

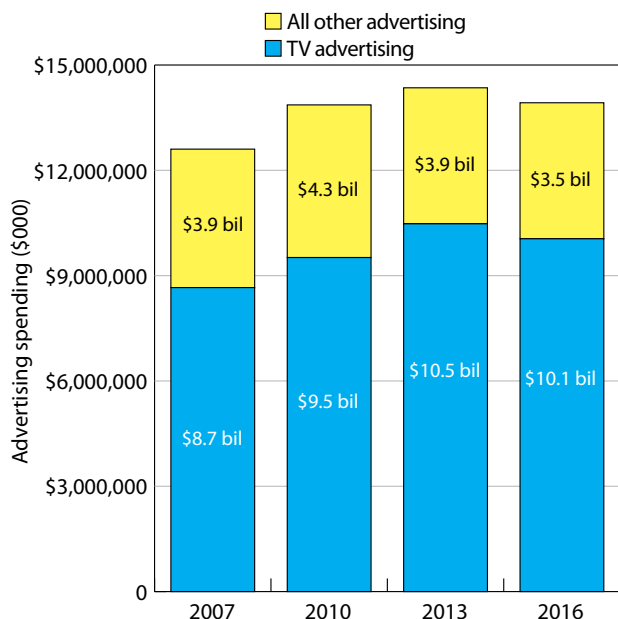
OVERVIEW OF FOOD ADVERTISING TO CHILDREN: 2007 TO 2016

Over 20,300 food, beverage, and restaurant companies advertised in all forms of media in 2016, totaling more than \$13.5 billion in advertising spending. Since 2007, the year the Children’s Food and Beverage Advertising Initiative (CFBAI) was implemented, total food-related advertising spending has increased, while children’s exposure to TV advertising declined.

From 2007 to 2016, _____ increased by 7%, in contrast to a more recent decline of 6% from 2013 to 2016 (see **Figure 1**). _____ totaled \$10 billion in 2016, and also declined from 2013 to 2016. However, during this time, companies increased the portion of their advertising budgets devoted to English-language TV, from 69% in 2007 to 74% in 2016, indicating a continued focus on television as the predominant form of food-related advertising.

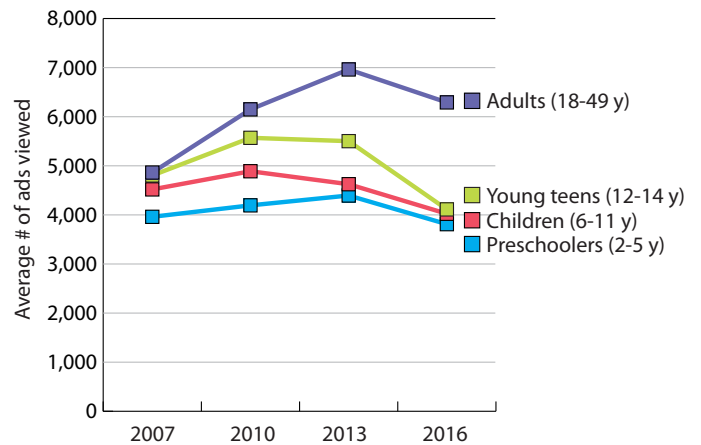
This TV advertising spending translated to on average 10 to 11 _____ by children in all age groups in 2016, including preschoolers (ages 2-5, 10.4 ads-per-day), children (ages 6-11, 11.0 ads-per-day), and young teens (ages 12-14, 11.3 ads-per-day).¹ Adults (ages 18-49) viewed over 50% more food-related TV ads in 2016 compared with children, averaging 19.1 ads-per-day. The number of food-related TV ads viewed by adults increased substantially from 2007 to 2016 (29%), despite a decline of 10% from 2013 to 2016

Figure 1. Changes in advertising spending by food, beverage, and restaurant companies



Source: Rudd Center analysis of Nielsen data (2017)

Figure 2. Changes in total food-related TV ads viewed by age group

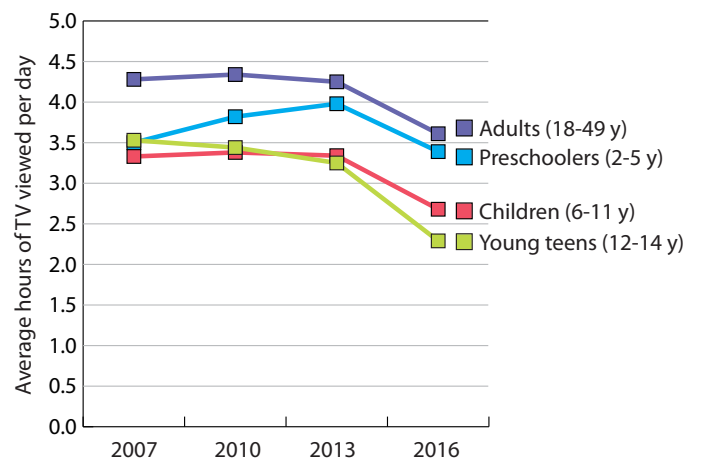


Source: Rudd Center analysis of Nielsen data (2017)

(see **Figure 2**). In contrast, children in all age groups (ages 2-14) saw fewer food-related TV ads in 2016 than in 2007, with declines of 4%, 11%, and 14% for preschoolers, children, and young teens, respectively. Notably, these declines occurred following initial increases in TV ads viewed from 2007 to 2010 and/or 2013 (changes varied by age group).

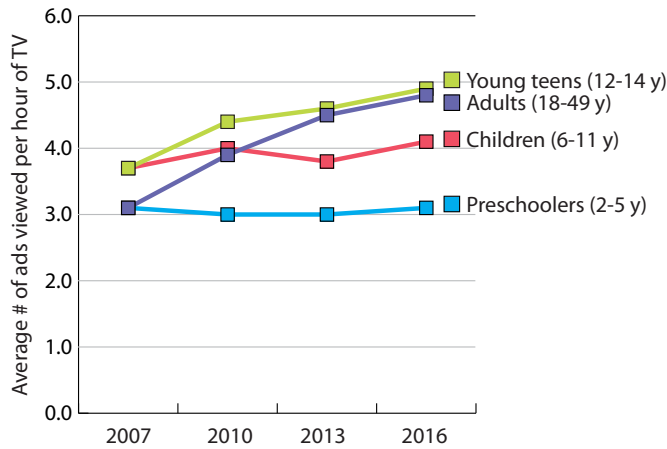
Much of the decline in TV ads viewed from 2013 to 2016 can be attributed to reductions in _____² (see **Figure 3**). From 2013 to 2016, TV viewing declined by 15% for preschoolers, 20% for children, and 30% for young teens. Adult TV viewing also declined by 15%. This decline followed

Figure 3. Changes in hours of TV viewed per day by age group



Source: Rudd Center analysis of Nielsen data (2017)

Figure 4. Changes in ads viewed per hour of TV viewing by age group



Source: Rudd Center analysis of Nielsen data (2017)

a notable increase of 14% from 2007 to 2013 for preschoolers only. However, preschoolers continued to watch far more TV daily than the recommended one hour of high-quality programming recommended by the American Academy of Pediatrics (AAP),³ averaging 3.4 hours per day in 2016. Notably, preschoolers also watched more TV than either children (averaging 2.7 hours per day) or young teens (averaging 2.3 hours per day). Furthermore, the difference between amount of time preschoolers spent watching TV compared with adults

