## Board of Education of Howard County Meeting Agenda Item



## OVERVIEW:

HCPSS students continue to perform at high levels on AP exams as evidenced by the number of exams taken and the scores received in 2014. Overall, more than 4,000 HCPSS students have taken over 9,000 AP exams. Four out of five AP exams taken by HCPSS students scored 3 or higher, a score which may be awarded course credit by colleges. This level of performance exceeds the overall percentage of exams with a score of 3 or higher for public school students across the state of Maryland and across the nation.

Our strategic plan, Vision 2018: Fulfilling the Promise of Preparation emphasizes a rigorous instructional program for all students. The AP program includes a wide variety of courses that offer rigorous college-level courses to our high school students. Research literature indicates that course rigor in high school is the most powerful predictor of postsecondary success. AP courses offer rigorous curricula that students need to prepare for postsecondary education. Research indicates that students who take and pass AP exams are much more likely than their peers to complete a bachelor's degree in four years or less. In addition, students who earn AP exam scores of 3 or higher may be awarded course credit upon entry into college.

According to data tables published by the College Board, HCPSS students outperformed public school students in the state of Maryland and the nation on their AP exam performance in 2014. The percentage of AP exams with a score of 3 or higher for HCPSS students ( 80.9 percent) was 20.0 and 23.7 percentage points higher than that for public school students in the state of Maryland ( 60.9 percent) and across the nation ( 57.2 percent), respectively.

## RECOMMENDATION/FUTURE DIRECTION:

## SUbMITTED BY:

E. Grace Chesney

Chief Accountability

## APPROVAL/CONCURRENCE:

Renee A. Foose, Ed, D. Superintendent

Linda T. Wise
Deputy Superintendent

## Background

Our strategic plan, Vision 2018: Fulfilling the Promise of Preparation, emphasizes a rigorous instructional program for all students. The AP program includes a wide variety of courses that offer rigorous college-level courses to our high school students. Research literature indicates that course rigor in high school is the most powerful predictor of postsecondary success ${ }^{1}$. AP courses offer rigorous curricula that students need to prepare for postsecondary education ${ }^{2}$. Research indicates that students who take and pass AP exams are much more likely than their peers to complete a bachelor's degree in four years or less ${ }^{3}$. In addition, students who earn AP exam scores of 3 or higher may be awarded course credit upon entry into college ${ }^{4}$.

## AP Exam Results for the District, State, and Nation

HCPSS students continue to perform at high levels on AP exams as evidenced by the number of exams taken and the scores received in 2014. Overall, more than 4,000 HCPSS students have taken over 9,000 AP exams. Four out of five AP exams taken by HCPSS students scored 3 or higher, a score which may be awarded course credit by colleges. This level of performance exceeds the overall percentage of exams with a score of 3 or higher for public school students across the state of Maryland and across the nation.

According to data tables published by the College Board, HCPSS students outperformed public school students in the state of Maryland and the nation on their AP exam performance in 2014. The percentage of AP exams with a score of 3 or higher for HCPSS students ( 80.9 percent) was 20.0 and 23.7 percentage points higher than that for public school students in the state of Maryland ( 60.9 percent) and across the nation (57.2 percent), respectively (Table 1).

Table 1
Number of AP Exam Test Takers, AP Exams Taken, AP Exams with a Score of 3 or Higher, and Percentage of AP Exams with a Score of 3 or Higher for Students in the HCPSS, Maryland, and the Nation, 2014

| Region | $N$ AP Test Takers | $\begin{gathered} \text { N AP } \\ \text { Exams } \\ \text { Taken } \end{gathered}$ | $\begin{array}{r} n \mathrm{AP} \\ \text { Exams } 3 \text { or } \\ \text { Higher } \\ \hline \end{array}$ | $\begin{array}{r} \% \mathrm{AP} \\ \text { Exams } 3 \text { or } \\ \text { Higher } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
| HCPSS | 4,286 | 9,450 | 7,648 | 80.9 |
| Maryland Public Schools | 57,750 | 108,826 | 66,325 | 60.9 |
| U.S. Public Schools | 2,014,675 | 3,567,207 | 2,039,795 | 57.2 |

Note. AP exam results are based on data reported by the College Board as of October 2014.
From 2013 to 2014, although relatively consistent, a slight decreasing trend is observed in the percentage of HCPSS students earning a 3 or higher on AP exams by 0.7 percentage points from 81.6 to 80.9 percent. Slight increasing trends are observed for the percentage of public school students who earned a 3 or higher on an AP exam across the state of Maryland ( 0.5 percentage-point increase from 60.4 to 60.9 percent) and the nation ( 0.2 percentage-point increase from 57.0 to 57.2 percent) (Table 2 ).

[^0]In 2014, the percentage of AP exams scoring a 3 or higher for Black/African American students in the HCPSS ( 68.9 percent) was 36.0 and 40.0 percentage points greater than that for Black/African American public school students in the state of Maryland ( 32.9 percent) and the nation ( 28.9 percent), respectively. The percentage of AP exams scoring 3 or higher for Hispanic students in the HCPSS ( 72.9 percent) was 20.0 and 31.1 percentage points greater than that for Hispanic public school students in Maryland (52.9 percent) and the nation (41.8 percent), respectively (Table 2 ).

