleges.

The district has implemented the AVID program to target students who (1) are in the academic "middle" and earn grades of B, C, and D; (2) desire to go to college; (3) are willing to work hard; (4) are capable of

completing rigorous curricula; and (5) are not reaching their full academic potential. Typically, these students (1) are enrolled in regular (non-gifted/talented, non-special education) classes; (2) are economically disadvantaged or are from non-White families; (3) are underrepresented in four-year colleges; and (4) possess the potential to become first-generation college students (Houston Independent School District, 2011).

During the 2012–2013 school year, 96.2 percent of the students in AVID were African American or Hispanic, more than 90 percent were economically disadvantaged, and 82.4 percent were students at risk. The proportions of AVID students with these characteristics were comparable to the characteristics of their non-AVID peers. A total of 53.2 percent (compared to 48.0 percent non-AVID) were female students, 5.0 percent of the students enrolled in AVID (compared to 12.9 percent of non-AVID students) were special education students and 19.7 percent (compared to 13.3 percent of non-AVID students) were gifted/talented students. AVID students differed from their non-AVID peers in the latter three areas (i.e. gender, special education and gifted/talented statuses) in key ways that typically favorably impact student performance. However, overall, the performance results of this study indicate no consistent performance advantage for the AVID students. This may indicate that while the AVID students are capable of completing rigorous curricula, they are not yet reaching their full academic potential. This finding aligns with the program's selection criteria which target students with the capacity to complete rigorous curricula, who are failing to reach their full potential. Though the unfulfilled capacity to be successful in demanding courses, while falling short of one's potential, typically, are associated negatively with students' performance outcomes; overall, the performance results provided in this report show promising signs for the AVID students.

Findings of this report reveal pre-AP, AP, and dual credit course enrollment rates were higher for students in AVID than for non-AVID students who enroll in these courses. The 72.4 percent rate of enrollment in pre-AP courses among students in AVID was impressive and nearly twice the enrollment rate among non-AVID students (37.7 percent). However, the enrollment rate was less than 20 percent (17.7 percent each) in AP courses among middle and high school students in AVID and in dual credit courses among high school students in AVID. Furthermore, students in AVID achieved higher average grades in dual credit courses, but lower average course grades in pre-AP and AP classes than their non-AVID peers. This finding supports the need for AVID-based instructional improvements to enhance student learning in pre-AP and AP courses. Perhaps factors contributing to students in AVID attaining a higher grade average than non-AVID students in dual credit courses may be identified and replicated to support greater success in pre-AP and AP courses among students in AVID.

Although the number of students taking AP exams increased 48.9 percent from 2011–2012 (176 students) to 2012–2013 (262 students) and the number of exams taken by students in AVID increased 20.1 percent from 2011–2012 (348 exams) to 2012–2013 (418 exams), the percentage of the total number of AVID participants who took AP exams decreased slightly (0.7 percentage points) during this period. There was a 61.1 percent increase in the number of AP exams on which AVID students scored 3 or higher from 2011–2012 (n=36) to 2012–2013 (n=58). However, this was 3.0 percentage points lower than the number of AP exams on which non-AVID students scored 3 or higher (16.9 percent vs 13.9 percent). Proactive steps to consistently improve teaching and learning in pre-AP and AP courses may help counteract future findings of this nature regarding AVID student performance on AP exams.

Results of the performances of students in AVID on the standardized and dual credit tests assessed in this report are varied. However, students in AVID achieved higher average scores than their non-AVID peers achieved in dual credit courses and on five (83.3 percent) of the six Stanford 10 assessments,

