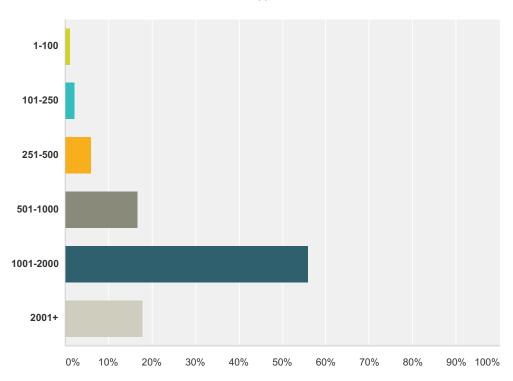
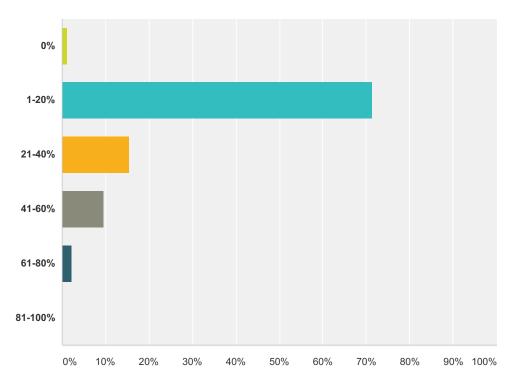
#### Q1 How many students attend your school?

Answered: 84 Skipped: 0



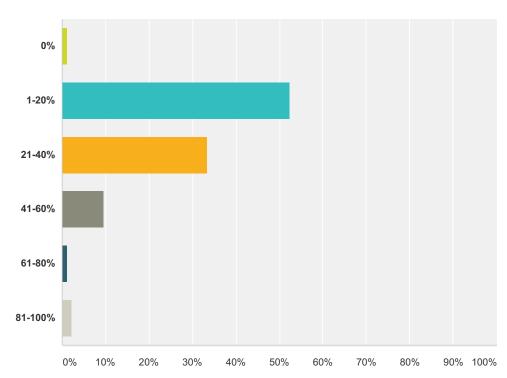
Answer Choices	Responses
1-100	<b>1.19%</b> 1
101-250	<b>2.38%</b> 2
251-500	<b>5.95%</b> 5
501-1000	<b>16.67%</b> 14
1001-2000	<b>55.95%</b> 47
2001+	<b>17.86%</b> 15
Total	84

## Q2 What percentage of students at your school speak a language at home other than English?



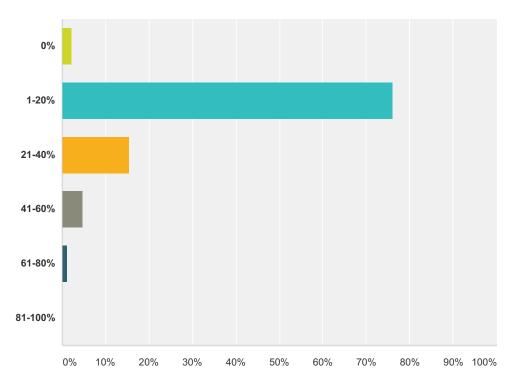
Answer Choices	Responses	
0%	1.19%	1
1-20%	71.43%	60
21-40%	15.48%	13
41-60%	9.52%	8
61-80%	2.38%	2
81-100%	0.00%	0
Total		84

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



Answer Choices	Responses	
0%	1.19%	1
1-20%	52.38%	44
21-40%	33.33%	28
41-60%	9.52%	8
61-80%	1.19%	1
81-100%	2.38%	2
Total		84

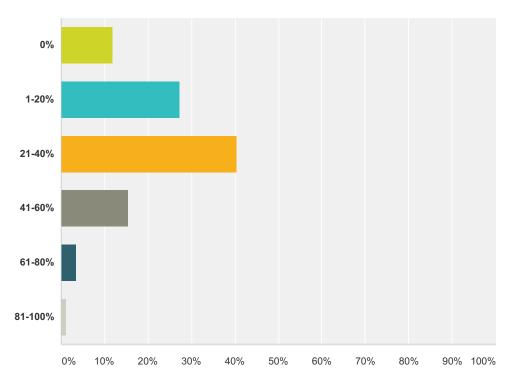
### Q4 What percentage of students at your school are Hispanic/Latino?



Answer Choices	Responses	
0%	2.38%	2
1-20%	76.19%	64
21-40%	15.48%	13
41-60%	4.76%	4
61-80%	1.19%	1
81-100%	0.00%	0
Total		84

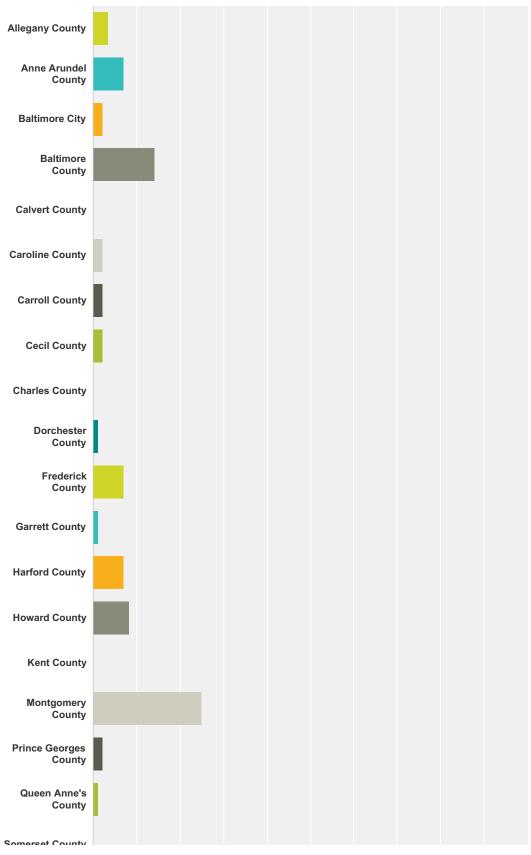
#### Q5 What percentage of students qualify for free or reduced lunch?



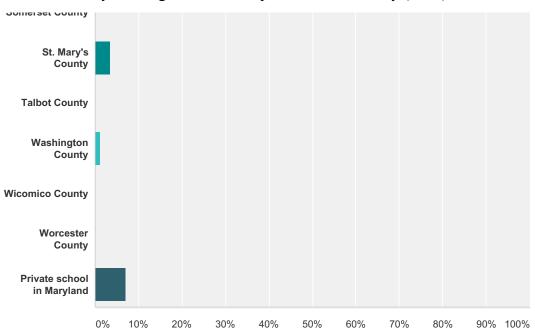


Answer Choices	Responses	
0%	11.90%	10
1-20%	27.38%	23
21-40%	40.48%	34
41-60%	15.48%	13
61-80%	3.57%	3
81-100%	1.19%	1
Total		84

#### Q6 In which school district is your high school located?



#### Maryland High School Computer Science Survey (2014)

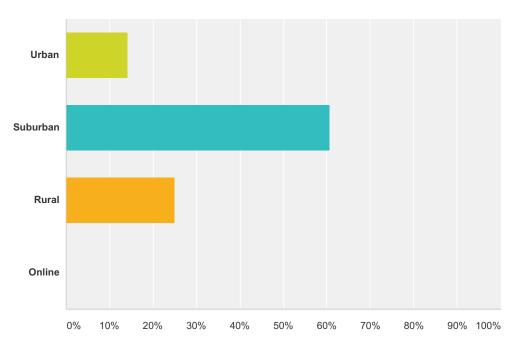


wer Choices	Responses	
Allegany County	3.57%	
Anne Arundel County	7.14%	
Baltimore City	2.38%	
Baltimore County	14.29%	,
Calvert County	0.00%	
Caroline County	2.38%	
Carroll County	2.38%	
Cecil County	2.38%	
Charles County	0.00%	
Dorchester County	1.19%	
Frederick County	7.14%	
Garrett County	1.19%	
Harford County	7.14%	
Howard County	8.33%	
Kent County	0.00%	
Montgomery County	25.00%	:
Prince Georges County	2.38%	
Queen Anne's County	1.19%	
Somerset County	0.00%	

