## Maryland High School Computer Science Survey (2014)

Q1 How many students attend your school?

|  | 1-100 | 101-250 | 251-500 | 501-1000 | 1001-2000 | 2001+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 2.94\% | 0.00\% | 2.94\% | 11.76\% | 64.71\% | 17.65\% |  |
|  | 1 | 0 | 1 | 4 | 22 | 6 | 34 |
| Q56: Male | 0.00\% | 2.86\% | 11.43\% | 14.29\% | 54.29\% | 17.14\% |  |
|  | 0 | 1 | 4 | 5 | 19 | 6 | 35 |
| Total Respondents | 1 | 1 | 5 | 9 | 41 | 12 | 69 |



Maryland High School Computer Science Survey (2014)

Q3 What percentage of students at your school are African American?

Answered: 69 Skipped: 0

Maryland High School Computer Science Survey (2014)

Q4 What percentage of students at your school are Hispanic/Latino?

Answered: 69 Skipped: 0


Maryland High School Computer Science Survey (2014)

Q5 What percentage of students qualify for free or reduced lunch?


Maryland High School Computer Science Survey (2014)


Maryland High School Computer Science Survey (2014)


Maryland High School Computer Science Survey (2014)


Maryland High School Computer Science Survey (2014)

Q7 Which of the following best describes your school's location?

Answered: 69 Skipped: 0

$\square$ Urban $\square$ Suburban $\square$ Rural Online

|  | Urban | Suburban | Rural | Online | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 20.59\% | 58.82\% | 20.59\% | 0.00\% |  |
|  | 7 | 20 | 7 | 0 | 34 |
| Q56: Male | 8.57\% | 71.43\% | 20.00\% | 0.00\% |  |
|  | 3 | 25 | 7 | 0 | 35 |
| Total Respondents | 10 | 45 | 14 | 0 | 69 |

## Maryland High School Computer Science Survey (2014)



## Maryland High School Computer Science Survey (2014)

|  | CS/IT courses have never been offered at my school | CS/IT courses were offered in the past at my school, but have been discontinued |  | Total |
| :---: | :---: | :---: | :---: | :---: |
| Q56: Female | $\begin{array}{r} 50.00 \% \\ 1 \end{array}$ |  | $50.00 \%$ | 2 |
| Q56: Male | 25.00\% |  | $\begin{array}{r} 75.00 \% \\ 3 \end{array}$ | 4 |
| Total Respondents | 2 | 4 |  | 6 |
|  | Comments: |  | Total |  |
| Q56: Female |  | 0 |  | 0 |
| Q56: Male |  | 3 |  | 3 |



|  | Insufficient student interest | Budget restrictions | Lack of qualified teachers | CS is not a graduation requirement | CS is not a priority for my high school | CS is not a priority for the school system | Other (please specify) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 0.00\% | 100.00\% | 0.00\% | 0.00\% | 50.00\% | 50.00\% | 0.00\% |  |
|  | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 4 |
| Q56: Male | 50.00\% | 50.00\% | 75.00\% | 75.00\% | 50.00\% | 25.00\% | 25.00\% |  |
|  | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 14 |
| Total Respondents | 2 | 4 | 3 | 3 | 3 | 2 | 1 | 6 |

## Maryland High School Computer Science Survey (2014)

Q11 In your judgement, do you think that
your school should offer CS courses?
Answered: 6 Skipped: 63


|  | Yes | No | Total |
| :--- | ---: | ---: | ---: |
| Q56: Female |  | $\mathbf{1 0 0 . 0 0 \%}$ |  |
| Q56: Male |  | $\mathbf{2}$ | $0.00 \%$ |

## Maryland High School Computer Science Survey (2014)

Q12 If your school offered CS/IT courses, would you be interested in teaching them?

Answered: 6 Skipped: 63


|  | Yes | No | Maybe | Total |
| :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 50.00\% | 0.00\% | 50.00\% |  |
|  | 1 | 0 | 1 | 2 |
| Q56: Male | 75.00\% | 0.00\% | 25.00\% |  |
|  | 3 | 0 | 1 | 4 |
| Total Respondents | 4 | 0 | 2 | 6 |

## Maryland High School Computer Science Survey (2014)

Q13 Under what department(s) is CS offered in your school? (Check all that apply.)


|  | Business | Technology | Computing | Math | Science | Other (please specify) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 43.75\% | 50.00\% | 15.63\% | 15.63\% | 0.00\% | 12.50\% |  |
|  | 14 | 16 | 5 | 5 | 0 | 4 | 44 |
| Q56: Male | 38.71\% | 32.26\% | 9.68\% | 12.90\% | 6.45\% | 25.81\% |  |
|  | 12 | 10 | 3 | 4 | 2 | 8 | 39 |
| Total Respondents | 26 | 26 | 8 | 9 | 2 | 12 | 63 |

Maryland High School Computer Science Survey (2014)
Q14 Does your district or state require you to teach a specific computer science course curriculum that includes specific content and outcomes?


|  |  | Yes | No |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female |  | 62.50\% |  | 37.50\% |  |
|  |  | 20 |  | 12 | 32 |
| Q56: Male |  | 51.61\% |  | 48.39\% |  |
|  |  | 16 |  | 15 | 31 |
| Total Respondents | 36 |  | 27 |  | 63 |
|  | Comments |  |  | Total |  |
| Q56: Female |  |  | 1 |  | 1 |
| Q56: Male |  |  | 4 |  | 4 |

Maryland High School Computer Science Survey (2014)
Q15 Are these requirements enforced?