three (75.0 percent) of the four Exit Level TAKS assessments, all of the eleven STAAR EOC tests (aggregated across grade levels), and on 14 (82.4 percent) of the 17 STAAR EOC tests performances disaggregated (by grade eight through ten) analyzed for this report. More specifically, on Stanford 10 reading and math assessments students in AVID generally achieved higher average scores than their non-AVID peers. On the STAAR assessment, only seventh-grade students in AVID in writing and eighth-grade students in AVID in science and social studies achieved higher average scores than their non-AVID peers, and eighth-grade students in AVID met the STAAR Level III advanced standard in science at a higher rate than their non-AVID peers. A higher rate of non-AVID students achieved STAAR Level III performance in all other subjects in grades six through eight. On Exit Level TAKS assessments, students in AVID achieved higher average scores than their non-AVID peers in all subjects and achieved the level of commended performance more often than their non-AVID peers in all subjects, with the exception of science. On every STAAR EOC test (English I Reading, English I Writing, English II Reading, English II Writing, Algebra I, Algebra II, Geometry, Biology, Chemistry, World Geography, and World History), students in AVID achieved higher average scores than their non-AVID peers. On STAAR EOC tests disaggregated by grade level (eight through ten), AVID students achieved higher average scores than their non-AVID peers on all exams with the exception of English I Writing at grade ten and Algebra I at grades eight and ten. In addition, they met the Level III Advanced standard on STAAR Algebra II EOC exams at a higher rate than students not enrolled in AVID. Notably, statistically significant differences between AVID students' and non-AVID students' average scale scores in favor of AVID students were found in subjects where the STAAR EOC exams were administered at the appropriate grade levels, consistent with the standard course sequence.

In most cases where AVID students achieved higher scores than their peers, the differences in student performances were not statistically significant (i.e. $p < 0.05$), with the exception of STAAR EOC results. Moreover, based on analyses of the program effects on students' performance (i.e. effect size ≥ 0.25 standard deviations), substantially significant differences between AVID students' and non-AVID students' performances were identified for STAAR EOC results only. Substantial program effects were found for nine of the eleven (or 81.8 percent of the) aggregated STAAR EOC exam results, and 10 of the 17 (or 58.8 percent of the) disaggregated STAAR EOC exam results where students in AVID achieved higher average scores than their peers. To a significant but limited extent, results of this report support previous research findings that indicate students in an AVID program show higher mean scores than non-AVID students on state-mandated assessments of reading, mathematics, and science (Murray, 2012).

Overall, the findings of this report suggest the AVID program is effective in preparing students for success in dual credit courses and on the Stanford 10 assessment in reading and math, STAAR EOC exams, and the Exit Level TAKS. This indicates the strategies and skills learned in the AVID program transfer well to the aforementioned courses and tests. This bodes well for HISD's AVID program given that student mastery on the Exit Level TAKS and earning college credit while still in high school were among the academic performance factors found to be predictive of college success (Huerta, Watt, & Reyes, 2013). On the other hand, the generally lower performances of AVID students when compared to the performances on non-AVID students in pre-AP and AP courses and on the STAAR (including Level III advanced performance in general) and AP exams highlight crucial areas for program improvements.

To better prepare more students in AVID for greater levels of success in advanced courses and on standardized assessments, exploration of the following eleven factors that AVID has identified to guide the overall philosophy, successful implementation of the program, and the success of AVID students may be warranted: (1) selection of students (particularly those in the "middle") who may benefit from the support given in AVID; (2) voluntary participation of teachers and students; (3) school commitment to full implementation of the program; (4) AVID student enrollment in a rigorous course of study to meet college

enrollment and requirements; (5) application of a strong, relevant ELA curriculum which provides foundation for instruction in AVID classes; (6) inquiry-based instructional strategies and learning activities; (7) active collaboration as a basis for instruction in AVID classrooms; (8) accessible Socratic-method tutorials provided by AVID-trained tutors that engage students; (9) monitoring of program implementation and student progress through the use of multiple sources of data; (10) adequate program resources (i.e. funding as needed, curricular and professional development support); and (11) active interdisciplinary, campus-based teams focused on student access to AVID resources and student success in rigorous courses that prepare students for success in college (Contreras, et al., 2007). Careful attention to these program features may prove beneficial to improve program participation and to heighten the consistency in positive student achievement outcomes among students in the AVID program.