#### Maryland High School Computer Science Survey (2014)

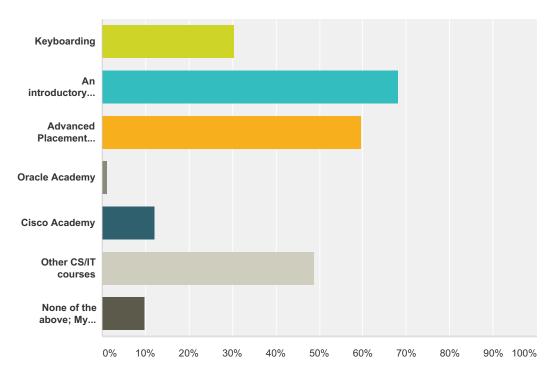
St. Mary's County	3.57%	3
Talbot County	0.00%	0
Washington County	1.19%	1
Wicomico County	0.00%	0
Worcester County	0.00%	0
Private school in Maryland	7.14%	6
al		84

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



Answer Choices	Responses	
Urban	14.29%	12
Suburban	60.71%	51
Rural	25.00%	21
Online	0.00%	0
Total	1	84

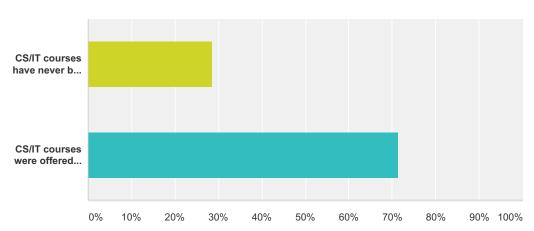
#### Q8 Which of the following are offered at your high school? (Check all that apply.)



Answer Choices	Responses	
Keyboarding	30.49%	25
An introductory computer science course (pre-AP)	68.29%	56
Advanced Placement Computer Science (AP)	59.76%	49
Oracle Academy	1.22%	1
Cisco Academy	12.20%	10
Other CS/IT courses	48.78%	40
None of the above; My school does not offer CS/IT courses	9.76%	8
Total Respondents: 82		

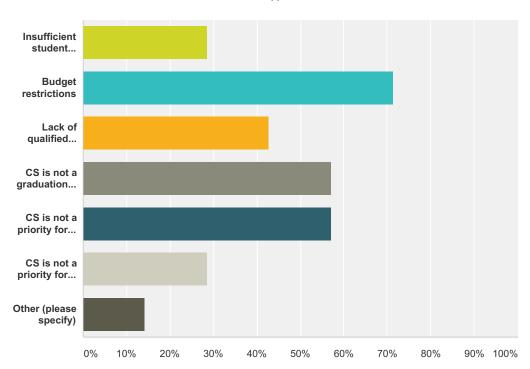
#### Q9 Which of the following best describes CS/IT course offerings at your school?

Answered: 7 Skipped: 77



Answer Choices	Responses	
CS/IT courses have never been offered at my school	28.57%	2
CS/IT courses were offered in the past at my school, but have been discontinued	71.43%	5
Total		7

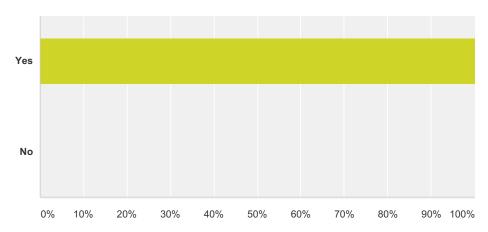
## Q10 What are some of the reasons why your school does not offer computer science courses? (Check all that apply.)



Answer Choices	Responses	
Insufficient student interest	28.57%	2
Budget restrictions	71.43%	5
Lack of qualified teachers	42.86%	3
CS is not a graduation requirement	57.14%	4
CS is not a priority for my high school	57.14%	4
CS is not a priority for the school system	28.57%	2
Other (please specify)	14.29%	1
Total Respondents: 7		

### Q11 In your judgement, do you think that your school should offer CS courses?

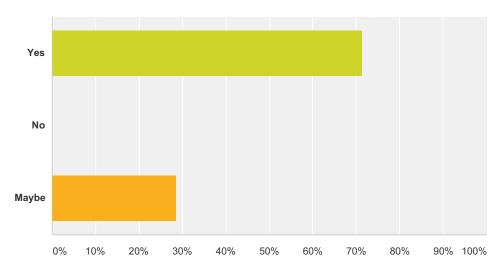




Answer Choices	Responses
Yes	<b>100.00%</b> 7
No	0.00%
Total	7

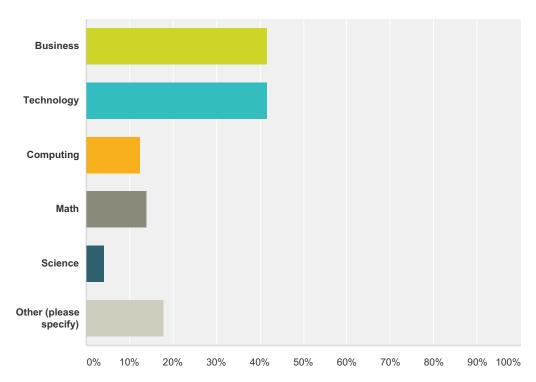
### Q12 If your school offered CS/IT courses, would you be interested in teaching them?





Answer Choices	Responses	
Yes	71.43%	5
No	0.00%	0
Maybe	28.57%	2
Total		7

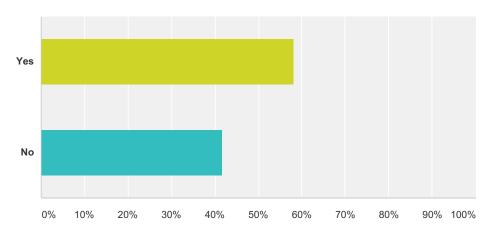
#### Q13 Under what department(s) is CS offered in your school? (Check all that apply.)



nswer Choices	Responses	
Business	41.67%	30
Technology	41.67%	30
Computing	12.50%	9
Math	13.89%	10
Science	4.17%	3
Other (please specify)	18.06%	13
otal Respondents: 72		

# Q14 Does your district or state require you to teach a specific computer science course curriculum that includes specific content and outcomes?

Answered: 72 Skipped: 12

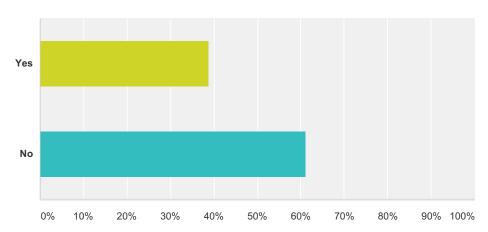


Answer Choices	Responses	
Yes	<b>58.33%</b> 42	2
No	41.67%	0
Total	72	2

#### Maryland High School Computer Science Survey (2014)

#### Q15 Are these requirements enforced?

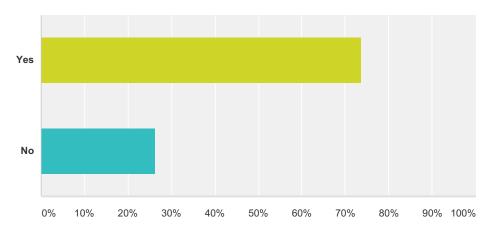
Answered: 72 Skipped: 12



Answer Choices	Responses	
Yes	38.89%	28
No	61.11%	44
Total		72

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

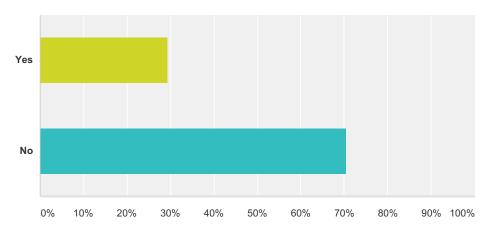
Answered: 72 Skipped: 12



Answer Choices	Responses	
Yes	73.61%	53
No	26.39%	19
Total		72

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

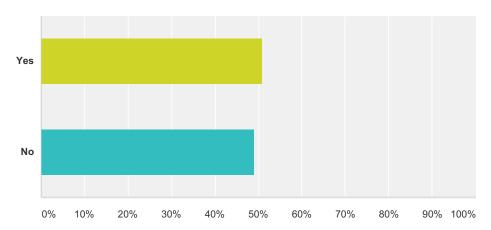
### Q18 Are students required to take introductory CS?