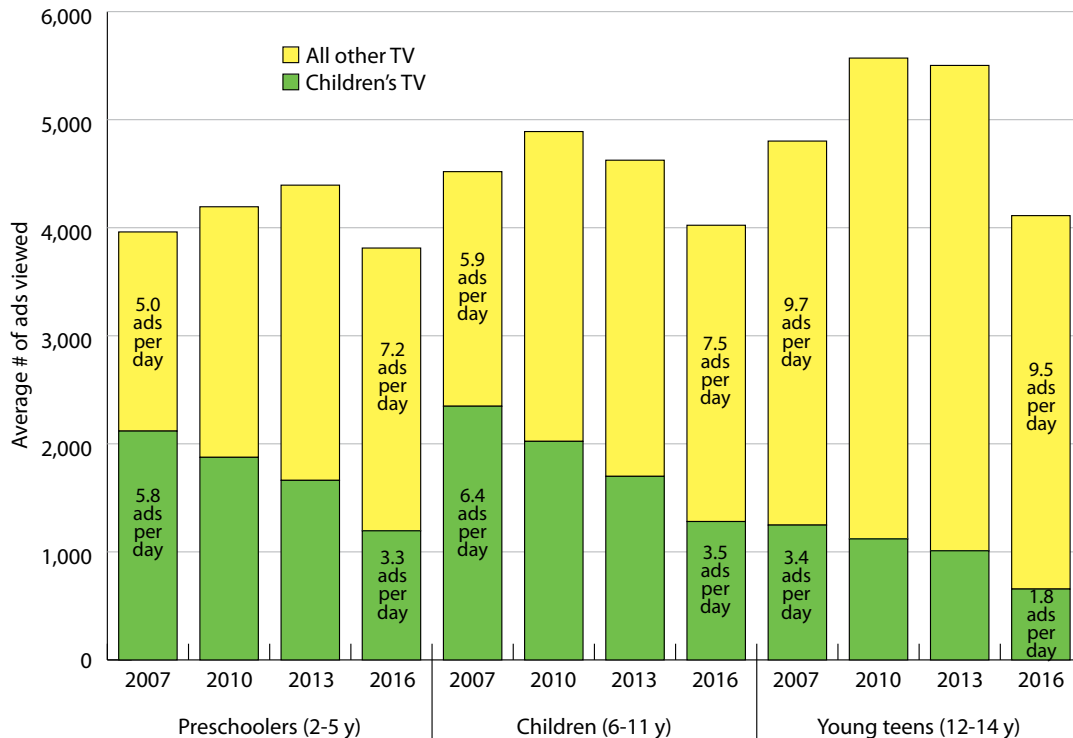
has narrowed over time. In 2016, preschoolers watched just 6% fewer hours of TV than did adults, versus 22% fewer in 2007.

Another factor affecting children's exposure to food-related TV advertising is the number of ads shown during TV programming. As has been documented in previous research,⁴ the number of _____

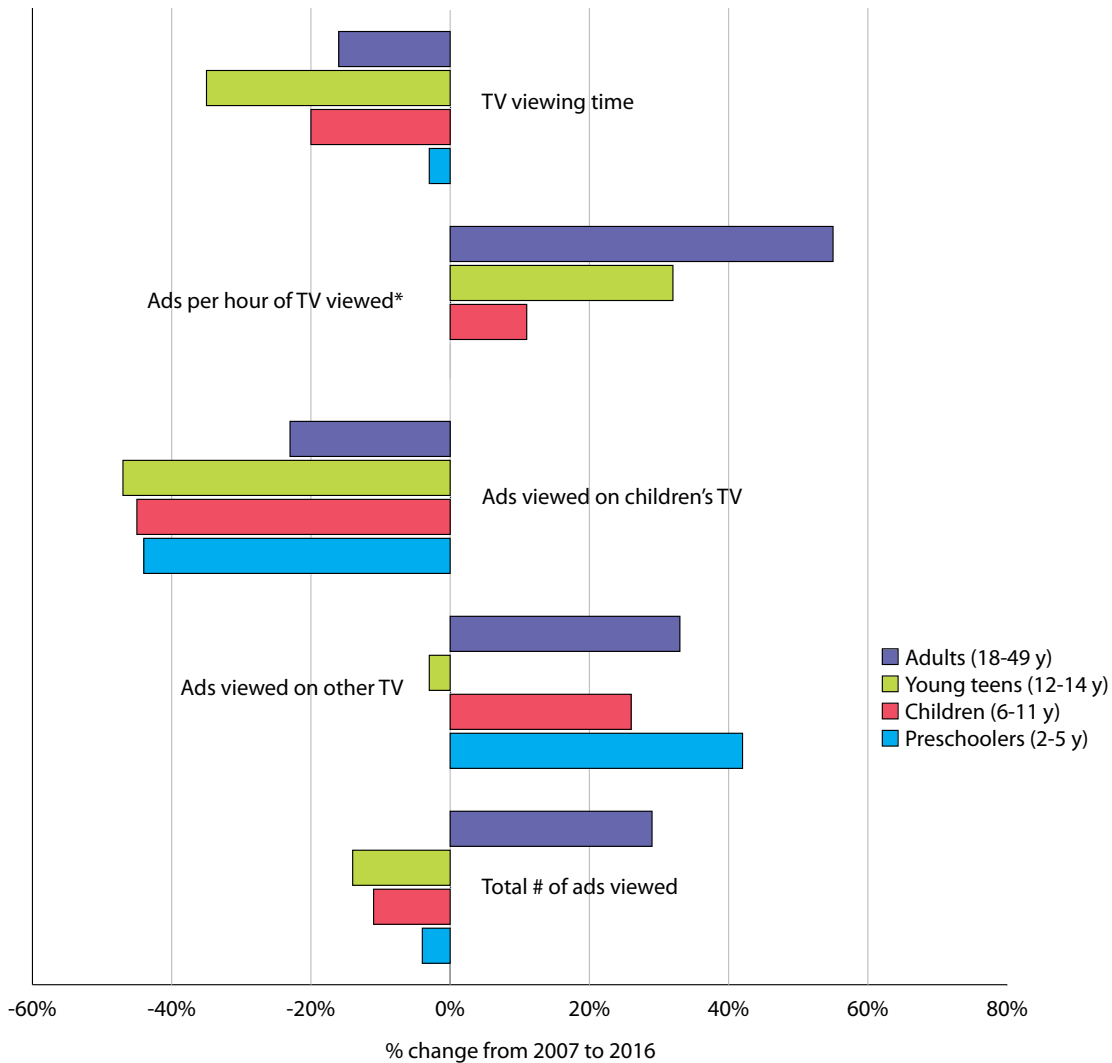
_____ increased from 2007 to 2016 for most age groups (see **Figure 4**). For children (ages 6-11), the rate of food advertising per hour increased by 11%, or 0.4 additional ads per hour of TV viewing. For young teens, this increase was 32%, an additional 1.2 ads per hour. In contrast, the number of ads per hour of TV viewing by preschoolers remained the same. Preschoolers are exposed to fewer ads per hour of TV viewing compared with other age groups due to a greater amount of time spent watching non-commercial TV, such as Disney and PBS.⁵

To compare changes in children's exposure to food-related TV advertising on _____ versus other types of TV, we utilized Nielsen's definition of children's TV,⁶ which includes networks, such as Nickelodeon, Cartoon Network, Nicktoons, and Disney XD. This definition corresponds approximately to the _____,⁷ although we did not measure audience share to ensure that all programs met the CFBAI definition (i.e., programs with audiences comprised of 35% or more children under age 12). This analysis showed opposite changes in exposure to TV advertising on children's TV programming versus _____ (see **Figure 5**). For all

Figure 5. Changes in food-related ads viewed on children's TV and all other TV by age group



Source: Rudd Center analysis of Nielsen data (2017)

Figure 6. Changes in TV viewing and food-related ads viewed by age group from 2007 to 2016

*There was no change in ads per hour of TV viewed by preschoolers

Source: Rudd Center analysis of Nielsen data (2017)

child age groups, food-related TV ads viewed on children's programming declined by approximately 45% from 2007 to 2016. In contrast, for preschoolers and children (but not young teens), exposure to food ads on other types of TV increased during this period, by 42% for preschoolers and 26% for children.

The decline in children's total exposure to food-related TV ads indicates some progress in the amount of food advertising directed to children since the CFBAI was implemented. However, reduced TV viewing contributed to much of the total decline, while increases in ads viewed on non-children's TV and increases in the number of food advertisements per hour of TV viewing (for children ages 6 to 14) largely offset the declines in advertising on children's TV (see **Figure 6**). Furthermore, although children's exposure to food-related TV advertising declined from 2007, it remained high, averaging 10 to 11 ads viewed per day in 2016.