References

- Contreras, M., Cota, D., Furgerson, E., Gira, R., & Swanson, M.C. (2007). *AVID implementing and managing the AVID program for high schools, 2007 Revision*. San Diego, California: AVID Press.
- Department of Research and Accountability. (December 2012). *Advancement Via Individual Determination (AVID) findings related to student performance, 2011–2012*. Houston, TX: Houston Independent School District. <http://www.houstonisd.org/Page/59959>
- Houston Independent School District. (2011). Board of Education Meeting Agenda November 10, 2011. Retrieved from http://www.houstonisd.org/site/handlers/filedownload.ashx?moduleinstanceid=51135&dataid=19627&FileName=111011OA_POST.pdf
- Huerta, J., Watt, K.M., & Reyes, P. (2013). An examination of AVID graduates' college preparatory postsecondary progress: Community college versus 4-year university students. *Journal of Hispanic Higher Education*, 12 (1), 86–101.
- Murray, R. T. (2012). A study of the effectiveness of a supplemental program: The Advancement Via Individual Determination (AVID) middle school program on student achievement. (Doctoral dissertation). *Dissertations and Theses*. Paper 1794. Retrieved from <http://scholarship.shu.edu/dissertations/1794>
- Texas Education Agency. (2014). How to interpret effect sizes. Best Practices Clearinghouse http://www.tea.state.tx.us/Best_Practice_Standards/How_To_Interpret_Effect_Sizes.aspx
- Witte, L. (2014, February). Avoid the flying monkeys: Follow the EOC yellow brick road to success. PowerPoint presented at the Texas Assessment Conference, Austin, TX. Retrieved from <http://www.tasanet.org/cms/lib07/TX01923126/Centricity/Domain/49/2014/presentations/tuesday/witte.pdf>

Table 1: Number of AVID Students by Grade Level and School, 2012–2013

School Name	Grade Level							Total
	6th	7th	8th	9th	10th	11th	12th	
Burbank MS	12	25	10	-	-	-	-	47
Hartman MS	-	20	28	-	-	-	-	48
Henry MS	-	37	37	-	-	-	-	74
Holland MS	28	23	25	-	-	-	-	76
Johnston MS	27	49	39	-	-	-	-	115
Key MS	34	19	23	-	-	-	-	76
McReynolds MS	19	20	21	-	-	-	-	60
Ortíz MS	50	19	27	-	-	-	-	96
Revere MS	-	52	56	-	-	-	-	108
Sharpstown International School	-	16	41	-	-	-	-	57
Welch MS	-	33	38	-	-	-	-	71
Middle School Subtotal	170	313	345	-	-	-	-	828
Davis HS	-	-	-	21	12	16	5	54
Furr HS	-	-	-	17	16	17	30	80
Houston Academy for International Studies HS	-	-	-	114	2	-	-	116
Houston Math/Science/Technology Center	-	-	-	57	60	7	7	131
Kashmere HS	-	-	-	15	23	3	-	41
Madison HS	-	-	-	46	-	-	-	46
Milby HS	-	-	-	46	-	-	-	46
Sharpstown HS	-	-	-	58	32	26	26	142
Waltrip HS	-	-	-	-	16	13	5	34
Worthing HS	-	-	-	23	46	18	1	88
Yates HS	-	-	-	6	19	7	3	35
High School Subtotal	-	-	-	403	226	107	77	813
Total	170	313	345	403	226	107	77	1,641