Answer Choices	Responses	
Yes	29.41%	15
No	70.59%	36
Total		51

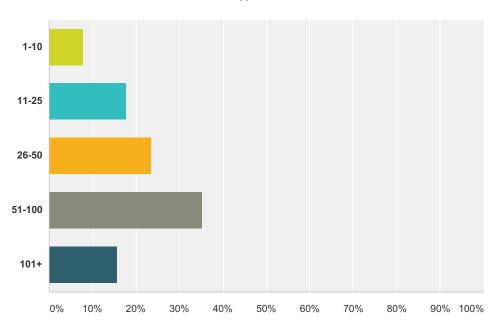
### Q19 Does the CS introductory course offered in your school have prerequisites?

Answered: 51 Skipped: 33



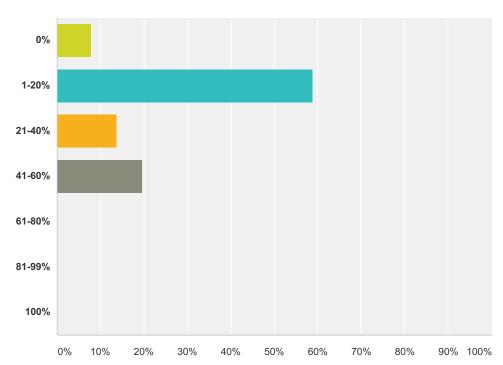
Answer Choices	Responses	
Yes	50.98%	26
No	49.02%	25
Total		51

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



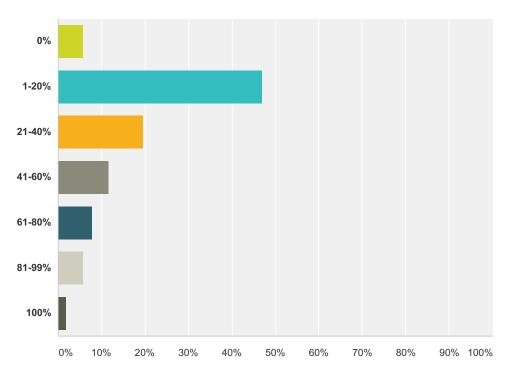
Answer Choices	Responses	
1-10	7.84%	4
11-25	17.65%	9
26-50	23.53%	12
51-100	35.29%	18
101+	15.69%	8
Total		51

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



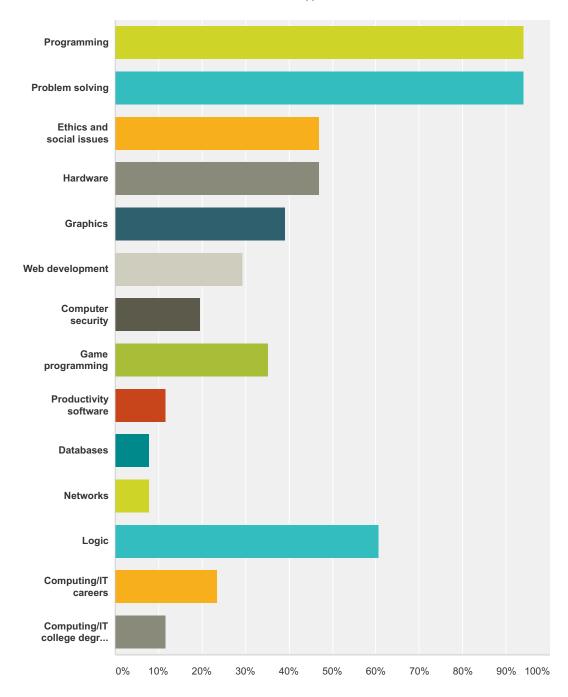
Answer Choices	Responses	
0%	7.84%	4
1-20%	58.82%	30
21-40%	13.73%	7
41-60%	19.61%	10
61-80%	0.00%	0
81-99%	0.00%	0
100%	0.00%	0
Total		51

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



Answer Choices	Responses	
0%	5.88%	3
1-20%	47.06%	24
21-40%	19.61%	10
41-60%	11.76%	6
61-80%	7.84%	4
81-99%	5.88%	3
100%	1.96%	1
Total		51

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

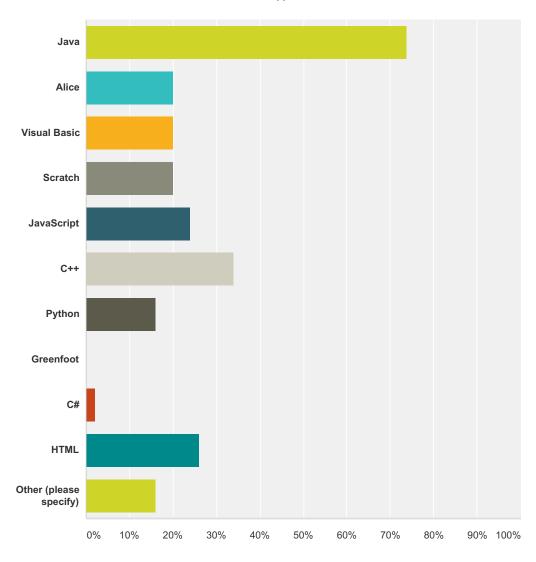


Answer Choices	Responses	
Programming	94.12%	48
Problem solving	94.12%	48
Ethics and social issues	47.06%	24

#### Maryland High School Computer Science Survey (2014)

Hardware	47.06%	24
Graphics	39.22%	20
Web development	29.41%	15
Computer security	19.61%	10
Game programming	35.29%	18
Productivity software	11.76%	6
Databases	7.84%	4
Networks	7.84%	4
Logic	60.78%	31
Computing/IT careers	23.53%	12
Computing/IT college degrees and programs	11.76%	6
al Respondents: 51		

## Q24 What programming languages/software tools are used in introductory CS? (Check all that apply.)

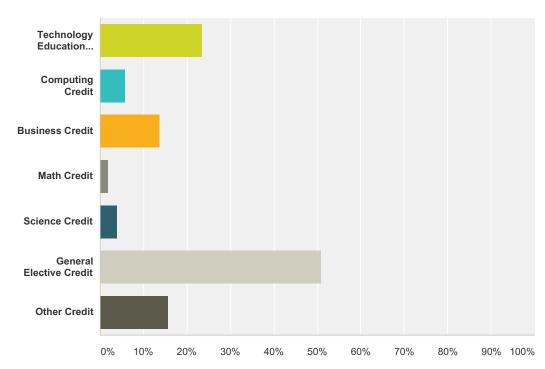


swer Choices	Responses	
Java	74.00%	37
Alice	20.00%	10
Visual Basic	20.00%	10
Scratch	20.00%	10
JavaScript	24.00%	12
C++	34.00%	17
Python	16.00%	8

#### Maryland High School Computer Science Survey (2014)

Greenfoot	0.00%	0
C#	2.00%	1
HTML	26.00%	13
Other (please specify)	16.00%	8
Total Respondents: 50		

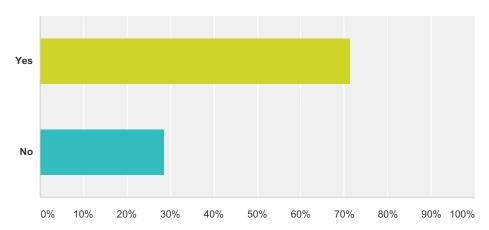
## Q25 What type of credit is earned by the introductory CS (pre-AP) courses? (Check all that apply.)



nswer Choices	Responses	
Technology Education Credit	23.53%	12
Computing Credit	5.88%	3
Business Credit	13.73%	7
Math Credit	1.96%	1
Science Credit	3.92%	2
General Elective Credit	50.98%	26
Other Credit	15.69%	8
otal Respondents: 51		

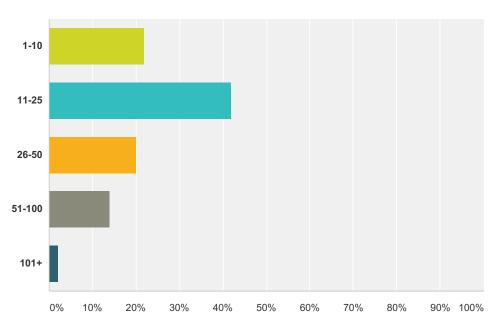
#### Q26 Does your school offer AP Computer Science?