Key findings

- Exposure to food-related TV advertising by children (ages 2 to 14) in 2016 averaged 10 to 11 ads per day. However, food advertising viewed by children in all age groups has declined – by 4% for preschoolers (ages 2-5), 11% for children (ages 6-11), and 14% for young teens (ages 12-14) – since 2007, the year the CFBAI was implemented. These declines occurred despite a 7% increase in total food-related ad spending during this time and a 29% increase in TV ads viewed by adults (ages 18-49).
- Much of this decline in food-related TV ads viewed by children is due to less time watching TV. From 2013 to 2016, amount of time spent watching TV declined by 15% for preschoolers, 20% for children, and 30% for young teens.
- The number of food-related ads viewed on children's TV programming has also declined steadily since 2007, by

approximately 45% for preschoolers and children and 47% for young teens.

- However, these reductions have been largely offset by two factors. The number of food-related ads shown per hour of TV viewing has increased for all age groups except preschoolers, due to an increase in ads shown per hour on other (not children's) TV programming. In 2016, children and young teens viewed 4.1 and 4.9 food-related ads per hour of TV watched, respectively.
- In addition, children and preschoolers (but not young teens) viewed substantially more food-related ads on other (not children's TV) programming in 2016 than in 2007, with increases of 42% and 26% for preschoolers and children, respectively.

Food companies in our analysis

To evaluate contributors to food-related advertising directed to children, we first identified food, beverage, and restaurant companies that participated in the CFBAI or the Children's Confection Advertising Initiative (CCAI) food advertising self-regulatory programs. Within CFBAI companies, we also differentiated between companies that have pledged to advertise only healthier dietary choices to children from companies that pledged to not engage in child-directed advertising (for any of their products).⁸ For CFBAI companies with child-directed advertising, we further differentiated brands with products included on the list of products that may be advertised to children as of July 2016 (i.e., CFBAI listed brands),⁹ and brands that did not include any products on the list (i.e., non-listed brands). Given the large number of

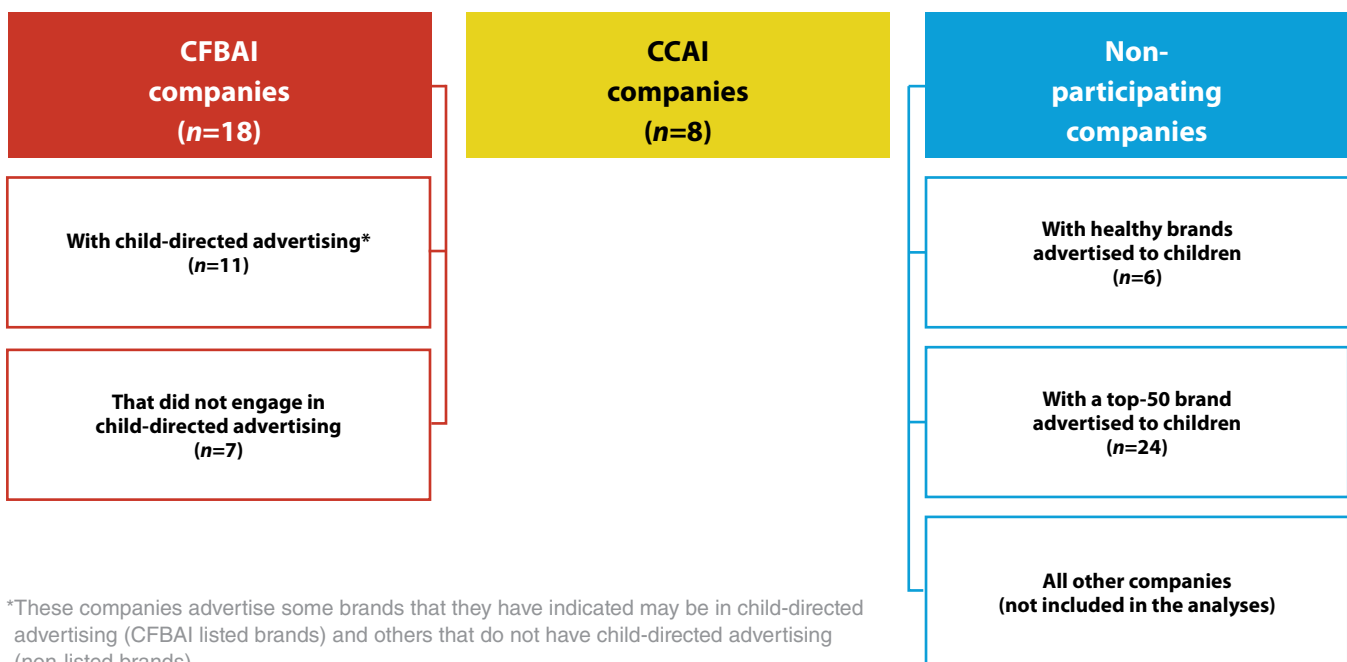
companies that do not participate in CFBAI or CCAI, we also examined non-participating companies with food, beverage, or restaurant brands that ranked in the top-50 by number of TV advertisements seen by preschoolers, children, and/or young teens in 2016. In addition, we examined a subset of non-participating companies that advertised brands in the healthier fruit, vegetable, dairy, plain water, and nuts categories, for which children saw 10 or more TV ads in 2016.

Figure 7 indicates the number of companies examined within each type.

Table 2 lists the companies examined within each company type. The two food industry self-regulatory programs included a relatively small number of companies: 18 participated in the CFBAI as of July 2016, 7 of which pledged to not direct any advertising to children under 12; and 8 belonged to the CCAI. Among the non-participating companies in our analysis, 24 had brands that ranked among the top-50 brands with the most TV advertising viewed by children; while 6 had healthy brands with TV advertising to children.

Although relatively small in number, these 56 companies were responsible for 71% of all advertising spending by food, beverage and restaurant companies in 2016, totaling \$9.7 billion (see **Figure 8**). They were also responsible for 74% of TV advertising spending (\$7.4 billion). _____ represented 54% of all food-related advertising spending in 2016 (\$5.9 billion). However, brands with products that participating companies indicated may appear in advertising directed to children (i.e., CFBAI listed brands) represented just 6% of total ad spending (\$736 million) and 5% of all TV ad spending (\$542 million). _____ represented another one-quarter of total advertising spending in 2016 (\$3.4 billion), and 30% of TV

Figure 7. Types of food companies analyzed in this report



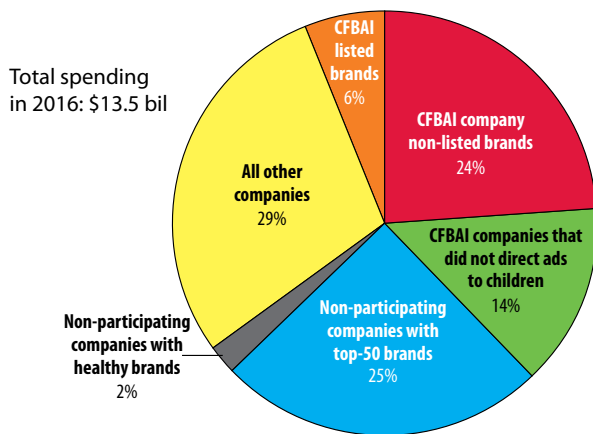
*These companies advertise some brands that they have indicated may be in child-directed advertising (CFBAI listed brands) and others that do not have child-directed advertising (non-listed brands).