Table 2
Percentage of AP Exams with a Score of 3 or Higher for Public School Students by Race/Ethnicity in the HCPSS, Maryland, and the Nation, 2013 and 2014

| Student Group | HCPSS $^{\text {a }}$ |  | Maryland $^{\text {b }}$ |  | Nation $^{\text {b }}$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| All Students | 81.6 | 80.9 | 60.4 | 60.9 | 57.0 | 57.2 |
| Asian | 81.9 | 81.8 | 72.8 | 73.2 | 67.4 | 67.9 |
| Black/African American | 68.5 | 68.9 | 31.1 | 32.9 | 28.2 | 28.9 |
| Hispanic/Latino | 74.5 | 72.9 | 51.2 | 52.9 | 41.0 | 41.8 |
| White | 83.6 | 82.8 | 67.3 | 67.5 | 63.4 | 63.5 |
| Two or More Races | 83.5 | 79.4 | n/a | n/a | n/a | n/a |

Note. AP exam results are based on data reported by the College Board as of October 2014.
a "All Students" include American Indian or Alaskan Native and Native Hawaiian or Other Pacific Islander students.
b"All Students" include American Indian and multiracial students, and students who did not report their race/ethnicity.

## HCPSS AP Exam Results by Student Group

HCPSS students continue to perform at high levels on AP exams as evidenced by the number of exams taken and the scores received in 2013 and 2014. The number of students participating in the AP exams and the number of exams taken by students both demonstrate slight positive trends from 2013 to 2014. The number of HCPSS students taking an AP exam increased from 4,249 test takers in 2013 to 4,286 in 2014. The number of AP exams taken increased by 2.7 percent from 9,200 exams taken in 2013 to 9,450 in 2014 (Table 3). A higher number of AP exams had a score of 3 or higher in $2014(n=7,648)$ compared to 2013 ( $n=7,506$ ); however, the percentage of exams with a score of 3 or higher dropped 0.7 percentage points from 81.6 percent in 2013 to 80.9 percent in 2014 (Table 3).

In the HCPSS, the percentage of AP exams with scores of 3 or higher and taken by Black/African American students remained relatively stable from 2013 ( 68.5 percent) to 2014 ( 68.9 percent) (Table 2). For Hispanic/Latino students, the percentage of AP exams with scores of 3 or higher decreased 1.6 percentage points from 74.5 percent in 2013 to 72.9 percent in 2014. Students of Two or More Races experienced the largest decrease- 4.1 percentage points-in the percentage of AP exams with scores of 3 or higher between 2013 ( 83.5 percent) and 2014 (79.4 percent) (Table 3).

For students who receive special services, only data for those receiving free and reduced meals services (FARMS) are reported here due to insufficient counts for reporting purposes in the special education and English language learner groups. The percentage of AP exams with scores of 3 or higher and taken by FARMS students decreased by 2.1 percentage points from 67.2 percent in 2013 to 65.1 percent in 2014 (Table 3).

Table 3
Number of AP Exam Test Takers, AP Exams Taken, AP Exams with a Score of 3 or Higher, and Percentage of AP Exams with a Score of 3 or Higher for Students in HCPSS, 2013 and 2014

| Student Group | $N$ AP Test |  | $N$ AP Exams |  | $n$ AP Exams |  | \% AP Exams |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Takers |  | 3 or Higher |  | 3 or Higher |  |  |  |
|  | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| All Students | 4,249 | 4,286 | 9,200 | 9,450 | 7,506 | 7,648 | 81.6 | 80.9 |
| Male | 1,972 | 1,949 | 4,397 | 4,493 | 3,641 | 3,689 | 82.8 | 82.1 |
| Female | 2,277 | 2,337 | 4,803 | 4,957 | 3,865 | 3,959 | 80.5 | 79.9 |
|  |  |  |  |  |  |  |  |  |
| Asian | 1,080 | 1,108 | 2,685 | 2,875 | 2,198 | 2,352 | 81.9 | 81.8 |
| Black/African American | 347 | 376 | 639 | 678 | 438 | 467 | 68.5 | 68.9 |
| Hispanic/Latino | 193 | 191 | 412 | 351 | 307 | 256 | 74.5 | 72.9 |
| White | 2,377 | 2,352 | 4,957 | 4,969 | 4,144 | 4,112 | 83.6 | 82.8 |
| Two or More Races | 238 | 249 | 484 | 548 | 404 | 435 | 83.5 | 79.4 |
|  |  |  |  |  |  |  |  |  |
| FARMS | 242 | 246 | 482 | 481 | 324 | 313 | 67.2 | 65.1 |
| Special Ed | 18 | $*$ | 29 | $*$ | 20 | $*$ | 69.0 | $*$ |
| ELL | $*$ | $*$ | $*$ | $*$ | $*$ | $*$ | $*$ | $*$ |

Note. Results for HCPSS American Indian/Alaskan Native and Native Hawaiian/Pacific Islander students are included with "All Students," but are not reported separately. AP exam results are based on data reported by the College Board as of October 2014. "*" indicates fewer than 10 AP test takers, thus results are not reported to protect student confidentiality.

Appendix A provides the number of AP test takers, the number of AP exams taken, and the percent of AP exams earning a 3 or higher and 4 or higher by racial/ethnic group within each high school in the HCPSS for 2014. Appendix B provides the number of AP test takers, the number of AP exams taken, the number of exams receiving a score of 1 through 5 , and the percentage of AP exams receiving a score of 3 or higher by high school in the HCPSS for 2014.

In 2014, the 20 AP exams taken most frequently by students in the HCPSS were Calculus AB, English Language \& Composition, Psychology, English Literature \& Composition, U.S. Government \& Politics, World History, Statistics, Calculus BC, Biology, Physics C: Mechanics, Macroeconomics, Chemistry, Computer Science A, Microeconomics, Environmental Science, Spanish Language, Studio Art: 2-D Design, Human Geography, U.S. History, and French Language (Table 4). Appendix C displays the AP course enrollment and AP exam performance by school.