Maryland High School Computer Science Survey (2014)

Q16 Does your school offer an introductory
(pre-AP) Computer Science (CS) course?


|  | Yes |  | No |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female |  | 71.88\% |  | 28.13\% | 32 |  |
|  |  | 23 |  | 9 |  |  |
| Q56: Male |  | 74.19\% |  | 25.81\% |  |  |
|  |  | 23 |  | 8 |  | 31 |
| Total Respondents | 46 |  | 17 |  | 63 |  |

Maryland High School Computer Science Survey (2014)

Q17 What are the title(s) of the introductory CS course(s) that are offered at your school?

|  | What are the title(s) of the introductory CS course(s) that are offered at your school? | Total |
| :---: | :---: | :---: |
| Q56: Female | $\begin{array}{r} 100.00 \% \\ 23 \end{array}$ | 23 |
| Q56: Male | $\begin{array}{r} 100.00 \% \\ 23 \end{array}$ | 23 |
| Total Respondents | 46 | 46 |

Maryland High School Computer Science Survey (2014)

## Q18 Are students required to take introductory CS?



|  |  | Yes | No |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female |  | 26.09\% |  | 73.91\% |  |
|  |  | 6 |  | 17 | 23 |
| Q56: Male |  | 30.43\% |  | 69.57\% |  |
|  |  | 7 |  | 16 | 23 |
| Total Respondents | 13 |  | 33 |  | 46 |
|  | Comments |  |  | Total |  |
| Q56: Female |  |  | 6 |  | 6 |
| Q56: Male |  |  | 6 |  | 6 |

## Maryland High School Computer Science Survey (2014)

Q19 Does the CS introductory course offered in your school have prerequisites?



## Maryland High School Computer Science Survey (2014)

Q20 How many students are enrolled in introductory CS this year at your high school?


|  | 1-10 | 11-25 | 26-50 | 51-100 | 101+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 8.70\% | 13.04\% | 21.74\% | 34.78\% | 21.74\% |  |
|  | 2 | 3 | 5 | 8 | 5 | 23 |
| Q56: Male | 8.70\% | 17.39\% | 26.09\% | 39.13\% | 8.70\% |  |
|  | 2 | 4 | 6 | 9 | 2 | 23 |
| Total Respondents | 4 | 7 | 11 | 17 | 7 | 46 |

## Maryland High School Computer Science Survey (2014)

Q21 What approximate percentage of students enrolled in introductory CS are female?


|  | 0\% | 1-20\% | 21-40\% | 41-60\% | 61-80\% | 81-99\% | 100\% | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 8.70\% | 56.52\% | 17.39\% | 17.39\% | 0.00\% | 0.00\% | 0.00\% |  |
|  | 2 | 13 | 4 | 4 | 0 | 0 | 0 | 23 |
| Q56: Male | 8.70\% | 65.22\% | 4.35\% | 21.74\% | 0.00\% | 0.00\% | 0.00\% |  |
|  | 2 | 15 | 1 | 5 | 0 | 0 | 0 | 23 |
| Total Respondents | 4 | 28 | 5 | 9 | 0 | 0 | 0 | 46 |

## Maryland High School Computer Science Survey (2014)

Q22 What approximate percentage of students enrolled in introductory CS are members of an ethnic minority?

Answered: 46 Skipped: 23


|  | 0\% | 1-20\% | 21-40\% | 41-60\% | 61-80\% | 81-99\% | 100\% | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 8.70\% | 47.83\% | 26.09\% | 8.70\% | 0.00\% | 4.35\% | 4.35\% |  |
|  | 2 | 11 | 6 | 2 | 0 | 1 | 1 | 23 |
| Q56: Male | 4.35\% | 43.48\% | 13.04\% | 17.39\% | 13.04\% | 8.70\% | 0.00\% | 23 |
|  | 1 | 10 | 3 | 4 | 3 | 2 | 0 |  |
| Total Respondents | 3 | 21 | 9 | 6 | 3 | 3 | 1 | 46 |

Maryland High School Computer Science Survey (2014)

Q23 What content is covered in introductory CS? (Check all that apply.)

Answered: 46 Skipped: 23


Maryland High School Computer Science Survey (2014)


Maryland High School Computer Science Survey (2014)
Q24 What programming languages/software
tools are used in introductory CS? (Check
all that apply.)