Source: November 22, 2013 Chancery Student Information System

Table 2. Non-AVID Students* at AVID Schools by Grade Level and School, 2012–2013

Middle Schools	Grade Level							Total
	6th	7th	8th	9th	10th	11th	12th	
Burbank MS	470	480	454	-	-	-	-	1,404
Hartman MS	-	442	480	-	-	-	-	922
Henry MS	-	323	284	-	-	-	-	607
Holland MS	243	210	239	-	-	-	-	692
Johnston MS	572	491	448	-	-	-	-	1,511
Key MS	152	167	136	-	-	-	-	455
McReynolds MS	193	216	215	-	-	-	-	624
Ortiz MS	315	345	318	-	-	-	-	978
Revere MS	471	386	282	-	-	-	-	1,139
Sharpstown International School	-	157	98	-	-	-	-	255
Welch MS	332	340	301	-	-	-	-	973
Middle School Subtotal	2,748	3,557	3,255					9,560
High Schools								
Davis HS	-	-	-	478	396	348	350	1,572
Furr HS	-	-	-	238	237	148	179	802
Houston Academy for International Studies HS	-	-	-	1	119	-	-	120
Houston Math/Science/Technology Center	-	-	-	760	571	604	620	2,555
Kashmere HS	-	-	-	163	140	118	-	421
Madison HS	-	-	-	625	-	-	-	625
Milby HS	-	-	-	608	-	-	-	608
Sharpstown HS	-	-	-	434	378	240	248	1,300
Waltrip HS	-	-	-	-	366	429	359	1,154
Worthing HS	-	-	-	242	123	128	193	686
Yates HS	-	-	-	344	225	213	201	983
High School Subtotal	-	-	-	3,893	2,555	2,228	2,150	10,826
Total	2,748	3,557	3,255	3,893	2,555	2,228	2,150	20,386

Source: November 22, 2013 Chancery Student Information System

Note: *Non-AVID students enrolled in the same grade levels of AVID participants.

Table 3. Characteristics of AVID Participants and Non-AVID Students, 2012–2013

	AVID Students (N=1,641)		Non-AVID Students (N=20,386)	
	N	%	N	%
Grade				
6	170	10.4	2,748	13.5
7	313	19.1	3,557	17.4
8	345	21	3,256	16.0
9	403	24.6	3,892	19.1
10	226	13.8	2,555	12.5
11	107	6.5	2,228	10.9
12	77	4.7	2,150	10.5
Total	1,641	100.0	20,386	100.0
Gender				
Male	768	46.8	10,601	52.0
Female	873	53.2	9,785	48.0
Total	1,641	100.0	20,386	100.0
Race/Ethnicity				
Asian/Pacific Islander	16	1.0	283	1.4
African American	517	31.5	5,914	29.0
Hispanic	1,061	64.7	13,463	66.0
American Indian/Alaska Native	1	0.1	13	0.1
White	37	2.3	625	3.1
Two or more	9	0.5	88	0.4
Total	1,641	100.0	*20,386	99.2
Economic Disadv.	1,485	90.5	17,937	88.0
At-Risk	1,353	82.4	17,169	84.2
Special Ed.	82	5.0	2,629	12.9
Gifted/Talented	323	19.7	2,705	13.3

Note: *Data not available for one student; Aggregated Economic Disadvantaged, At-Risk, Special Ed., and Gifted/Talented numbers represent duplicated counts.

Table 4. Number of Pre-AP, AP, and Dual Credit Courses Enrolled in by AVID and Non-AVID Students by Number of Students, Course Type, School Level, and School, 2012–2013

