



Are Adolescents Prepared for Social Media?

Adolescents, Social Media, and the Brain

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Digital Divide?

Internet users in 2014

Among adults, the % who use the internet, email, or access the internet via a mobile device

All adults	Use internet 87%
Sex	
a Men	87
b Women	86
Race/ethnicity*	
a White	85
b African-American	81
c Hispanic	83
Age group	
a 18-29	97 ^{cd}
b 30-49	93 ^d
c 50-64	88 ^d
d 65+	57
Education level	
a High school grad or less	76
b Some college	91 ^a
c College+	97 ^{ab}
Household income	
a Less than \$30,000/yr	77
b \$30,000-\$49,999	85
c \$50,000-\$74,999	93 ^{ab}
d \$75,000+	99 ^{ab}
Community type	
a Urban	88
b Suburban	87
c Rural	83

Source, Pew Research Center Internet Project Survey, January 9-12, 2014. N=1,006 adults. Note: Percentages marked with a superscript letter (e.g., ^a) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g., age).

* The results for race/ethnicity are based off a combined sample from two weekly omnibus surveys, January 9-12 and January 23-26, 2014. The combined total n for these surveys was 2,008; n=1,421 for whites, n=197 for African-Americans, and n=236 for Hispanics.

PEW RESEARCH CENTER

Non-internet user demographics

% of all adults within each group who do not use the internet

All adults (n=6,010)	Do not use internet 14%
a Men (n=2,733)	14
b Women (n=3,277)	15
a White, Non-Hispanic (n=4,223)	13
b Black, Non-Hispanic (n=664)	20 ^a
c Hispanic (n=682)	17 ^a
a 18-29 (n=945)	2
b 30-49 (n=1,590)	6 ^a
c 50-64 (n=1,842)	17 ^{ab}
d 65+ (n=1,526)	41 ^{abc}
a No high school diploma (n=454)	44 ^{bcd}
b High school grad (n=1,667)	22 ^{cd}
c Some college (n=1,627)	7 ^d
d College+ (n=2,225)	3
a Less than \$30,000/yr (n=1,682)	25 ^{bcd}
b \$30,000-\$49,999 (n=1,030)	12 ^{cd}
c \$50,000-\$74,999 (n=787)	5 ^d
d \$75,000+ (n=1,644)	3
a Urban (n=1,850)	13
b Suburban (n=2,980)	13
c Rural (n=1,180)	21 ^{ab}

Pew Research Center's Internet Project survey, July 18 - September 30, 2013.

Note: Percentages marked with a superscript letter (e.g., ^a) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g., age).

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The main reason offline adults don't use the internet

Among all American adults ages 18 and older who do not use the internet or email (n=357)

Just not interested	21%
Don't have a computer	13
Too difficult/frustrating	10
Don't know how/Don't have skills	8
Too old to learn	8
Don't have access	7
Too expensive	6
Don't need it / Don't want it	6
Think it's a waste of time	4
Physically unable (e.g. poor eyesight or disabled)	4
Too busy/Just don't have the time	3
Worried about privacy / viruses / spam / spyware / hackers	3
Other (SPECIFY)	7

Summary of reasons

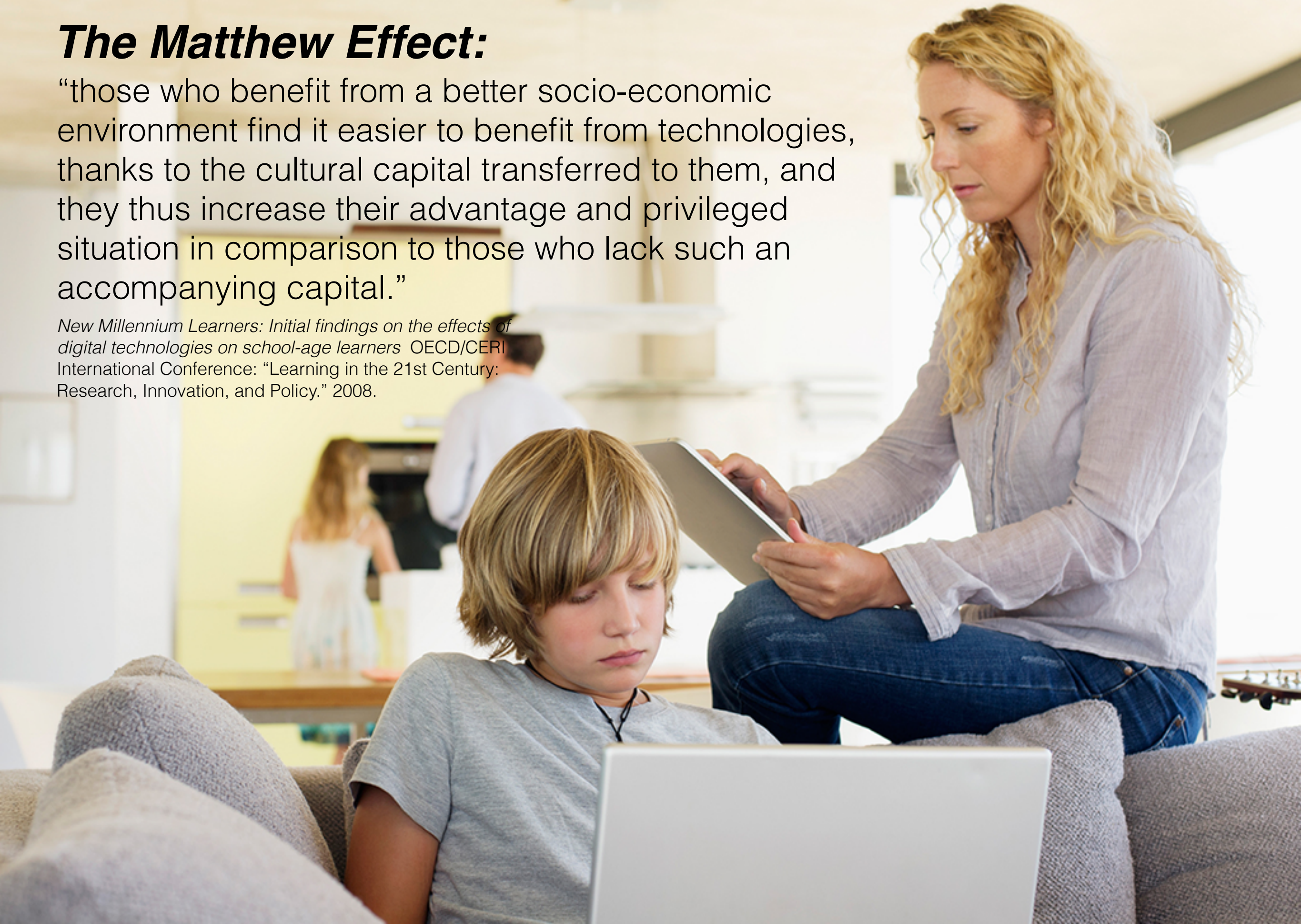
Relevance (not interested + waste of time + too busy + don't need/want)	34%
Usability (difficult/frustrating + too old + don't know how + physically unable + worried about virus/spam/hackers/etc.)	32
Price (too expensive + don't have computer)	19
Lack of availability / Access	7

Source: Pew Research Center's Internet & American Life Project Spring Tracking Survey, April 17 – May 19, 2013. N=2,252 adults ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on all adults is +/- 2.3 percentage points.

The Matthew Effect:

“those who benefit from a better socio-economic environment find it easier to benefit from technologies, thanks to the cultural capital transferred to them, and they thus increase their advantage and privileged situation in comparison to those who lack such an accompanying capital.”

New Millennium Learners: Initial findings on the effects of digital technologies on school-age learners OECD/CERI International Conference: “Learning in the 21st Century: Research, Innovation, and Policy.” 2008.



Secondary Digital Divide



- Those with lower levels of education are more likely to use the Internet for:
 - Browsing for fun
 - Online games
 - Online gambling (Hargittai, 2010)
- When you factor in the differences of digital use an accumulated advantage can increase existing socio-economic divides and have the potential to contribute to social inequality (Hargittai & Hinnant, 2008, DiMaggio et al., 2004)

A photograph showing a group of adolescents from the waist up, all focused on their smartphones. The person in the foreground on the right is wearing a light blue shirt and has a black cord around their neck. The person in the middle has long, straight brown hair and is wearing a floral patterned top. The person on the left is wearing a blue and white plaid shirt. The background is a blurred, textured wall.