Answered: 70 Skipped: 14



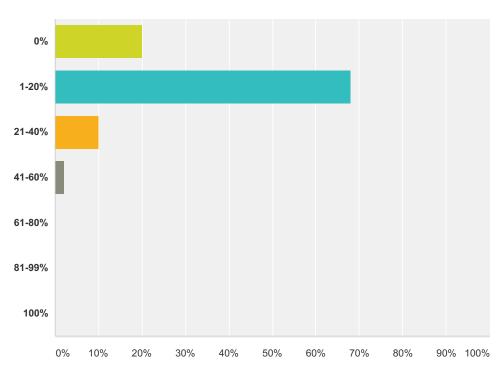
Answer Choices	Responses
Yes	<b>71.43%</b> 50
No	<b>28.57%</b> 20
Total	70

### Q27 How many students take AP CS each year?



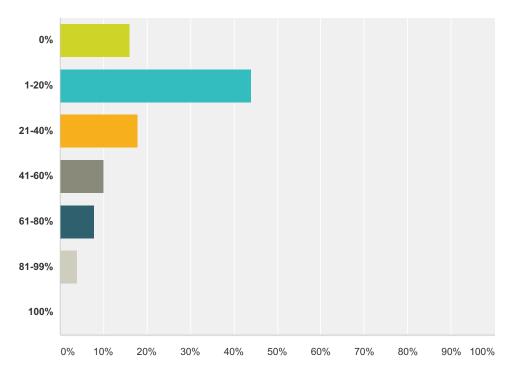
Answer Choices	Responses	
1-10	22.00%	11
11-25	42.00%	21
26-50	20.00%	10
51-100	14.00%	7
101+	2.00%	1
Total		50

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



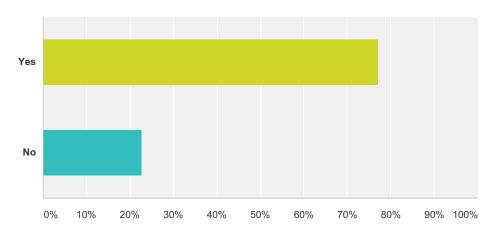
Answer Choices	Responses	
0%	20.00%	10
1-20%	68.00%	34
21-40%	10.00%	5
41-60%	2.00%	1
61-80%	0.00%	0
81-99%	0.00%	0
100%	0.00%	0
Total		50

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



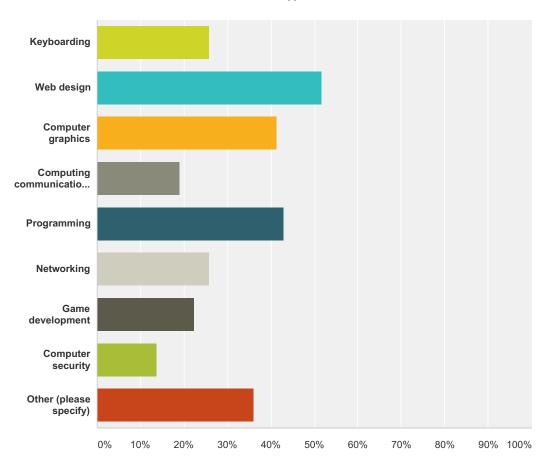
Answer Choices	Responses	
0%	16.00%	8
1-20%	44.00%	22
21-40%	18.00%	9
41-60%	10.00%	5
61-80%	8.00%	4
81-99%	4.00%	2
100%	0.00%	0
Total		50

### Q30 Does your school offer CS/IT courses other than introductory and AP Computer Science?



Answer Choices	Responses
Yes	<b>77.14%</b> 54
No	<b>22.86%</b> 16
Total	70

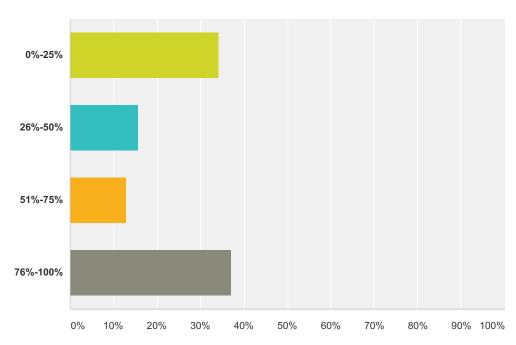
## Q31 If your school offers other CS/IT courses, which of the following are offered? (Check all that apply.)



answer Choices	Responses	
Keyboarding	25.86%	15
Web design	51.72%	30
Computer graphics	41.38%	24
Computing communications/media	18.97%	11
Programming	43.10%	25
Networking	25.86%	15
Game development	22.41%	13
Computer security	13.79%	8
Other (please specify)	36.21%	21
otal Respondents: 58		

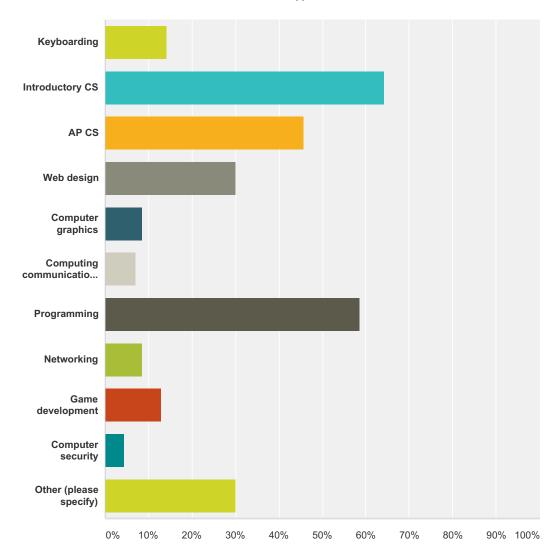
#### Q32 In a typical year, what percentage of the courses you teach are CS/IT courses?

Answered: 70 Skipped: 14



Answer Choices	Responses	
0%-25%	34.29%	24
26%-50%	15.71%	11
51%-75%	12.86%	9
76%-100%	37.14%	26
Total		70

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

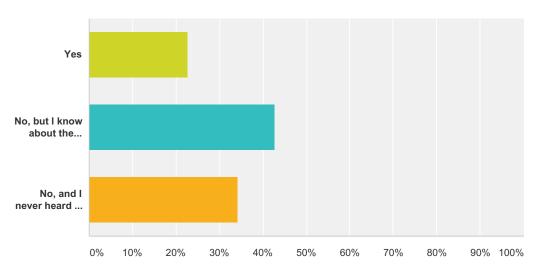


Answer Choices	Responses	
Keyboarding	14.29%	10
Introductory CS	64.29%	45
AP CS	45.71%	32
Web design	30.00%	21
Computer graphics	8.57%	6
Computing communications/media	7.14%	5
Programming	58.57%	41

Networking	8.57%	6
Game development	12.86%	9
Computer security	4.29%	3
Other (please specify)	30.00%	21
Total Respondents: 70		

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

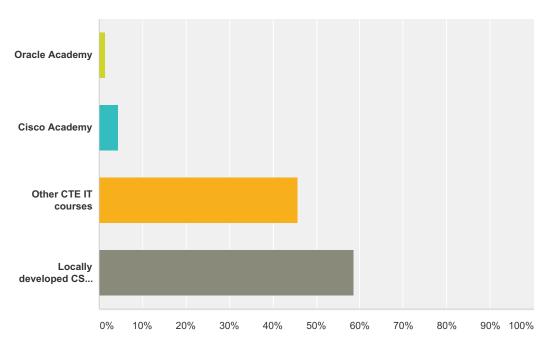
Answered: 70 Skipped: 14



Answer Choices	Responses	
Yes	22.86%	16
No, but I know about the ACM/CSTA Model Curriculum	42.86%	30
No, and I never heard of the ACM/CSTA Model Curriculum	34.29%	24
Total		70

## Q35 Are the courses that you teach part of any of the following? (Check all that apply.)

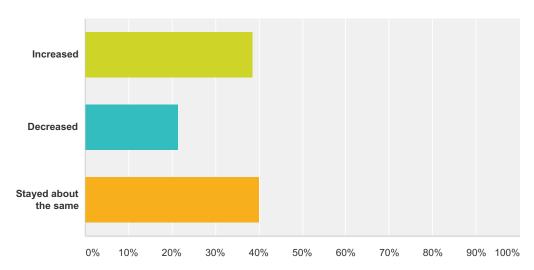
Answered: 70 Skipped: 14



Answer Choices	Responses	
Oracle Academy	1.43%	1
Cisco Academy	4.29%	3
Other CTE IT courses	45.71%	32
Locally developed CS/IT courses not part of CTE course offerings	58.57%	41
Total Respondents: 70		

# Q36 How has the number of CS/IT classes (total number of sections) taught at your school changed over the past three (3) years?

