



## The 2011 State of Cyberethics, Cybersafety, and Cybersecurity Curriculum in the U.S. Survey – Fact Sheet

**Finding 1: There is a notable disconnect among teachers, administrators, and IT specialists when it comes to the success of cyber education as well as a school district’s cyber-education requirements.**

- 55% of teachers “strongly agree” that cybersecurity, cybersafety and cyberethics should be taught in schools as part of the curriculum, while more than 82% of administrators and 85% of IT specialists share those same strong sentiments.

Cyberethics, cybersafety and cybersecurity curriculum should be taught in schools.	2011	2010
Teachers	55% “strongly agree”	64% strongly agree
Administrators	82% strongly agree	74% strongly agree
IT Specialists	85% strongly agree	89% strongly agree

- Further pointing to a disconnect, 51% of teachers agree (with only 11% strongly agreeing) that their districts do an adequate job preparing students in cybersecurity, cybersafety and cyberethics, while 81% of both administrators and IT specialists believe their districts are doing an adequate job.

My school/school district does an adequate job of preparing students regarding cyberethics, online safety, and computer security issues.	2011	2010
Teachers	51%	65%
Administrators	81%	84%
IT Specialists	81%	83%

- Just 29% of teachers think their district requires cyberethics curriculum, while 68% of administrators and 59% of IT specialists believe so.

My school/school district requires cyberethics curriculum be taught in the classroom setting.	2011	2010
Teachers	29%	34%
Administrators	68%	51%
IT Specialists	59%	52%

- 33% of teachers believe their district requires cybersafety curriculum, while 68% of administrators and 64% of IT specialists believe so.

<b>My school/school district requires cybersafety curriculum be taught in the classroom setting.</b>	<b>2011</b>	<b>2010</b>
Teachers	33%	37%
Administrators	68%	54%
IT Specialists	64%	57%

- 30% of teachers believe their district requires cybersecurity curriculum, while 70% of administrators and 58% of IT specialists believe so.

<b>My school/school district requires cybersecurity curriculum be taught in the classroom setting.</b>	<b>2011</b>	<b>2010</b>
Teachers	30%	33%
Administrators	70%	52%
IT Specialists	58%	50%

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**Finding 2: About half of teachers feel prepared to teach cybersecurity, cybersafety and cyberethics. However, confidence is fairly high among teachers (67 percent) who feel prepared to discuss basic computer security.**

- 55% of teachers feel prepared to teach about protecting personal information online
- 57% feel prepared to address cyberbullying
- 56% feel prepared to discuss online posts that include “hate speech”
- 58% feel prepared to teach about sexting
- 67% are confident that they can discuss basic computer security

<b>Please tell me how prepared you are to talk about the following ...</b>	<b>2011</b>	<b>2010</b>
<b>Teachers:</b>		
Protecting personal information	55%	40%
Cyberbullying	57%	50%
“Hate speech”	56%	N/A
Sexting	58%	48%
Computer security	67%	N/A

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**Finding 3: Teachers are not receiving cyber education training but are interested in professional development.**

- 36% of teachers have received ZERO hours of cybersecurity, cybersafety and cyberethics training by their school district in the last year. Teachers in large cities reported receiving the least amount of training compared to those in suburbs or rural communities.
- 40% of teachers have received just 1-3 hours of cybersecurity, cybersafety and cyberethics training by their school district in the last year.
- All told, 86% of teachers received fewer than 6 hours of cybersecurity, cybersafety and cyberethics training in the last year. This is an increase from 2010, when 78% of teachers reported they received fewer than 6 hours.
- Yet, on average 76% of teachers expressed interest in receiving training in cyber ethics, safety and security issues.

<b>Within the last 12 months, about how much total time have you spent on cyberethics, cybersafety, and cybersecurity training provided by your school/school district?</b>	<b>2011</b>	<b>2010</b>
<b>Teachers:</b>		
0 hours	36%	N/A
1-3 hours	40%	N/A
4-6 hours	10%	*78% “less than six hours”
6-15 hours	5%	15%
6-35 hours	2%	2%
More than 35 hours	1%	1%
Not sure	5%	4%

\*In 2010, the study did not ask teachers to break out training incrementally when it was fewer than six hours. That year, 78% responded that they received “less than six hours of training.” In 2011, we learned that while a total of 86% received fewer than six hours of training, 36% received no training.