Maryland High School Computer Science Survey (2014)

| Q56: Female | $\begin{array}{r} \text { 82.61\% } \\ 19 \end{array}$ | $\begin{array}{r} 34.78 \% \\ 8 \end{array}$ | $\begin{array}{r} 26.09 \% \\ 6 \end{array}$ | $30.43 \%$ | $\begin{array}{r} 21.74 \% \\ 5 \end{array}$ | $\begin{array}{r} 34.78 \% \\ 8 \end{array}$ | $\begin{array}{r} 8.70 \% \\ 2 \end{array}$ | 0.00\% | $\begin{array}{r} 0.00 \% \\ 0 \end{array}$ | $34.78 \%$ | $\begin{array}{r} 21.74 \% \\ 5 \end{array}$ | 68 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Male | 63.64\% | 9.09\% | 9.09\% | 13.64\% | 27.27\% | 36.36\% | 18.18\% | 0.00\% | 4.55\% | 18.18\% | 9.09\% |  |
|  | 14 | 2 | 2 | 3 | 6 | 8 | 4 | 0 | 1 | 4 | 2 | 46 |
| Total Respondents | 33 | 10 | 8 | 10 | 11 | 16 | 6 | 0 | 1 | 12 | 7 | 45 |

## Maryland High School Computer Science Survey (2014)



Maryland High School Computer Science Survey (2014)

## Q26 Does your school offer AP Computer Science?



|  | Yes |  | No |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female |  | 78.13\% |  | 21.88\% | 32 |  |
|  |  | 25 |  | 7 |  |  |
| Q56: Male |  | 67.74\% |  | 32.26\% |  |  |
|  |  | 21 |  | 10 |  | 31 |
| Total Respondents | 46 |  | 17 |  | 63 |  |

Maryland High School Computer Science Survey (2014)

Q27 How many students take AP CS each
year?


|  | 1-10 | 11-25 | 26-50 | 51-100 | 101+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 36.00\% | 32.00\% | 24.00\% | 8.00\% | 0.00\% |  |
|  | 9 | 8 | 6 | 2 | 0 | 25 |
| Q56: Male | 9.52\% | 47.62\% | 19.05\% | 19.05\% | 4.76\% |  |
|  | 2 | 10 | 4 | 4 | 1 | 21 |
| Total Respondents | 11 | 18 | 10 | 6 | 1 | 46 |

## Maryland High School Computer Science Survey (2014)

## Q28 What percentage of students enrolled in AP CS are female?



|  | 0\% | 1-20\% | 21-40\% | 41-60\% | 61-80\% | 81-99\% | 100\% | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 24.00\% | 68.00\% | 8.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |  |
|  | 6 | 17 | 2 | 0 | 0 | 0 | 0 | 25 |
| Q56: Male | 14.29\% | 66.67\% | 14.29\% | 4.76\% | 0.00\% | 0.00\% | 0.00\% |  |
|  | 3 | 14 | 3 | 1 | 0 | 0 | 0 | 21 |
| Total Respondents | 9 | 31 | 5 | 1 | 0 | 0 | 0 | 46 |

## Maryland High School Computer Science Survey (2014)

> Q29 What percentage of students enrolled in AP CS are members of an ethnic minority?


|  | 0\% | 1-20\% | 21-40\% | 41-60\% | 61-80\% | 81-99\% | 100\% | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 20.00\% | 52.00\% | 16.00\% | 4.00\% | 4.00\% | 4.00\% | 0.00\% |  |
|  | 5 | 13 | 4 | 1 | 1 | 1 | 0 | 25 |
| Q56: Male | 14.29\% | 33.33\% | 19.05\% | 19.05\% | 9.52\% | 4.76\% | 0.00\% | 21 |
|  | 3 | 7 | 4 | 4 | 2 | 1 | 0 |  |
| Total Respondents | 8 | 20 | 8 | 5 | 3 | 2 | 0 | 46 |

Maryland High School Computer Science Survey (2014)
Q30 Does your school offer CS/IT courses other than introductory and AP Computer Science?


|  | Yes |  | No |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 93.75\% |  | 6.25\% |  | 32 |  |
|  |  | 30 |  | 2 |  |  |
| Q56: Male |  | 61.29\% |  | 38.71\% |  |  |
|  |  |  |  | 12 |  | 31 |
| Total Respondents | 49 |  | 14 |  |  | 63 |

Maryland High School Computer Science Survey (2014)

Q31 If your school offers other CS/IT
courses, which of the following are offered?
(Check all that apply.)


|  | Keyboarding | Web design | Computer graphics | Computing communications/media | Programming | Networking | Game development | Computer security | Other (please specify) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 29.03\% | 61.29\% | 41.94\% | 16.13\% | 54.84\% | 35.48\% | 19.35\% | 16.13\% | 32.26\% |  |
|  | 9 | 19 | 13 | 5 | 17 | 11 | 6 | 5 | 10 | 95 |
| Q56: Male | 22.73\% | 31.82\% | 40.91\% | 22.73\% | 31.82\% | 18.18\% | 31.82\% | 13.64\% | 45.45\% |  |
|  | 5 |  | 9 | 5 | 7 | 4 | 7 | 3 | 10 | 57 |
| Total Respondents | 14 | 26 | 22 | 10 | 24 | 15 | 13 | 8 | 20 | 53 |

Maryland High School Computer Science Survey (2014)

Q32 In a typical year, what percentage of the courses you teach are CS/IT courses?


Maryland High School Computer Science Survey (2014)

Q33 Which of the following courses have you taught in the past three years? (Check all that apply.)