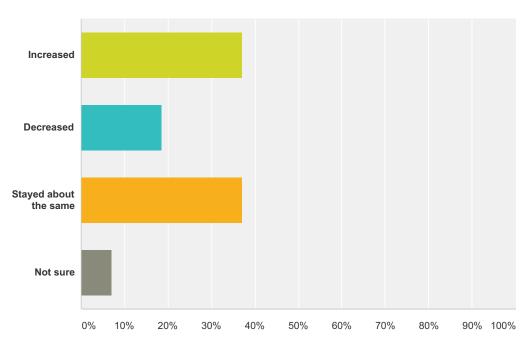
Answered: 70 Skipped: 14



Answer Choices	Responses
Increased	<b>38.57%</b> 27
Decreased	<b>21.43%</b> 15
Stayed about the same	<b>40.00%</b> 28
Total	70

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

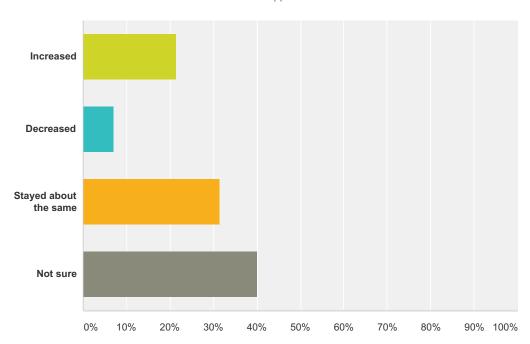
Answered: 70 Skipped: 14



Answer Choices	Responses
Increased	<b>37.14%</b> 26
Decreased	<b>18.57%</b> 13
Stayed about the same	<b>37.14%</b> 26
Not sure	<b>7.14%</b> 5
Total	70

# 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?

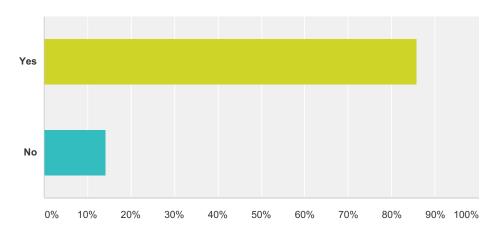
Answered: 70 Skipped: 14



Answer Choices	Responses
Increased	<b>21.43%</b> 15
Decreased	<b>7.14%</b> 5
Stayed about the same	<b>31.43%</b> 22
Not sure	<b>40.00%</b> 28
Total	70

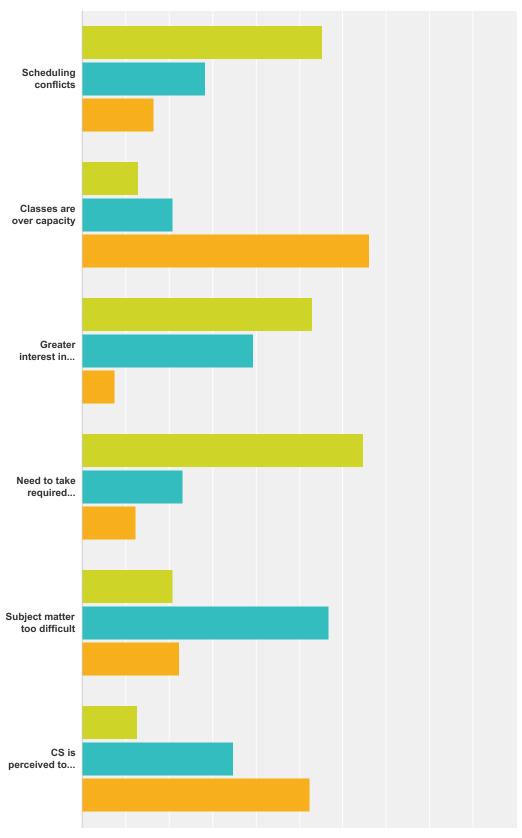
# Q39 In your judgement, do you think there are students who should be taking CS course(s) that your school offers, but who are not?

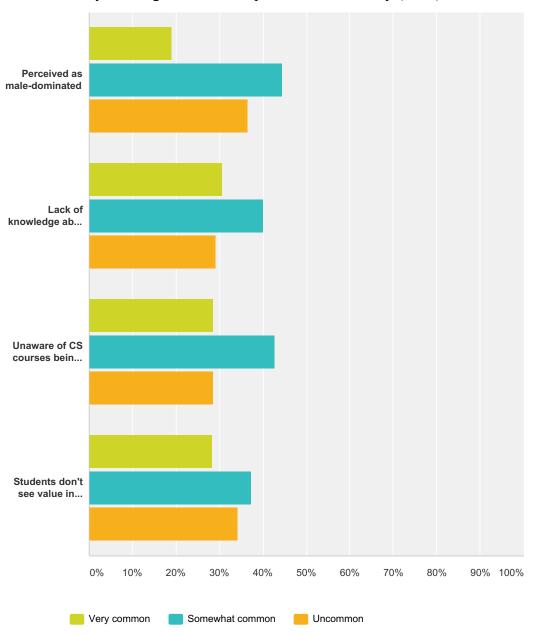
Answered: 70 Skipped: 14



Answer Choices	Responses	
Yes	85.71%	60
No	14.29%	10
Total		70

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



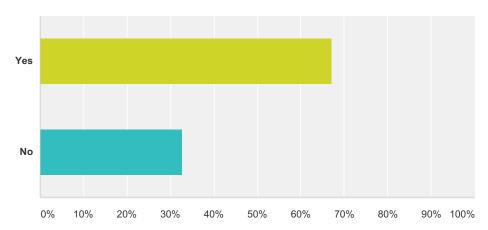


	Very common	Somewhat common	Uncommon	Total
Scheduling conflicts	55.22%	28.36%	16.42%	
	37	19	11	67
Classes are over capacity	12.90%	20.97%	66.13%	
	8	13	41	62
Greater interest in other subjects	53.03%	39.39%	7.58%	
	35	26	5	60
Need to take required courses rather than CS	64.62%	23.08%	12.31%	
	42	15	8	6
Subject matter too difficult	20.90%	56.72%	22.39%	
	14	38	15	6
CS is perceived to be "geeky"	12.70%	34.92%	52.38%	
	8	22	33	6

Perceived as male-dominated	19.05%	44.44%	36.51%	
	12	28	23	63
Lack of knowledge about careers in computing	30.77%	40.00%	29.23%	
	20	26	19	65
Unaware of CS courses being offered by school	28.57%	42.86%	28.57%	
	18	27	18	63
Students don't see value in taking CS	28.36%	37.31%	34.33%	
	19	25	23	67

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

Answered: 70 Skipped: 14

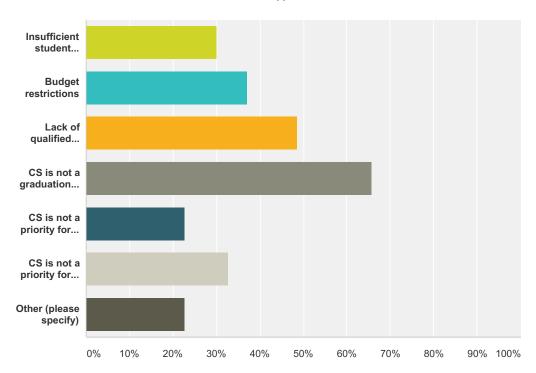


Answer Choices	Responses	
Yes	67.14%	47
No	32.86%	23
Total		70

## Q42 If yes, what CS courses should be added?

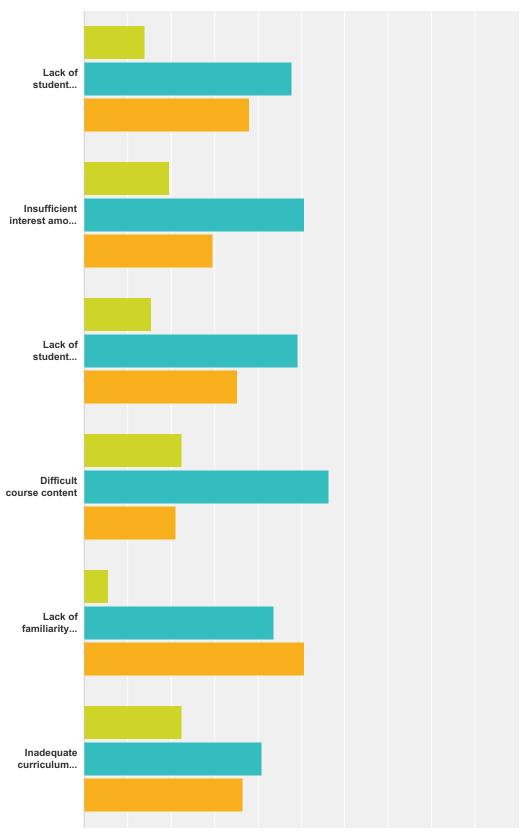
## Q43 What are some of the reasons why your school does not offer more computer science courses? (Check all that apply.)

