

2017

THE COMMON SENSE CENSUS: MEDIA USE BY KIDS AGE ZERO TO EIGHT

Common Sense is a nonprofit, nonpartisan organization dedicated to improving the lives of kids, families, and educators by providing the trustworthy information, education, and independent voice they need to thrive in a world of media and technology.

Our independent research is designed to provide parents, educators, health organizations, and policymakers with reliable, independent data on children's use of media and technology and the impact it has on their physical, emotional, social, and intellectual development. For more information, visit [**www.commonsense.org/research**](http://www.commonsense.org/research).

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EXECUTIVE SUMMARY

Opening Letter	4
Essays	6
Jenny Radesky: Taking Advantage of Real Opportunities to Help Families Overwhelmed by Technology	6
Michael H. Levine: M Is for Mobile	6
Julián Castro: A Narrowing but Still Troubling Divide	8
At a Glance: Evolution of Kids' Media Use 2011-2017	9
Introduction.	11
Methodology	12
Survey Sample	12
Media Definitions	12
Demographic Definitions	13
Presentation of Data in the Text	13
Key Findings	15
Conclusion	29
Board of Directors	30
Board of Advisors	30

To access the full research report, visit www.commonsense.org/zero-to-eight-census

At Common Sense, our mission has always been to help families navigate the vast and ever-changing landscape of media and technology. To do this effectively, we have always focused on understanding the underlying attitudes and behaviors of parents and kids, as we believe that facts, consistently gathered, are vital to a productive dialogue. Before we can begin to understand the impact of media and technology on kids and families, we have to better understand their attitudes and behaviors. And before we can begin to discuss how to best leverage media and technology for educational and social goals, it is essential to know which platforms kids prefer to use and what they like to do on those platforms.

So in 2011, we embarked on our first Zero to Eight project in an endeavor to understand the patterns of media use among children in America. Today, we are grateful to be able to continue along the journey we started six years ago with our third Zero to Eight study, which gives us critical data tracking the incredible and far-reaching presence that devices and media have in the lives of our youngest population.

We have leveraged the data from our Zero to Eight research to shape and inform much of our work over the past six years. When our data showed that children gravitate toward mobile apps, streaming media, and online video, we dedicated more resources to reviews, advice, and articles focused on those types of media. And as research shows the ubiquity of media and tech in family life, we've created initiatives to help families have meaningful conversations about their digital lives. We've also ramped up our reviews and ratings for educators in order to help teachers and administrators be informed about the most up-to-date educational technologies in classrooms. And we've developed a digital citizenship curriculum to help children become safe, productive, and critical consumers of all types of media.

Our findings have also fueled our advocacy efforts. Our agenda, from children's privacy to universal access to high-quality early-learning programs, stems from the concerns parents relay to us in our research. Today, we're thrilled to be able to build on the foundations of our prior research with this third Zero to Eight report, which is full of facts on current and emerging trends.

Facts are both intriguing and essential to progress. They have the power to open our eyes and disabuse us of stereotypes. We were surprised, for example, to find out that children overwhelmingly prefer paper books over digital. Of the 29 minutes children spend reading each day, just three minutes occur on electronic devices. The rest are spent with old-fashioned printed books, debunking the notion that children want to do everything on a screen.

Other significant data on children's media use in this report include:

- Kids age 8 and under spend an average of **2 hours and 19 minutes a day with screen media**, roughly the same as in prior years. Where they spend that time, however, has changed dramatically.
- TV is still king, commanding 58 minutes a day of kids' attention this year. But **mobile is rapidly gaining ground**, rising from 5 minutes a day in 2011 to 15 minutes in 2013 and now to 48 minutes a day in 2017. Meanwhile, time spent watching TV declined 11 minutes over the same period.
- More families now subscribe to **streaming video services** such as Netflix and Hulu than pay for cable TV.
- **Virtual reality headsets and voice-activated assistant devices** are starting to make inroads. These technologies can be found in roughly one in 10 homes with young children.
- Lower-income families continue to lag higher-income counterparts in internet and computer access. The gap in home computer access is 25 percentage points, while the gap in high-speed internet access at home is 24 percentage points, demonstrating that **although the digital divide has narrowed, it remains an issue.**

Common Sense's Zero to Eight studies represent an essential view into the media habits of children in the United States. Because our questions and methodologies have remained consistent, we are able to offer statistically reliable data on how media use among children has changed from 2011 to the present as technology has evolved.

There is another revelation that came with the Zero to Eight initiative: We realized that we were not the only ones who needed this data. Since we published our second Zero to Eight study in 2013, the research has been cited more than 3,200 times by hundreds of media outlets, including the New York Times, the Christian Science Monitor, the Washington Post, the Los Angeles Times, National Public Radio, CNN, Forbes, and Parents magazine. The study has also been cited by authors in more than 300 scientific journals, including Pediatrics and Child Development, both flagship journals of their respective organizations.

That in turn has helped inform parents, educators, policymakers, pediatricians, and media creators as they make decisions about important matters affecting children, such as what types of educational media to produce and how much screen time to recommend.

We hope the research presented in this report will serve as a compass and inspiration as we all navigate the continually shifting technology landscape and strive to improve the quality of children's media, help families achieve a healthy and balanced approach to media, and teach our children to be critical thinkers wherever they encounter media.



James P. Steyer
Founder and Chief Executive
Officer, Common Sense



Reveta Franklin Bowers
Chair, Common Sense
Board of Directors

TAKING ADVANTAGE OF REAL OPPORTUNITIES TO HELP FAMILIES OVERWHELMED BY TECHNOLOGY

By Jenny Radesky

The findings from the 2017 Common Sense Zero to Eight Census tell me that we have a long way to go in helping parents feel comfortable navigating the flood of new technologies in their homes. Ownership of smartphones, tablets, and new technologies like virtual reality and virtual assistants continues to rise—which, in my research, parents describe as both a huge source of pleasure, but incredibly overwhelming too. Even though the overall time of screen media use is unchanged, the *nature* and *experience* of media use are different: Mobile device use is more individual, immersive, and on-demand, and it influences interpersonal dynamics differently and can be harder to break yourself (or your child) away from. For these reasons, parents describe it as more difficult to mediate and manage. My lower-income patients' parents with lower digital literacy describe being particularly unsure how best to support their kids' digital lives.