Table 2. Companies included in this report

CFBAI companies ¹⁰			
With child-directed advertising	Burger King Campbell Soup Company ConAgra Foods The Dannon Company	General Mills Kellogg Company The Kraft Heinz Company McDonald's	PepsiCo Post Foods Unilever
That do not direct advertising to children	American Licorice Company The Coca-Cola Company Ferrero USA	The Hershey Company Mars	Mondelez Global Nestle USA
CCAI companies			
	Brown & Haley Ferrara Candy Company Ghirardelli Chocolate	Jelly Belly Candy Company Just Born Quality Confections R.M. Palmer Company	The Promotion in Motion Companies Wolfgang Candy Company
Non-participating companies			
With a top-50 brand	Applebee's Grill & Bar* Arby's* The Bel Group Chili's Grill & Bar* Chuck E. Cheese's Dairy Queen* Dave & Buster's Denny's Restaurant	Domino's Pizza Golden Corral Restaurant KFC* Little Caesar's Restaurant Olive Garden Outback Steakhouse Papa John's Perfetti Van Melle	Pizza Hut* Popeye's Red Lobster Sonic Subway Taco Bell* The Topps Company Wendy's
With healthy brands advertised to children	Birds Eye Chobani	Dole Food Company MilkPEP	WhiteWave Foods Co The Wonderful Company

*Fast food and casual restaurant chains that belong to larger companies with multiple restaurants (e.g., Yum Brands! restaurants) are listed as separate companies

Figure 8. Total food-related ad spending by company type in 2016



Source: Rudd Center analysis of Nielsen data (2017)

ad spending (\$3.0 billion). _____ to children spent just \$290 million in total advertising and \$198 million in TV advertising in 2016, less than 2% of the total. _____ spent only \$18 million in total advertising, or less than 1% of the total.

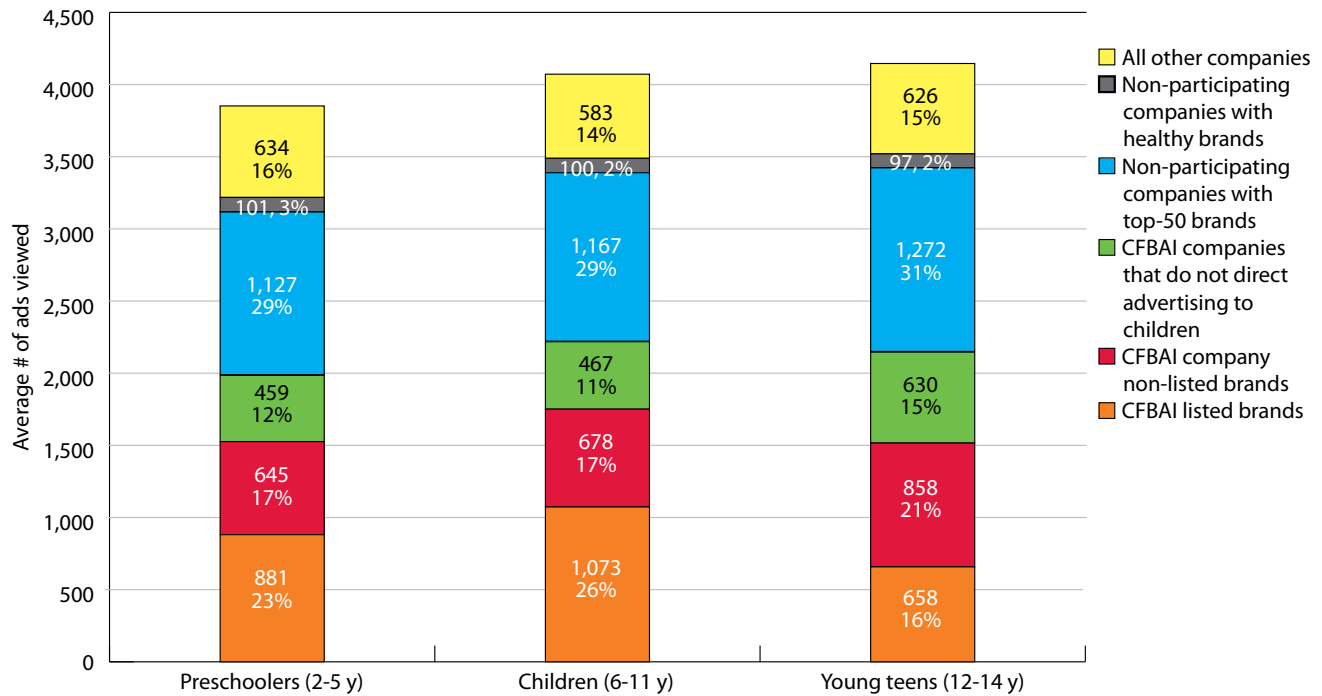
As with advertising spending, CFBAI companies contributed more than one-half of TV ads viewed by children in all age groups in 2016 (see **Figure 9**). However, fewer than one-half of those ads were for _____. This proportion was lowest for _____.

young teens, who saw 3.4 times as many ads for _____ than for CFBAI listed brands. TV ads from non-participating companies with top-50 brands represented approximately 30% of all food-related TV ads viewed by all child age groups, while non-participating companies with healthy brands represented 3% or less of all food-related TV advertising viewed by all children. In total, the companies in our analysis were responsible for approximately 85% of all food-related TV advertising viewed by children in all age groups.

From 2007 to 2016, TV ads viewed (on all TV programming) by preschoolers and children declined by approximately 30% for CFBAI companies, while ads from all other companies increased—by 56% for preschoolers and 39% for children. As a result, CFBAI companies' contribution to food-related ads viewed by preschoolers and children declined from 70% and 71%, respectively, in 2007 to just over one-half in 2016 (52% and 55%). There were fewer changes for young teens, with CFBAI companies contributing 62% of the food-related TV ads they viewed in 2007 versus 52% in 2016.

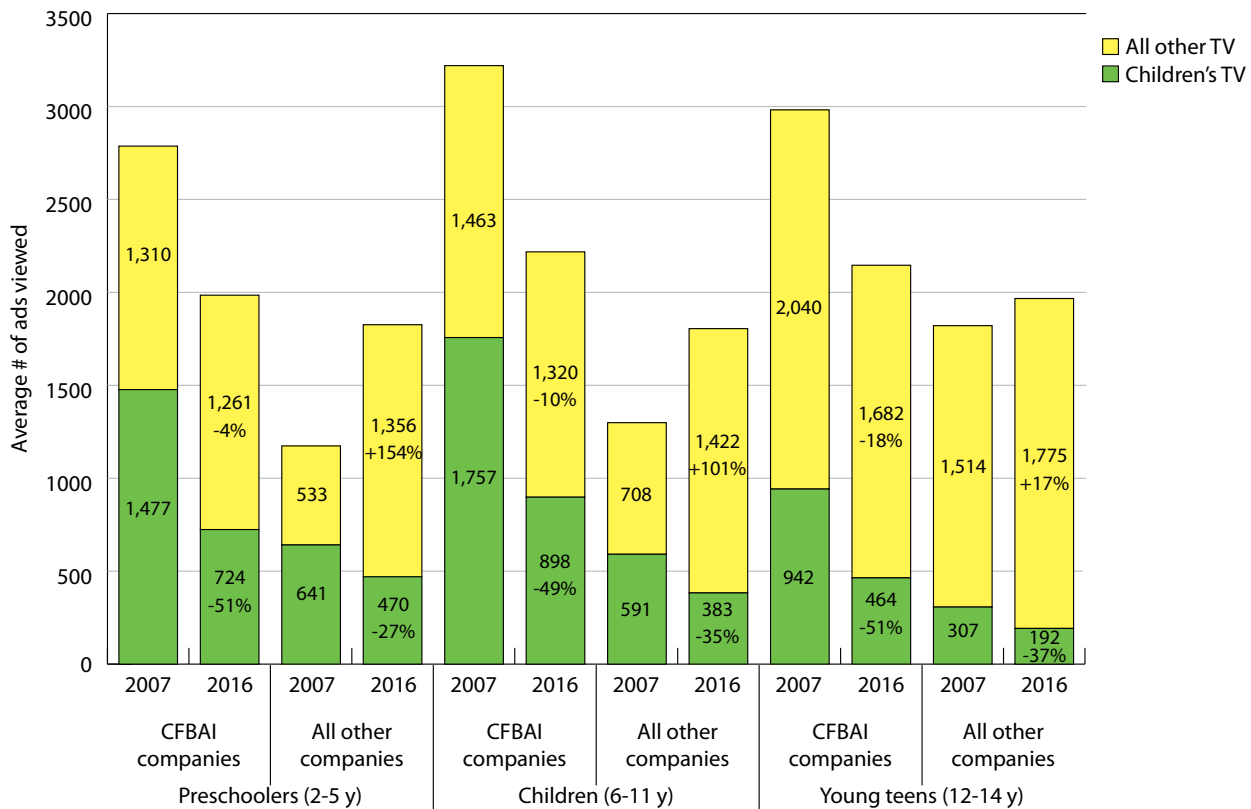
On children's TV, CFBAI companies were responsible for 61% of food-related ads viewed by preschoolers and approximately 70% of ads viewed by children and young teens in 2016. These proportions declined from 73% and 77%, respectively, in 2007. As on TV overall, advertising by CFBAI companies to all child age groups declined on children's TV from 2007 to 2016. Advertising by all other companies on children's TV also decreased, but at a lower rate (see **Figure 10**).