	Pre-AP		AP		Dual Credit	
	AVID	Non-AVID	AVID	Non-AVID	AVID	Non-AVID
Total Students	1,188	7,683	290	2,588	144	726
Middle Schools						
Middle School Students	558	4,590	10	167	-	-
Burbank MS	78	2,100	14	254	-	-
Hartman MS	46	1,369	-	-	-	-
Henry MS	141	892	-	-	-	-
Holland MS	356	1,318	-	-	-	-
Johnston MS	331	5,267	4	52	-	-
Key MS	147	108	-	-	-	-
McReynolds MS	52	536	-	-	-	-
Ortiz MS	223	1,141	-	-	-	-
Revere MS	167	1,243	2	24	-	-
Sharpstown International	185	516	-	-	-	-
Welch MS	67	855	-	-	-	-
Middle School Total Courses	1,793	15,345	20	330	0	0
High Schools						
High School Students	630	3,093	280	2,421	144	726
Davis HS	139	2,363	54	1,035	2	95
Furr HS	227	1,468	239	970	14	124
Houston Academy for International HS	971	773	5	267	260	94
Houston Math/Science/Tech. Center	675	1,772	173	1,790	8	399
Kashmere HS	75	255	22	82	-	86
Madison HS	171	509	4	140	-	6
Milby HS	201	1,092	-	9	-	12
Sharpstown HS	436	1,814	174	1,015	20	159
Waltrip HS	61	1,079	58	1,255	4	233
Worthing HS	197	324	73	181	-	16
Yates HS	41	817	25	437	5	136
High School Total Courses	3,194	12,266	827	7,181	313	1,360
Total Courses	4,987	27,611	847	7,511	313	1,360

Note: Numbers in parentheses indicate student counts.

Table 5. Results of Statistical Analyses of Differences Between of AVID and non-AVID Students' Average Course Grades by Course Type, 2012–2013

Course Type		N	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Effect Size
Pre-AP	AVID	4,692	80.79	9.9	0.443	0.505	-0.184	29800.00	0.854	-0.029	-0.003
	Non-AVID	25,110	80.82	9.8							
AP	AVID	833	79.61	10.5	0.020	0.886	-3.170	8189.00	0.002	-1.182	-0.116
	Non-AVID	7,358	80.79	10.2							
Dual Credit	AVID	312	84.62	8.3	15.062	0.000	3.956	631.49	0.000	2.257	0.206
	Non-AVID	1,297	82.36	11.5							

Table 6. AP Examination Participation and Results for AVID Students, 2011–2012 and 2012–2013

	2011–2012 (N=1,056)		2012–2013 (N=1,641)		% Change*
	N	%	N	%	
Students Taking Exams	176	16.7	262	16.0	48.9
Exams Taken	348	-	418	-	20.1
Exams Scored 3 or Higher	36	10.3	58	13.9	61.1
Average Number of Exams per student	2.0	-	1.6	-	-0.4

Note: *Percent change in number of students or exams.

Table 7. AP Examination Participation and Results for AVID and Non-AVID Students, 2012–2013

	AVID Participants		Non-AVID Students	
	N	%	N	%
Students Taking Exams	262	16.0	2,256	11.1
Exams Taken	418	-	3,726	-
Exams Scored 3 or Higher	58	13.9	628	16.9
Average Number of Exams per student	1.6	-	1.7	-

Table 8. Stanford 10 and STAAR Results of Statistical Analyses of Differences Between AVID and non-AVID Students' Performance, 2012–2013