Pediatricians see ourselves as child advocates—it's part of our training. So when we see parents and children feeling overwhelmed or engaging in heavy or inappropriate media use in the context of obesity, sleep problems, executive functioning, or strained relationships—behaviors that determine life course, health, emotional wellness, and productivity—we want to help. While our 2016 media guidelines were designed to be more family-centered and action-oriented, the Zero to Eight findings tell us that these messages are not reaching the majority of parents, especially the families facing more stress and adversity. But there's lots of interest, which gives us a huge opportunity to meet families where they are! I'm hopeful that resources like the AAP guidelines and those provided by Common Sense Media can start to reach families through outreach not only in pediatric clinics, but also environments such as schools, birth-to-three or home-visiting programs, and early education centers. By

M IS FOR MOBILE

By Michael H. Levine

You may have heard that *Sesame Street*'s beloved Cookie Monster has learned some valuable lessons in delaying his gratification and eating right. He now knows that his favorite chocolate chip treat is a "sometime food," part of a balanced diet of fruits, vegetables, and the occasional hubcap!

The same is true of children's media diets. Some experiences may constitute "empty" calories that should certainly be limited, while others that are proven to be educational, like *Sesame Street*, are more substantive staples. But parents and educators cannot know what "balanced" means if they don't have an understanding of how kids are actually spending their time with media. Thanks to Common Sense's Zero to Eight research initiative, we have a precise record of how much time kids spend on various types of media. We know what devices and platforms they're using. We know the types of activities they engage in. And we know how those patterns have changed over time.

This year's report contains a treasure trove of important findings. For me, the key one is the very rapid rise of mobile vis-a-vis other media, regardless of family income. In itself, mobile usage among young children is not a new phenomenon; our own research at the Joan Ganz Cooney Center at Sesame Workshop has been documenting this trend since the introduction of the iPhone a decade ago. What is *most* interesting is the significant narrowing of the "app gap" as mobile device ownership has become more universal. And as this report documents, mobile is certainly here to stay. Children now spend 48 minutes a day on mobile devices. That's a very substantial increase from just four years ago, when the daily average was 15 minutes!

The big question now: Can well-designed mobile media promote the type of parent-child "serve and return" dialogue that we know is so important to learning in the first few years of life? How can parents and educators ensure their children are engaging with well-designed, next-generation technologies as part of their balanced digital diet? We raised this concern nearly 10 years ago in a pioneering survey jointly conducted by the Cooney Center and Common Sense Media about the role of digital media in children's lives. The question remains

embedding practical (e.g., where to look for good TV programs; how to handle a screen transition tantrum) and conceptual (e.g., how to teach a child to use media as a tool, and not be consumed by it) guidance in the contexts in which children live, we have the potential to be much more helpful to families in the distinct ways in which media integrates into families' lives.

We will also need the tech industry's support to help empower parents to use media the way that feels right for their family. The high rates of media use at bedtime is a great example. In my experience and that of my sleep specialist colleagues, changing bedtime media habits is exceedingly tough. All the motivational interviewing and behavioral charts in the world can't change some families' use of tech at night. In addition to putting the onus on parents, pediatricians and media scholars should continue to work with industry to embed design features (e.g., bedtime Wi-Fi shutoffs or filters that only allow relaxation apps before bed) that will ease the job for parents and children who find it hard to regulate their own technology use. For the sake of child sleep, health, and family balance, it's time to rethink user engagement as the primary goal of child technology design.



Dr. Jenny Radesky authored the 2016 American Academy of Pediatrics policy statement "Media and Young Minds." She received her M.D. from Harvard Medical School and completed pediatric training at University of Washington and subspecialty training in Developmental Behavioral Pediatrics at Boston Medical Center. She is an assistant professor of pediatrics at University of Michigan, where her focus is digital media use by young children and their parents, child self-regulation, and parent-child interaction. Clinically, she works with children with developmental differences such as autism spectrum disorder, ADHD, and self-regulation problems, with an emphasis on family advocacy and psychosocial stress.

as relevant now as it has ever been, with technology continuing to morph at breakneck speeds.

The Cooney Center's recent research suggests that many parents—particularly those with lower household incomes—may not feel confident with technology themselves, nor do they have the mentoring and support to find or use the highest-quality content with their children to maximum advantage. And while the Zero to Eight report suggests that young children are increasingly facile in operating mobile technologies, we don't know yet how to best drive educational and home-based practices to extend learning and development outside of the screen. New programs that support trusted media mentors such as librarians and that offer professional development on the effective use of digital media for early educators are now very much needed.

Grounded in the reality of what children are doing every day, the data contained in this report will stimulate an important debate around many important questions. Today's increasingly mobile families have a real opportunity to tap the potential of media to help establish a foundation for lifelong learning and success.



Michael H. Levine is the founding executive director of the Joan Ganz Cooney Center at Sesame Workshop. The center conducts research, builds multisector alliances, and catalyzes industry and policy reforms needed to advance high-quality media experiences for all children. Michael also serves on the executive team at Sesame Workshop, where he focuses on educational impact and partnerships for the global nonprofit.

A NARROWING BUT STILL TROUBLING DIVIDE

By Julián Castro

The latest Zero to Eight report reveals that the digital divide has narrowed considerably in the past few years. This news should make me ecstatic. Instead, I confess that when it comes to this topic, I tend to see the glass as half—or at least one-quarter—empty.

Today, 74 percent of lower-income families with children age 0 to 8 have high-speed internet service at home, compared with 96 percent of higher-income families. In 2011, only 42 percent of lower-income families had broadband access at home, versus 92 percent of higher-income families.

Although the digital gap between rich and poor is smaller, I still see this as evidence of a tragically missed opportunity. These numbers tell me there are still millions of children who don't have computers or broadband at home, a problem that has led to a new term, called the Homework Gap. As school curricula increasingly shift to online educational portals, the lack of reliable broadband access to those resources at home is a crippling disadvantage, setting back even the most motivated learners.

All parents want their children to succeed on a level playing field. As the father of two young children, I'm no different. I want my kids to have the opportunity to fully contribute to the advancement of whatever profession they choose, whether it's the arts, science, or public service. If everyone in America has the opportunity to reach for their maximum potential, our whole country will prosper.

There is a strong, positive correlation between a country's broadband penetration rate and how well-off its people are. A 10 percentage-point increase in broadband adoption correlates to a \$13,036 increase in GDP per capita, according to the World Bank's *World Development Report 2016: Digital Dividends*. Although the report is careful to note that there may not be direct causation, it points to "mutual feedback between the economy and factors that influence it."