Figure 9. Food-related TV ads viewed by company type and age group in 2016



Source: Rudd Center analysis of Nielsen data (2017)

Figure 10. Changes in TV ads viewed by type of TV, company type and age group



Source: Rudd Center analysis of Nielsen data (2017)

However, advertising for non-participating companies on all other TV more than doubled for preschoolers, and increased by 91% and 16% for children and young teens, respectively. Altogether, declines in CFBAI company advertising on children's TV were far greater than declines in their advertising on all other TV programming. In contrast, advertising for non-participating companies increased on other TV programming but decreased on children's TV.

Key findings

- Just 56 of the more than 20,300 food companies advertising in 2016 were responsible for 71% of all food-related advertising spending and 85% or more of TV food advertising viewed by children in all age groups in 2016.
- The 18 companies in the CFBAI contributed 44% of total food-related advertising spending, and more than one-half of all food-related TV advertising viewed by children. Fewer than one-half of TV ads from CFBAI companies viewed by children were for brands with products included on CFBAI company lists of products that may be in child-directed advertising.
- It is important to note that ads for brands that were not included on CFBAI product lists did not appear on children's TV programming, so companies did comply with their pledges to not advertise these products in child-directed media.
- In 2016, CFBAI companies placed more than 60% of all ads viewed by preschoolers on children's TV programming and approximately 70% of ads viewed by children and young teens, but the number of CFBAI company ads viewed on children's TV declined by approximately 50% for all child age groups from 2007 to 2016. Children's exposure to CFBAI company ads on other types of TV programming also declined during this time, but at lower rates (by 4% for preschoolers, 10% for children, and 18% for young teens).
- Food-related ads from all non-participating companies viewed on children's TV programming also declined from 2007 to 2016, but at lower rates, by 27% for preschoolers and

approximately 35% for children and young teens. However, non-participating company ads viewed by preschoolers and children on other TV programming (not children's TV) increased by approximately two-fold during this time, compared with a much lower increase of 16% for young teens. As a result, preschoolers' exposure to advertising by non-participating companies increased by 56% from 2007 to 2016, while children's exposure increased 39%.

Digital marketing

We examined three forms of marketing in digital media: _____ placed on _____, visits to _____, and food company-sponsored _____. Previous research has shown that food companies' use of these types of digital marketing is changing rapidly, but in different directions. Among youth audiences, visits to traditional websites on the internet is declining,¹¹ which has also resulted in reduced exposure to banner advertising on third-party websites. On the other hand, young people's access to the internet through mobile devices is growing steadily,¹² including their use of social media platforms.¹³ As a result, marketing on social media, including advertising placed on social media sites and engagement with companies' own social media accounts, has risen steeply.¹⁴ Facebook and Twitter have traditionally attracted large numbers of young people, including to food, beverage, and restaurant brand pages,¹⁵⁻¹⁷ while more recently Instagram and YouTube have become popular platforms for brands to attract youth.¹⁸

Banner advertising on third-party websites

The 56 companies in our analysis placed a total of 509 million banner ad impressions on _____¹⁹ (e.g., Nick.com, CartoonNetwork.com) in 2016, while these same companies placed 3.4 billion ads on two _____ (Facebook and YouTube) (see **Table 3**). However, these ads represented just 2% and 12%, respectively, of all banner ads placed by these companies. The number of banner ads placed on third-party teen websites²⁰ by these companies was very low (just 11.5 million). Other social media sites where ads for

Table 3. Banner ads on kids' websites and social media sites in 2016

	Banner ads on kids' websites			Banner ads on social media sites*	
	# brands/companies with advertising on kids' websites	# of ad impressions (000)	% of total company impressions	# of ad impressions (000)	% of total company impressions
CFBAI companies	126	473,406	2%	2,872,807	12%
CCAI companies	2	183	0%	3,204	8%
Non-participating companies					
With top-50 brands	17	34,768	1%	485,507	15%
With healthy brands	2	454	1%	2,420	7%

*Facebook and YouTube

Source: comScore Ad Matrix Advertiser report (January - December 2016)

Table 4. Food-company websites visited by children in 2016

	# websites	Avg monthly unique visitors (000)				Avg proportion of total unique visitors	
		Children (2-12 y)		Teens (13-17 y)		Children (2-12 y)	Teens (13-17 y)
		Median	(Range)	Median	(Range)		
CFBAI companies	152	0.6	(<0.0-85.8)	1.0	(<0.0-125.5)	6%	7%
CCAI companies	2	n/a	(0.8-6.1)	n/a	(2.8-5.1)	5%	6%
Non-participating companies:							
With top-50 brands	26	10.5	(0.1-139.4)	9.5	(0.1-136.9)	6%	4%
With healthy brands	1	n/a	0.3	n/a	0.4	1%	2%

Source: comScore Media Metrix Key Measures report for children & teens (January - December 2016)

companies in our analysis appeared include Tumblr and Hulu, totaling just 17.2 million and 5.7 million ads, respectively. Due to low numbers, we do not report banner advertising appearing on teen websites, Tumblr, or Hulu.

CFBAI companies placed 473 million banner ads for 126 different brands on kids' websites in 2016, compared with just 35 million ads placed by 17 non-participating companies in our analysis. CFBAI brands that advertised on kids' websites also placed more ads on Facebook and YouTube in 2016 (2.9 billion), compared with less than 500 million ads placed by the non-participating companies. CCAI companies and non-participating companies with healthy brands placed some ads on kids' websites and on social media sites, but the numbers were low compared to the other companies in our analysis.

Visits to food-company websites

CFBAI companies also maintained substantially more websites that were visited by enough children (ages 2-12) in 2016 to measure in comScore²¹ compared with the non-participating companies in our analysis (see **Table 4**). However, the majority of these websites averaged less than 1,000 _____ in 2016, resulting in a median of just 600 child visitors per month. Approximately three-quarters of the non-participating companies with top-50 brands had websites with enough child visitors in 2016 to measure, and these sites tended to attract more child visitors than CFBAI company sites. CCAI companies and non-participating companies with healthy brands had just three websites together with enough child visitors to measure.

Table 5. Popularity of social media accounts and activity by company type in 2016

	# of accounts	Avg # of platforms per account	Facebook		Twitter		Instagram				
			Fans (000)*		Posts	Followers (000)*		Tweets	Fans (000)*		Posts
			Median	(Range)	Median	Median	(Range)	Median	Median	(Range)	Median
CFBAI companies	44	3.0	891	(<1-12,700)	55	33	(2-3,331)	1,525	18	(1-970)	151
CCAI companies	9	2.4	92	(3-1,568)	129	16	(5-87)	456	29	(26-31)	150
Non-participating companies:											
With top-50 brands	27	3.9	2,757	(1-39,600)	201	343	(5-2,420)	10,115	134	(3-479)	127
With healthy brands	9	3.9	704	(300-1,919)	146	22	(10-104)	845	14	(1-32)	178
YouTube											
			Total views (000)		Videos posted						
			Median	(Range)	Median						
CFBAI companies			14,000	(22-1,250,000)	28						
CCAI companies			1,727	(697-5,925)	12						
Non-participating companies:											
With top-50 brands			4,754	(97-60,100)	43						
With healthy brands			3,412	(208-25,700)	25						

*As of December 31, 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

Although the numbers of children visiting CFBAI company websites tended to be small, children were almost as likely to visit these sites compared to teens. However, proportions of teen visitors to CFBAI sites were comparable to teen visitors to the internet in total, whereas _____ tended to be lower. In 2016, teens represented 7% of all unique visitors to the internet and children represented 10%. Although the numbers of children and teens visiting websites for top-50 brands from non-participating companies tended to be much higher than visitors to CFBAI websites, these sites also attracted more visitors of all ages.