Test	Subject and Grade	N	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Effect Size
Stanford 10											
Reading NCEs											
AVID	6	162	41.19	17.687	10.148	0.001	-0.548	193.044	0.584	-7.975	-0.04
Non-AVID	6	2499	41.99	21.447							
AVID	7	296	41.82	17.570	4.399	0.036	1.413	362.004	0.158	15.197	0.08
Non-AVID	7	3230	40.29	19.105							
AVID	8	331	44.09	14.712	20.661	5.682	1.485	454.460	0.138	13.021	0.04
Non-AVID	8	2930	42.79	30.869							
Math NCEs											
AVID	6	162	50.64	17.866	2.890	0.089	0.741	188.245	0.460	10.820	0.05
Non-AVID	6	2499	49.56	20.037							
AVID	7	296	53.44	18.160	10.609	0.001	1.159	369.242	0.247	12.944	0.06
Non-AVID	7	3230	52.15	20.738							
AVID	8	331	56.12	24.386	7.798	0.005	3.024	432.062	0.003	29.927	0.09
Non-AVID	8	2930	53.13	33.284							
STAAR											
Reading Scale Scores											
AVID	6	162	1606.02	299.416	4.905	0.027	-1.590	190.042	0.114	-38.991	0.11
Non-AVID	6	2507	1645.01	346.854							
AVID	7	295	1676.17	293.810	4.898	0.027	-863	369.820	0.389	-15.634	0.05
Non-AVID	7	3252	1691.80	341.171							
AVID	8	331	1678.46	213.853	15.131	0.000	-3.468	497.829	.001	-45.246	0.15
Non-AVID	8	2974	1723.71	308.689							
Math Scale Scores											
AVID	6	162	1621.62	255.589	6.373	0.012	-2.019	197.632	0.045	-42.674	0.13
Non-AVID	6	2508	1664.30	331.036							
AVID	7	296	1648.74	246.626	15.246	0.000	-2.914	407.714	0.004	-45.323	0.13
Non-AVID	7	3257	1694.07	344.466							
AVID	8	240	1686.39	243.863	10.817	0.001	-2.425	334.967	.016	-41.566	0.13
Non-AVID	8	2405	1727.96	332.839							
Writing Scale Scores											
AVID	7	296	3640.54	405.458	13.281	0.000	1.511	372.878	0.132	37.765	0.08
Non-AVID	7	3258	3602.78	475.722							
Science Scale Scores											
AVID	8	327	3736.85	441.701	6.095	0.014	1.615	423.523	.107	42.126	0.09
Non-AVID	8	2912	3694.72	495.076							
Social Studies Scale Scores											
AVID	8	327	3569.60	399.067	7.852	0.005	1.037	419.575	.300	24.385	0.06
Non-AVID	8	2917	3545.21	438.975							

Table 9. Grade Eleven Exit Level TAKS Results of Statistical Analyses of Differences Between AVID and non-AVID Students' Mean Test Scores by Subject, 2012–2013

	Subject and Grade	N	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Effect Size
ELA Scale Scores											
AVID	11	98	2254.91	90.238	7.811	.005	2.010	118.064	.047	19.245	0.16
Non-AVID	11	1784	2235.66	123.905							
Math Scale Scores											
AVID	11	98	2226.57	149.719	.092	.761	.799	1888	.425	12.529	0.08
Non-AVID	11	1792	2214.04	151.274							
Science Scale Scores											
AVID	11	96	2238.31	141.581	.105	.745	.789	1887	.430	10.048	0.08
Non-AVID	11	1793	2228.26	120.396							
Social Studies Scale Scores											
AVID	11	97	2373.35	133.277	4.280	.039	1.049	112.396	.297	14.765	0.09
Non-AVID	11	1788	2358.59	164.081							

Table 10. Results of AVID and non-AVID Students' STAAR Level III Advanced Performance, 2012–2013

Test	Subject and Grade	N	Number Advanced	Percent Advanced	Percentage Point Difference
STAAR	Reading				
AVID	6	162	12	7.4	-5.9
Non-AVID	6	2507	334	13.3	
AVID	7	295	23	7.8	-0.7
Non-AVID	7	3252	278	8.5	
AVID	8	331	40	12.1	-3.2
Non-AVID	8	2974	455	15.3	
STAAR	Math				
AVID	6	162	13	8.0	-4.4
Non-AVID	6	2508	312	12.4	
AVID	7	296	2	0.7	-3.8
Non-AVID	7	3257	146	4.5	
AVID	8	240	6	2.5	-0.2
Non-AVID	8	2405	65	2.7	
STAAR	Writing				
AVID	7	296	8	2.7	-0.2
Non-AVID	7	3258	94	2.9	
STAAR	Science				
AVID	8	327	26	8.0	0.3
Non-AVID	8	2912	223	7.7	
STAAR	Social Studies				
AVID	7	327	19	5.8	-0.4
Non-AVID	7	2917	181	6.2	