That is one reason why I, and Common Sense, have strongly supported policy initiatives to expand access to affordable broadband, with federal programs such as ConnectHome and Lifeline, which help low-income families secure broadband at home, and E-rate, which gives schools and libraries access to discounted internet access. As long as the digital divide persists, our nation's ability to compete in the 21st-century global economy is crippled. I urge local, state, and federal policymakers to use the data in this report to mobilize the resources, both public and private, to ensure every member of our society can contribute to his or her fullest. We all have an interest in closing this divide.

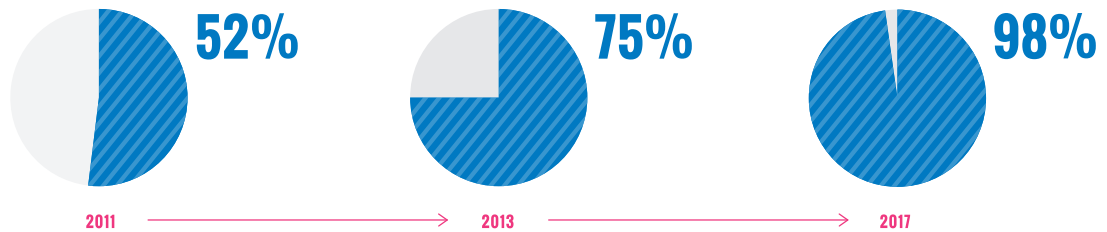


Julián Castro served as mayor of San Antonio from 2009-2014. He was appointed U.S. Secretary of Housing and Urban Development in 2014 and spearheaded the ConnectHome initiative to bring low-cost broadband to low-income families with school-age children. Since the program's launch in 2015 in 27 U.S. cities and one tribal nation, 37 percent of HUD-assisted households with children in these communities have gained internet access. Secretary Castro has two kids, an 8-year-old daughter and a 2-year-old son.

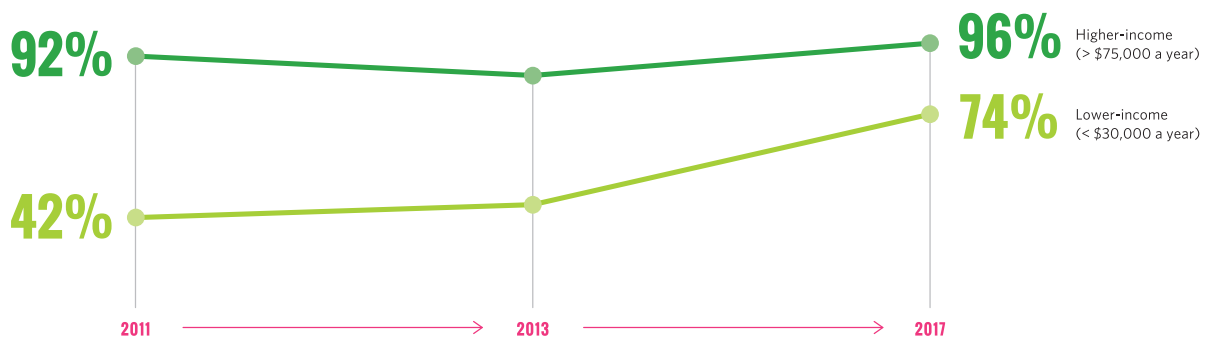
EVOLUTION OF MEDIA USE BY KIDS AGE 8 AND UNDER 2011-2017



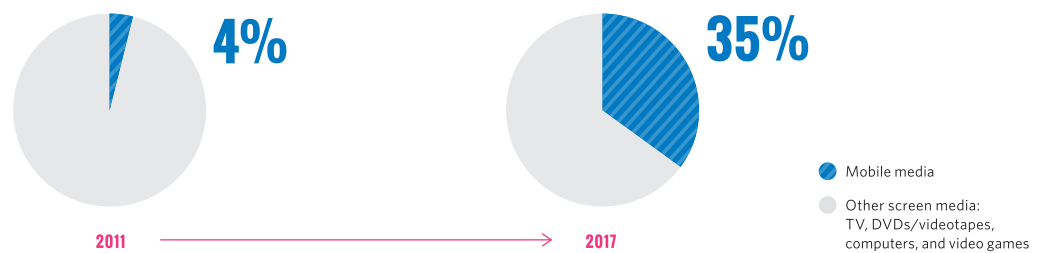
Mobile is universal. Among 0- to 8-year-olds, percent of homes with a mobile device



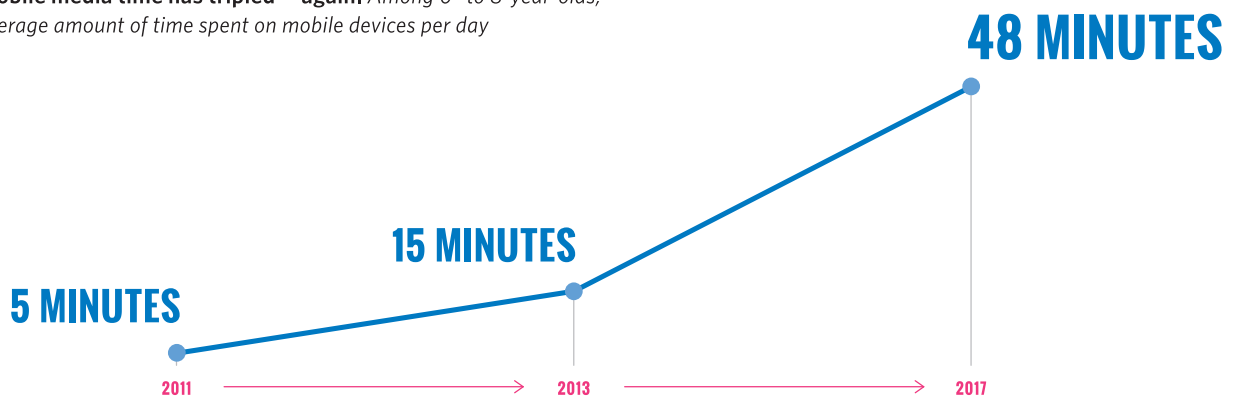
The digital divide has narrowed, but remains an issue. Among 0- to 8-year-olds, percent of homes with high-speed internet access



A third of all screen time is mobile. Among 0- to 8-year-olds, proportion of total screen time that is mobile



Mobile media time has tripled — again. Among 0- to 8-year-olds, average amount of time spent on mobile devices per day





INTRODUCTION

This report describes the results of a unique national study — the third in a series of nationally representative, probability-based surveys documenting media-use patterns among children from birth to age 8 in America. The 2017 survey includes a representative sample of more than 1,400 parents from all regions of the country, from low- and high-income families, including parents who never graduated from high school and those who hold doctorates, and representing diverse racial and ethnic backgrounds. Combined with the results from the two earlier waves of the survey, in 2011 and 2013, the data offer an unprecedented opportunity to see how children’s use of media has evolved over time as new technologies and new forms of content have been introduced.