Social media

The majority of companies in our analysis maintained active _____ accounts in 2016, and most also maintained one or more active _____, _____, or _____ accounts (see **Table 5**).²² CFBAI and CCAI companies averaged fewer accounts compared with the non-participating companies in our analysis, and their Facebook, Twitter, and Instagram accounts tended to be much less popular (i.e., fewer fans and followers) than accounts from non-participating companies with top-50 brands. However, CFBAI company YouTube channels had far more _____ than accounts from the other types of companies analyzed and they posted more often on Instagram than did non-participating companies with top-50 brands. Notably, despite their relatively low advertising budgets, 100% of CCAI companies and non-participating companies with healthy brands maintained active social media accounts. Companies with healthy brands also averaged 3.9 platforms per account, comparable to non-participating top-50 company accounts. They also posted most frequently on Instagram, and their YouTube channels tended to be popular with a median of 3 million views.

Key findings

- On the internet, CFBAI companies dominated in banner advertising on third-party kids' websites (totaling 473 million ad impressions in 2016). However, both CFBAI and non-participating companies placed more than ten times as many ads on Facebook and YouTube than on kids' websites.
- CFBAI companies maintained 152 websites with enough child visitors to measure in comScore, but the majority of these sites attracted fewer than 1,000 children (ages 2-12) per month.
- Although non-participating companies with top-50 brands did not directly target children with advertising on third-party kids' websites, the majority maintained their own websites, and many ranked among the most popular food company sites, attracting as many as 139,000 children per month.
- In contrast to relatively low levels of marketing on the internet for the companies in our analysis, the majority of CFBAI and non-participating companies maintained active Facebook accounts in 2016, as well as Twitter, Instagram, and/or YouTube accounts.
- The number of fans/followers and posts/tweets/videos posted to these accounts varied widely, but as a group, non-participating companies with top-50 brands tended to have the most popular accounts on Facebook, Twitter, and Instagram, while CFBAI companies surpassed them in YouTube video views and Instagram posts.
- Although CCAI companies and non-participating companies with healthy brands had relatively little or no advertising spending in 2016, nearly all maintained popular and active Facebook, Twitter, Instagram, and YouTube accounts.

ADVERTISING BY CFBAI COMPANIES

The 18 companies that participated in the CFBAI (as of December 31, 2016) included 11 companies that pledged to feature only products that meet CFBAI's category-specific uniform nutrition criteria in child-directed advertising and seven that pledged not to engage in child-directed advertising to children under 12.¹ These companies were responsible for 44% of all food-related advertising spending in 2016 and more than one-half of food-related TV ads viewed by preschoolers and children. They also placed more than 90% of food-related banner ads viewed on kids' websites.

For the CFBAI brands with products that may be featured in child-directed advertising (i.e., CFBAI listed brands) as of July 2016,² we used Nielsen data to identify brands that ranked among the 50 brands with the most TV advertising viewed by children ages 2 to 11 in 2016 (i.e., top-50 CFBAI listed brands). All other brands with products on the CFBAI lists were classified as less-advertised CFBAI listed brands. In addition, we used Nielsen data to identify other brands from CFBAI companies that ranked among the top-50 brands with TV advertising viewed by children under age 12 (i.e., non-listed top-50 brands).

This analysis identified 16 CFBAI listed brands from six companies that ranked in the top-50 brands advertised to children, and another 31 less-advertised CFBAI listed brands (see **Table 6**). Another nine brands from eight CFBAI companies were not included on CFBAI lists of brands that may be featured in child-directed advertising, but ranked in the top-50 brands with the most TV advertising to children

Table 6. CFBAI companies with child-directed brands

Company	CFBAI listed brands*		
	Top-50 brands	Less-advertised brands*	Non-listed top-50 brands
Burger King	None	Kids' Meals	All other products
Campbell Soup Company	Pepperidge Farm Goldfish	Bolthouse Farms	
ConAgra Foods	None	Chef Boyardee Kid Cuisine Peter Pan Peanut Butter	
The Dannon Company	None	Activia, DanActive, Danimals, Dannon (Yogurt and Dairy Drinks), Light & Fit (Yogurt and Dairy Drinks), Oikos Yogurt	
General Mills	Betty Crocker Fruit Snacks (Fruit by the Foot, Fruit Gushers, Fruit Roll-ups) Big G Cereals** Cheerios Cinnamon/French Toast Crunch Cocoa Puffs Lucky Charms Yoplait Go-Gurt	Cookie Crisp Golden Grahams Monsters cereals (Boo Berry, Franken Berry, Count Chocula) Reese's Peanut Butter Puffs Trix Yoplait Trix and Kid Cup	Yoplait Yogurt
Kellogg Company	Froot Loops Frosted Flakes	Apple and Cinnamon Jacks Corn Pops Eggo (Waffles and Bites) Frosted Mini-Wheats Rice Krispies Scooby Doo cereal	Pop Tarts
The Kraft Heinz Company	Capri Sun Lunchables Kraft Macaroni & Cheese Kool-Aid	Kraft Polly-O Kraft Singles	
McDonald's	Happy Meal	None	All other products
PepsiCo	None	Quaker (Oats and Instant Oatmeal) Quaker Life	Lays Potato Chips
Post Foods	Pebbles (Fruity and Cocoa)	Alpha-Bits Honey-Comb Fruity Pebbles Treats	
Unilever	None	Popsicle	

*Brands included on CFBAI list of products that may be in child-directed advertising as of July 2016⁶

** TV ads for Big G Cereals featured and promoted multiple General Mills listed cereals

Source: Rudd Center analysis of Nielsen data (2017)

Table 7. CFBAI companies that did not engage in child-directed advertising

Company	Top-50 brands
The Coca-Cola Company	Coca-Cola
The Hershey Company	Hershey's Kit Kat Reese's Peanut Butter Cups
American Licorice Company	None
Ferrero USA	None
Mars	None
Mondelez Global	None
Nestle USA	None

Source: Rudd Center analysis of Nielsen data (2017)

under 12 (see **Tables 6 and 7**). Five of the seven companies that pledged to not engage in child-directed advertising did not have any brands among the top-50 with the most TV advertising viewed by children.

It should be noted that CFBAI company pledges do not address children's exposure to food advertising in all media or in all types of TV programming.³ Therefore, companies can advertise any products in TV programming that is widely viewed by children, as long as those programs do not meet the CFBAI definition of child-directed (i.e., children under age 12 comprise more than 35% of the total audience). As previous research has shown, children's programs that also include large adult audiences (e.g., Disney movies, holiday cartoon specials) and programs that are viewed primarily by youth under age 18, including children and teens (e.g., programs on Nick-at-Nite and Adult Swim), do not qualify as child-directed according

to CFBAI definitions.^{4,5} This practice can result in children's exposure to advertising for brands that are not included on CFBAI companies' lists of products that meet CFBAI nutrition criteria and/or brands from companies that have pledged to not engage in any form of child-directed advertising.

Advertising spending

Of the \$5.9 billion spent by CFBAI companies to advertise their brands in 2016, just 12% (\$0.7 billion) promoted listed brands with products that may be advertised in child-directed media (see **Figure 11**). CFBAI companies with any child-directed brands spent more than four times as much to advertise their non-listed brands. CFBAI companies that pledged to not engage in any child-directed advertising represented one-third of all CFBAI company ad spending.