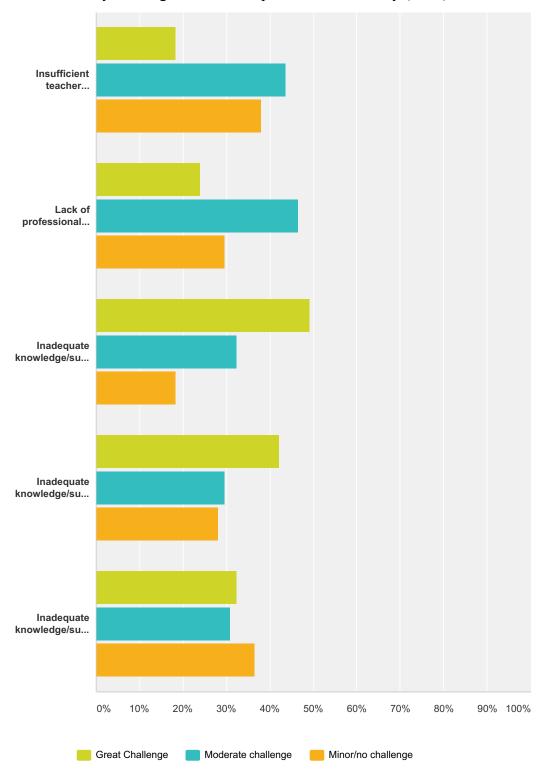
Answered: 70 Skipped: 14



Answer Choices	Responses	
Insufficient student interest	30.00%	21
Budget restrictions	37.14%	26
Lack of qualified teachers	48.57%	34
CS is not a graduation requirement	65.71%	46
CS is not a priority for my high school	22.86%	16
CS is not a priority for the school system	32.86%	23
Other (please specify)	22.86%	16
Total Respondents: 70		

## Q44 What do you perceive as the greatest challenges in teaching CS? (Please rate each challenge.)

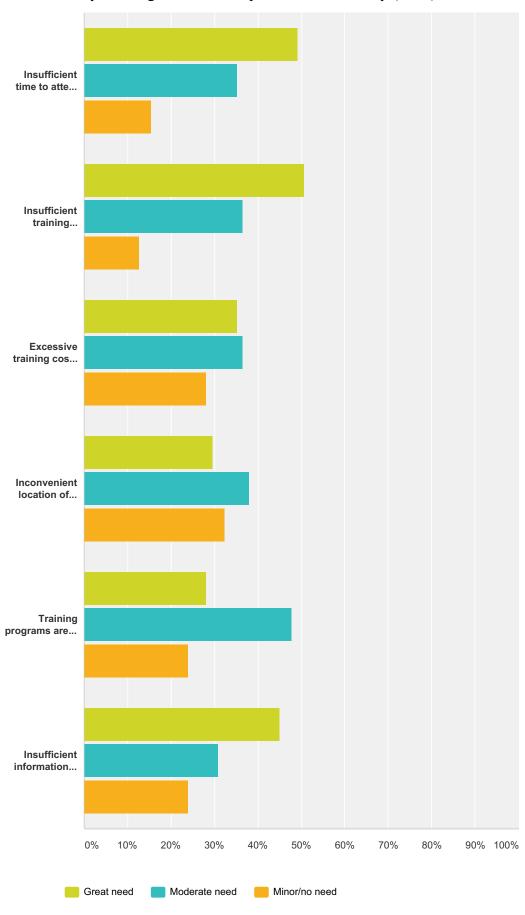




	Great Challenge	Moderate challenge	Minor/no challenge	Total
Lack of student interest	14.08%	47.89%	38.03%	
	10	34	27	71
Insufficient interest among women and minorities	19.72%	50.70%	29.58%	
	14	36	21	71
Lack of student preparation	15.49%	49.30%	35.21%	
	11	35	25	7

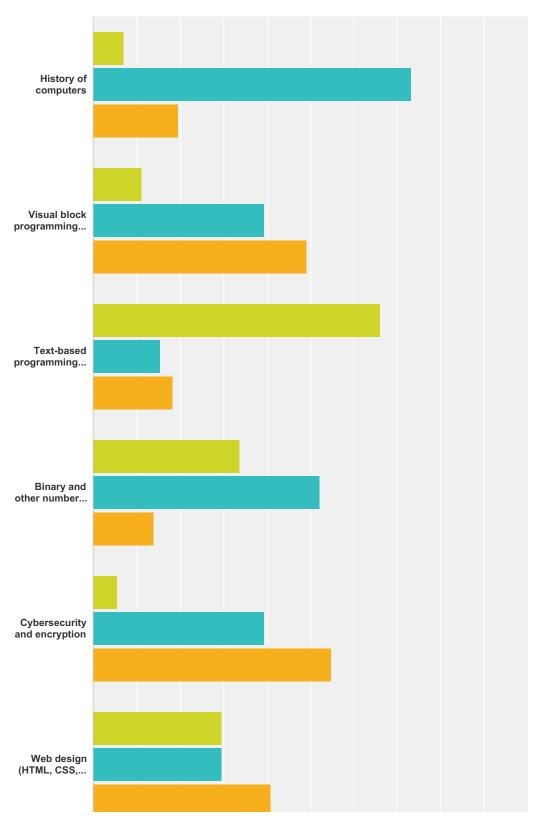
Difficult course content	22.54%	56.34%	21.13%	
	16	40	15	
Lack of familiarity with curriculum standards	5.63%	43.66%	50.70%	
	4	31	36	
Inadequate curriculum materials	22.54%	40.85%	36.62%	
	16	29	26	
nsufficient teacher knowledge / professional development	18.31%	43.66%	38.03%	
	13	31	27	
Lack of professional learning community of CS teachers	23.94%	46.48%	29.58%	
	17	33	21	
Inadequate knowledge/support by school/county administration	49.30%	32.39%	18.31%	
	35	23	13	
Inadequate knowledge/support by guidance staff	42.25%	29.58%	28.17%	
	30	21	20	
Inadequate knowledge/support by parents	32.39%	30.99%	36.62%	
	23	22	26	

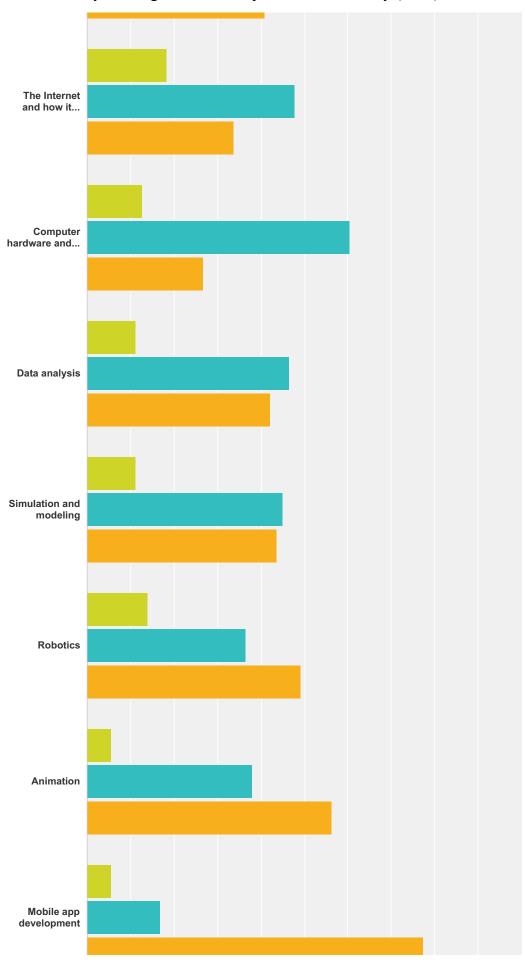
## Q45 What do you perceive as the greatest professional development needs?