Adolescents Online

Teen Internet Access Demographics

% of teens in each demographic group

		Access the Internet	Mobile Access to Internet (phone, tablet, etc)	Access Internet Mostly on Cell Phone
All teens, ages 12-17 (n=802)		95%	74%	25%
Teen Gender				
a	Boys (n=405)	97 ^b	72	20
b	Girls (n=397)	93	76	29 ^a
Age of Teen				
a	12-13 (n=246)	93	71	16
b	14-17 (n=556)	96	76	29 ^a
Teen Gender and Age				
a	Boys, 12-13 (n=122)	96	70	12
b	Boys, 14-17 (n=283)	97 ^c	73	24 ^a
c	Girls, 12-13 (n=124)	91	72	20
d	Girls, 14-17 (n=273)	95	78	34 ^{abc}
Parent Race/ethnicity				
a	White, Non-Hispanic (n=542)	98 ^{bc}	77 ^c	24
b	Black, Non-Hispanic (n=122)	92	74	33
c	Hispanic (n=92)	88	63	21
Parent Education				
a	Less Than High School/High school grad (n=244)	91	71	27
b	Some College (n=192)	99 ^a	71	24
c	College + (n=363)	99 ^a	81 ^{ab}	22
Parent Household Income				
a	Less than \$30,000/yr (n=154)	89	66	30 ^c
b	\$30,000-\$49,999 (n=155)	94	72	25 ^c
c	\$50,000-\$74,999 (n=110)	99 ^a	79	14
d	\$75,000+ (n=335)	99 ^{ab}	79 ^a	24 ^c
Urbanity				
a	Urban (n=278)	94	74	27
b	Suburban (n=410)	96	72	24
c	Rural (n=101)	99 ^a	79	21

Source: Pew Internet Teens and Privacy Management Survey, July 26-September 30, 2012. N=802 parents of teens ages 12-17 and 802 teens ages 12-17. Margin of error is +/- 4.5 percentage points.

Note: Columns marked with a superscript letter (superscript) or another letter indicate a statistically significant difference between that row and the row designated by that superscript letter. Statistical significance is determined inside the specific section covering each demographic trait.

95%
of teens use the Internet

Where teens have social media profiles or accounts

% of teen social media users who use the following sites ...

	2011	2012
Facebook	93%	94%
Twitter	12	26
Instagram	n/a	11
MySpace	24	7
YouTube	6	7
Tumblr	2	5
Google Plus	n/a	3
Yahoo (unspecified)	7	2
myYearbook	2	*
Pinterest	n/a	1
Gmail	n/a	1
Meet Me	n/a	1
Other	8	6
Don't know / Don't have own profile	2	1

Source: The Pew Research Center's Internet & American Life Teen-Parent survey, July 26-September 30, 2012. n=802 for teens 12-17 and parents, including oversample of minority families. Interviews were conducted in English and Spanish. The margin of error for teen social media users is +/- 5.1 percentage points.

Note: This chart is based on an open-ended question that asks: "On which social networking site or sites do you have a profile or account?" and was asked of anyone who had answered yes to one or both of two previous questions "Do you ever use an online social networking site like MySpace or Facebook?" and "Do you ever use Twitter?" Sites listed for comparison were those that were reported in 2012 by at least one respondent.

Asterisks (*) indicate that less than 1% of respondents gave the corresponding answer.

81%

of of online teens
use social media

94%

of social media teens use
Facebook

Teen Cell Phone and Smartphone Ownership Demographics

% of teens in each demographic group

		Own a Cell Phone (any kind)	Own a Smartphone
All teens, ages 12-17 (n=802)		78%	37%
Teen Gender			
a	Boys (n=405)	77	36
b	Girls (n=397)	78	38
Age of Teen			
a	12-13 (n=246)	68	23
b	14-17 (n=556)	83 ^a	44 ^a
Teen Gender and Age			
a	Boys, 12-13 (n=122)	65	20
b	Boys, 14-17 (n=283)	83 ^{ac}	43 ^{ac}
c	Girls, 12-13 (n=124)	71	26
d	Girls, 14-17 (n=273)	82 ^a	44 ^{ac}
Parent Race/ethnicity			
a	White, Non-Hispanic (n=542)	81 ^c	35
b	Black, Non-Hispanic (n=122)	72	40
c	Hispanic (n=92)	64	43
Parent Education			
a	Less Than High School/High school grad (n=244)	71	35
b	Some College (n=192)	79	35
c	College + (n=363)	87 ^{ab}	41
Parent Household Income			
a	Less than \$30,000/yr (n=154)	69	39 ^b
b	\$30,000-\$49,999 (n=155)	74	24
c	\$50,000-\$74,999 (n=110)	81	38
d	\$75,000+ (n=335)	86 ^{ab}	43 ^b
Urbanity			
a	Urban (n=278)	76	42 ^c
b	Suburban (n=410)	81	39 ^c
c	Rural (n=101)	73	19

Source: Pew Internet Teens and Privacy Management Survey, July 26-September 30, 2012. N=802 parents of teens ages 12-17 and 802 teens ages 12-17. Margin of error is +/- 4.5 percentage points.

Note: Columns marked with a superscript letter (^a) or another letter indicate a statistically significant difference between that row and the row designated by that superscript letter. Statistical significance is determined inside the specific section covering each demographic trait.

78%
of teens have cellphones

Number of text messages sent/received per day by different groups

(among teens who text)

	Mean	Median
All teen text messaging users	167	60
Gender		
Men	168	50
Women	165	90
Age		
12-13	122	30
14-17	181	100
Gender/Age		
Girls 12-13	116	35
Boys 12-13	131	20
Girls 14-17	187	100
Boys 14-17	176	50
Race/Ethnicity		
White, non-Hispanic	149	50
Black, non-Hispanic	186	80
Hispanic	202	100
Household Income		
Less than \$30,000	212	100
\$30,000-\$49,999	162	60
\$50,000-\$74,999	128	50
\$75,000+	171	50
Parent Education level		
Less than high school	188	100
High School diploma	190	100
Some College	171	50
College+	135	50

Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Teen/Parent Survey. n=799 teens ages 12-17 and a parent or guardian. Interviews were conducted in English and Spanish, on landlines and cell phones.