Table 4
Top 20 HCPSS AP Exams Administered, Number of Exams Taken, and Percent Earning a 3 or Higher by AP Exam, 2014

| AP Exam | $N$ Enrolled <br> in Course | $n$ Took the <br> Exam | $n$ Scored 3 <br> or Higher | \% Scored 3 <br> or Higher |
| :--- | ---: | ---: | ---: | ---: |
| Calculus AB | 1,188 | 1,030 | 855 | 83.0 |
| English Language \& Composition | 1,119 | 1,029 | 894 | 86.9 |
| Psychology | 1,239 | 963 | 748 | 77.7 |
| English Literature \& Composition | 1,111 | 854 | 636 | 74.5 |
| Government \& Politics: US | 928 | 852 | 678 | 79.6 |
| World History | 931 | 809 | 682 | 84.3 |
| Statistics | 674 | 495 | 404 | 81.6 |
| Calculus BC | 536 | 489 | 459 | 93.9 |
| Biology | 491 | 398 | 341 | 85.7 |
| Physics C - Mechanics | 421 | 323 | 263 | 81.4 |
| Economics: Macroeconomics | 470 | 290 | 221 | 76.2 |
| Chemistry | 330 | 283 | 195 | 68.9 |
| Computer Science A | 257 | 214 | 165 | 77.1 |
| Economics: Microeconomics | 365 | 206 | 153 | 74.3 |
| Environmental Science | 284 | 195 | 134 | 68.7 |
| Spanish Language | 277 | 185 | 158 | 85.4 |
| Art: Studio Art - 2-D Design | 405 | 138 | 127 | 92.0 |
| Human Geography | 214 | 136 | 96 | 70.6 |
| US History | 116 | 88 | 75 | 85.2 |
| French Language | 146 | 82 | 73 | 89.0 |

## AP Course and Exam Taking Trends for HCPSS Graduates

Overall, the number of graduates in the HCPSS decreased from 4,097 in 2013 to 3,870 in 2014. The percentage of HCPSS graduates enrolled in at least one AP course increased from 59.9 percent in 2013 to 60.5 percent in 2014. The percent of graduates who took one or more AP exams increased by 3.0 percentage points from 49.7 percent in 2013 to 52.7 percent in 2014 . The percent of graduates who scored a 3 or higher on an AP exam also increased, by 2.5 percentage points from 41.9 percent in 2013 to 44.4 percent in 2014 (Table 5).

Increasing trends from 2013 to 2014 in the percent of graduates enrolled in an AP course, percent of graduates who took an AP exam, and percent of graduates who scored a 3 or higher on at least one AP exam are observed in all racial/ethnic groups except for Hispanic/Latino graduates. For Hispanic/Latino students, the percent of graduates enrolled in an AP course decreased by 2.6 percentage points from 46.7 percent in 2013 to 44.1 percent in 2014. The percent of graduates who took at least one AP exam decreased by 11.2 percentage points from 43.3 percent in 2013 to 32.1 percent in 2014. The percent of Hispanic/Latino graduates who scored at least a 3 on at least one AP exam also decreased, from 32.6 percent in 2013 to 24.8 percent in 2014 -a 7.8 percentage-point decrease (Table 5).

For students who received FARMS, the percent of graduates enrolled in any AP course decreased by 1.8 percentage points from 33.4 percent in 2013 to 31.6 percent in 2014. The percent of graduates who took at least one AP exam decreased by 3.2 percentage points from 25.3 percent in 2013 to 22.1 percent in 2014 for those who received FARMS. The percent of graduates who received FARMS scoring a 3 or higher on at least one AP exam also decreased, by 2.6 percentage points from 17.5 percent in 2013 to 14.9 percent in 2014 (Table 5).

Table 5
Number and Percentage of Graduates Enrolled in at Least One AP Course, Took at Least One AP Exam,

| Racial/Ethnic Group | Graduates <br> $N$ | $\begin{gathered} \text { Graduates Enrolled } \\ \text { in an AP Course } \\ n \quad \% \end{gathered}$ |  | Graduates Who Took an AP Exam |  |  | Graduates Who Scored 3+ on an AP Exam |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20132014 | 2013 2014 | 20132014 | 2013 2014 | 2013 | 2014 | 2013 2014 | 2013 | 2014 |
| All Graduates | 4,097 3,870 | 2,456 2,342 | 59.960 .5 | 2,037 2,038 | 49.7 | 52.7 | 1,715 1,720 | 41.9 | 44.4 |
| Male | 2,107 1,960 | 1,182 1,085 | 56.155 .4 | 955930 | 45.3 | 47.4 | $810 \quad 787$ | 38.4 | 40.2 |
| Female | 1,990 1,910 | 1,274 1,257 | $64.0 \quad 65.8$ | 1,082 1,108 | 54.4 | 58.0 | 905933 | 45.5 | 48.8 |
| Asian | $640 \quad 613$ | $515 \quad 502$ | 80.581 .9 | $460 \quad 450$ | 71.9 | 73.4 | $399 \quad 387$ | 62.3 | 63.1 |
| Black/African American | 756756 | $265 \quad 273$ | $35.1 \quad 36.1$ | 176210 | 23.3 | 27.8 | 129143 | 17.1 | 18.9 |
| Hispanic/Latino | 291290 | 136128 | 46.744 .1 | 126 93 | 43.3 | 32.1 | $95 \quad 72$ | 32.6 | 24.8 |
| White | 2,154 1,976 | 1,397 1,304 | 64.966 .0 | 1,167 1,170 | 54.2 | 59.2 | 1,004 1,025 | 46.6 | 51.9 |
| Two or More Races | $243 \quad 220$ | $134 \quad 127$ | $55.1 \quad 57.7$ | 102108 | 42.0 | 49.1 | $85 \quad 87$ | 35.0 | 39.5 |
| FARMS | $578 \quad 570$ | 193 180 | $33.4 \quad 31.6$ | 146126 | 25.3 | 22.1 | 10185 | 17.5 | 14.9 |
| Special Ed | 213177 | 18 | 8.5 | 12 | 5.6 | * | * * | $\leq 5.0$ | * |
| ELL | $38 \quad 23$ | * | * * | * * | * | * | * * | * | * |