**Table 11. Results of AVID and non-AVID Students' TAKS
Commended Performance, 2012–2013**

	Subject and Grade	N	Number Commended	Percent Commended	Percentage Point Difference
	ELA				
AVID	11	98	12	12.2	
Non- AVID	11	1784	202	11.3	0.9
	Math				
AVID	11	98	13	13.3	
Non- AVID	11	1792	214	11.9	1.4
	Science				
AVID	11	96	7	7.3	
Non- AVID	11	1793	151	8.4	-1.1
	Social Studies				
AVID	11	97	48	49.5	
Non- AVID	11	1788	805	45.0	4.5

Table 12. STAAR EOC Results of Statistical Analyses of AVID and non-AVID Students' Performances, 2012–2013

	Subject	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Effect Size
STAAR EOC	Eng. I Reading Scale Scores										
	AVID	398	1958.34	227.495	11.828	.001	16.035	567.168	.000	200.151	0.71
	Non-AVID	3180	1758.19	286.271							
STAAR EOC	Eng. I Writing Scale Scores										
	AVID	403	1858.14	232.465	8.174	.004	15.409	569.099	.000	194.850	0.68
	Non-AVID	3286	1663.29	291.253							
STAAR EOC	Eng. II Reading Scale Scores										
	AVID	214	1997.09	273.300	10.028	.002	6.522	279.252	.000	130.442	0.36
	Non-AVID	2333	1866.65	344.945							
STAAR EOC	Eng. II Writing Scale Scores										
	AVID	213	1821.63	173.985	6.925	.009	6.748	299.444	.000	87.776	0.36
	Non-AVID	2332	1733.85	251.222							
STAAR EOC	Algebra I Scale Scores										
	AVID	375	3910.55	499.160	7.318	.007	12.113	502.104	.000	336.338	0.57
	Non-AVID	3433	3574.21	604.673							
STAAR EOC	Algebra II Scale Scores										
	AVID	59	4011.54	362.189	1.349	.246	.501	428.000	.616	31.165	0.07
	Non-AVID	371	3980.38	454.859							
STAAR EOC	Geometry Scale Scores										
	AVID	263	3874.34	405.151	1.495	.222	8.733	2508.000	.000	283.953	0.57
	Non-AVID	2247	3590.38	508.750							
STAAR EOC	Biology I Scale Scores										
	AVID	395	3933.50	485.629	.808	.369	12.816	3802.000	.000	374.378	0.68
	Non-AVID	3409	3559.12	556.513							
STAAR EOC	Chemistry Scale Scores										
	AVID	207	3749.62	492.589	.356	.551	3.056	1979.000	.002	119.908	0.22
	Non-AVID	1774	3629.71	538.870							
STAAR EOC	World Geography Scale Scores										
	AVID	396	3844.04	459.620	1.499	.221	13.442	3639.000	.000	389.183	0.72
	Non-AVID	3245	3454.85	553.319							
STAAR EOC	World History Scale Scores										
	AVID	210	3615.72	453.301	2.976	.085	4.114	2349.000	.000	197.510	0.30
	Non-AVID	2141	3418.21	680.924							

Table 13. STAAR EOC Results of Statistical Analyses of AVID and non-AVID Students' Performances, 2012–2013