60

median texts per day

100

median texts per day
girls 14-17

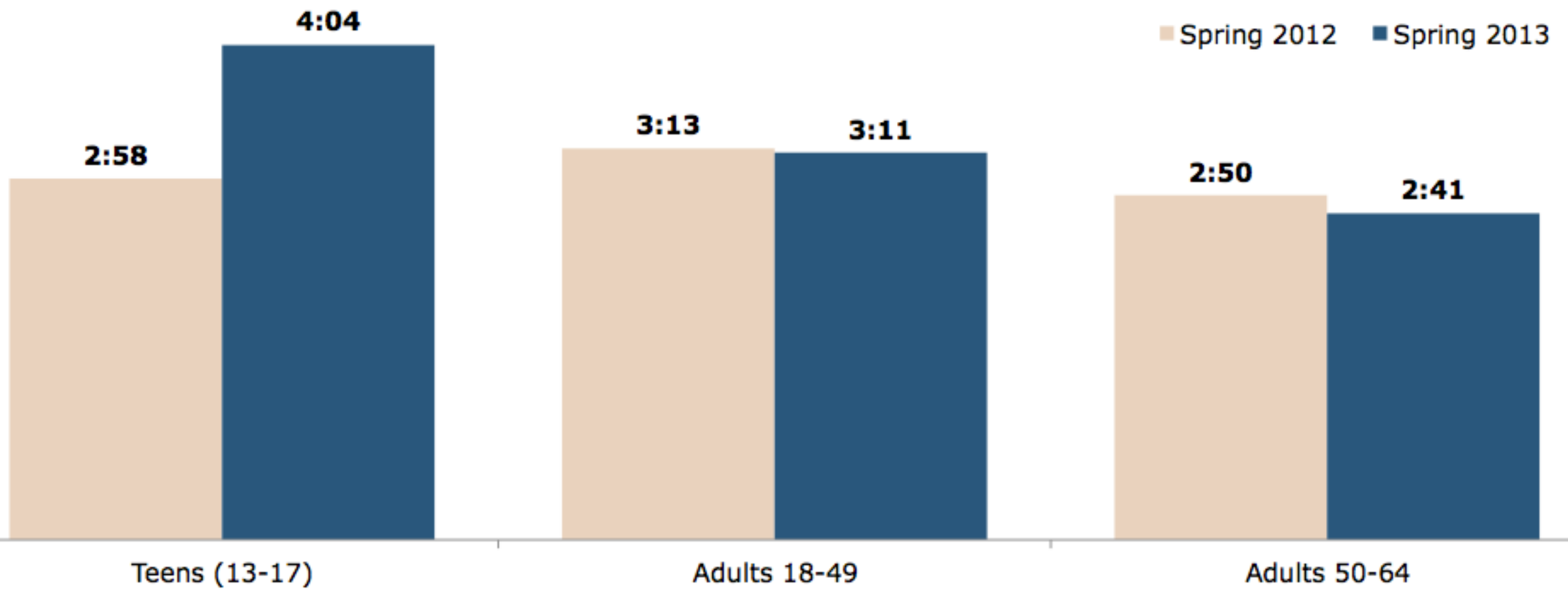
50

median texts per day
boys 14-17

Daily Time Spent Online, by Age Bracket

hours: minutes, among Americans aged 13-64

2013 vs. 2012



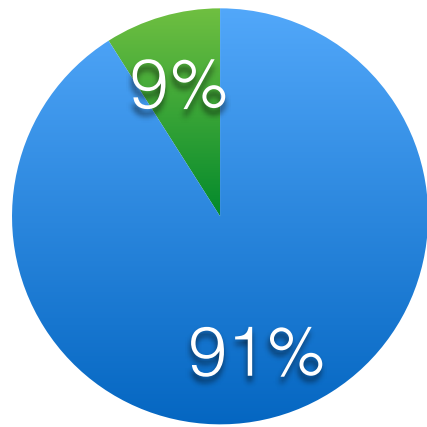
Search

Choose your privacy settings

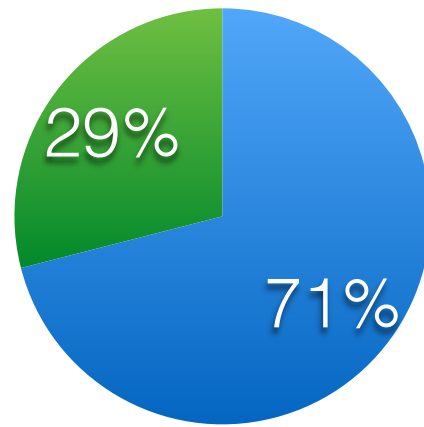
Adolescents and Online Privacy

Connecting on Facebook

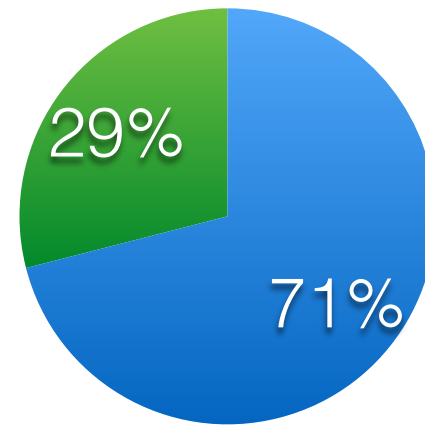
Control basic information your friends will use



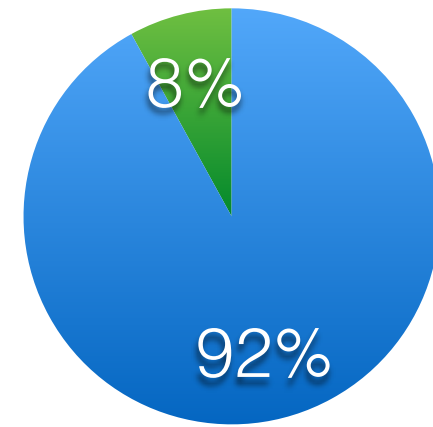
selfie



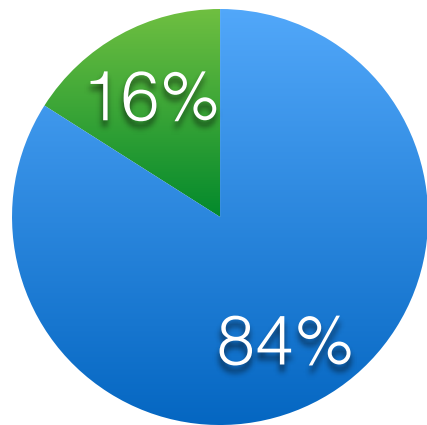
school



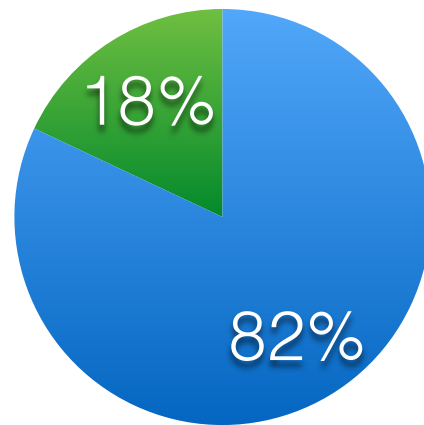
city/town



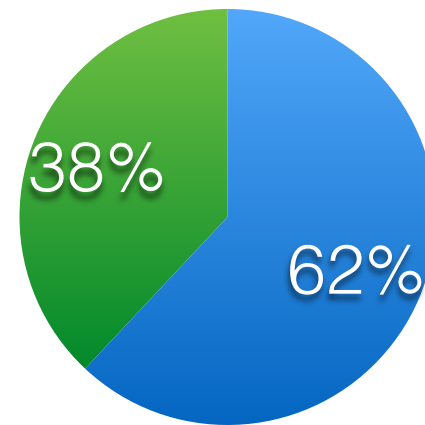
real name



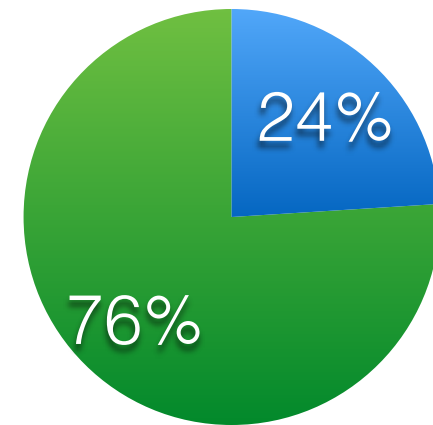
interests



birthday

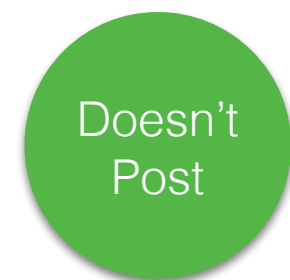
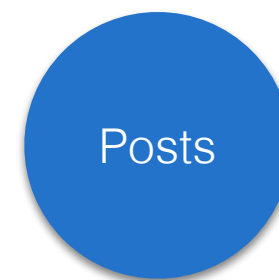


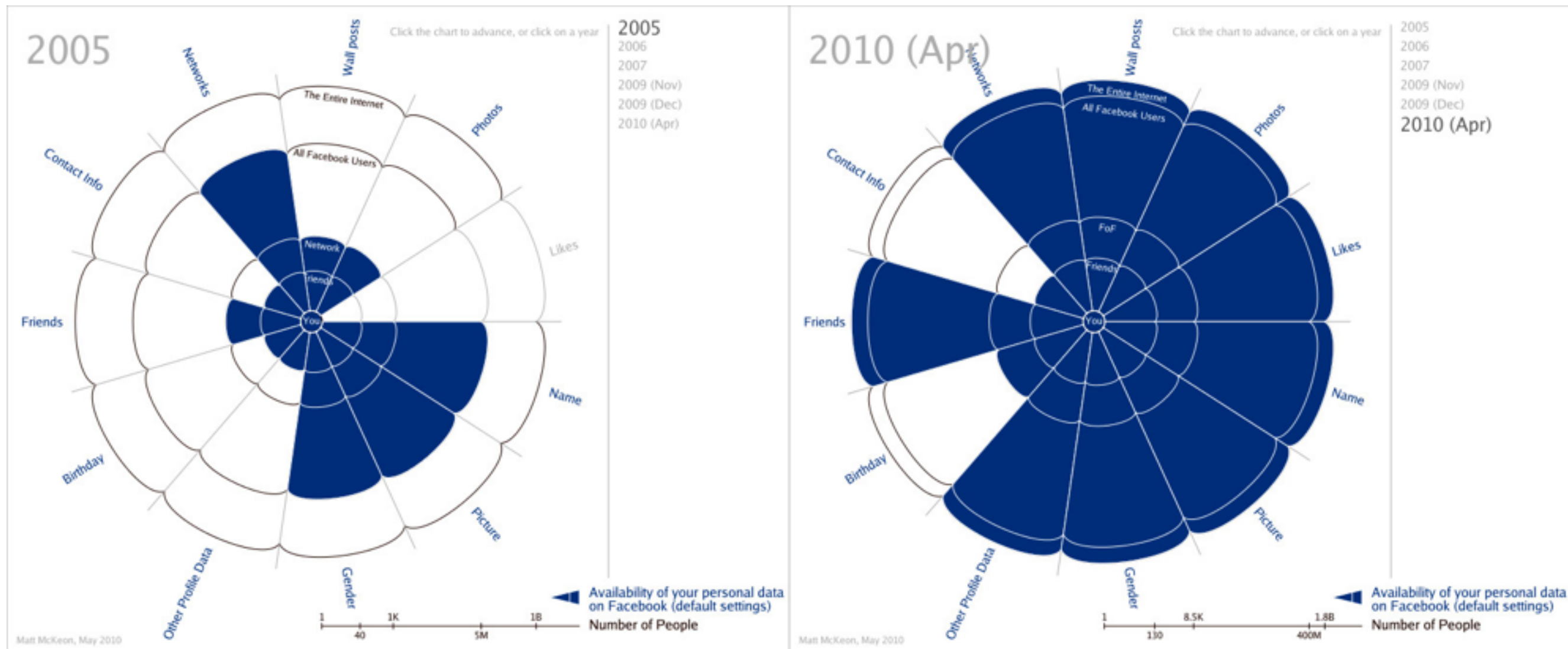
relationship status



self videos

Teens & Privacy





Facebook Default Privacy Settings Exposure Over Time

Female (age 14): “I think I wouldn’t [become Facebook friends with my teachers]. Just because **I’m such a different person online. I’m more free.** And obviously, I care about certain things, but I’m going to post what I want. I wouldn’t necessarily post anything bad that I wouldn’t want them to see, but it would just be different. And I feel like in the classroom, I’m more professional [at] school. I’m not going to scream across the room oh my God, I want to dance! Or stuff like that. So I feel if they saw my Facebook they would think differently of me. And that would probably be kind of uncomfortable. So I probably would not be friends with them.”