Maryland High School Computer Science Survey (2014)

| Q56: Female | $\begin{array}{r} 15.63 \% \\ 5 \end{array}$ | $\begin{array}{r} 71.88 \% \\ 23 \end{array}$ | $\begin{array}{r} 50.00 \% \\ 16 \end{array}$ | $\begin{array}{r} 31.25 \% \\ 10 \end{array}$ | 3.13\% | $\begin{array}{r} 6.25 \% \\ 2 \end{array}$ | $\begin{array}{r} 68.75 \% \\ 22 \end{array}$ | $\begin{array}{r} 6.25 \% \\ 2 \end{array}$ | $3.13 \%$ | $3.13 \%$ | 28.13\% | 92 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Male | 9.68\% | 54.84\% | 45.16\% | 29.03\% | 16.13\% | 6.45\% | 48.39\% | 12.90\% | 22.58\% | 6.45\% | 38.71\% |  |
|  | 3 | 17 | 14 | 9 | 5 | 2 | 15 | 4 | 7 | 2 | 12 | 90 |
| Total Respondents | 8 | 40 | 30 | 19 | 6 | 4 | 37 | 6 | 8 | 3 | 21 | 63 |

## Maryland High School Computer Science Survey (2014)

## Q34 Do you use all or part of the standard curriculum as outlined in the ACM/CSTA <br> Model Curriculum for K-12 Computer Science?



Yes No, but I know about the ACM/CSTA Model Curriculum
Do, and I never heard of the ACM/CSTA Model Curriculum

|  | Yes | No, but I know about the ACM/CSTA Model Curriculum | No, and I never heard of the ACM/CSTA Model Curriculum | Total |
| :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 28.13\% | 43.75\% | 28.13\% |  |
|  | 9 | 14 | 9 | 32 |
| Q56: Male | 16.13\% | 38.71\% | 45.16\% |  |
|  | 5 | 12 | 14 | 31 |
| Total <br> Respondents | 14 | 26 | 23 | 63 |

## Maryland High School Computer Science Survey (2014)



Maryland High School Computer Science Survey (2014)
Q36 How has the number of CS/IT classes (total number of sections) taught at your school changed over the past three (3) years?

$\square$ Increased $\square$ Decreased $\square$ Stayed about the same


Maryland High School Computer Science Survey (2014)

Q37 How has the number of students taking CS/IT classes changed in the last three years?


## Maryland High School Computer Science Survey (2014)

## Q38 Has the number of students who request to take CS/IT classes but are not placed into those classes changed in the last three years?



|  | Increased | Decreased | Stayed about the same | Not sure | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 34.38\% | 6.25\% | 18.75\% | 40.63\% |  |
|  | 11 | 2 | 6 | 13 | 32 |
| Q56: Male | 12.90\% | 9.68\% | 35.48\% | 41.94\% |  |
|  | 4 | 3 | 11 | 13 | 31 |
| Total Respondents | 15 | 5 | 17 | 26 | 63 |

## Maryland High School Computer Science Survey (2014)

Q39 In your judgement, do you think there are students who should be taking CS course(s) that your school offers, but who are not?


|  | Yes | No | Total |
| :---: | :---: | :---: | :---: |
| Q56: Female | 90.63\% | 9.38\% |  |
|  | 29 | 3 | 32 |
| Q56: Male | 80.65\% | 19.35\% |  |
|  | 25 | 6 | 31 |
| Total Respondents | 54 | 9 | 63 |

## Maryland High School Computer Science Survey (2014)



Q40 Why are these students not taking the CS courses your school offers? (Rate each reason.)

Maryland High School Computer Science Survey (2014)




Maryland High School Computer Science Survey (2014)




Maryland High School Computer Science Survey (2014)


| Scheduling conflicts |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | $\begin{array}{r} 68.75 \% \\ 22 \end{array}$ | $\begin{array}{r} 18.75 \% \\ 6 \end{array}$ | $\begin{array}{r} 12.50 \% \\ 4 \end{array}$ | 32 |
| Q56: Male | $\begin{array}{r} 42.86 \% \\ 12 \end{array}$ | 35.71\% $10$ | $\begin{array}{r} 21.43 \% \\ 6 \end{array}$ | 28 |
| Classes are over capacity |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | $\begin{array}{r} 6.90 \% \\ 2 \end{array}$ | 24.14\% <br> 7 | $\begin{array}{r} 68.97 \% \\ 20 \end{array}$ | 29 |
| Q56: Male | $\begin{array}{r} 15.38 \% \\ 4 \end{array}$ | $\begin{array}{r} 15.38 \% \\ 4 \end{array}$ | 69.23\% $18$ | 26 |
| Greater interest in other subjects |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | $\begin{array}{r} 56.67 \% \\ 17 \end{array}$ | $\begin{array}{r} 33.33 \% \\ 10 \end{array}$ | 10.00\% $3$ | 30 |
| Q56: Male | 48.28\% $14$ | 44.83\% <br> 13 | $\begin{array}{r} 6.90 \% \\ 2 \end{array}$ | 29 |
| Need to take required courses rather than CS |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |

Maryland High School Computer Science Survey (2014)

| Q56: Female | $\begin{array}{r} 70.00 \% \\ 21 \end{array}$ | $\begin{array}{r} 20.00 \% \\ 6 \end{array}$ | $\begin{array}{r} 10.00 \% \\ 3 \end{array}$ | 30 |
| :---: | :---: | :---: | :---: | :---: |
| Q56: Male | 53.57\% | 28.57\% | 17.86\% |  |
|  | 15 | 8 | 5 | 28 |
| Subject matter too difficult |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | 19.35\% | 61.29\% | 19.35\% |  |
|  | 6 | 19 | 6 | 31 |
| Q56: Male | 27.59\% | 48.28\% | 24.14\% |  |
|  | 8 | 14 | 7 | 29 |
| CS is perceived to be "geeky" |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | 10.71\% | 35.71\% | 53.57\% |  |
|  | 3 |  | 15 | 28 |
| Q56: Male | 14.29\% | 39.29\% | 46.43\% |  |
|  | 4 | 11 | 13 | 28 |
| Perceived as male-dominated |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | 17.24\% | 37.93\% | 44.83\% |  |
|  | 5 |  | 13 | 29 |
| Q56: Male | 22.22\% | 51.85\% | 25.93\% |  |
|  | 6 | 14 | 7 | 27 |
| Lack of knowledge about careers in computing |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | 27.59\% | 51.72\% | 20.69\% |  |
|  | 8 |  | 6 | 29 |
| Q56: Male | 34.48\% 10 | 34.48\% $10$ | $\begin{array}{r} 31.03 \% \\ 9 \end{array}$ | 29 |
| Unaware of CS courses being offered by school |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | 27.59\% | 41.38\% | 31.03\% |  |
|  | $8$ |  | 9 | 29 |
| Q56: Male | 25.93\% | $48.15 \%$ | 25.93\% |  |
|  | $7$ | $13$ | 7 | 27 |
| Students don't see value in taking CS |  |  |  |  |
|  | Very common | Somewhat common | Uncommon | Total |
| Q56: Female | $19.35 \%$ | 51.61\% | $29.03 \%$ |  |
|  | $6$ | $16$ | 9 | 31 |
| Q56: Male | 37.93\% | 27.59\% | 34.48\% |  |
|  | 11 | 8 | 10 | 29 |

Q41 In your judgement, do you think that your school should offer more CS courses?


|  | Yes |  | No |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female |  | 59.38\% |  | 40.63\% | 32 |  |
|  |  | 19 |  | 13 |  |  |
| Q56: Male |  | 77.42\% |  | 22.58\% |  |  |
|  |  | 24 |  | 7 |  | 31 |
| Total Respondents | 43 |  | $20$ |  | 63 |  |

Maryland High School Computer Science Survey (2014)

Q42 If yes, what CS courses should be added?

Answered: 40 Skipped: 29

|  | If yes, what CS courses should be added? | Total |  |
| :--- | :--- | ---: | ---: |
| Q56: Female |  | $\mathbf{1 0 0 . 0 0 \%}$ |  |
| Q56: Male |  | 18 | 18 |
| Total Respondents | 40 | $\mathbf{1 0 0 . 0 0 \%}$ | 22 |



|  | Insufficient student interest | Budget restrictions | Lack of qualified teachers | CS is not a graduation requirement | CS is not a priority for my high school | CS is not a priority for the school system | Other (please specify) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | $\begin{array}{r} 28.13 \% \\ 9 \end{array}$ | $\begin{array}{r} 25.00 \% \\ 8 \end{array}$ | $\begin{array}{r} 43.75 \% \\ 14 \end{array}$ | $\begin{array}{r} 75.00 \% \\ 24 \end{array}$ | $\begin{array}{r} 18.75 \% \\ 6 \end{array}$ | 34.38\% | $\begin{array}{r} 18.75 \% \\ 6 \end{array}$ | 78 |
| Q56: Male | $\begin{array}{r} 29.03 \% \\ 9 \end{array}$ | $\begin{array}{r} 51.61 \% \\ 16 \end{array}$ | $\begin{array}{r} 61.29 \% \\ 19 \end{array}$ | $\begin{array}{r} 58.06 \% \\ 18 \end{array}$ | $\begin{array}{r} 25.81 \% \\ 8 \end{array}$ | $\begin{array}{r} 38.71 \% \\ 12 \end{array}$ | $\begin{array}{r} 29.03 \% \\ 9 \end{array}$ | 91 |
| Total Respondents | 18 | 24 | 33 | 42 | 14 | 23 | 15 | 63 |



Maryland High School Computer Science Survey (2014)




Great Challenge Moderate challenge Minor/no challenge

Maryland High School Computer Science Survey (2014)




Great Challenge Moderate challenge Minor/no challenge

Maryland High School Computer Science Survey (2014)




Great Challenge Moderate challenge Minor/no challenge

Maryland High School Computer Science Survey (2014)