Note. Results for HCPSS American Indian/Alaskan Native and Native Hawaiian/Pacific Islander students are included with "All Students," but are not reported separately. AP exam results are based on data reported by the College Board as of October 2014. "*" indicates fewer than 10 AP test takers, thus results are not reported to protect student confidentiality. Values greater than or equal to $95 \%$ or less than or equal to $5 \%$ are suppressed to protect student confidentiality.

Appendix A
Number of AP Exam Test Takers, AP Exams Taken, and Percentage of AP Exams with a Score of 3 or Higher and 4 or Higher by HCPSS High School and Race/Ethnicity, 2014

| High School | Student Group | Number of Test Takers | Number of Exams Taken | \% Exam 3 or Higher | \% Exam 4 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Atholton | All Students | 333 | 720 | 82.8 | 53.5 |
|  | Asian | 93 | 249 | 80.3 | 54.2 |
|  | Black/African American | 21 | 40 | 90.0 | 50.0 |
|  | Hispanic/Latino | 9 | 18 | 83.3 | 61.1 |
|  | White | 193 | 374 | 82.9 | 53.5 |
|  | Two or More Races | 15 | 32 | 87.5 | 50.0 |
| Centennial | All Students | 548 | 1345 | 81.5 | 59.8 |
|  | Asian | 244 | 665 | 80.8 | 59.7 |
|  | Black/African American | 17 | 32 | 84.4 | 59.4 |
|  | Hispanic/Latino | 18 | 35 | 65.7 | 54.3 |
|  | White | 242 | 550 | 84.5 | 61.3 |
|  | Two or More Races | 27 | 63 | 69.8 | 50.8 |
| Glenelg | All Students | 370 | 771 | 81.6 | 55.9 |
|  | Asian | 39 | 111 | 82.9 | 60.4 |
|  | Black/African American | 11 | 16 | 50.0 | 18.8 |
|  | Hispanic/Latino | 12 | 25 | 72.0 | 48.0 |
|  | White | 293 | 588 | 82.3 | 56.6 |
|  | Two or More Races | 15 | 31 | 87.1 | 51.6 |
| Hammond | All Students | 209 | 378 | 70.9 | 41.8 |
|  | Asian | 39 | 78 | 64.1 | 39.7 |
|  | Black/African American | 35 | 64 | 65.6 | 35.9 |
|  | Hispanic/Latino | 12 | 18 | 72.2 | 44.4 |
|  | White | 108 | 193 | 75.1 | 45.6 |
|  | Two or More Races | 15 | 25 | 72.0 | 32.0 |
| Howard | All Students | 466 | 1087 | 74.6 | 42.4 |
|  | Asian | 61 | 145 | 75.2 | 41.4 |
|  | Black/African American | 52 | 107 | 61.7 | 28.0 |
|  | Hispanic/Latino | 25 | 46 | 67.4 | 41.3 |
|  | White | 284 | 669 | 77.4 | 44.7 |
|  | Two or More Races | 42 | 112 | 71.4 | 42.0 |
| Long Reach | All Students | 273 | 561 | 69.2 | 37.3 |
|  | Asian | 60 | 146 | 72.6 | 38.4 |
|  | Black/African American | 59 | 104 | 52.9 | 27.9 |
|  | Hispanic/Latino | 18 | 34 | 67.6 | 38.2 |
|  | White | 116 | 235 | 73.6 | 40.0 |
|  | Two or More Races | 20 | 42 | 73.8 | 40.5 |
| Marriotts Ridge | All Students | 436 | 1081 | 86.1 | 58.7 |
|  | Asian | 123 | 325 | 85.2 | 60.6 |
|  | Black/African American | 18 | 38 | 76.3 | 44.7 |
|  | Hispanic/Latino | 11 | 23 | 78.3 | 43.5 |
|  | White | 266 | 648 | 86.9 | 58.6 |
|  | Two or More Races | 17 | 40 | $\geq 95.0$ | 75.0 |

Note. "All Students" includes American Indian/Alaskan Native and Hawaiian/Pacific Islander students. To comply with federal requirements and protect student confidentiality, any percentage rates greater than or equal to 95.0 percent or less than or equal to 5.0 percent will be noted as $\geq 95.0$ or $\leq 5.0$, respectively; "*" is used in place of the actual $n$ to suppress those data.