note: emphasis added

Teens & Online Identity

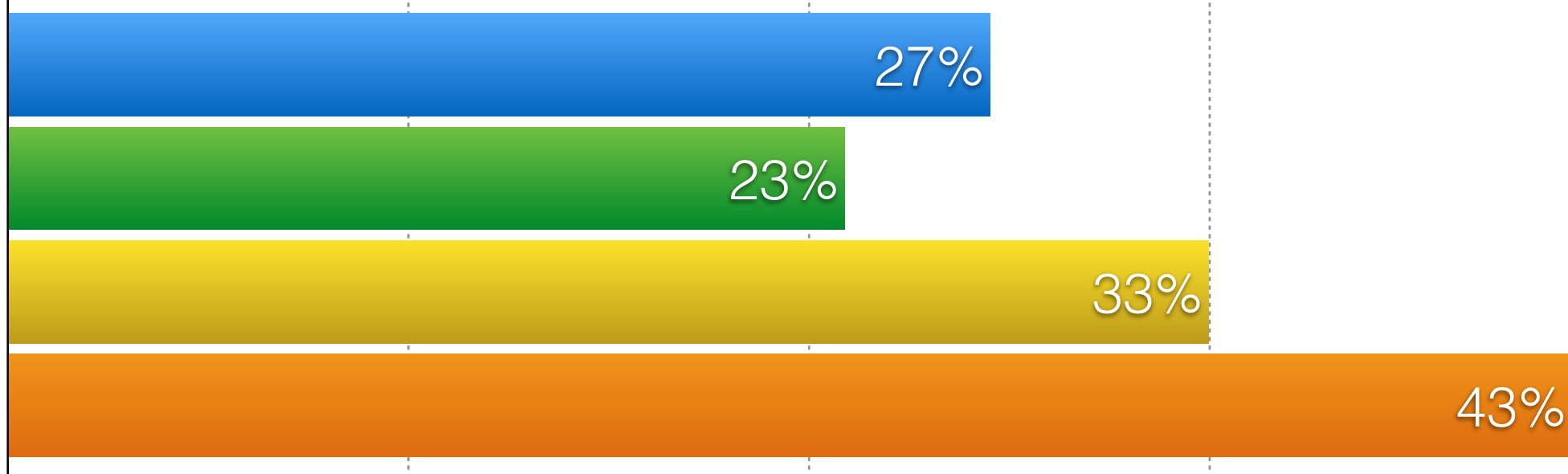


■ Total Adults ■ Female Adults ■ Male Adults ■ Teens

Feel more comfortable sharing information online than in person



Have different personality online than in person



Female, age 14 — “I think Facebook can be fun, but also it’s drama central. On Facebook, people imply things and say things, even just by a like, that they wouldn’t say in real life.”

Impact

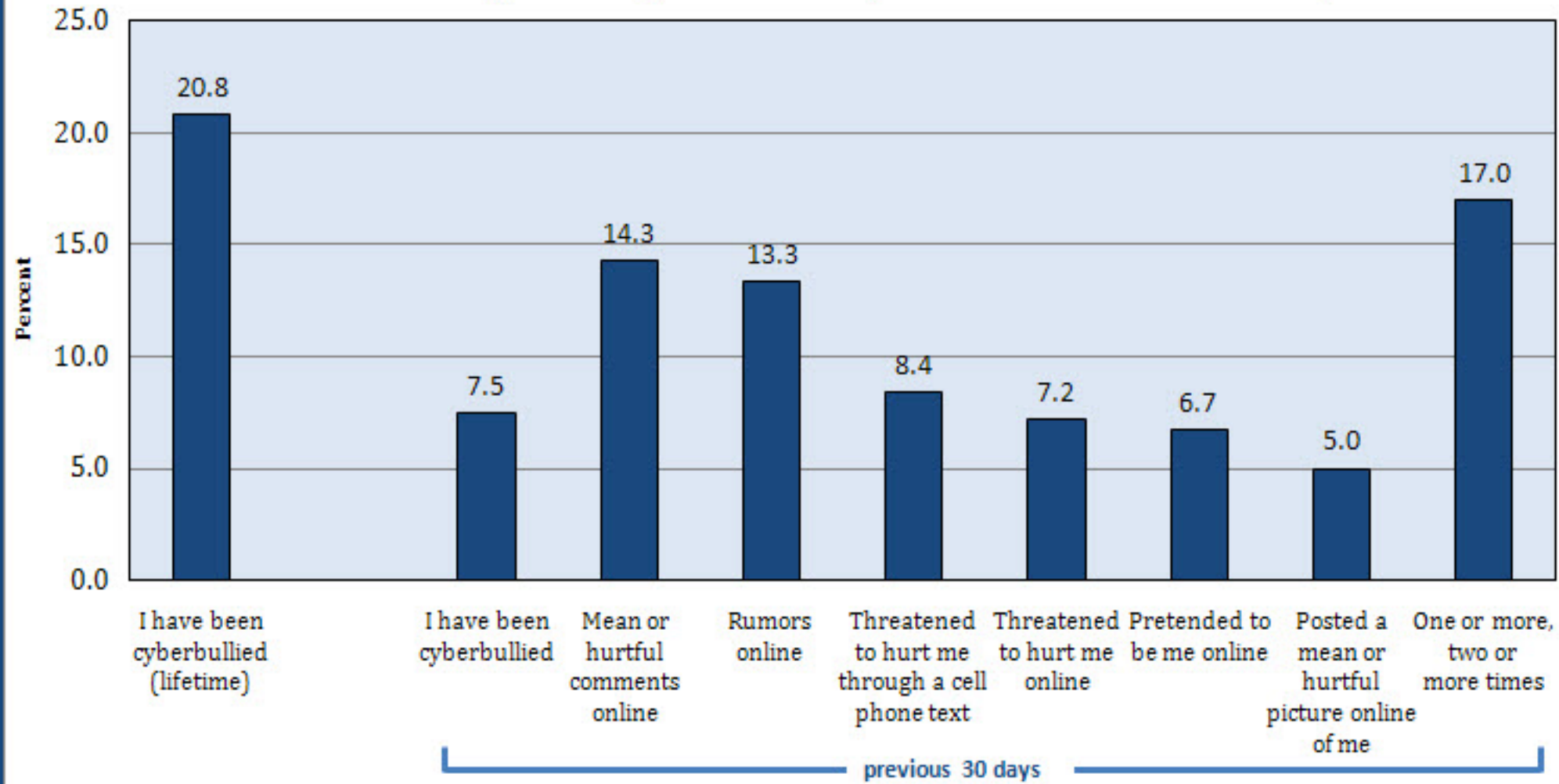


Sameer Hinduja and Justin W. Patchin (2010)

Cyberbullying Victimization

N=4441

Random sample of 10-18 year-olds from large school district in the southern U.S.)