From 2007 to 2016, _____ by all CFBAI companies decreased slightly (by 6%), primarily due to a 16% decrease in spending on non-listed brands from companies with child-directed advertising. Advertising spending on _____ also declined slightly, by 4% from 2007 to 2016. In contrast, total advertising by the seven companies pledging not to engage in child-directed advertising increased by 15% (an increase of \$258 million).

Total advertising spending by individual CFBAI companies varied widely (see **Table 8**). For example, McDonald's and PepsiCo spent almost \$800 million each in 2016, while American Licorice spent just \$3,000. However, the majority of companies spent more than \$300 million in total advertising. Among CFBAI companies with products that may be featured in child-directed

Figure 11. Changes in total ad spending by CFBAI companies for listed and non-listed brands

Source: Rudd Center analysis of Nielsen data (2017)

Table 8. CFBAI company advertising spending on listed and non-listed brands in 2016

Company	Listed brands		Non-listed brands
	Total ad spending (\$ mil)	% of total spending	Total ad spending (\$ mil)
General Mills	\$259.5	45%	\$316.4
The Kraft Heinz Company	\$125.1	23%	\$416.9
Kellogg Company	\$116.1	34%	\$227.3
The Dannon Company	\$96.3	94%	\$5.7
PepsiCo	\$68.1	9%	\$721.1
McDonald's	\$32.8	4%	\$765.6
Campbell Soup Company	\$27.6	20%	\$108.4
Post Foods	\$8.4	11%	\$70.3
ConAgra	\$1.1	1%	\$73.8
Unilever	\$0.7	<1%	\$218.7
Burger King	\$0	0%	\$314.0
Companies that did not engage in child-directed advertising:			
The Coca-Cola Company	n/a		\$514.3
Mars	n/a		\$458.5
The Hershey Company	n/a		\$416.5
Nestle USA	n/a		\$309.6
Mondelez Global	n/a		\$176.9
Ferrero USA	n/a		\$68.2
American Licorice Company	n/a		\$3

Source: Rudd Center analysis of Nielsen data (2017)

advertising, the proportion of spending on CFBAI listed brands also varied widely. More than 90% of Dannon advertising was devoted to CFBAI listed brands, followed by General Mills at 45%. General Mills also spent almost \$260 million on its listed brands, more than any other CFBAI company. Campbell, Kraft Heinz, and Kellogg allocated 20% to 34% of their advertising spending to listed brands, while Conagra, PepsiCo, and McDonald's allocated less than 10%. Burger King did not advertise its one listed brand (Kid's Meal) at all in 2016.

CFBAI listed brands

The 16 _____ that ranked in the top-50 brands with the most TV advertising to children included seven brands from General Mills and four Kraft Heinz brands, as well as two Kellogg brands and one brand each from McDonald's, Campbell Soup, and Post Foods (see **Table 9**). Total spending per brand ranged from \$4 million for Cocoa Puffs to \$125 million for Cheerios (see **Appendix Table A1**). Ten of these brands allocated more than 80% of their total spending to _____, but seven brands spent a relatively high proportion of their advertising in other media. Big G Cereals spent almost \$32 million on _____, while Cheerios, Capri Sun, Pebbles, and Pepperidge Farm Goldfish all spent at least \$2 million. Capri Sun, Kraft Macaroni & Cheese, Lunchables, and Pepperidge Farm Goldfish all spent at least \$6 million on national magazine ads, including \$43 million for Lunchables. Big G Cereals was the only brand with substantial spending in FSI coupons (over \$1.6 million), and Lunchables was the only brand that purchased advertising in the national Sunday supplement (\$2.6 million).

Table 9. Advertising spending by top-50 CFBAI listed brands in 2016

Company	Brand	Total ad spending (\$ mil)	TV % of total*	Change in total ad spending from 2007
General Mills	Cheerios	\$124.8	89%	10%
General Mills	Big G Cereals	\$79.7	58%	276%
The Kraft Heinz Company	Lunchables	\$61.6	26%	103%
McDonald's	Happy Meal	\$32.9	84%	-33%
The Kraft Heinz Company	Capri Sun	\$30.9	30%	61%
The Kraft Heinz Company	Kraft Macaroni & Cheese	\$28.5	62%	-15%
Campbell Soup Company	Pepperidge Farm Goldfish	\$27.6	70%	71%
General Mills	Cinnamon/French Toast Crunch	\$24.9	100%	168%
Kellogg Company	Frosted Flakes	\$24.5	100%	102%
General Mills	Yoplait Go-Gurt	\$10.9	93%	4%
General Mills	Lucky Charms	\$9.1	99%	-25%
Post Foods	Pebbles	\$8.4	50%	-35%
Kellogg Company	Froot Loops	\$5.5	97%	-38%
General Mills	Betty Crocker Fruit Snacks	\$5.0	100%	-70%
The Kraft Heinz Company	Kool-Aid	\$4.0	97%	-80%
General Mills	Cocoa Puffs	\$4.0	100%	39%

*English-language TV advertising

Source: Rudd Center analysis of Nielsen data (2017)

Table 10. Advertising spending by less-advertised CFBAI listed brands

Company	Brand	Total ad spending (\$ mil)	TV % of total*	Change in total ad spending from 2007
The Dannon Company	Activia, DanActive, Danimals, Dannon, Light & Fit, Oikos Yogurt	\$96.3	96%	-7%
Kellogg Company	Apple/Cinnamon Jacks, Corn Pops, Eggo, Frosted Mini-Wheats, Rice Krispies, Scooby Doo cereal	\$86.1	69%	-33%
PepsiCo	Quaker Life, Quaker Oats	\$68.1	71%	107%
General Mills	Monsters cereals, Cookie Crisp, Golden Grahams, Reese's Peanut Butter Puffs, Trix, Yoplait (Trix, Kid Cup)	\$1.2	100%	-96%
ConAgra	Kid Cuisine, Peter Pan Peanut Butter, Chef Boyardee	\$1.1	92%	-95%
Unilever	Popsicle	\$0.7	100%	-80%

*English-language TV advertising

Source: Rudd Center analysis of Nielsen data (2017)

From 2007 to 2016, nine brands increased their total ad spending. Big G Cereals, Lunchables, Cinnamon Toast Crunch, and Frosted Flakes more than doubled their ad spending, with increases of \$58 million for Big G Cereals and \$31 million for Lunchables. Of the seven brands that decreased total spending from 2007 to 2016, Kool Aid and Betty Crocker Fruit Snacks advertising declined the most, with decreases of \$15 million (80%) and \$12 million (70%), respectively. However, most of the increased advertising occurred from 2007 to 2013. Compared with 2013, only four brands increased total spending in 2016, including a five-fold increase in spending by Big G Cereals. Capri Sun, Lunchables, and Pebbles also increased advertising spending from 2013 to 2016. On the other hand, Lucky Charms, Betty Crocker Fruit Snacks, and Kool-Aid decreased their total spending by more than one-half during those three years.

The examination of advertising spending by less-advertised CFBAI listed brands, found that four companies had no advertising or spent less than \$30,000 on their listed brands, including Burger King, Campbell Soup Company, Kraft Heinz, and Post Foods. From 2007 to 2016, PepsiCo doubled spending on its less-advertised CFBAI listed brands, the only company to increase spending on these brands (See **Table 10**). In contrast, most companies dramatically reduced advertising for these brands from 2007 to 2016, including total reductions of

\$43 million by Kellogg, \$34 million in Kraft Heinz, \$29 million in General Mills, and \$22 million by ConAgra. Burger King had spent \$16 million to advertise its Kid's Meal in 2007, but did not advertise the product at all in 2016. Just two companies devoted less than 80% of their total advertising spending on these brands to English-language TV advertising. Kellogg and PepsiCo both spent over \$30 million on Spanish-language TV ads and over \$60 million on national magazine ads.

