## AP ${ }^{\oplus}$ Instructional Planning Report - Aggregated for Districts (2017)

## Data Updated Sep 15, 2017, Report Run Sep 19, 2017

This subject-specific report compares your students' performance on specific topics in this AP Exam with the performance of all students on these same topics, helping teachers target areas for increased attention and focus in the curriculum. Other uses of the report, such as teacher evaluation or institutional ranking, are not warranted. Students who tested on late-testing dates are not included in this report.

CS Matters (D297520) - Computer Science Principles
$\square$ Your Group Total Students: $569 \square$ Global Total Students: 47,216
Overall Score Distributions


| Overall Score Distributions | 1 | 2 | 3 | 4 | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of Students in Your Group | 68 | 141 | 207 | 104 | 49 |
| $\square$ \% Students in Your Group | 12.0 | 24.8 | 36.4 | 18.3 | 8.6 |
| $\square$ \% Students Globally | 7.6 | 18.6 | 38.7 | 21.3 | 13.8 |


Performance Tasks


| Performance Tasks | Lowest <br> Fourth | Second <br> Fourth | Third <br> Fourth | Highest <br> Fourth |
| :--- | :---: | :---: | :---: | :---: |
| Number of Students in <br> Your Group | 195 | 134 | 124 | 116 |
| \% Students in Your <br> Group | 34.3 | 23.6 | 21.8 | 20.4 |
| $\square$ \% Students Globally | 25.0 | 25.0 | 25.0 | 25.0 |

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## AP ${ }^{\circledR}$ Instructional Planning Report - Aggregated for Districts (2017)

, Data Updated Sep 15, 2017, Report Run Sep 19, 2017
CS Matters (D297520) - Computer Science Principles
Performance on Multiple-Choice Exam (Maximum Possible Score = 60)

|  |  |  |  | Number of Students in Your Group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Content Area | Max Possible Score | Global <br> Mean | Group <br> Mean | Lowest Fourth | Second Fourth | Third <br> Fourth | Highest <br> Fourth |
| BIG IDEA 1: CREATIVITY | 0 | ** | ** | ** | ** | ** | ** |
| BIG IDEA 2: ABSTRACTION | 13 | 8 | 8 | 111 | 123 | 147 | 188 |
| BIG IDEA 3: DATA AND INFORMATION | 9 | 7 | 7 | 112 | 87 | 119 | 251 |
| BIG IDEA 4: ALGORITHMS | 12 | 8 | 8 | 126 | 132 | 156 | 155 |
| BIG IDEA 5: PROGRAMMING | 15 | 11 | 11 | 130 | 126 | 139 | 174 |
| BIG IDEA 6: THE INTERNET | 9 | 7 | 7 | 137 | 66 | 131 | 235 |
| BIG IDEA 7: GLOBAL IMPACT | 6 | 5 | 5 | 87 | 86 | 181 | 215 |
| SKILL: INTERPRETING DATA ABSTRACTION (LOS 2.1.1; 2.1.2) | 5 | 3 | 3 | 120 | 122 | 135 | 192 |
| SKILL: APPLYING ABSTRACTION (LOS 2.2.1; 2.2.2; 2.2.3; 5.3.1) | 7 | 5 | 5 | 102 | 115 | 166 | 186 |
| SKILL: ANALYZING DATA AND INFORMATION USING MODELS (LOS 2.3.1; 2.3.2) | 5 | 4 | 3 | 125 | 120 | 0 | 324 |
| SKILL: ANALYZING DATA AND INFORMATION (LOS 3.1.1; 3.1.3; 3.2.1; 3.2.2; 3.3.1) | 9 | 7 | 7 | 112 | 87 | 119 | 251 |
| SKILL: APPLYING ALGORITHMS (LOS 4.1.1; 4.1.2; 5.2.1; 5.5.1) | 12 | 8 | 8 | 96 | 173 | 148 | 152 |
| SKILL: EVALUATING ALGORITHMS (LOS 4.2.1; 4.2.2; 4.2.3; 4.2.4) | 5 | 3 | 3 | 49 | 153 | 172 | 195 |
| SKILL: DEVELOPING A PROGRAM FOR A PURPOSE (LOS 5.1.1; 5.1.2; 5.4.1) | 6 | 4 | 4 | 78 | 172 | 144 | 175 |
| SKILL: ANALYZING THE INTERNET (LOS 6.1.1; 6.2.1; 6.2.2; 6.3.1) | 9 | 7 | 7 | 137 | 66 | 131 | 235 |
| SKILL: ANALYZING IMPACT OF COMPUTING (LOS 7.1.1; 7.1.2; 7.2.1; 7.3.1; 7.4.1) | 6 | 5 | 5 | 87 | 86 | 181 | 215 |
| Content Area Summary |  | 44 | 42 | 169 | 154 | 127 | 119 |

\#\# Indicates that the distribution is not displayed because more than half of the total AP global group earned the same score.
** Indicates that the distribution is not displayed because there were fewer than five questions in the category.