## Appendix A (Continued)

Number of AP Exam Test Takers, AP Exams Taken, and Percentage of AP Exams with a
Score of 3 or Higher and 4 or Higher by HCPSS High School and Race/Ethnicity, 2014

| High School | Student Group | Number of Test Takers | Number of Exams Taken | \% Exam 3 or Higher | \% Exam 4 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mt. Hebron | All Students | 346 | 833 | 88.5 | 66.6 |
|  | Asian | 141 | 384 | 85.7 | 62.5 |
|  | Black/African American | 18 | 34 | 91.2 | 55.9 |
|  | Hispanic/Latino | 11 | 20 | 80.0 | 60.0 |
|  | White | 160 | 358 | 91.3 | 70.9 |
|  | Two or More Races | 14 | 34 | 91.2 | 82.4 |
| Oakland Mills | All Students | 163 | 308 | 78.9 | 45.8 |
|  | Asian | 17 | 36 | 83.3 | 44.4 |
|  | Black/African American | 34 | 61 | 72.1 | 34.4 |
|  | Hispanic/Latino | 15 | 24 | 58.3 | 25.0 |
|  | White | 78 | 151 | 84.8 | 53.6 |
|  | Two or More Races | 19 | 36 | 75.0 | 47.2 |
| Reservoir | All Students | 335 | 662 | 75.8 | 46.1 |
|  | Asian | 67 | 146 | 77.4 | 51.4 |
|  | Black/African American | 56 | 92 | 71.7 | 27.2 |
|  | Hispanic/Latino | 30 | 56 | 78.6 | 32.1 |
|  | White | 161 | 325 | 75.1 | 49.8 |
|  | Two or More Races | 20 | 41 | 80.5 | 56.1 |
| River Hill | All Students | 565 | 1278 | 84.9 | 58.5 |
|  | Asian | 190 | 519 | 87.3 | 63.4 |
|  | Black/African American | 27 | 46 | 73.9 | 39.1 |
|  | Hispanic/Latino | 13 | 28 | 82.1 | 42.9 |
|  | White | 312 | 632 | 84.2 | 57.0 |
|  | Two or More Races | 22 | 52 | 82.7 | 55.8 |
| Wilde Lake | All Students | 242 | 426 | 85.0 | 61.7 |
|  | Asian | 34 | 71 | 78.9 | 60.6 |
|  | Black/African American | 28 | 44 | 65.9 | 38.6 |
|  | Hispanic/Latino | 17 | 24 | 75.0 | 58.3 |
|  | White | 139 | 246 | 90.7 | 65.9 |
|  | Two or More Races | 23 | 40 | 87.5 | 67.5 |

Note. "All Students" includes American Indian/Alaskan Native and Hawaiian/Pacific Islander students. To comply with federal requirements and protect student confidentiality, any percentage rates greater than or equal to 95.0 percent or less than or equal to 5.0 percent will be noted as $\geq 95.0$ or $\leq 5.0$, respectively; "*" is used in place of the actual $n$ to suppress those data.

## Appendix B

Number of AP Exam Test Takers, AP Exams Taken, AP Exams Receiving a Score of 1 through 5, and

| High School | $N$ Test <br> Takers | $N$ Exams Taken | Number of exams receiving a score of*: |  |  |  |  | \% Exams 3 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | 5 |  |
| All HCPSS | 4,286 | 9,450 | 510 | 1238 | 2553 | 2714 | 2381 | 80.9 |
| Atholton | 333 | 720 | 27 | 87 | 211 | 230 | 155 | 82.8 |
| Centennial | 548 | 1,345 | 82 | 158 | 292 | 397 | 407 | 81.5 |
| Glenelg | 370 | 771 | 33 | 107 | 198 | 251 | 180 | 81.6 |
| Hammond | 209 | 378 | 29 | 78 | 110 | 87 | 71 | 70.9 |
| Howard | 466 | 1,087 | 93 | 180 | 350 | 290 | 171 | 74.6 |
| Long Reach | 273 | 561 | 47 | 122 | 179 | 123 | 86 | 69.2 |
| Marriotts Ridge | 436 | 1,081 | 40 | 102 | 296 | 315 | 320 | 86.1 |
| Mt. Hebron | 346 | 833 | 25 | 68 | 182 | 263 | 292 | 88.5 |
| Oakland Mills | 163 | 308 | 17 | 47 | 102 | 74 | 67 | 78.9 |
| Reservoir | 335 | 662 | 48 | 110 | 197 | 187 | 118 | 75.8 |
| River Hill | 565 | 1,278 | 52 | 134 | 337 | 383 | 365 | 84.9 |
| Wilde Lake | 242 | 426 | 17 | 45 | 99 | 114 | 149 | 85.0 |

*54 exams had either a score of 0 or no score. They are included in the total number of exams taken.