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**Finding 4: Teachers report students are using computers at school on a frequent basis.**

- 59% of teachers said their students use computers at least twice per week in school, and 81% said such use occurs at least once per week. Teachers of all age groups, from pre-kindergarten to high school, reported the same high levels of computer usage by their students.
- 89% of teachers said their schools have a dedicated computer lab.

**Yet, few teachers are educating students on basic cyber skills.**

- 34% of teachers in the past year have taught about risks tied to social networking .
- 18% of teachers have taught about dealing with alarming posts, videos or other Web content, and only 15% have taught about hate speech.
- 6% of teachers have taught about the safe use of geo-location services.
- 34% of teachers have taught about how to make decisions about sharing personal information on the Internet.
- By contrast, plagiarism is the most taught topic related to cyber ethics, with 47% of teachers reporting they have instructed on it in the past year.

<b>Which of the following topics have you taught in the last 12 months?</b>	<b>2011</b>	<b>2010</b>
<b>Teachers:</b>		
Dangers of social networking sites	34%	33%
Posts, video, Web content that scares you / receiving harassing messages	18%	28%
Hate speech /unwanted or inappropriate material posted	15%	23%
Sharing personal information	34%	39%
Plagiarism	47%	56%

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**Finding 5: School administrators, including principals and superintendents, agree schools should prepare students to be “cyber capable” employees. Overall, they feel confident (68%) that their schools are preparing students to pursue college-level work in cybersecurity.**

- Nearly all administrators surveyed (97%) agree schools should teach curriculum throughout K-12 that prepares young people to enter the workforce as “cyber capable” employees, meaning they are able to use basic technology in a safer and more secure way.
- In addition, 81% of administrators agree schools should teach curriculum throughout K-12 that prepares young people for careers in cybersecurity.
- Overall, 68% of administrators believe their schools or school districts are doing an adequate job of preparing students to pursue college-level (two- or four-year) education in cybersecurity.

Yet, the teachers tell a different story. Few teachers are educating students on topics that would prepare students to be “cyber capable” employees or cyber-aware college students.

Which of the following topics related to [cyberethics, cybersafety, cybersecurity] have you taught in the last 12 months?	2011	2010
<b>Teachers:</b>		
Risks tied to social networking sites	34%	33%
Using strong passwords	23%	19%
How to send an email	20%	N/A
How to identify a secure website	18%	22%
Identity theft	17%	18%
Role of a more secure Internet in our economy	7%	13%
Role of a more secure Internet in our national security	6%	8%
Protecting a mobile device	6%	N/A
Careers in cybersecurity	4%	N/A

**Finding 6: Teachers believe parents are primarily responsible for teaching children to use computers safely and securely.**

Who do you primarily deem responsible for teaching children to use computers safely and securely?		
<b>Teachers:</b>		
	2011	2010
Parents	79%	72%
Teachers/Schools	18%	23%
Government/Law enforcement	.5%	0%
Other	.5%	3%
Not sure	2%	2%

**Administrators also increasingly believe the responsibility lies with parents, in a significant shift in belief from 2010 when half believed teachers and schools were primarily responsible.**

<b>Administrators:</b>		
	<b>2011</b>	<b>2010</b>
Parents	60%	46%
Teachers/Schools	34%	51%
Government/Law enforcement	.5%	1%
Other	5%	3%
Not sure	2%	2%

**However, IT coordinators deem teachers and schools the most responsible, a shift away from selecting parents in 2010.**

<b>IT Coordinators:</b>		
	<b>2011</b>	<b>2010</b>
Parents	45%	58%
Teachers/Schools	52%	37%
Government/Law enforcement	.5%	1%
Other	2.5%	3%
Not sure	.5%	2%

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## **Methodology**

The National Cyber Security Alliance (NCSA) commissioned Zogby/463 to conduct a hybrid telephone and online survey of teachers, IT specialists and administrators in K-12 schools nationwide. Zogby surveyed:

- 1,012 teachers between January 20 and January 27, 2011, with a margin of error (MOE) of +/- 3.1 percentage points.
- 200 IT specialists between January 21 and February 3, with a MOE of +/- 7.1 percentage points.
- 402 school administrators (325 principals and 77 superintendents) between January 20 and February 8, 2011, with a MOE of +/- 5.0 percentage points.

The NCSA has tested the attitudes of K-12 schools on digital safety, security and ethics since 2008. As an annual study, we ask each year a set of core questions to the survey population to measure changes in perceptions and attitudes as well as practices in schools and classrooms. Year over year results are provided for comparison purposes and should not be relied upon as trending data since each year some of the questions are expanded or modified to address topics relevant to national current events.