## AP ${ }^{\oplus}$ Instructional Planning Report - Aggregated for Districts (2017)

## Data Updated Sep 15, 2017, Report Run Sep 19, 2017

CS Matters (D297520) - Computer Science Principles

Performance on Performance Tasks (Maximum Possible Score = 40)

|  |  |  |  | Number of Students in Your Group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance Tasks | Max Possible Score | Global Mean | Group Mean | Lowest Fourth | Second Fourth | Third Fourth | Highest Fourth |
| CREATE - APPLICATIONS FROM IDEAS | 12 | 7.9 | 6.8 | 184 | 127 | 115 | 143 |
| CREATE - DEVELOPING A PROGRAM WITH A PURPOSE (LOS 5.4.1, AND 5.1.1 OR 5.1.2) | 3 | 2.8 | 2.5 | \#\# | \#\# | \#\# | \#\# |
| CREATE - DEVELOPING A PROGRAM WITH A PURPOSE (LOS 5.1.1 OR 5.1.2) | 3 | 2.2 | 1.8 | \#\# | \#\# | \#\# | \#\# |
| CREATE - APPLYING ALGORITHMS (LOS 4.1.1, 4.1.2, 5.2.1, 5.5.1) | 3 | 1.5 | 1.2 | 142 | 0 | 260 | 167 |
| CREATE - APPLYING ABSTRACTION (LOS 2.2.1, 5.3.1) | 3 | 1.4 | 1.2 | 0 | 274 | 141 | 154 |
| EXPLORE - IMPACT OF COMPUTING INNOVATIONS | 7 | 4.4 | 4.1 | 162 | 0 | 168 | 239 |
| EXPLORE - USING DEVELOPMENT PROCESSES AND TOOLS (LOS 1.2.1 OR 1.2.2) | 1 | 1.0 | 0.9 | \#\# | \#\# | \#\# | \#\# |
| EXPLORE - ANALYZING IMPACT OF COMPUTING (LOS 7.1.1, 7.3.1, 7.4.1) | 3 | 2.1 | 2.1 | \#\# | \#\# | \#\# | \#\# |
| EXPLORE - ANALYZING DATA AND INFORMATION (LO 3.3.1) | 2 | 0.8 | 0.7 | \#\# | \#\# | \#\# | \#\# |
| EXPLORE - FINDING AND EVALUATING INFORMATION (LO 7.5.2) | 1 | 0.5 | 0.4 | \#\# | \#\# | \#\# | \#\# |
| Task Summary |  | 25.1 | 22.3 | 195 | 134 | 124 | 116 |

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** Indicates that the distribution is not displayed because there were fewer than five questions in the category.

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## Tips for interpreting this report

## Page 1 - Score and quartile distributions

To compare your students' performance with the global population, we evenly divide the total number of students who took this exam globally into fourths, or quartiles, based on their performance on the multiple-choice and free-response sections of the exam. We then calculate the percentage of your students that fall within each fourth or quartile based on their performance on each section.

- These fourths do NOT correspond with the final AP score of 1, 2, 3, 4 or 5.
- On the three bar graphs on the left side of the page, your students are represented by the blue bars, and the global population is represented by the green bars. For example, the right-most blue bar shows the percentage of your students who fall into the highest fourth or top quartile.
- If your students' score distribution is comparable to the global population, then your students will group evenly (approximately) across the quartiles.
- Grouping of your students in the higher quartiles indicates higher performance than the global population; grouping of your students in the lower quartiles indicates performance below the global population.
- If you are viewing a report for Seminar or Computer Science Principles, the charts will compare your students with the global population on the overall score, the performance tasks, and the end-of-course exam.
- If you are viewing a report for Research, the charts will compare your students with the global population on the overall score, the academic paper, and the presentation and oral defense.


## Page 2 - Detailed quartile distributions by section

The following appear in each table:

- Number of Questions - maximum possible score for that content area. The mean score for the content areas will be the average number of multiple-choice questions answered correctly. Also note that individual multiple-choice questions may test more than one content area, so the summation across all content areas may be greater than the number of multiple-choice questions on the exam.
- Global Mean - average scores on reportable areas for all AP students globally.*
- Group Mean - average scores on reportable areas for your students.*
- Number of Students in Your Group - for each content area or free response question, this represents the number of your students that fell into a specific fourth or quartile. The quartiles are derived from dividing the total student population equally into four parts based on their performance in each content area.
- SP (Free Response table only) - mapping of science practices (listed in the Multiple Choice table) to the question/problem on the Free Response that tests these skills. Only applicable for Biology, Chemistry, Physics 1, and Physics 2.
- Max Possible Score (Free Response table only) - maximum possible score for that free-response question.
*Some AP Exams allow students to choose between two or more free response questions. Mean scores are not provided for those questions because the populations of AP students choosing each question when choice is permitted can be quite different.

In Seminar, or Research, and Computer Science Principles the quartile distributions are across content areas and performance tasks.