	Subject and Grade	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Effect Size	
STAAR EOC	Eng. I Reading Scale Scores											
	AVID	9	384	1973.47	204.764	8.78	0.00	15.99	522.88	0.00	180.77	0.79
	Non-AVID	9	2918	1792.70	233.184							
	AVID	10	12	1690.33	124.943	1.30	0.26	0.55	194.00	0.58	31.11	0.16
	Non-AVID	10	184	1659.23	192.801							
STAAR EOC	Eng. I Writing Scale Scores											
	AVID	9	381	1880.69	190.401	8.07	0.00	17.03	529.30	0.00	180.71	0.81
	Non-AVID	9	2935	1699.98	225.922							
	AVID	10	18	1625.94	188.135	1.03	0.31	-0.12	279.00	0.91	-4.60	-0.03
	Non-AVID	10	263	1630.55	158.899							
STAAR EOC	Eng. II Reading Scale Scores											
	AVID	9	5	1794.40	284.338	0.03	0.85	0.44	274.00	0.66	48.67	0.20
	Non-AVID	9	271	1745.73	245.471							
	AVID	10	208	2009.24	251.187	5.89	0.02	4.93	263.45	0.00	91.30	0.33
	Non-AVID	10	2005	1917.94	280.235							
STAAR EOC	Eng. II Writing Scale Scores											
	AVID	9	5	1677.00	136.523	0.71	0.40	0.40	275.00	0.69	34.14	0.18
	Non-AVID	9	272	1642.86	191.455							
	AVID	10	208	1825.11	173.564	1.98	0.16	3.94	2221.00	0.00	54.91	0.29
	Non-AVID	10	2015	1770.20	192.972							
STAAR EOC	Algebra I Scale Scores											
	AVID	8	90	4135.76	378.134	1.64	0.20	-1.03	643.00	0.30	-47.66	-0.12
	Non-AVID	8	555	4183.42	412.596							
	AVID	9	277	3875.55	443.164	1.52	0.22	12.79	2872.00	0.00	332.94	0.81
	Non-AVID	9	2597	3542.61	408.428							
	AVID	10	5	3321.60	228.329	0.00	0.98	-0.42	181.00	0.67	-52.65	-0.19
	Non-AVID	10	178	3374.25	276.007							
STAAR EOC	Algebra II Scale Scores											
	AVID	9	1	No analysis due to group size < 5								
	Non-AVID	9	20									
	AVID	10	58	4018.90	360.881	0.91	0.34	0.49	404.00	0.63	27.13	0.07
	Non-AVID	10	348	3991.77	398.326							
STAAR EOC	Geometry Scale Scores											
	AVID	8	1	No analysis due to group size < 5								
	Non-AVID	8	11									
	AVID	9	109	4092.06	365.486	2.48	0.12	9.43	652.00	0.00	423.73	0.99
	Non-AVID	9	545	3668.33	439.795							
	AVID	10	152	3731.88	306.006	3.49	0.06	3.73	1799.00	0.00	121.57	0.32
	Non-AVID	10	1649	3610.31	391.160							
STAAR EOC	Biology I Scale Scores											
	AVID	8	2	No analysis due to group size < 5								
	Non-AVID	8	23									
	AVID	9	379	3969.80	409.890	1.11	0.29	15.28	3272.00	0.00	348.77	0.83
	Non-AVID	9	2895	3621.03	418.735							
	AVID	10	10	3614.40	267.963	0.56	0.46	0.46	408.00	0.64	55.51	0.15
	Non-AVID	10	400	3558.89	375.764							
STAAR EOC	Chemistry Scale Scores											
	AVID	9	3	No analysis due to group size < 5								
	Non-AVID	9	170									
	AVID	10	203	3768.67	454.424	0.51	0.48	1.91	1770.00	0.06	59.64	0.14
	Non-AVID	10	1569	3709.03	414.168							
STAAR EOC	World Geography Scale Scores											
	AVID	8	1	No analysis due to group size < 5								
	Non-AVID	8	18									
	AVID	9	379	3873.02	408.325	0.20	0.66	15.59	3263.00	0.00	352.69	0.85
	Non-AVID	9	2886	3520.33	414.885							
	AVID	10	14	3454.71	342.490	1.51	0.22	1.20	277.00	0.23	95.90	0.33
	Non-AVID	10	265	3358.82	289.189							
STAAR EOC	World History Scale Scores											
	AVID	9	4	No analysis due to group size < 5								
	Non-AVID	9	228									
	AVID	10	206	3622.25	453.246	0.11	0.74	2.97	2063.00	0.00	96.04	0.22
	Non-AVID	10	1859	3526.21	438.455							