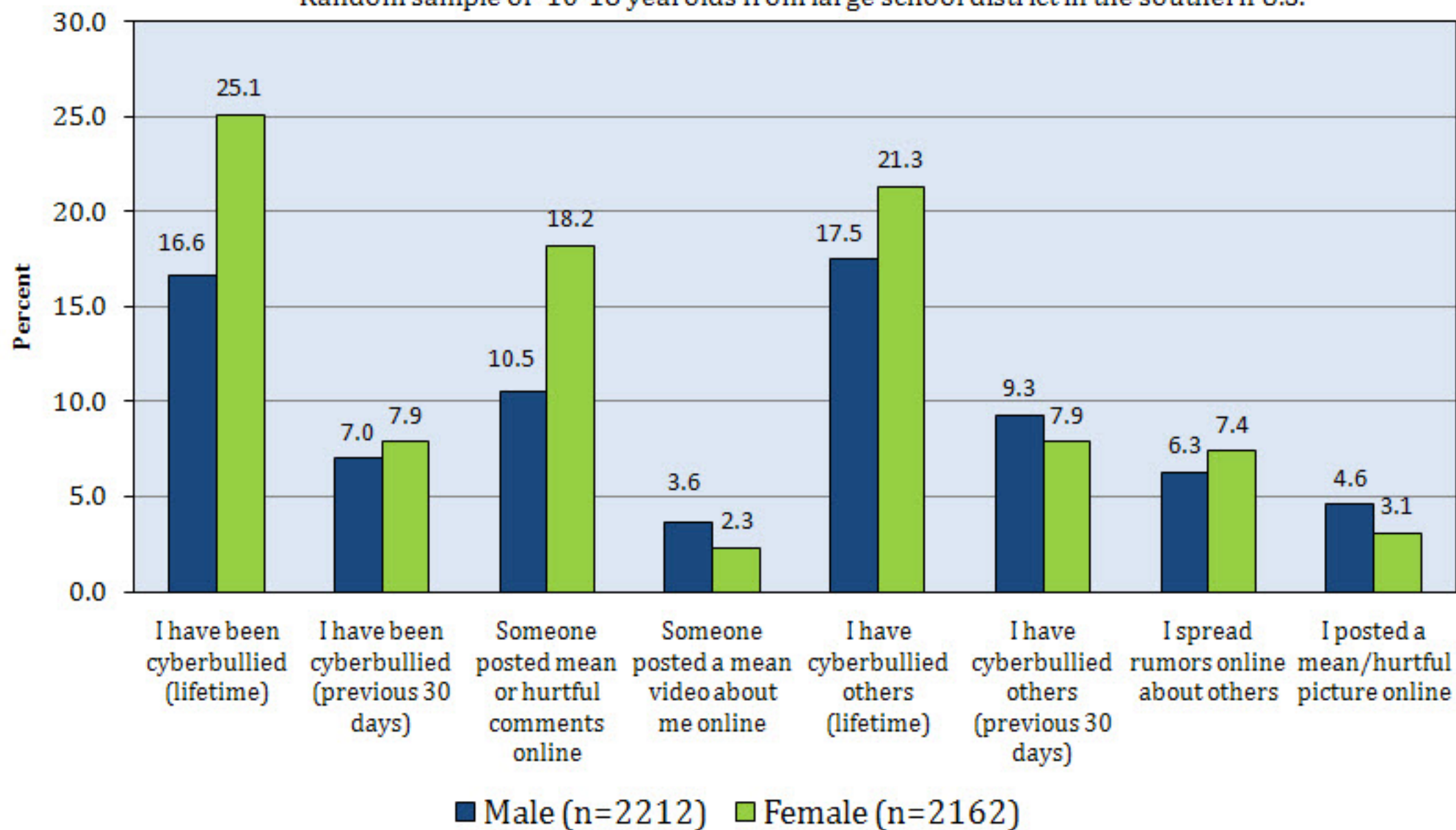


Cyberbullying Research Center
www.cyberbullying.us

Sameer Hinduja and Justin W. Patchin (2010)

Cyberbullying by Gender

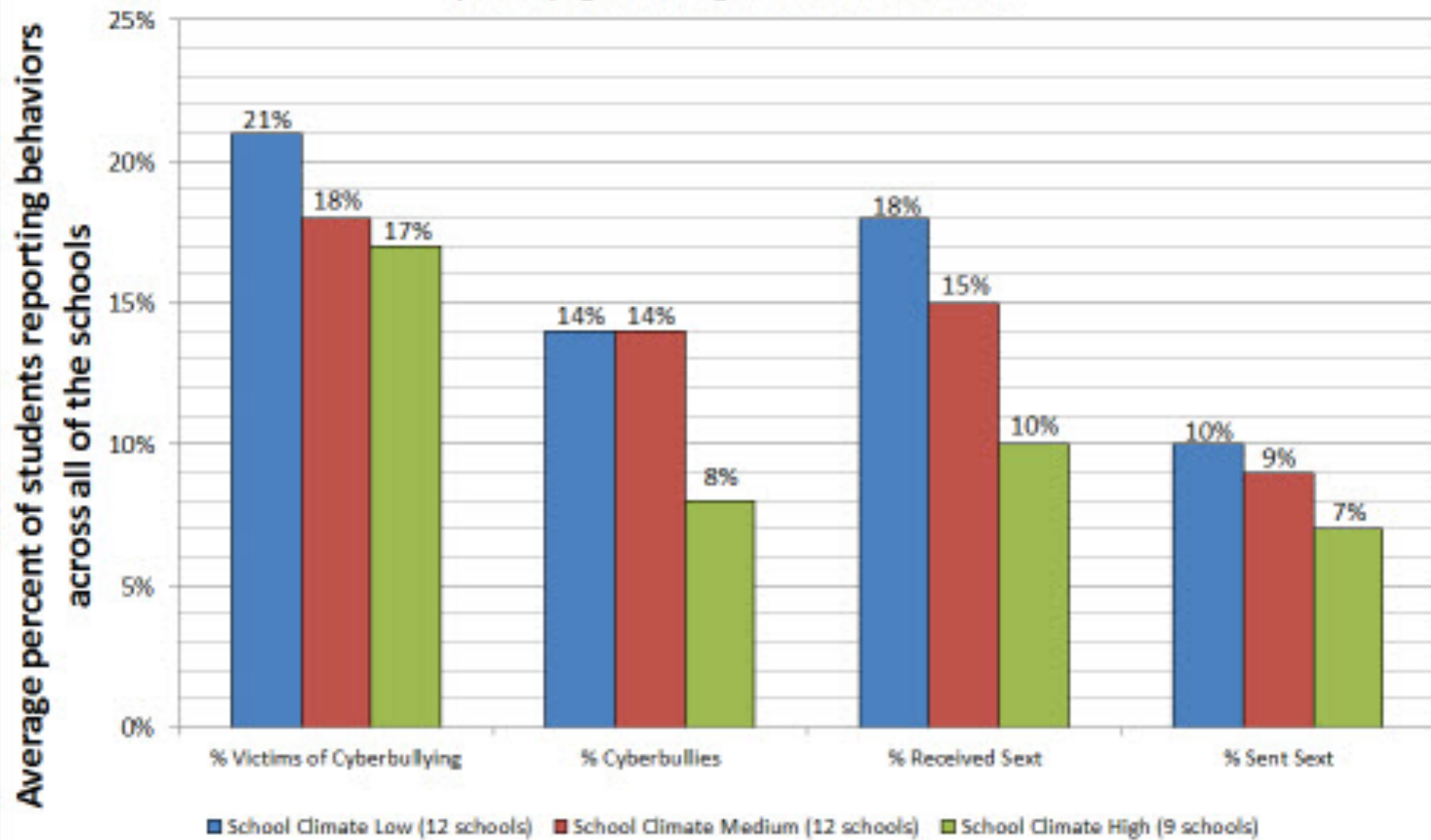
Random sample of 10-18 yearolds from large school district in the southern U.S.



Cyberbullying Reseach Center
www.cyberbullying.us

Table 1. School Climate and Online Problem Behaviors

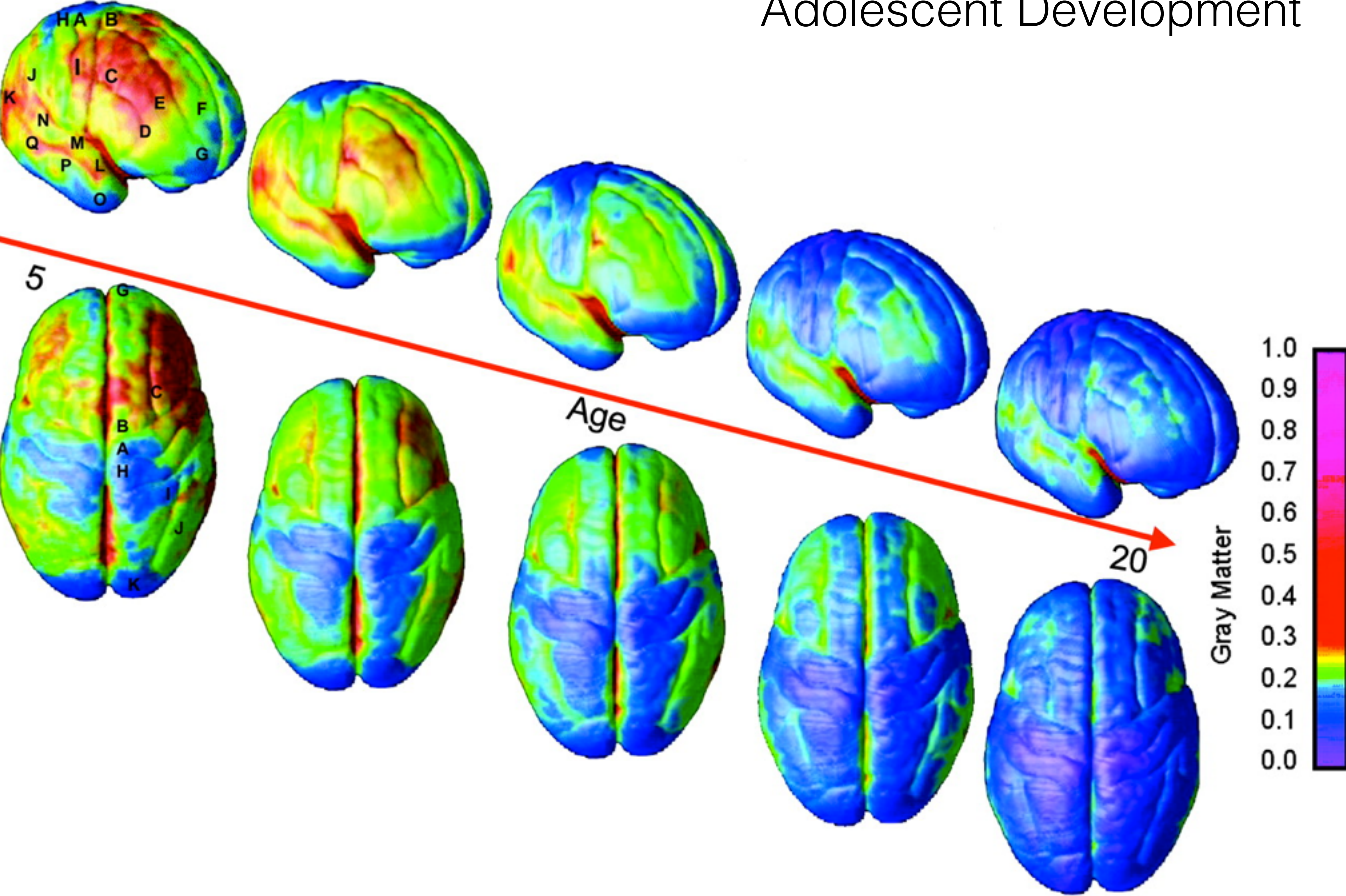
Hinduja & Patchin (2012). *School Climate 2.0: Preventing Cyberbullying and Sexting One Classroom at a Time.*