Media have become such a central part of children’s lives that understanding which media activities children are engaged in, for how long, and in what context is essential knowledge for those who are working to support children’s healthy development. The topics covered in this report include:

- How much time children spend engaged in various media *activities*, including watching TV or online videos, playing video games, reading, or listening to music.
- How children divide their activities among various media *devices*, from television sets and console video games to computers, tablets, and mobile phones.
- How children’s use of media varies by age, gender, socio-economic status, and race/ethnicity.
- How children’s patterns of media use have changed over the course of the three waves of the study, in 2011, 2013, and 2017.

We explore the media devices accessible to children at home, how access to mobile media is disrupting more traditional forms of media use, whether the digital divide is closing, and what is happening with screen media use among children under 2.

This year’s survey also provides key insights into how parents view their children’s media use — whether they think it helps or hurts their children across a range of developmental outcomes, and what does or does not concern them about media. It also explores parental co-use of media with children.

Media are so integrated into our daily lives that we inevitably assume that our own experiences and those of the people we know are at least somewhat indicative of what’s happening in the rest of the country — that what happens with our own children or our friends’ kids is probably what’s happening with all kids. This report gives us a chance to get out of our “bubbles” and observe the revolutionary national trends that are unfolding around us, and to base our conclusions about kids and media not on anecdote or opinion, but on statistically reliable data.

METHODOLOGY

This report presents the results of a nationally representative, probability-based online survey of 1,454 parents of children age 8 or under, conducted from Jan. 20, 2017, to Feb. 10, 2017. The survey was designed by Common Sense and VJR Consulting and fielded by the research firm GfK, using its KnowledgePanel[®], a probability-based web panel designed to be representative of the U.S. population. The project was directed by Michael Robb, director of research at Common Sense, and Victoria Rideout of VJR Consulting. Data analyses were conducted by Melissa Saphir of Saphir Research Services. The report was written by Ms. Rideout.

The survey is the third in a series of cross-sectional tracking surveys conducted by Common Sense. Previous surveys were conducted in 2011 and 2013. To the extent possible, the survey conducted in 2017 duplicates the questions asked in previous years. The full text of the questionnaire and all topline results can be found at the end of this report. In cases where the question wording or structure has changed, those changes are noted in the relevant tables.

Measuring children's media use. It should be noted that all findings in this report are based on parents' responses to questions about their child's use of media. Parents were asked about a specific, randomly selected focal child in their household. No parent's estimate of their child's media use is likely to be exact. However, when dealing with children age 8 and under, time and frequency estimates from parents are more likely to be reliable than those obtained from the child. By asking parents to focus on a specific day in their child's life (the day prior to taking the survey), we hope to elicit more precise estimates of children's media use than by asking about a "typical day." Surveying was spread out over the seven days of the week in order to avoid any bias toward either weekdays or weekend days.

Survey Sample

The use of a probability sample. GfK's KnowledgePanel[®] members were recruited using probability-based methods such as address-based sampling and random-digit-dial telephone calls. Households that were not already online were provided with a notebook computer and internet access for the purpose of participating in surveys. The use of a probability sample means the results are substantially more generalizable to the U.S. population than are results based on "convenience" samples. Convenience samples include only respondents who are already online and/or who volunteer through word of mouth or advertising to participate in surveys.

Participant consent and respondent compensation. Consent was obtained for all respondents. Respondents received a cash equivalent of \$5 for their participation; some African-American respondents received an additional \$5 or \$10 equivalent to improve response rates among this lower-incidence demographic group.

Treatment of outliers. Of the 1,476 cases completing the main survey, 1,454 cases were determined to be valid cases to be included in the final analyses. Fourteen cases were excluded due to speeding through the survey (completing in less than a third of the median time), and eight were excluded due to reporting media use times of greater than 24 hours for their child.

Weighting. The use of probability-based recruitment methods for the KnowledgePanel[®] is designed to ensure that the resulting sample properly represents the U.S. population geographically, demographically (e.g., age, gender, race/ethnicity, income), and in terms of home internet access. Study-specific post-stratification weights were applied once the data were finalized, to adjust for any survey nonresponse and to ensure the proper distributions for the specific target population (in this case, parents of 0- to 8-year-olds). Geo-demographic distributions for this population were obtained from the March 2016 supplemental data from the U.S. Census Bureau's Current Population Survey.

Over-samples. Over-samples of African-American ($n = 250$) and Hispanic/Latino ($n = 352$) respondents were included in the survey, enabling us to analyze results by various demographic factors within each racial/ethnic group (for example, by age or gender). Those samples were then weighted back down to their representative level for analyzing the survey results as a whole. Separate weights were used when analyzing results among African-American or Hispanic/Latino respondents alone. The survey was offered in English and Spanish.

Margin of error. The margin of error for the full sample at a 95 percent confidence level is +/- 3 percent. The margin of error among white respondents is +/- 3.7 percent, for Hispanic/Latino respondents +/- 6.8 percent, and for African-American respondents +/- 8.5 percent.

Media Definitions

This report looks at children's media use two ways: *by activities and by devices.*

Activities. In recent years, "screen time" has come to encompass behaviors as diverse as watching (i.e., video content), reading, interactive play (i.e., gaming), video-chatting, and immersion in virtual worlds. Accordingly, this report quantifies the portion

of young people's screen media time that is devoted to the following broad categories of media activities: watching TV, DVDs, or videos; playing media games (including video, computer, and mobile gaming); electronic reading; homework; video-chatting; using virtual reality; and using digital devices for other purposes, such as browsing websites. In addition to screen media, the study also measures time spent reading print and listening to music.

Devices. This report covers many media technologies, including television sets, digital video recorders (DVRs), DVD players, videotapes, video game consoles, handheld video game players, desktop and laptop computers, tablets, smartphones, iPod Touches or similar devices, e-readers, virtual reality headsets, toys that connect to the internet, and voice-activated virtual assistant devices such as the Amazon Echo or Google Home. The survey also asked about print reading materials, such as books, and about listening to music, without specifying which devices were used for listening. This report often groups media devices into five major *platforms*: television set; DVD/videotapes; mobile device (i.e., smartphones, tablets, and e-readers); computer (i.e., laptop and desktop); video game device (i.e., console and handheld players).