Appendix C
AP Course Enrollment and AP Exam Performance by School, 2014

| High School | AP Exam | $N$ Enrolled in the Course | $N$ Test Taker | $n$ Test Takers scored 3 or Higher | \% Test takers Scored 3 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Atholton | Art: Studio Art - 2-D Design | 35 | 16 | * | $\geq 95.0$ |
|  | Art: Studio Art - Drawing | 11 | * | * | * |
|  | Biology | 50 | 28 | 17 | 60.7 |
|  | Calculus AB | 122 | 99 | 84 | 84.8 |
|  | Calculus BC | 38 | 32 | 28 | 87.5 |
|  | Chemistry | 60 | 49 | 28 | 57.1 |
|  | Chinese Lang and Culture | * | * | * | * |
|  | Computer Science A | 16 | 14 | 10 | 71.4 |
|  | Economics: Macro | 53 | 26 | 13 | 50.0 |
|  | Economics: Micro | 53 | 31 | 28 | 90.3 |
|  | Eng Lang \& Comp | 117 | 94 | 79 | 84.0 |
|  | Eng Lit \& Comp | 88 | 48 | 42 | 87.5 |
|  | Environmental Science | 16 | * | * | * |
|  | European History | 22 | 16 | 15 | 93.8 |
|  | French Lang | 17 | * | * | * |
|  | Govt \& Politics: Comparative | 15 | * | * | * |
|  | Govt \& Politics: US | 72 | 70 | * | $\geq 95.0$ |
|  | Physics B | * | * | * | * |
|  | Physics C - Electr \& Magnetism | * | * | * | * |
|  | Physics C - Mechanics | 60 | 34 | 29 | 85.3 |
|  | Psychology | 65 | 29 | 23 | 79.3 |
|  | Spanish Lang | 22 | 14 | * | $\geq 95.0$ |
|  | Statistics | 71 | 44 | 37 | 84.1 |
|  | US History | * | * | * | * |
|  | World History | 50 | 45 | 38 | 84.4 |
| Centennial | Art: Studio Art - 2-D Design | 36 | 17 | * | $\geq 95.0$ |
|  | Art: Studio Art - Drawing | * | * | * | * |
|  | Biology | 81 | 76 | 67 | 88.2 |
|  | Calculus AB | 144 | 143 | 126 | 88.1 |
|  | Calculus BC | 55 | 54 | * | $\geq 95.0$ |
|  | Chemistry | 47 | 38 | 26 | 68.4 |
|  | Chinese Lang and Culture | * | 16 | 7 | 43.8 |
|  | Computer Science A | 53 | 54 | 46 | 85.2 |
|  | Economics: Macro | 66 | 44 | 30 | 68.2 |
|  | Economics: Micro | 66 | 45 | 30 | 66.7 |
|  | Eng Lang \& Comp | 113 | 115 | 107 | 93.0 |
|  | Eng Lit \& Comp | 117 | 100 | 85 | 85.0 |
|  | Environmental Science | 67 | 53 | 27 | 50.9 |
|  | European History | 37 | 34 | 18 | 52.9 |
|  | French Lang | 14 | * | * | * |
|  | German Lang | 11 | 12 | 10 | 83.3 |
|  | Govt \& Politics: Comparative | 19 | 12 | * | $\geq 95.0$ |
|  | Govt \& Politics: US | 111 | 108 | 90 | 83.3 |
|  | Human Geography | * | * | * | * |
|  | Italian Lang and Culture | * | * | * | * |
|  | Japanese Lang and Culture | * | * | * | * |
|  | Music Theory | 13 | 14 | 12 | 85.7 |
|  | Physics B | * | * | * | * |
|  | Physics C - Electr \& Magnetism | 13 | 13 | * | $\geq 95.0$ |
|  | Physics C - Mechanics | 43 | 42 | * | $\geq 95.0$ |

Appendix C (Continued)

| High School | AP Exam | $N$ Enrolled in the Course | $N$ Test Taker | $n$ Test Takers scored 3 or Higher | \% Test takers Scored 3 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Centennial | Psychology | 120 | 97 | 75 | 77.3 |
|  | Spanish Lang | 42 | 38 | 26 | 68.4 |
|  | Statistics | 76 | 68 | 53 | 77.9 |
|  | US History | 24 | 24 | * | $\geq 95.0$ |
|  | World History | 109 | 101 | 78 | 77.2 |
| Glenelg | Art: Studio Art - 2-D Design | 69 | 12 | 11 | 91.7 |
|  | Art: Studio Art - 3-D Design | * | * | * | * |
|  | Art: Studio Art - Drawing | 18 | * | * | * |
|  | Biology | 22 | 17 | 16 | 94.1 |
|  | Calculus AB | 128 | 116 | 85 | 73.3 |
|  | Calculus BC | 35 | 33 | 27 | 81.8 |
|  | Chemistry | 34 | 30 | 18 | 60.0 |
|  | Chinese Lang and Culture | * | * | * | * |
|  | Computer Science A | * | * | * | * |
|  | Economics: Macro | 25 | * | * | * |
|  | Economics: Micro | 25 | 22 | 18 | 81.8 |
|  | Eng Lang \& Comp | 97 | 96 | 84 | 87.5 |
|  | Eng Lit \& Comp | 86 | 84 | 70 | 83.3 |
|  | Environmental Science | 22 | 18 | 14 | 77.8 |
|  | French Lang | * | * | * | * |
|  | German Lang | * | * | * | * |
|  | Govt \& Politics: US | 89 | 87 | 73 | 83.9 |
|  | Human Geography | 15 | 10 | 9 | 90.0 |
|  | Latin: Vergil | 14 | * | * | * |
|  | Music Theory | * | * | * |  |
|  | Physics C - Electr \& Magnetism | * | * | * | * |
|  | Physics C - Mechanics | 21 | 18 | 15 | 83.3 |
|  | Psychology | 136 | 100 | 83 | 83.0 |
|  | Spanish Lang | 19 | 13 | * | $\geq 95.0$ |
|  | Statistics | 48 | 43 | 38 | 88.4 |
|  | US History | * | * | * | * |
|  | World History | 47 | 39 | * | $\geq 95.0$ |
| Hammond | Art: Studio Art - 2-D Design | 24 | 14 | 7 | 50.0 |
|  | Biology | 12 | * | * | * |
|  | Calculus AB | 48 | 43 | 29 | 67.4 |
|  | Calculus BC | 22 | 21 | 14 | 66.7 |
|  | Chemistry | 22 | 15 | 5 | 33.3 |
|  | Computer Science A | 16 | * | * | * |
|  | Economics: Macro | * | * | * | * |
|  | Eng Lang \& Comp | 28 | 23 | 20 | 87.0 |
|  | Eng Lit \& Comp | 43 | 37 | 24 | 64.9 |
|  | Environmental Science | * | * | * | * |
|  | French Lang | * | * | * | * |
|  | Govt \& Politics: Comparative | * | * | * | * |
|  | Govt \& Politics: US | 48 | 45 | 40 | 88.9 |
|  | Human Geography | 18 | * | * | * |
|  | Italian Lang and Culture | * | * | * | * |
|  | Physics C - Electr \& Magnetism | * | * | * | * |