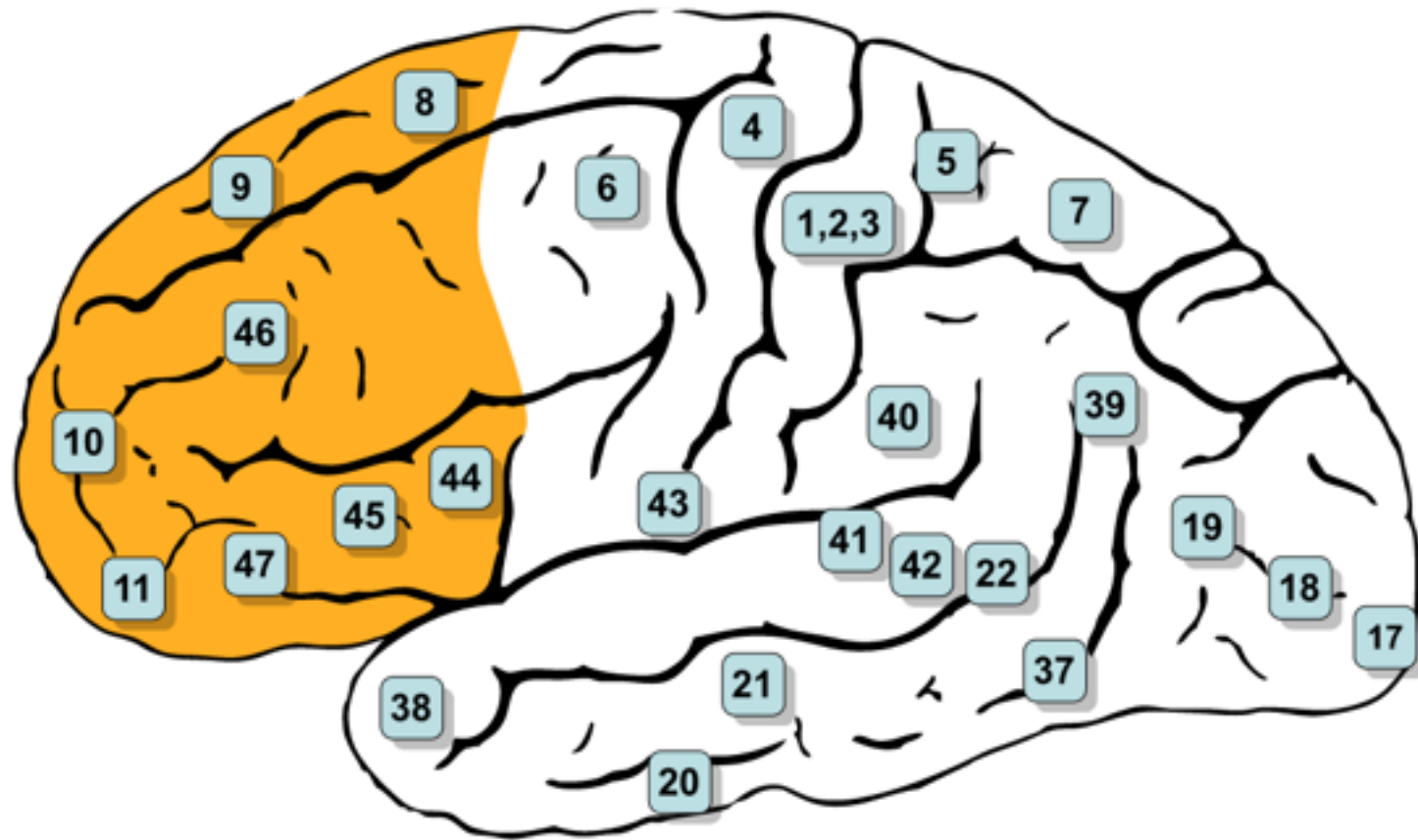
Note: low, medium, and high school climate scores are only relative to this particular sample.

On a scale that ranges from 0-3, the average score for each category was: low (1.55), medium (1.71), and high (1.90).