Other subcategories of activities or devices referenced in the report (in alphabetical order):

Handheld video game players include devices specifically designed for playing video games, such as a Game Boy, PSP, or DS.

Live TV means content watched on a TV set as it was broadcast (i.e., not time-shifted).

Mobile media/devices refers to smartphones, tablet devices such as iPads or similar products, and other devices such as the iPod Touch that can connect to the internet, display videos, and download "apps" (mobile applications).

Screen media includes television, DVDs/videotapes, video game players, computers, tablets, smartphones, other small digital devices such as an iPod Touch or similar, and virtual reality headsets.

Smart TV or internet-connected TV includes television sets that are connected to the internet, whether directly or through an add-on device such as Apple TV or Roku.

Streaming video includes time spent watching TV shows or movies through subscription services.

Subscription services are companies such as Netflix, Hulu, or Amazon Prime Video that charge membership fees to enable users to stream or download TV shows or movies.

Total TV/video time includes time spent watching TV or movies on a television set, watching DVDs or videotapes, or watching any type of online or streaming video, such as YouTube-type videos or TV shows or movies watched through a website or internet-based subscription service, whether on a computer or mobile device.

Demographic Definitions

Families. This survey concerns media use among children age 8 or under and the views of parents of children in that age range. In the report, we occasionally use the term "families" as shorthand to refer to families with children in this age group or the term "children" to refer to children age 8 or under.

Income categories. For the purposes of this report, "lower income" is defined as families earning less than \$30,000 a year; "middle income" includes those earning from \$30,000 to \$75,000 a year; and "higher income" is families earning over \$75,000 a year.

Education categories. For the purposes of this report, parents who have a high school degree or less are referred to as "less educated," parents with some college experience are referred to as "middle educated," and parents with a college degree or higher are referred to as "highly educated."

Race/ethnicity. The term "African-American" refers to any respondents who self-identify as "black, non-Hispanic." The term "white" refers to any respondents who self-identify as "white, non-Hispanic." The term "Hispanic/Latino" refers to any respondents who self-identify as Hispanic. The term "other" is a collapsed category that includes individuals who self-identify as another racial group or as two or more races, none of which is Hispanic. Where findings are broken out by race/ethnicity, results are presented for only white, African-American, and Hispanic/Latino children. Respondents in the "other" category are included in results based on the total sample but not in results that are broken out by race, because the cell sizes of each individual group in the "other" category are not large enough to examine differences among them.

Presentation of Data in the Text

Statistical significance. Where relevant, differences over time or among demographic groups have been tested for statistical significance. Unless otherwise noted, findings are described in the text in a comparative manner (e.g., "more than," "less than") only if the differences are statistically significant at the level of $p < .05$. In tables where statistical significance has been tested, superscripts (using letters such as *a*, *b*, or *c*) are used to indicate whether results differ at a statistically significant level ($p < .05$) within a set of columns or rows (e.g., parent race/ethnicity, or 2011 vs. 2017). Means that share a common superscript—and means that have no superscript at all—are not significantly different from each other.

Notation of hours and minutes. Throughout the report, times spent with media are presented in hours:minutes. For example, two hours and 10 minutes is presented as 2:10, and 10 minutes is presented as :10.

Percentages. Percentages will not always add up to 100 due to rounding or multiple response options, or because those who marked "don't know" or did not respond are not included.



95%

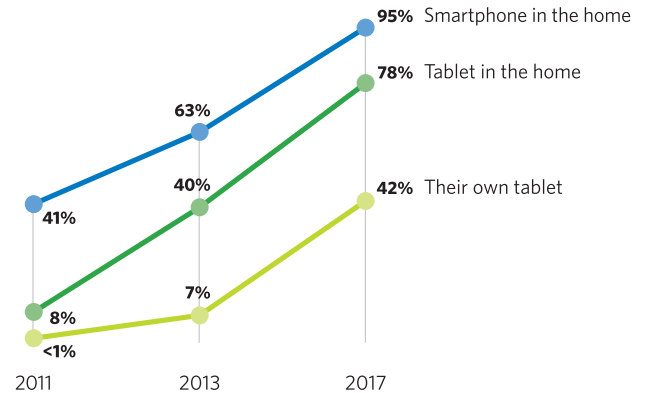
**OF FAMILIES WITH KIDS 0-8 NOW HAVE SMARTPHONES,
UP FROM 63% IN 2013 AND 41% IN 2011**

1. Mobile media have become a nearly universal part of the children's media landscape, across all levels of society.

Nearly all (98 percent) children age 8 and under live in a home with some type of mobile device, the same percentage that have a TV in the home (mobile media ownership is up from 75 percent in 2013 and 52 percent in 2011). Ninety-five percent of families with children this age now have a smartphone, up from 63 percent in 2013 and 41 percent in 2011, and 78 percent have a tablet (up from 40 percent in 2013 and 8 percent just six years ago, in 2011). Indeed, 42 percent of children now have their own tablet device — up from 7 percent four years ago and less than 1 percent in 2011.

Mobile devices in the home, 2011-2017

Among 0- to 8-year-olds, percent with each device





**SINCE 2013, THE AMOUNT OF
TIME YOUNG KIDS SPEND ON
MOBILE DEVICES HAS**

TRIPLED

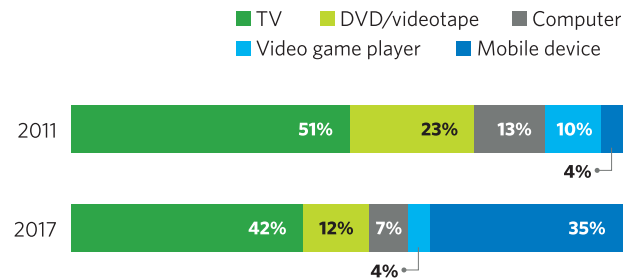
**FROM 15 MINUTES A DAY IN 2013
TO 48 MINUTES A DAY IN 2017**

2. Though the overall amount of media use is about the same as in past years, how children are using media has shifted considerably: The average amount of time spent with mobile devices each day has tripled (again), going from 5 minutes a day in 2011 to 15 minutes a day in 2013 to 48 minutes a day in 2017.