Appendix C (Continued)

| High School | AP Exam | $N$ Enrolled in the Course | $N$ Test Taker | $n$ Test Takers scored 3 or Higher | \% Test takers Scored 3 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hammond | Physics C - Mechanics | 24 | 16 | 9 | 56.3 |
|  | Psychology | 70 | 56 | 46 | 82.1 |
|  | Spanish Lang | 17 | 11 | * | $\geq 95.0$ |
|  | Statistics | 10 | * | * | * |
|  | US History | 11 | * | * | * |
|  | World History | 47 | 43 | 37 | 86.0 |
| Howard | Art: Studio Art - 2-D Design | 32 | 15 | * | $\geq 95.0$ |
|  | Art: Studio Art - 3-D Design | * | * | * |  |
|  | Art: Studio Art - Drawing | 11 | * | * | * |
|  | Biology | 52 | 49 | 38 | 77.6 |
|  | Calculus AB | 114 | 106 | 73 | 68.9 |
|  | Calculus BC | 35 | 35 | * | $\geq 95.0$ |
|  | Chemistry | 14 | 14 | 8 | 57.1 |
|  | Computer Science A | 19 | 13 | 9 | 69.2 |
|  | Economics: Macro | 48 | 35 | 25 | 71.4 |
|  | Economics: Micro | 48 | 45 | 28 | 62.2 |
|  | Eng Lang \& Comp | 133 | 129 | 110 | 85.3 |
|  | Eng Lit \& Comp | 165 | 157 | 93 | 59.2 |
|  | Environmental Science | 16 | 14 | 11 | 78.6 |
|  | French Lang | 21 | 21 | 18 | 85.7 |
|  | Govt \& Politics: US | 83 | 83 | 62 | 74.7 |
|  | Human Geography | 15 | * | * | * |
|  | Italian Lang and Culture | * | * | * | * |
|  | Latin: Vergil | * | * | * | * |
|  | Music Theory | * | * | * | * |
|  | Physics C - Mechanics | 47 | 45 | 34 | 75.6 |
|  | Psychology | 120 | 112 | 75 | 67.0 |
|  | Spanish Lang | 21 | 21 | * | $\geq 95.0$ |
|  | Statistics | 65 | 63 | 52 | 82.5 |
|  | World History | 102 | 98 | 83 | 84.7 |
| Long Reach | Art: Studio Art - 2-D Design | 31 | * | * | * |
|  | Art: Studio Art - Drawing | 20 | * | * | * |
|  | Biology | 18 | 15 | 13 | 86.7 |
|  | Calculus AB | 48 | 40 | 34 | 85.0 |
|  | Calculus BC | 27 | 23 | * | $\geq 95.0$ |
|  | Chemistry | 32 | 31 | 22 | 71.0 |
|  | Chinese Lang and Culture | * | * | * | * |
|  | Computer Science A | * | * | * | * |
|  | Economics: Macro | 50 | 30 | 21 | 70.0 |
|  | Economics: Micro | 50 | * | * | * |
|  | Eng Lang \& Comp | 83 | 73 | 47 | 64.4 |
|  | Eng Lit \& Comp | 122 | 89 | 50 | 56.2 |
|  | Environmental Science | 13 | * | * | * |
|  | French Lang | * | * | * | * |
|  | Govt \& Politics: Comparative | * | * | * | * |
|  | Govt \& Politics: US | 60 | 46 | 16 | 34.8 |
|  | Human Geography | 19 | 12 | 9 | 75.0 |
|  | Physics C - Mechanics | 13 | * | * | * |
|  | Psychology | 89 | 66 | 47 | 71.2 |
|  | Spanish Lang | 18 | 14 | 9 | 64.3 |
|  | Statistics | 42 | 21 | 18 | 85.7 |
|  | US History | 12 | * | * | * |



Appendix C (Continued)

| High School | AP Exam | $N$ Enrolled in the Course | $N$ Test Taker | $n$ Test Takers scored 3 or Higher | \% Test takers Scored 3 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mt. Hebron | Spanish Lang | 11 | 12 | * | $\geq 95.0$ |
|  | Statistics | 90 | 64 | 53 | 82.8 |
|  | World History | 29 | 29 | 27 | 93.1 |
| Oakland Mills | Art: Studio Art - 2-D Design | 16 | * | * | * |
|  | Biology | 16 | 10 | 9 | 90.0 |
|  | Calculus AB | 41 | 33 | * | $\geq 95.0$ |
|  | Calculus BC | 29 | 22 | 19 | 86.4 |
|  | Chemistry | * | * | * | * |
|  | Computer Science A | 10 | 12 | 7 | 58.3 |
|  | Eng Lang \& Comp | 64 | 54 | 39 | 72.2 |
|  | Eng Lit \& Comp | 43 | 23 | * | $\geq 95.0$ |
|  | Environmental Science | * | * | * | * |
|  | French Lang | 15 | * | * | * |
|  | German Lang | * | * | * | * |
|  | Govt \& Politics: US | 39 | 29 | 17 | 58.6 |
|  | Human Geography | 17 | 10 | * | $\geq 95.0$ |
|  | Music Theory | * | * | * | * |
|  | Physics C - Electr \& Magnetism | * | * | * | * |
|  | Physics C - Mechanics | 16 | 15 | 11 | 73.3 |
|  | Psychology | 20 | * | * | * |
|  | Spanish Lang | * | * | * | * |
|  | Spanish Lit | 12 | * | * | * |
|  | Statistics | 22 | 14 | 11 | 78.6 |
|  | US History | 13 | * | * | * |
|  | World History | 44 | 39 | 29 | 74.4 |
| Reservoir | Art: Studio Art - 2-D Design | 21 | * | * | * |
|  | Biology | 41 | 26 | 19 | 73.1 |
|  | Calculus AB | 65 | 50 | 32 | 64.0 |
|  | Calculus BC | 26 | 24 | * | $\geq 95.0$ |
|  | Computer Science A | * | * | * | * |
|  | Economics: Macro | 10 | * | * | * |
|  | Eng Lang \& Comp | 97 | 86 | 74 | 86.0 |
|  | Eng Lit \& Comp | 107 | 67 | 45 | 67.2 |
|  | European History | 20 | * | * | * |
|  | French Lang | 17 | * | * | * |
|  | Govt \& Politics: US | 72 | 60 | 54 | 90.0 |
|  | History of Art | 11 | * | * | * |
|  | Human Geography | 19 | 19 | 10 | 52.6 |
|  | Japanese Lang and Culture | * | * | * | * |
|  | Music Theory | * | * | * | * |
|  | Physics C - Electr \& Magnetism | 17 | * | * | * |
|  | Physics C - Mechanics | 55 | 28 | 15 | 53.6 |
|  | Psychology | 95 | 94 | 62 | 66.0 |
|  | Spanish Lang | 42 | 20 | * | $\geq 95.0$ |
|  | Statistics | 49 | 32 | 29 | 90.6 |
|  | US History | 18 | 14 | 12 | 85.7 |
|  | World History | 118 | 102 | 74 | 72.5 |