| Lack of student interest |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | $\begin{array}{r} 14.71 \% \\ 5 \end{array}$ | 44.12\% $15$ | $\begin{array}{r} 41.18 \% \\ 14 \end{array}$ | 34 |
| Q56: Male | 14.29\% | $\begin{array}{r} 54.29 \% \\ 19 \end{array}$ | 31.43\% $11$ | 35 |
| Insufficient interest among women and minorities |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | $\begin{array}{r} 23.53 \% \\ 8 \end{array}$ | 50.00\% $17$ | $\begin{array}{r} 26.47 \% \\ 9 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 17.14 \% \\ 6 \end{array}$ | $\begin{array}{r} 54.29 \% \\ 19 \end{array}$ | $\begin{array}{r} \mathbf{2 8 . 5 7 \%} \\ 10 \end{array}$ | 35 |
| Lack of student preparation |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | $\begin{array}{r} 14.71 \% \\ 5 \end{array}$ | 50.00\% $17$ | 35.29\% $12$ | 34 |
| Q56: Male | $\begin{array}{r} 17.14 \% \\ 6 \end{array}$ | $\begin{array}{r} 48.57 \% \\ 17 \end{array}$ | $34.29 \%$ $12$ | 35 |
| Difficult course content |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | $\begin{array}{r} 26.47 \% \\ 9 \end{array}$ | $\begin{array}{r} 52.94 \% \\ 18 \end{array}$ | 20.59\% | 34 |
| Q56: Male | 20.00\% $7$ | 60.00\% $21$ | 20.00\% $7$ | 35 |
| Lack of familiarity with curriculum standards |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | $\begin{array}{r} 5.88 \% \\ 2 \end{array}$ | 44.12\% $15$ | 50.00\% $17$ | 34 |
| Q56: Male | $\begin{array}{r} 5.71 \% \\ 2 \end{array}$ | $\begin{array}{r} 45.71 \% \\ 16 \end{array}$ | $\begin{array}{r} 48.57 \% \\ 17 \end{array}$ | 35 |
| Inadequate curriculum materials |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | 26.47\% $9$ | 41.18\% $14$ | 32.35\% $11$ | 34 |
| Q56: Male | 20.00\% $7$ | $\begin{array}{r} 42.86 \% \\ 15 \end{array}$ | $\begin{array}{r} 37.14 \% \\ 13 \end{array}$ | 35 |
| Insufficient teacher knowledge / professional development |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | $\begin{array}{r} 20.59 \% \\ 7 \end{array}$ | $\begin{array}{r} 50.00 \% \\ 17 \end{array}$ | $\begin{array}{r} 29.41 \% \\ 10 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 17.14 \% \\ 6 \end{array}$ | $40.00 \%$ $14$ | $42.86 \%$ $15$ | 35 |
| Lack of professional learning community of CS teachers |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | $\begin{array}{r} 29.41 \% \\ 10 \end{array}$ | 50.00\% $17$ | $20.59 \%$ | 34 |
| Q56: Male | 20.00\% <br> 7 | 42.86\% $15$ | $\begin{array}{r} 37.14 \% \\ 13 \end{array}$ | 35 |
| Inadequate knowledge/support by school/county administration |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | 52.94\% $18$ | $32.35 \%$ $11$ | $\begin{array}{r} 14.71 \% \\ 5 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 48.57 \% \\ 17 \end{array}$ | 34.29\% $12$ | $\begin{array}{r} \text { 17.14\% } \\ 6 \end{array}$ | 35 |
| Inadequate knowledge/support by guidance staff |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | 55.88\% <br> 19 | $\begin{array}{r} 29.41 \% \\ 10 \end{array}$ | $\begin{array}{r} 14.71 \% \\ 5 \end{array}$ | 34 |
| Q56: Male | 31.43\% $11$ | $\begin{array}{r} \mathbf{2 8 . 5 7 \%} \\ 10 \end{array}$ | 40.00\% $14$ | 35 |
| Inadequate knowledge/support by parents |  |  |  |  |
|  | Great Challenge | Moderate challenge | Minor/no challenge | Total |
| Q56: Female | 38.24\% $13$ | $\begin{array}{r} 29.41 \% \\ 10 \end{array}$ | 32.35\% $11$ | 34 |

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| $31.43 \%$ | $40.00 \%$ |
| ---: | ---: |
| 11 | 14 | 35

## Maryland High School Computer Science Survey (2014)

## Q45 What do you perceive as the greatest professional development needs?

Answered: 69 Skipped: 0



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## Maryland High School Computer Science Survey (2014)

Q46 In the courses you currently teach, what level of coverage do you provide for each of the following topic areas? (Please rank each.)


Answered: 69 Skipped: 0

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| History of computers |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | $\begin{array}{r} 8.82 \% \\ 3 \end{array}$ | $\begin{array}{r} 76.47 \% \\ 26 \end{array}$ | $\begin{array}{r} 14.71 \% \\ 5 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 5.71 \% \\ 2 \end{array}$ | $\begin{array}{r} 74.29 \% \\ 26 \end{array}$ | $\begin{array}{r} 20.00 \% \\ \hline \end{array}$ | 35 |
| Visual block programming (Scratch, Blockly, App Inventor, etc.) |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | $\begin{array}{r} 11.76 \% \\ 4 \end{array}$ | $\begin{array}{r} 44.12 \% \\ 15 \end{array}$ | $\begin{array}{r} 44.12 \% \\ 15 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 11.43 \% \\ 4 \end{array}$ | $\begin{array}{r} 34.29 \% \\ 12 \end{array}$ | $\begin{array}{r} 54.29 \% \\ 19 \end{array}$ | 35 |
| Text-based programming (Java, Python, C++, etc.) |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | $\begin{array}{r} 67.65 \% \\ 23 \end{array}$ | $\begin{array}{r} 14.71 \% \\ 5 \end{array}$ | $\begin{array}{r} 17.65 \% \\ 6 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 65.71 \% \\ 23 \end{array}$ | $\begin{array}{r} 17.14 \% \\ 6 \end{array}$ | $\begin{array}{r} 17.14 \% \\ 6 \end{array}$ | 35 |
| Binary and other number systems |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |