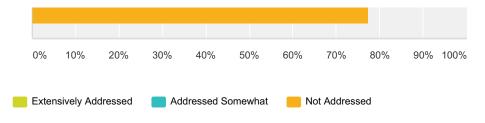


	Great need	Moderate need	Minor/no need	Total
Insufficient time to attend training	49.30%	35.21%	15.49%	
	35	25	11	7
Insufficient training programs	50.70%	36.62%	12.68%	
	36	26	9	7
Excessive training cost (and lack of reimbursement)	35.21%	36.62%	28.17%	
	25	26	20	7
Inconvenient location of training programs	29.58%	38.03%	32.39%	
	21	27	23	7
Training programs are not offered at convenient times	28.17%	47.89%	23.94%	
	20	34	17	7
Insufficient information about training programs	45.07%	30.99%	23.94%	
	32	22	17	-

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

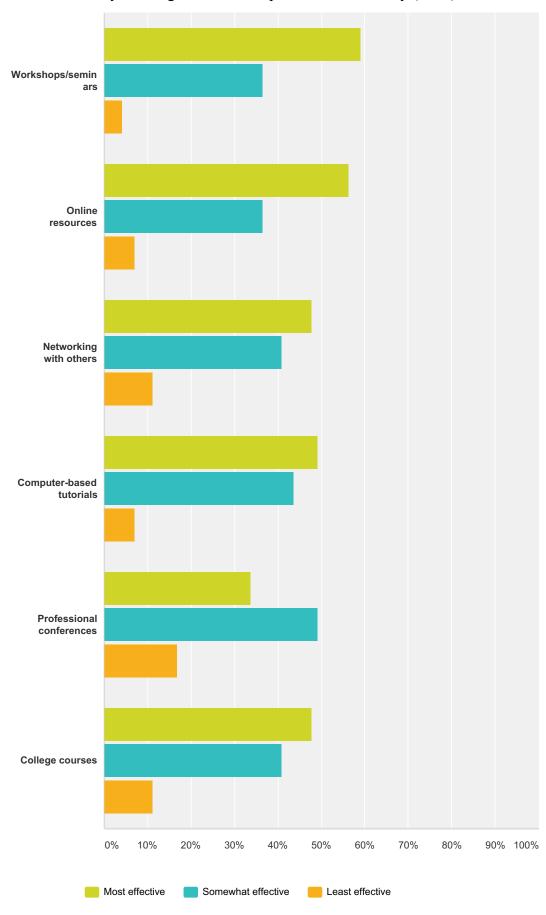






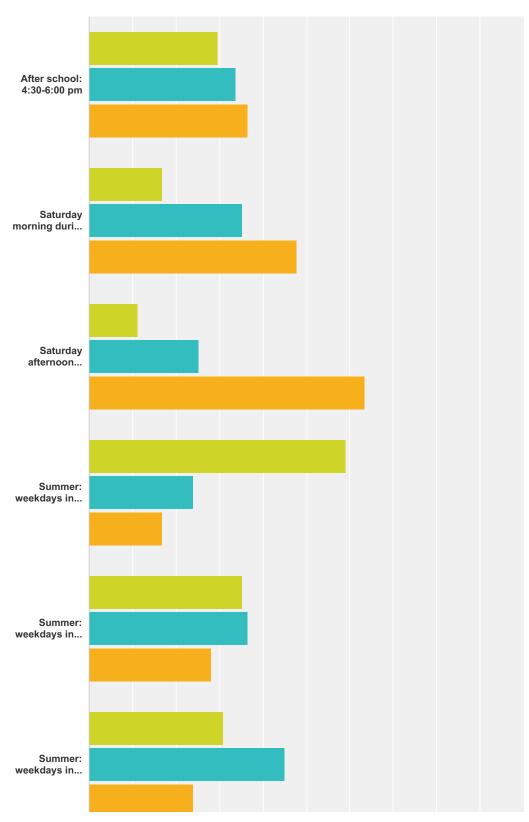
	Extensively Addressed	Addressed Somewhat	Not Addressed	Tot
History of computers	7.04%	73.24%	19.72%	
•	5	52	14	
Visual block programming (Scratch, Blockly, App Inventor, etc.)	11.27%	39.44%	49.30%	
	8	28	35	
Text-based programming (Java, Python, C++, etc.)	66.20%	15.49%	18.31%	
	47	11	13	
Binary and other number systems	33.80%	52.11%	14.08%	
	24	37	10	
Cybersecurity and encryption	5.63%	39.44%	54.93%	
	4	28	39	
Web design (HTML, CSS, etc.)	29.58%	29.58%	40.85%	
	21	21	29	
The Internet and how it works	18.31%	47.89%	33.80%	
	13	34	24	
Computer hardware and/or networking	12.68%	60.56%	26.76%	
	9	43	19	
Data analysis	11.27%	46.48%	42.25%	
	8	33	30	
Simulation and modeling	11.27%	45.07%	43.66%	
	8	32	31	
Robotics	14.08%	36.62%	49.30%	
	10	26	35	
Animation	5.63%	38.03%	56.34%	
	4	27	40	
Mobile app development	5.63%	16.90%	77.46%	
· · · · · · · · · · · · · · · · · · ·	4	12	55	

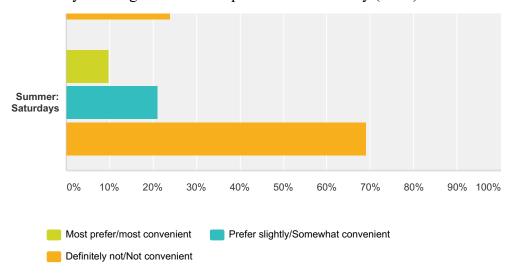
# Q47 What do you believe to be the most effective methods for delivering professional development to CS teachers? (Please rank each.)



	Most effective	Somewhat effective	Least effective	Total
Workshops/seminars	59.15%	36.62%	4.23%	
	42	26	3	7
Online resources	56.34%	36.62%	7.04%	
	40	26	5	7
Networking with others	47.89%	40.85%	11.27%	
	34	29	8	7
Computer-based tutorials	49.30%	43.66%	7.04%	
	35	31	5	7
Professional conferences	33.80%	49.30%	16.90%	
	24	35	12	7
College courses	47.89%	40.85%	11.27%	
	34	29	8	7

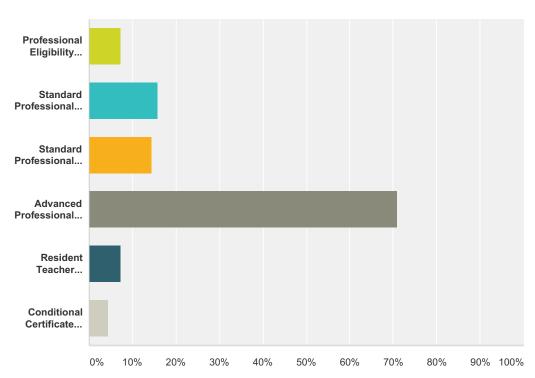
# Q48 Please rank your preference/the convenience of each of the following times for your participation in professional development activities?