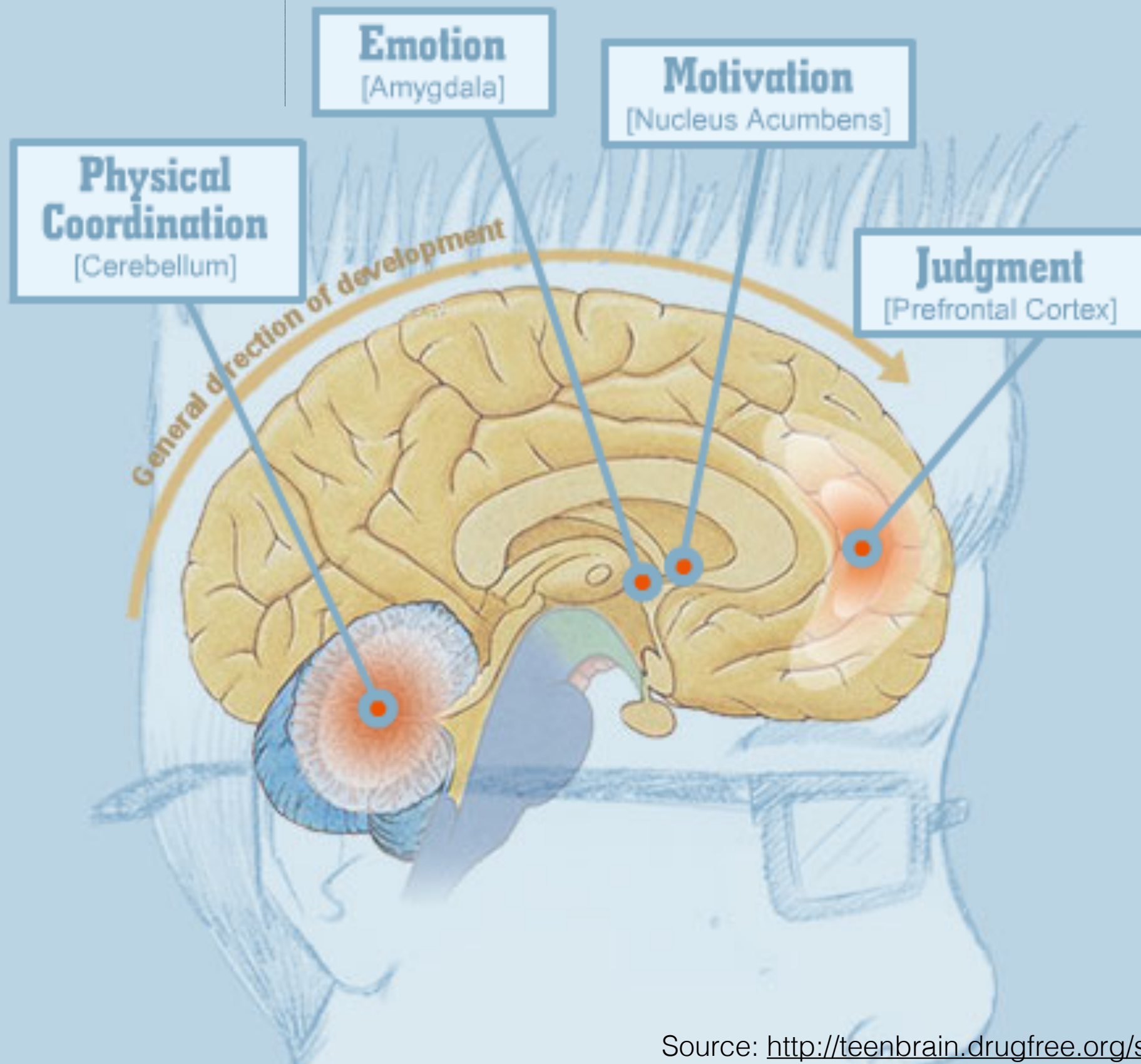
Adolescent Development



Prefrontal Cortex

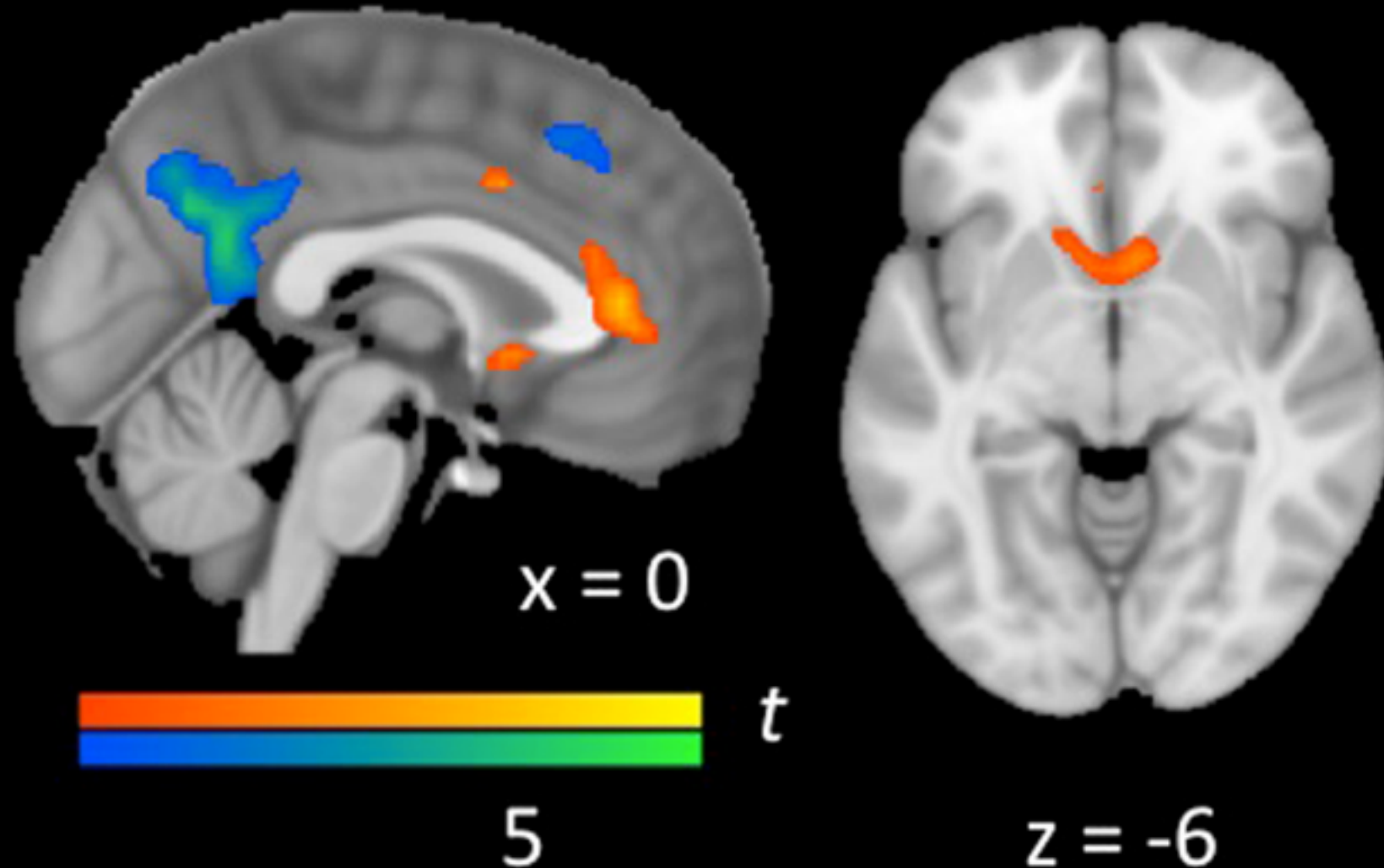


- Represent information not currently in the environment (Goldman-Rakic 1996)
- Provides “dynamic filtering” of external stimuli (Shimamura 2000)
- Cognitive control of actions (Miller & Cohen 2001)
- Creating “exemplars” in order to categorize inputs based on past experience (Schacter, et. al. 2011)



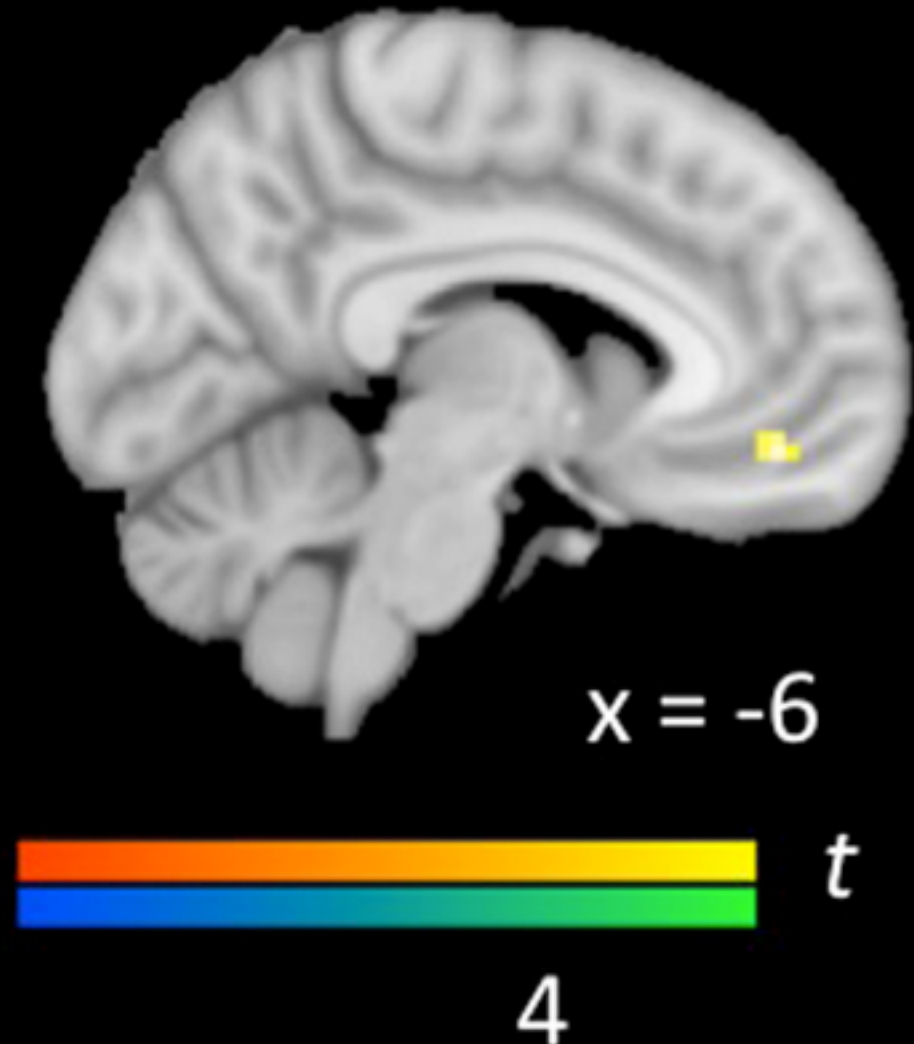
Self > Other and Other > Self

Stable over Time



Self > Other

Increase over Time



"Neural changes in the social domain were more robust. Increased responses in this one region of the brain from age 10 to 13 were very evident in social self-evaluations, but not academic ones. This pattern is consistent with the enormous importance that most children entering adolescence place on their peer relationships and social status, compared to the relatively diminished value often associated with academics during this transition."

“ During adolescence, it is likely that peer interactions and societal influences as well as genetically determined hormonal milieu influence social behaviour...Our data suggest that, prior to adolescence, children are less efficient and have a less systematic style of processing the emotional perspectives of other people.”

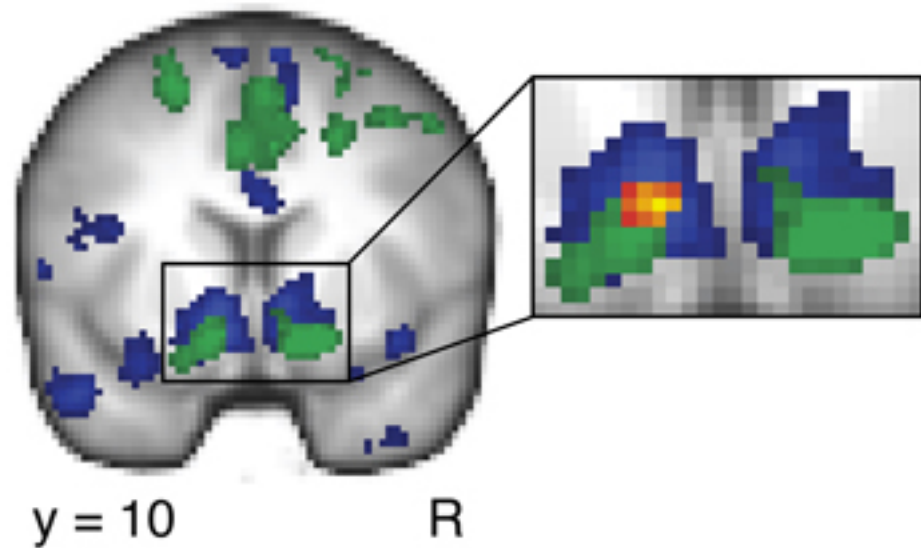
You are not allowed to go to your best friend's party.

How do you feel?

A girl is not allowed to go to her best friend's party.

How does she feel?