Overall, children 8 and under spend an average of about two-and-a-quarter hours (2:19) a day with screen media, up from 1:55 in 2013 but almost exactly the same amount they devoted to screens in 2011 (2:16). But online videos and content accessed through subscription services are a substantial part of the mix: Children spend an average of 17 minutes a day watching online videos from a source such as YouTube, 17 percent of all TV/video viewing time, and families with young children are now more likely to have a subscription video service such as Netflix or Hulu (72 percent) than they are to have cable TV (65 percent). Screen media use among children under 2 appears to be trending downward, from 58 minutes a day in 2013 to 42 minutes in 2017 (though this 16-minute difference is not statistically significant), due mostly to declining viewing of DVDs. Use of mobile devices in this age group has increased modestly, but not as much as DVD viewing has declined.

Screen media use, by device, 2011 and 2017

Among 0- to 8-year-olds, proportion of screen time spent with each device



Note: Video game player includes console and handheld players. Mobile device includes smartphone, tablet, iPod Touch, or similar device.

Screen media use, by device and age, 2017

Among 0- to 8-year-olds, average amount of screen time spent daily with each device (hours: minutes)

Device	All	Child's age		
	0 to 8	Under 2	2 to 4	5 to 8
Television set	:58	:29 ^a	1:09 ^b	1:04 ^b
DVD/videotape	:17	:06 ^a	:23 ^b	:18 ^b
Mobile device	:48	:07 ^a	:58 ^b	1:02 ^b
Computer	:10	* ^a	:05 ^b	:20 ^c
Video game player	:06	* ^a	:04 ^b	:12 ^c
Total screen media	2:19	:42^a	2:39^b	2:56^b

*Less than one minute but more than zero.

Note: Superscripts (a,b,c) are used to denote whether differences between groups are statistically significant ($p < .05$). Items with different superscripts differ significantly. Items that do not have a superscript, or that share a common superscript, do not differ significantly.

3. Contrary to recommendations from pediatricians, many children use media shortly before bedtime, and many families leave the TV on in the background most of the time.

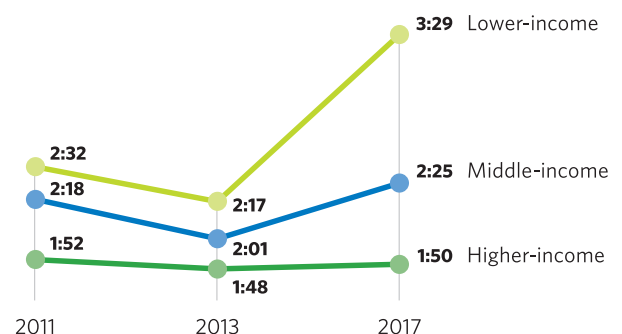
According to parents, nearly half (49 percent) of children age 8 or under often or sometimes watch TV or videos or play video games in the hour before bedtime, and 42 percent say the TV is on “always” or “most of the time” in their home, whether anyone is watching or not. But the American Academy of Pediatrics (AAP) recommends that children not sleep with devices in their bedrooms and refrain from using screen media for an hour before bed¹. The AAP also recommends that parents turn off TVs when not in use, due to negative effects of background media².

4. There are large differences in screen time by household income and parent education: Children from lower-income homes spend an average of 1:39 more time with screen media each day than those from higher-income homes (3:29 vs. 1:50). Children from homes with lower parent education consume more screen media than children from homes with higher parent education (2:50 vs. 1:37; a 1:13 difference).

In contrast to these large differences by household income and parent education, there are no statistically significant differences in overall screen time by gender or race/ethnicity. The difference in screen media use between lower- and higher-income children and between those with lower- vs. higher-educated parents has been apparent across all three waves of the survey (2011, 2013, and 2017), but the gap is even larger in 2017 than it was in prior years. The reason the gap has grown larger is that in 2017, lower-income children’s television use has gone up (along with their use of mobile media), but higher-income children’s television use has gone down. On any given day, more lower-income kids watch TV now than did four years ago (58 percent vs. 42 percent), and those who watch TV spend more time doing so (2:23 vs. 2:02).

Screen media use, by income, 2011–2017

Among 0- to 8-year-olds, average amount of time spent daily with screen media (hours: minutes)



Note: Lower-income is under \$30,000 a year; middle-income is \$30,000 to \$75,000 a year; and higher-income is more than \$75,000 a year.

1. AAP Council on Communications and Media. (2016). Media use in school-aged children and adolescents. *Pediatrics*, 138(5). <http://dx.doi.org/10.1542/peds.2016-2592>

2. AAP Council on Communications and Media (2016). Media and young minds. *Pediatrics*, 138(5). <http://dx.doi.org/10.1542/peds.2016-2591>

A close-up photograph of a baby sitting and looking down at a tablet computer held in front of them. The baby is wearing a white t-shirt with a small anchor pattern. The image has a soft, blue-tinted overlay.

**ON AVERAGE, KIDS FROM
LOWER-INCOME FAMILIES SPEND**

1:39 MORE

**WITH SCREEN MEDIA EACH DAY THAN
KIDS FROM HIGHER-INCOME FAMILIES**



83%

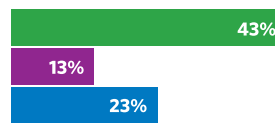
**OF AFRICAN-AMERICAN PARENTS SAY THEIR
CHILD BENEFITS FROM MEDIA USE**

5. In general, Hispanic/Latino parents are the most concerned about children’s media use, and African-American parents are most likely to say their children benefit from screen media.

Hispanic/Latino parents express the highest levels of concern about every potentially negative issue raised in the survey, such as sex and violence in media. For example, 54 percent of Hispanic/Latino parents are “very” concerned about violence in media, compared to 38 percent of African-American parents and 28 percent of whites. Similarly, 43 percent of Hispanic/Latino parents “strongly” agree that the less time kids spend with screen media the better, compared to 23 percent of white parents and 13 percent of African-American parents. On the other hand, African-American parents are more likely than white parents to say their child benefits from media use (83 percent vs. 72 percent, with Hispanic/Latino parents in between at 77 percent).

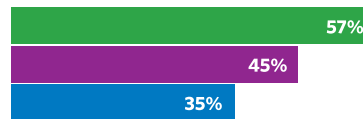
Parental concerns about media, by race/ethnicity, 2017

Parents who “strongly” agree that the less time kids spend with screen media the better off they are.

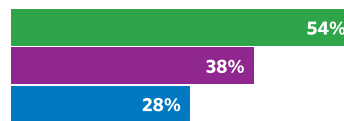


Parents who are “very concerned” about each of these in media.