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| Q56: Female | $\begin{array}{r} 41.18 \% \\ 14 \end{array}$ | $\begin{array}{r} 47.06 \% \\ 16 \end{array}$ | $\begin{array}{r} 11.76 \% \\ 4 \end{array}$ | 34 |
| :---: | :---: | :---: | :---: | :---: |
| Q56: Male | 28.57\% | 57.14\% | 14.29\% |  |
|  | 10 | 20 |  | 35 |
| Cybersecurity and encryption |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 5.88\% | 52.94\% | 41.18\% |  |
|  | 2 | 18 | 14 | 34 |
| Q56: Male | 5.71\% | 28.57\% | 65.71\% |  |
|  |  | 10 | 23 | 35 |
| Web design (HTML, CSS, etc.) |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 38.24\% | 35.29\% | 26.47\% |  |
|  | 13 | 12 | 9 | 34 |
| Q56: Male | 20.00\% | 22.86\% | 57.14\% |  |
|  | 7 | 8 | 20 | 35 |
| The Internet and how it works |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 11.76\% | 58.82\% | 29.41\% |  |
|  | 4 | 20 | 10 | 34 |
| Q56: Male | 25.71\% | 37.14\% | 37.14\% |  |
|  | 9 | 13 | 13 | 35 |
| Computer hardware and/or networking |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 8.82\% | 64.71\% | 26.47\% |  |
|  | 3 | 22 | , | 34 |
| Q56: Male | 17.14\% | 60.00\% | 22.86\% |  |
|  | 6 | 21 | 8 | 35 |
| Data analysis |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 14.71\% | 47.06\% | 38.24\% |  |
|  | 5 | 16 | 13 | 34 |
| Q56: Male | 8.57\% | 45.71\% | 45.71\% |  |
|  | 3 | 16 | 16 | 35 |
| Simulation and modeling |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 5.88\% | 52.94\% | 41.18\% |  |
|  | 2 | 18 | 14 | 34 |
| Q56: Male | 17.14\% | 37.14\% | 45.71\% |  |
|  | 6 | 13 | 16 | 35 |
| Robotics |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 11.76\% | 38.24\% | 50.00\% |  |
|  | 4 | 13 | 17 | 34 |
| Q56: Male | 17.14\% | 34.29\% | 48.57\% |  |
|  | 6 | 12 | 17 | 35 |
| Animation |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 2.94\% | 41.18\% | 55.88\% |  |
|  | 1 | 14 | 19 | 34 |
| Q56: Male | 8.57\% | 34.29\% | 57.14\% |  |
|  | 3 | 12 | 20 | 35 |
| Mobile app development |  |  |  |  |
|  | Extensively Addressed | Addressed Somewhat | Not Addressed | Total |
| Q56: Female | 2.94\% | 23.53\% | 73.53\% |  |
|  | 1 | 8 | 25 | 34 |
| Q56: Male | 8.57\% | 8.57\% | 82.86\% |  |
|  | 3 | 3 | 29 | 35 |
|  | Q56: Female | Q56: Male |  | Total |
| Other (please specify) |  | 3 | 3 | 6 |

## Maryland High School Computer Science Survey (2014)



Q47 What do you believe to be the most effective methods for delivering professional development to CS teachers? (Please rank each.)

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Q48 Please rank your preference/the convenience of each of the following times
for your participation in professional development activities?

Answered: 69 Skipped: 0

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| After school: 4:30-6:00 pm |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Most prefer/most convenient | Prefer slightly/Somewhat convenient | Definitely not/Not convenient | Total |
| Q56: Female | 29.41\% | 32.35\% | 38.24\% |  |
|  | 10 | 11 | 13 | 34 |
| Q56: Male | 25.71\% | 37.14\% | 37.14\% |  |
|  | 9 | 13 | 13 | 35 |


| Saturday morning during school year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Most prefer/most convenient | Prefer slightly/Somewhat convenient | Definitely not/Not convenient | Total |
| Q56: Female | $\begin{array}{r} 17.65 \% \\ 6 \end{array}$ | $\begin{array}{r} 38.24 \% \\ 13 \end{array}$ | $\begin{array}{r} 44.12 \% \\ 15 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 17.14 \% \\ 6 \end{array}$ | $\begin{array}{r} 34.29 \% \\ 12 \end{array}$ | 48.57\% $17$ | 35 |
| Saturday afternoon during school year |  |  |  |  |
|  | Most prefer/most convenient | Prefer slightly/Somewhat convenient | Definitely not/Not convenient | Total |
| Q56: Female | $\begin{array}{r} 8.82 \% \\ 3 \end{array}$ | $\begin{array}{r} 29.41 \% \\ 10 \end{array}$ | $\begin{array}{r} 61.76 \% \\ 21 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 14.29 \% \\ 5 \end{array}$ | $\begin{array}{r} 22.86 \% \\ 8 \end{array}$ | 62.86\% $22$ | 35 |


| Summer: weekdays in June immediately after school ends |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Most prefer/most convenient | Prefer slightly/Somewhat convenient | Definitely not/Not convenient | Total |
| Q56: Female | 55.88\% | 29.41\% | 14.71\% |  |
|  | 19 | 10 | 5 | 34 |
| Q56: Male | 65.71\% | 14.29\% | 20.00\% |  |
|  | $23$ | $5$ | 7 | 35 |
| Summer: weekdays in July |  |  |  |  |
|  | Most prefer/most convenient | Prefer slightly/Somewhat convenient | Definitely not/Not convenient | Total |
| Q56: Female | 26.47\% | 44.12\% | 29.41\% |  |
|  | 9 | 15 | 10 | 34 |
| Q56: Male | 45.71\% | 28.57\% | 25.71\% |  |
|  |  | 10 | 9 | 35 |