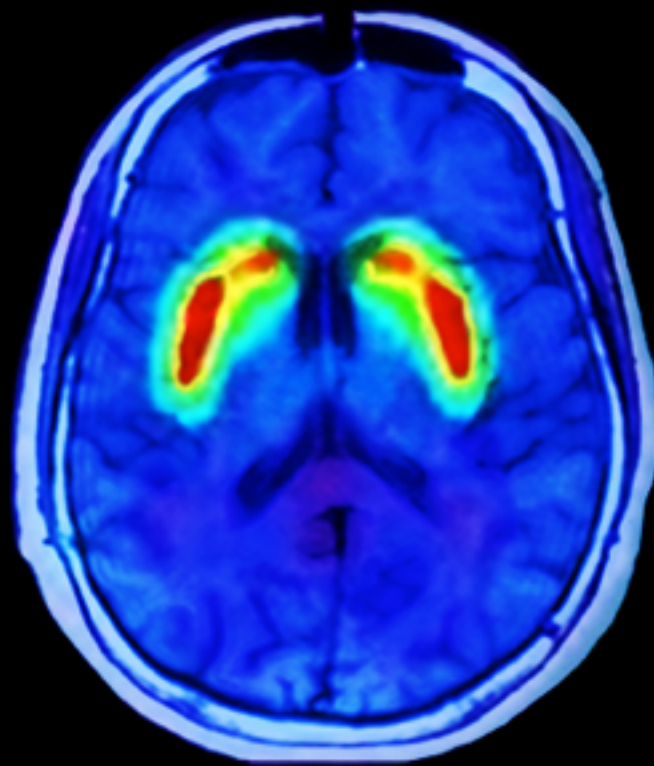




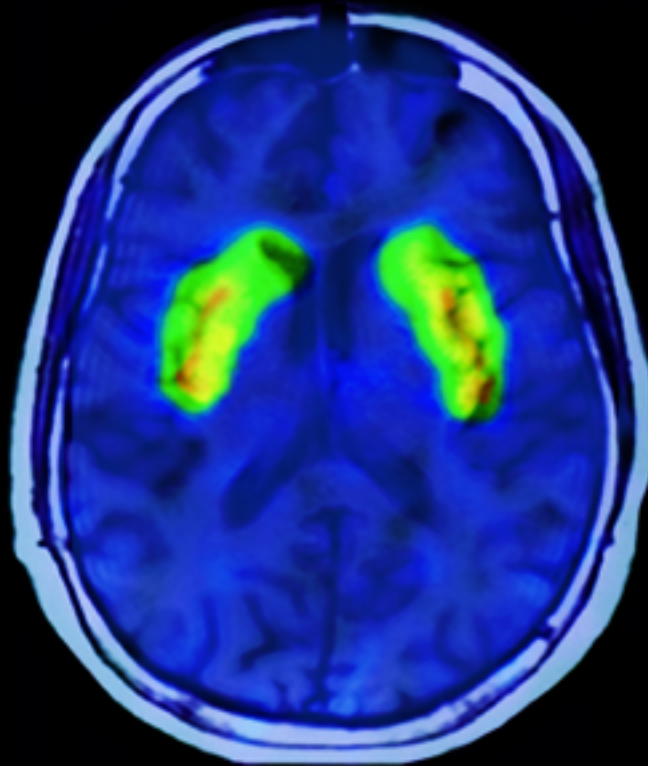
“We found that we could predict the intensity of people’s Facebook use outside the scanner by looking at their brain’s response to positive social feedback inside the scanner.”

Meshi 2013

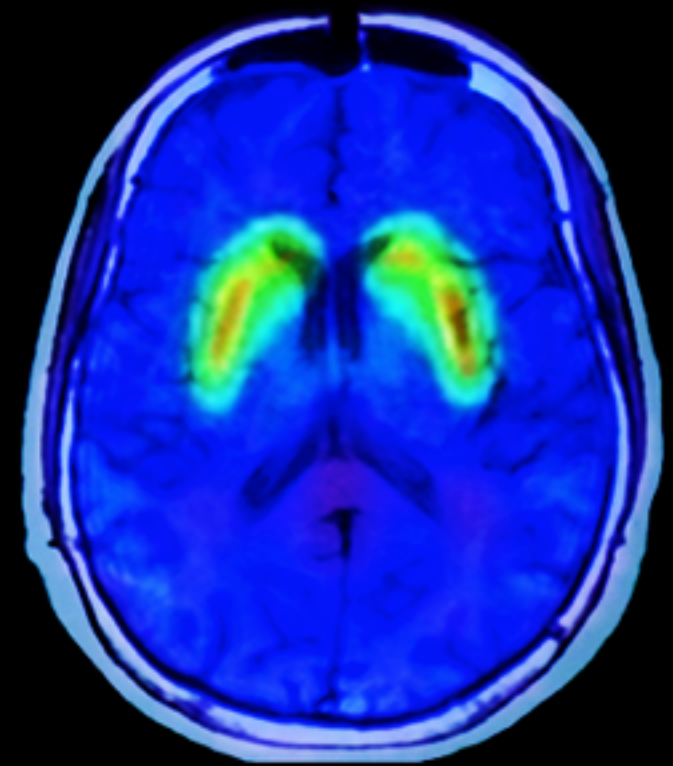
Normal

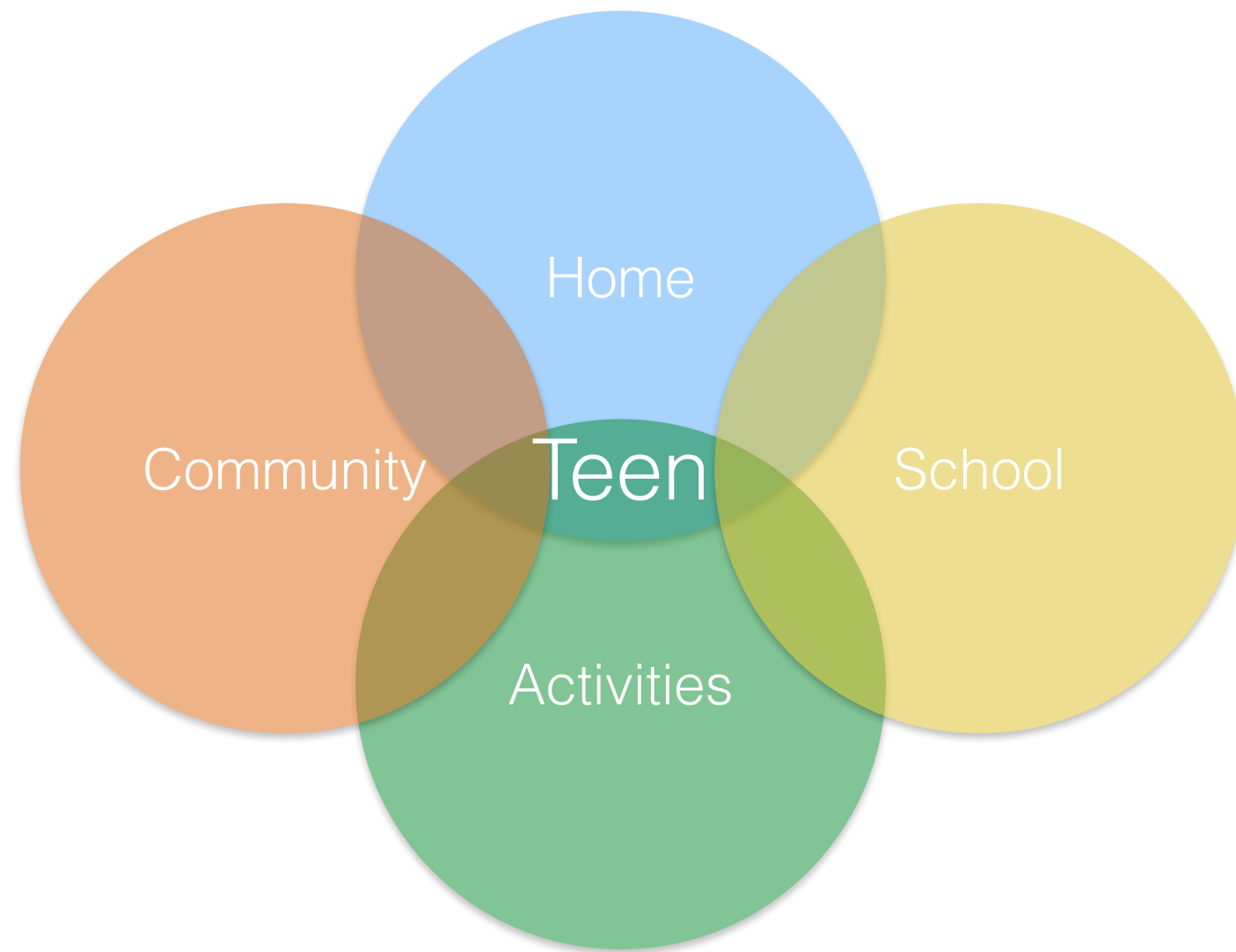


Cocaine



Obese





Female (age 16): “I deleted it [my Facebook account] when I was 15, because I think it [Facebook] was just too much for me with all the gossip and all the cliques and how it was so important to be– have so many friends– I was just like it’s too stressful to have a Facebook, if that’s what it has to take to stay in contact with just a little people. It was just too strong, so I just deleted it. And I’ve been great ever since.”