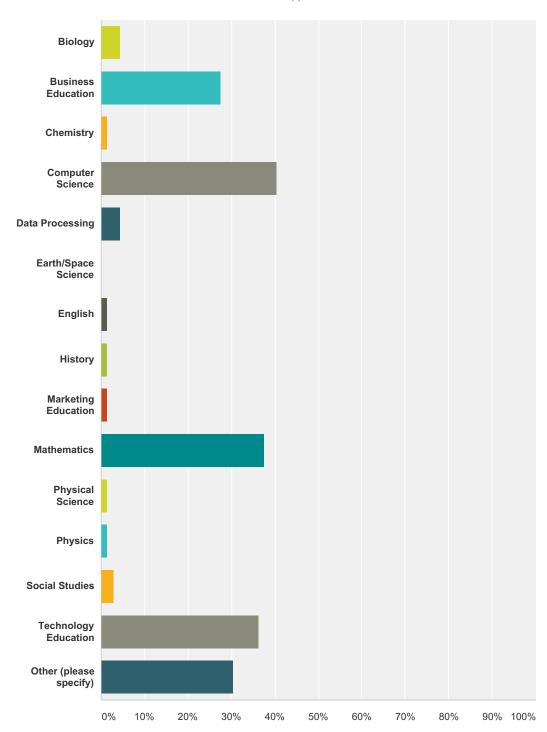
	Most prefer/most convenient	Prefer slightly/Somewhat convenient	Definitely not/Not convenient	Tota
After school: 4:30-6:00 pm	29.58%	33.80%	36.62%	
	21	24	26	7
Saturday morning during school year	16.90%	35.21%	47.89%	
	12	25	34	7
Saturday afternoon during school year	11.27%	25.35%	63.38%	
	8	18	45	
Summer: weekdays in June immediately after	59.15%	23.94%	16.90%	
school ends	42	17	12	
Summer: weekdays in July	35.21%	36.62%	28.17%	
	25	26	20	
Summer: weekdays in early August	30.99%	45.07%	23.94%	
	22	32	17	1
Summer: Saturdays	9.86%	21.13%	69.01%	
	7	15	49	

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



Answer Choices	Responses	
Professional Eligibility Certificate (PEC)	7.25%	5
Standard Professional Certificate I (SPC I)	15.94%	11
Standard Professional Certificate II (SPCII)	14.49%	10
Advanced Professional Certificate (APC)	71.01%	49
Resident Teacher Certificate (RTC)	7.25%	5
Conditional Certificate (COND)	4.35%	3
Total Respondents: 69		

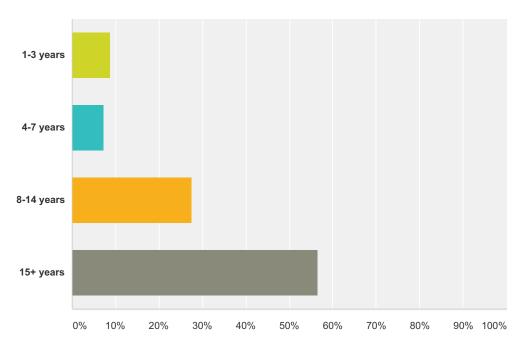
## Q50 In which of the following areas are you certified to teach in Maryland? (Check all that apply.)



Answer Choices	Responses
Biology	<b>4.35%</b> 3

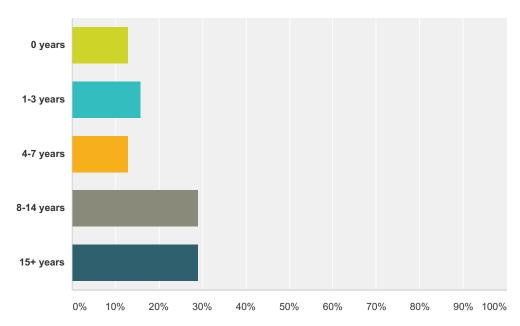
Business Education	27.54%	
Chemistry	1.45%	
Computer Science	40.58%	
Data Processing	4.35%	
Earth/Space Science	0.00%	
English	1.45%	
History	1.45%	
Marketing Education	1.45%	
Mathematics	37.68%	
Physical Science	1.45%	
Physics	1.45%	
Social Studies	2.90%	
Technology Education	36.23%	
Other (please specify)	30.43%	
tal Respondents: 69		

### Q51 How many years have you been teaching?



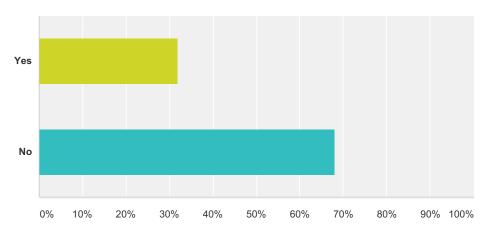
Answer Choices	Respons	ses
1-3 years	8.70%	6
4-7 years	7.25%	5
8-14 years	27.54%	19
15+ years	56.52%	39
Total		69

### Q52 How many years have you been teaching CS/IT?



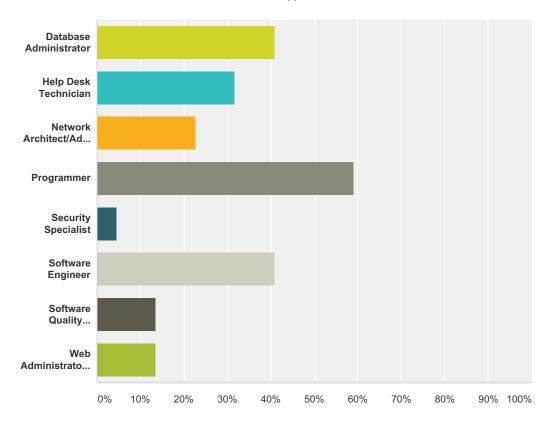
Answer Choices	Responses	
0 years	13.04%	9
1-3 years	15.94%	11
4-7 years	13.04%	9
8-14 years	28.99%	20
15+ years	28.99%	20
Total		69

## Q53 Did you work in the CS/IT industry prior to teaching?



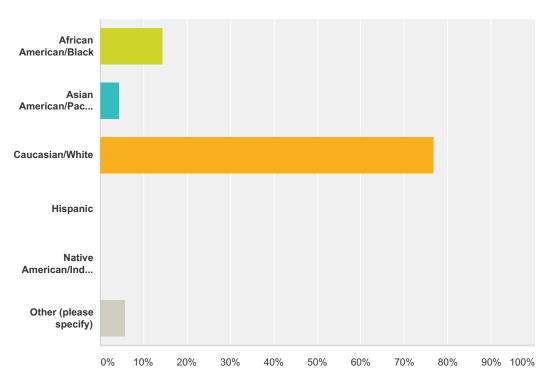
Answer Choices	Responses	
Yes	31.88%	22
No	68.12%	47
Total	6	69

## Q54 What type of CS industry job did you previously have before you became a CS teacher? (Check all that apply.)



Answer Choices	Responses
Database Administrator	<b>40.91%</b>
Help Desk Technician	<b>31.82</b> % 7
Network Architect/Administrator	22.73%
Programmer	<b>59.09%</b> 13
Security Specialist	<b>4.55%</b> 1
Software Engineer	<b>40.91%</b>
Software Quality Assurance Analyst	13.64%
Web Administrator/Developer	13.64%
Total Respondents: 22	

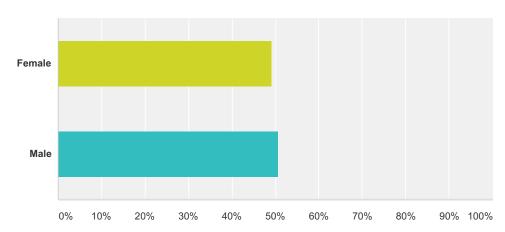
## Q55 How do you identify yourself? (Check all that apply.)



Answer Choices	Responses	
African American/Black	14.49%	10
Asian American/Pacific Islander	4.35%	3
Caucasian/White	76.81%	53
Hispanic	0.00%	0
Native American/Indigenous	0.00%	0
Other (please specify)	5.80%	4
Total Respondents: 69		

#### Q56 Sex:

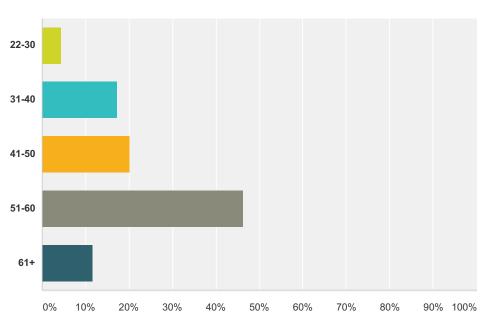
Answered: 69 Skipped: 15



Answer Choices	Responses
Female	<b>49.28%</b> 34
Male	<b>50.72%</b> 35
Total	69

#### Q57 What is your age?

Answered: 69 Skipped: 15



Answer Choices	Responses	
22-30	4.35%	3
31-40	17.39%	12
41-50	20.29%	14
51-60	46.38%	32
61+	11.59%	8
Total		69