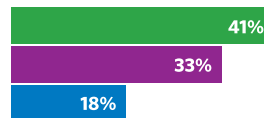
Sexual content



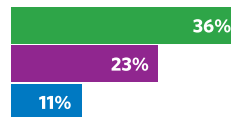
Violent content



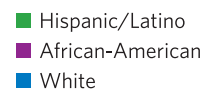
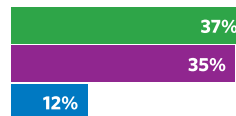
Depictions of drugs and alcohol



Gender stereotypes



Racial and ethnic stereotypes



A close-up photograph of a young child with dark skin and short hair, looking down intently at a tablet device held in their hands. The image is overlaid with a semi-transparent pinkish-purple filter. The child's face is the central focus, with their eyes and hands visible. The background is blurred, suggesting an indoor setting.

TODAY,

74%

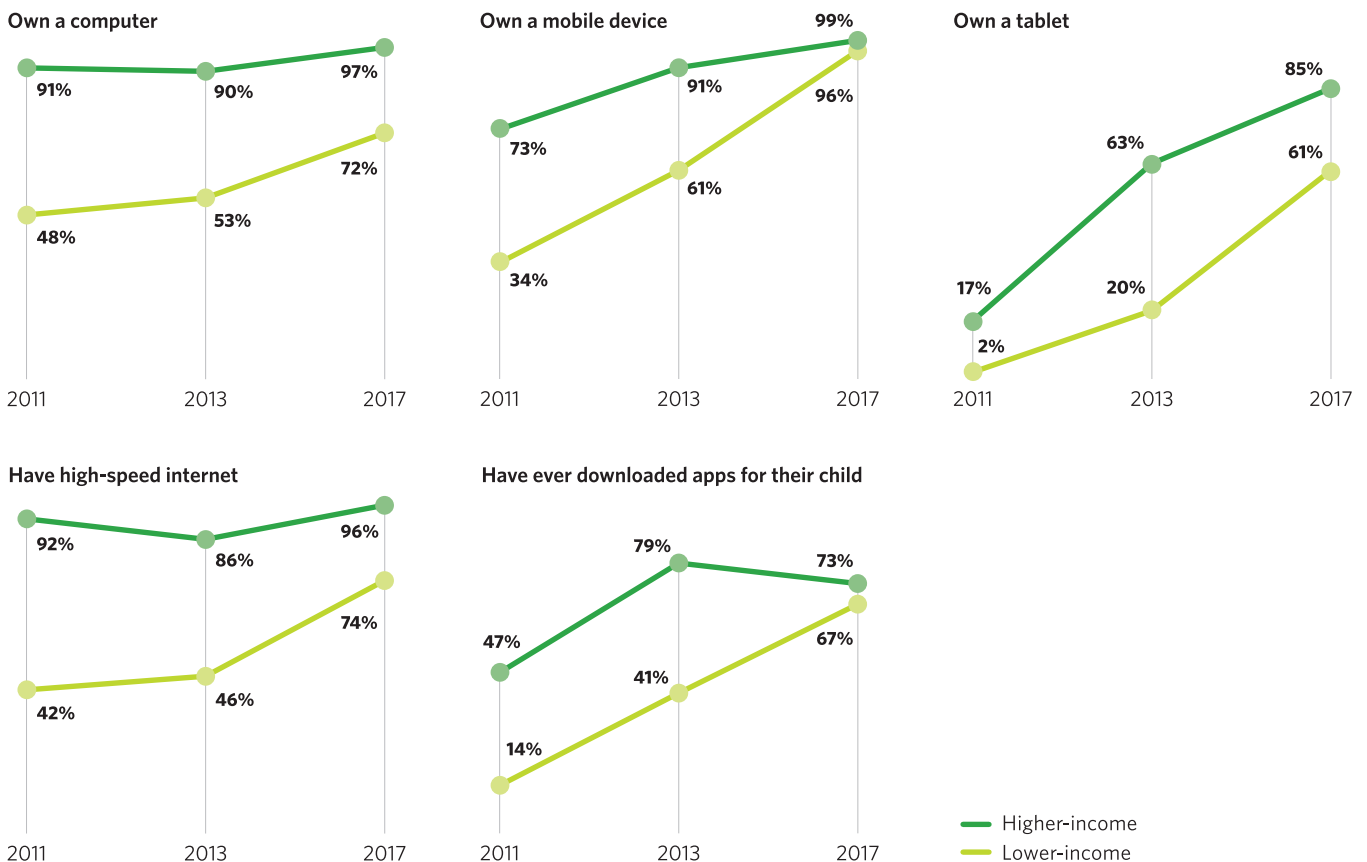
**OF LOWER-INCOME FAMILIES HAVE HIGH-SPEED
INTERNET AT HOME, UP FROM 42% IN 2011**

6. The digital divide still exists, but is much smaller than it used to be: Today there is a 25 percentage-point gap in home computer access and a 22 percentage-point gap in high-speed internet access at home between children in lower- and higher-income households (72 percent vs. 97 percent for a home computer and 74 percent vs. 96 percent for high-speed internet).

The gap in home computer and internet access is much smaller than it used to be: down from gaps between groups of 43 and 50 percentage points, respectively, in 2011. Children in lower-income homes are also still less likely to have a tablet at home (a 24 percentage-point difference). Sixty-one percent of lower-income families now have a tablet device, compared to only 2 percent in 2011 (and compared to 85 percent of higher-income families today). However, the gap in overall mobile ownership has virtually disappeared (3 percentage points), due to the number of lower-income families that now have a smartphone. In 2011, 34 percent of lower-income families had a mobile device in the home; today 96 percent do. What we previously dubbed the “app gap” has shrunk substantially as well. Today two-thirds of lower-income parents (67 percent — not significantly different from higher-income parents) have downloaded apps for their child to use, compared to 14 percent in 2011. And lower-income children are as likely as higher-income children to have their own tablet device (40 percent from each group, and 45 percent of those in the middle-income group).

Digital divide and app gap, by income, 2011-2017

Among families of kids age 0 to 8, those who:



Note: Lower-income is less than \$30,000 a year and higher-income is more than \$75,000 a year.

7. The amount of time children spend reading each day has held steady since 2011, but many children under 2 are not read to regularly.