Appendix C (Continued)

| High School | AP Exam | $N$ Enrolled in the Course | $N$ Test Taker | $n$ Test Takers scored 3 or Higher | \% Test takers Scored 3 or Higher |
| :---: | :---: | :---: | :---: | :---: | :---: |
| River Hill | Art: Studio Art - 2-D Design | 56 | 32 | * | $\geq 95.0$ |
|  | Art: Studio Art - Drawing | * | 10 | * | $\geq 95.0$ |
|  | Biology | 82 | 79 | 75 | 94.9 |
|  | Calculus AB | 164 | 144 | 126 | 87.5 |
|  | Calculus BC | 80 | 73 | * | $\geq 95.0$ |
|  | Chemistry | 48 | 43 | * | $\geq 95.0$ |
|  | Chinese Lang and Culture | * | * | * |  |
|  | Computer Science A | 32 | 28 | * | $\geq 95.0$ |
|  | Economics: Macro | 29 | * | * | * |
|  | Economics: Micro | 29 | * | * | * |
|  | Eng Lang \& Comp | 123 | 119 | 112 | 94.1 |
|  | Eng Lit \& Comp | 124 | 108 | 84 | 77.8 |
|  | Environmental Science | 72 | 49 | 43 | 87.8 |
|  | European History | 20 | 11 | 8 | 72.7 |
|  | French Lang | 15 | 10 | 9 | 90.0 |
|  | German Lang | * | * | * | * |
|  | Govt \& Politics: US | 182 | 168 | 110 | 65.5 |
|  | History of Art | 11 | * | * | * |
|  | Human Geography | 43 | 35 | 30 | 85.7 |
|  | Music Theory | * | * | * | * |
|  | Physics C - Electr \& Magnetism | 12 | * | * | * |
|  | Physics C - Mechanics | 56 | 41 | 35 | 85.4 |
|  | Psychology | 121 | 90 | 73 | 81.1 |
|  | Spanish Lang | * | * | * | * |
|  | Statistics | 82 | 61 | 55 | 90.2 |
|  | US History | * | * | * | * |
|  | World History | 153 | 130 | 112 | 86.2 |
| Wilde Lake | Art: Studio Art - 2-D Design | 28 | * | * | * |
|  | Art: Studio Art - 3-D Design | 10 | * | * | * |
|  | Art: Studio Art - Drawing | 10 | * | * | * |
|  | Biology | 33 | 25 | 23 | 92.0 |
|  | Calculus AB | 30 | 30 | * | $\geq 95.0$ |
|  | Calculus BC | 40 | 40 | * | $\geq 95.0$ |
|  | Chemistry | 13 | 13 | 10 | 76.9 |
|  | Chinese Lang and Culture | * | * | * | * |
|  | Computer Science A | * | * | * | * |
|  | Economics: Micro | 18 | * | * | * |
|  | Eng Lang \& Comp | 29 | 25 | * | $\geq 95.0$ |
|  | Eng Lit \& Comp | 36 | 29 | 27 | 93.1 |
|  | Environmental Science | * | * | * | * |
|  | French Lang | * | * | * | * |
|  | Govt \& Politics: US | 68 | 60 | 55 | 91.7 |
|  | Human Geography | 10 | * | * | * |
|  | Italian Lang and Culture | * | * | * | * |
|  | Physics C - Electr \& Magnetism | * | * | * | * |
|  | Physics C - Mechanics | * | * | * | * |
|  | Psychology | 58 | 43 | 36 | 83.7 |
|  | Spanish Lang | 17 | * | * | * |
|  | Statistics | 56 | 37 | 24 | 64.9 |
|  | US History | 14 | * | * | * |
|  | World History | 70 | 68 | 62 | 91.2 |

* Values are suppressed to protect student privacy if the percent is greater than or equal to 95 or less than or equal to 5 ; and when a group has fewer than 10 students.


[^0]:    ${ }^{1}$ ACT. (2004). ACT national data release. Iowa City, IA: ACT, Inc.
    ${ }^{2}$ Adelman, C. (1999). Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment. Washington, DC: US Department of Education.
    ${ }^{3}$ Hargrove, L., Godin, D., \& Dodd, B. (2008). College outcomes comparisons by AP and non-AP high school experiences. New York: The College Board.
    ${ }^{4}$ DiYanni, R. (2008). The history of the AP program. New York: The College Board.