| Summer: weekdays in early August |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Most prefer/most convenient | Prefer slightly/Somewhat convenient | Definitely not/Not convenient | Total |
| Q56: Female | $\begin{array}{r} 23.53 \% \\ 8 \end{array}$ | $\begin{array}{r} 52.94 \% \\ 18 \end{array}$ | $\begin{array}{r} 23.53 \% \\ 8 \end{array}$ | 34 |
| Q56: Male | $\begin{array}{r} 40.00 \% \\ 14 \end{array}$ | $\begin{array}{r} 40.00 \% \\ 14 \end{array}$ | $\begin{array}{r} 20.00 \% \\ 7 \end{array}$ | 35 |
| Summer: Saturdays |  |  |  |  |
|  | Most prefer/most convenient | Prefer slightly/Somewhat convenient | Definitely not/Not convenient | Total |
| Q56: Female | 11.76\% | 26.47\% | 61.76\% |  |
|  | 4 | 9 | 21 | 34 |

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## Maryland High School Computer Science Survey (2014)

Q49 Which of the following certifications do
you currently hold? (Check all that apply.)


|  | Professional Eligibility Certificate (PEC) | Standard <br> Professional Certificate I (SPC I) | Standard Professional Certificate II (SPCII) | Advanced <br> Professional <br> Certificate (APC) | Resident <br> Teacher Certificate (RTC) | Conditional Certificate (COND) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 2.94\% | 5.88\% | 14.71\% | 82.35\% | 5.88\% | 0.00\% | 38 |
|  | 1 | 2 | 5 | 28 | 2 | 0 |  |
| Q56: Male | 11.43\% | 25.71\% | 14.29\% | 60.00\% | 8.57\% | 8.57\% | 45 |
|  | 4 | 9 | 5 | 21 | 3 | 3 |  |
| Total <br> Respondents | 5 | 11 | 10 | 49 | 5 | 3 | 69 |

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|  | Biology | Business <br> Education | Chemistry | Computer Science | Data <br> Processing | Earth/Space Science | English | History | Marketing Education | Mathematics | Physical <br> Science | Physics | Social Studies | Technology Education | Othe (plea: speci |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 2.94\% | 47.06\% | 0.00\% | 47.06\% | 8.82\% | 0.00\% | 2.94\% | 0.00\% | 2.94\% | 41.18\% | 0.00\% | 2.94\% | 2.94\% | 29.41\% | 26.4 |
|  | 1 | 16 | 0 | 16 | 3 | 0 | 1 | 0 | 1 | 14 | 0 | 1 | 1 | 10 |  |
| Q56: Male | 5.71\% | 8.57\% | 2.86\% | 34.29\% | 0.00\% | 0.00\% | 0.00\% | 2.86\% | 0.00\% | 34.29\% | 2.86\% | 0.00\% | 2.86\% | 42.86\% | 34.2! |
|  | 2 | 3 | 1 | 12 | 0 | 0 | 0 | 1 | 0 | 12 | 1 | 0 | 1 | 15 |  |
| Total Respondents | 3 | 19 | 1 | 28 | 3 | 0 | 1 | 1 | 1 | 26 | 1 | 1 | 2 | 25 | 21 |

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## Maryland High School Computer Science Survey (2014)

Q52 How many years have you been teaching CS/IT?
Answered: 69 Skipped: 0


|  | 0 years | 1-3 years | 4-7 years | 8-14 years | 15+ years | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 5.88\% | 8.82\% | 11.76\% | 38.24\% | 35.29\% |  |
|  | 2 | 3 | 4 | 13 | 12 | 34 |
| Q56: Male | 20.00\% | 22.86\% | 14.29\% | 20.00\% | 22.86\% |  |
|  | 7 | 8 | 5 | 7 | 8 | 35 |
| Total Respondents | 9 | 11 | 9 | 20 | 20 | 69 |

Maryland High School Computer Science Survey (2014)


|  | Yes |  | No |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female |  | 32.35\% |  | 67.65\% | 34 |  |
|  |  | 11 |  | 23 |  |  |
| Q56: Male |  | 31.43\% |  | 68.57\% |  |  |
|  |  | 11 |  | 24 |  | 35 |
| Total Respondents | 22 |  | 47 |  | 69 |  |

## Maryland High School Computer Science Survey (2014)



## Maryland High School Computer Science Survey (2014)

## Q55 How do you identify yourself? (Check all that apply.)



Maryland High School Computer Science Survey (2014)


Maryland High School Computer Science Survey (2014)

## Q57 What is your age?



|  | 22-30 | 31-40 | 41-50 | 51-60 | 61+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q56: Female | 2.94\% | 20.59\% | 14.71\% | 47.06\% | 14.71\% | 34 |
|  | 1 | 7 | 5 | 16 | 5 |  |
| Q56: Male | 5.71\% | 14.29\% | 25.71\% | 45.71\% | 8.57\% | 35 |
|  | 2 | 5 | 9 | 16 | 3 |  |
| Total Respondents | 3 | 12 | 14 | 32 | 8 | 69 |


[^0]:    Most effective
    Somewhat effective
    Least effective