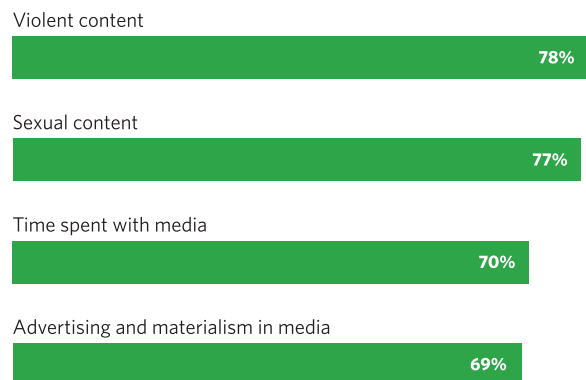
On average, 0- to 8-year-olds spend about a half-hour a day reading or being read to, an amount that has remained remarkably steady over the past six years (:29 in 2011, :28 in 2013, and :29 in 2017). Forty percent of lower-income children read or are read to every day, compared to 65 percent of children from higher-income families (57 percent among all). Although the AAP recommends reading to children “beginning in infancy” because of its importance to children’s language skills and literacy acquisition, fewer than half (43 percent) of children under 2 are read to on a daily basis³. Despite the advent of e-readers and the spread of tablets, electronic reading has not become popular among children. Of the 29 minutes children spend reading each day, 26 are in print and only three are electronic.

8. Parents are concerned about the amount of violence, sexual content, and advertising in media, but they are optimistic about the use of media for learning and supporting creativity.

Top concerns are violent content (78 percent are very or somewhat concerned), sexual content (77 percent), spending too much time with media (70 percent), and exposure to materialism and advertising in media (69 percent). On the other hand, 67 percent of parents whose children use screen media say it helps their learning (a lot or a little), and 57 percent say it helps their creativity.

Parental concerns about media, 2017

Among parents of 0- to 8-year-olds, those who are very or somewhat concerned about each topic as it relates to their child’s use of screen media, today and in the future



3. AAP Council on Early Childhood (2014). Literacy promotion: An essential component of primary care pediatric practice. *Pediatrics*, 134 (2). <http://dx.doi.org/10.1542/peds.2014-1384>



57%

OF KIDS READ OR ARE READ TO EVERY DAY

9. Pediatricians have reached only one in five parents with their recommendations about children’s media use and have been more successful in reaching white, higher-income, and higher-educated parents.

One in five (20 percent) parents say they know the AAP recommendations for their child’s media use, half (51 percent) don’t know but say they are interested in learning about them, and 29 percent don’t know and aren’t interested. The AAP has been more successful in reaching white, higher-income, and higher-educated parents: 24 percent of higher-income and college-educated parents know the AAP recommendations for their child, compared to 16 percent of lower-income or high school-educated parents. Hispanic/Latino parents are the least aware of the AAP recommendations (13 percent say they know what they are, compared to 21 percent of African-American parents and 23 percent of white parents) and are most interested in learning more about them (69 percent, compared to 49 percent of African-American parents and 42 percent of white parents).

10. Several cutting-edge technologies, including virtual reality, voice-activated assistants, and internet-connected toys, are making their first appearances in children’s homes.

The survey offers a first look at the early penetration of these new technologies, any one of which could ultimately have profound implications for children’s development. Today, about one in 10 kids age 8 or under live in a home with a virtual reality headset (11 percent), have “smart” toys that connect to the internet (10 percent), or have a voice-activated virtual assistant device available to them in the home, such as an Amazon Echo or Google Home (9 percent).

A young boy with dark hair is wearing large, over-ear headphones. He is looking down at a laptop screen, which is partially visible in the foreground. The image has a blue and purple color overlay. The text '67%' is prominently displayed in the lower half of the image.

67%

**OF PARENTS WHOSE CHILDREN USE SCREEN MEDIA
SAY IT HELPS THEIR LEARNING**



This report is the third installment in an ongoing series of surveys tracking the use of media and technology among U.S. children from birth to age 8. At a time of revolutionary change in the media landscape, these reports provide consistent, objective data monitoring the introduction of new technologies and media-based activities into the lives of our youngest children.

We are fortunate that these studies began when they did — just a few years after the introduction of mobile phones and touch-screen devices — offering us a once-in-a-lifetime look at how such revolutionary new technologies have been introduced into children’s lives. Today we are at the cutting edge of the introduction of several other new technologies that have the potential to have a profound effect on children’s lives: virtual reality, in which children can be immersed in 360-degree gaming or video environments; voice-activated virtual assistant devices, which hold the potential for preliterate children to conduct searches, make phone calls, send texts, request videos, or play music; and internet-connected toys, the child’s version of the “internet of things.” As we consider the implications of these trends, we hope it will be valuable to have nationally representative data documenting their uptake among the nation’s children. The next iteration of this survey will give us a sense of whether any or all of these new technologies will have the impact mobile media and touchscreens have had in terms of how kids spend their time.

There are important limitations to these studies. Like a population census, a media census describes broad national trends, in this case the adoption and use of media in the country as a whole — a sort of Dow Jones Industrial Average of media use among children in this age group. But a census is less effective at helping us understand how any one child might make use of media, all the exciting things she may explore or create with

technology, or the ideas and concepts she might learn. Another limitation is that the study measures the amount of time children spend with media and technology, but it doesn’t document the content of the TV shows, videos, and games in use — whether they are educational, age-appropriate, high- or low-quality — nor does it measure any effects of media on children. Content has repeatedly been shown to be a major factor in how media affect learning and development. In short, this survey should not be read as a judgment on the quality of children’s time with media; rather, it is a snapshot of how media and technology are infused into daily life. Additional experimental and qualitative work is essential to better understanding the full implications of children’s media use.

Lastly, this is the first time Common Sense has asked questions about new technologies, including virtual reality, voice-activated assistants, and internet-connected toys, and there is some uncertainty about whether respondents knew enough about each technology to answer accurately. For example, parents may not realize that their children’s toys connect to the internet or what a virtual reality headset is. We will be monitoring each new technology’s integration into family life in future surveys as they become more mainstream and better understood.

Through these surveys, we are able to see what changes and what stays the same in terms of children’s use of media. What clearly *has* changed is how young people access and view TV shows, videos, and games; what *has not* changed is the fact that children engage in these activities starting at a young age and devote hours a day to them. What *has* changed is that devices are now mobile, connected, and interactive; what *hasn’t* changed is that the primary activities conducted on these devices are the same as they were six years ago: watching TV or videos and playing games. What *has* changed is that the various digital divides identified in our previous reports have shrunk substantially; what *hasn’t* changed is that many children from lower-income households still don’t have a home computer or tablet.

We hope the data presented here will help inform the work of the many content creators, educators, health professionals, researchers, policymakers, and advocates who care about the role of media in children’s lives — and that they will encourage parents to gather the information and tools they need to make mindful choices about their children’s engagement with media and technology.

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THE COMMON SENSE CENSUS: MEDIA USE BY KIDS AGE ZERO TO EIGHT

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