CFBAI top-50 non-listed brands

In contrast to declines in ad spending for most CFBAI listed brands, all _____ increased their total advertising spending from 2007 to 2016 (see **Table 11** and **Appendix Table A2**). Brands with the greatest total spending increases included Coca Cola, which spent an additional \$114 million (73% increase), Burger King spent almost \$90 million (+39%), Reese's Peanut Butter Cups spent almost \$83 million (more than a five-fold increase), and McDonald's spent over \$64 million (+9%). These brands also stood out for their high spending in other media. McDonald's spent the most in diverse other media, including \$59 million in Spanish-language TV advertising, \$83 million in outdoor advertising, \$68 million in radio advertising, and \$5 million in

Table 11. Advertising spending by CFBAI company top-50 non-listed brands in 2016

Company	Brand	Total ad spending (\$ mil)	TV % of total*	Change in total ad spending from 2007
McDonald's	All products (excluding Happy Meal)	\$765,548	72%	9%
Burger King	All products (excluding Kids Meal)	\$313,971	81%	39%
The Coca-Cola Company	Coca Cola	\$271,714	67%	73%
The Hershey Company	Hershey's	\$105,244	81%	98%
The Hershey Company	Reese's	\$102,274	81%	427%
General Mills	Yoplait	\$83,425	94%	206%
PepsiCo	Lays	\$66,582	57%	118%
The Hershey Company	Kit Kat	\$49,087	76%	3603%
Kellogg	Pop Tarts	\$38,346	77%	85%

*English-language TV advertising

Source: Rudd Center analysis of Nielsen data (2017)

national magazines. Coca Cola, Lays, Kit Kat, and Pop Tarts also spent \$3 million or more on Spanish-language TV ads. In addition, Coca Cola spent more than \$20 million on outdoor ads and \$19 million in radio, while Lays spent almost \$26 million in national magazine advertising.

Key findings

- CFBAI companies spent almost \$6 billion to advertise all their brands in 2016, but devoted just 12% (\$735 million) to advertise brands with products that may be featured in child-directed advertising (i.e., CFBAI listed brands).
- From 2007 to 2016, total advertising spending by the seven CFBAI companies that pledged to not engage in any child-directed advertising increased by 15%, while the remaining eleven CFBAI companies reduced their spending by 14%.
- Most CFBAI companies allocated 80% or more of their advertising spending to English-language TV advertising in 2016, although some brands spent \$50 million or more on Spanish-language TV advertising, outdoor advertising, radio, and/or national magazines.

TV advertising exposure

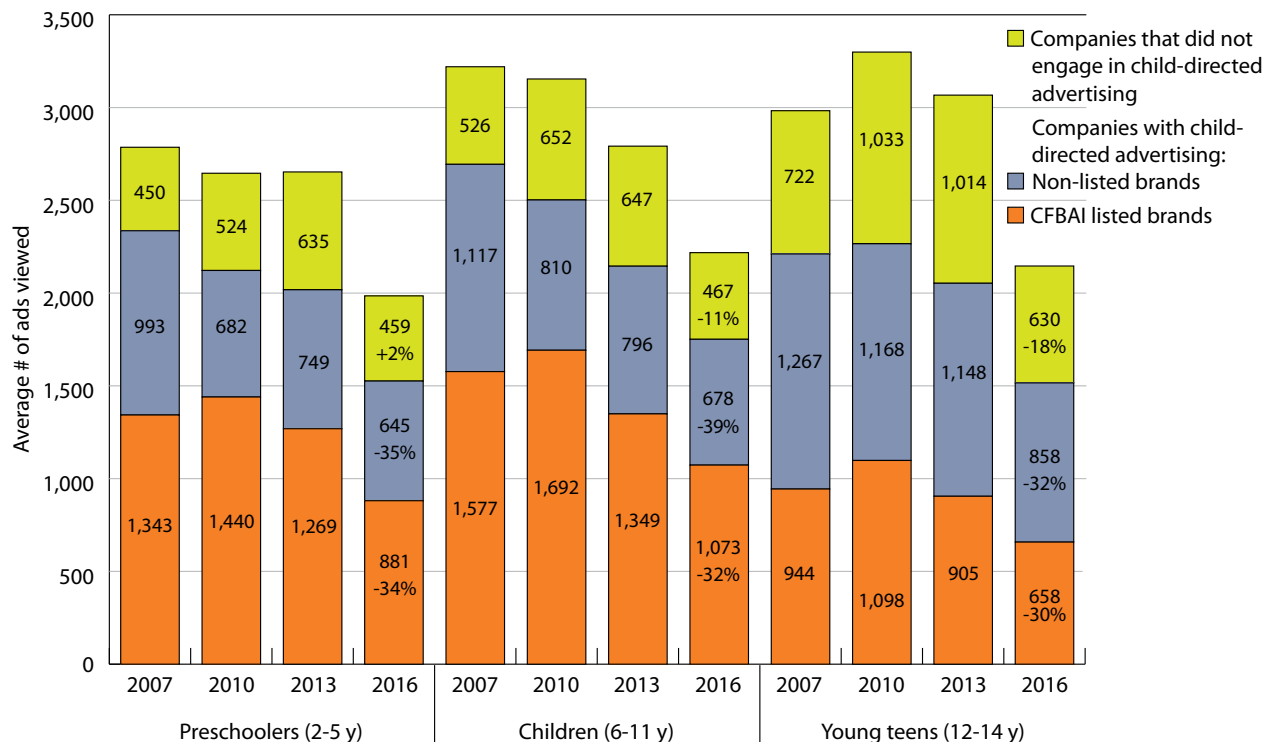
CFBAI companies were responsible for more than one-half of children's exposure to all food, beverage and restaurant TV advertising in 2016, resulting in on average 6.1 _____ per day from CFBAI companies for children (ages 6-11), 5.9

ads for young teens (ages 12-14), and 5.4 ads for preschoolers (ages 2-5). However, less than one-half of these ads promoted brands included on CFBAI company lists of products that may be in child-directed advertising (i.e., CFBAI listed brands) (see **Figure 12**). Notably, preschoolers and children saw over 450 ads annually for brands from CFBAI companies that pledged to not engage in any child-directed advertising, and over 600 ads for non-listed brands from CFBAI companies that did engage in child-directed advertising, but that did not include these brands in their lists of child-directed products. Furthermore, ten CFBAI companies (all companies with child-directed advertising, with the exception of McDonald's) have pledged not to advertise directly to children under age six. However, preschoolers saw 1,343 TV ads for brands from these companies in 2016—just 13% fewer ads than children (ages 6-11) viewed.

Compared to 2007, children and preschoolers saw approximately 25% fewer TV ads for all CFBAI company brands in 2016. However, changes in exposure differed by type of CFBAI company and brand. Exposure to TV ads for CFBAI listed brands and non-listed brands decreased by 30% or more for children in all age groups. However, TV ads viewed for CFBAI companies that pledged to not engage in child-directed advertising decreased at a somewhat lower rate, by 11% for children and 18% for young teens. In contrast, for preschoolers, ads viewed for these companies increased slightly from 2007 to 2016.

Despite high numbers of ads for _____ viewed by children under age 12, it appears that CFBAI companies have

Figure 12. Changes in TV ads viewed for CFBAI listed and non-listed brands



Source: Rudd Center analysis of Nielsen data (2017)

Table 12. TV ads viewed on all TV by age group for CFBAI company brands by type in 2016

	Preschoolers (2-5 y)		Children (6-11 y)		Young teens (12-14 y)	
	Tgt'd ratio vs. adults (18-49 y)	% ads viewed on children's TV	Tgt'd ratio vs. adults (18-49 y)	% ads viewed on children's TV	Tgt'd ratio vs. adults (18-49 y)	% ads viewed on children's TV
Companies with child-directed advertising:						
Listed brands	1.81	81%	2.21	82%	1.35	69%
Non-listed brands	0.43	2%	0.45	2%	0.57	1%
Companies that did not engage in child-directed advertising						
	0.42	0%	0.43	1%	0.57	0%

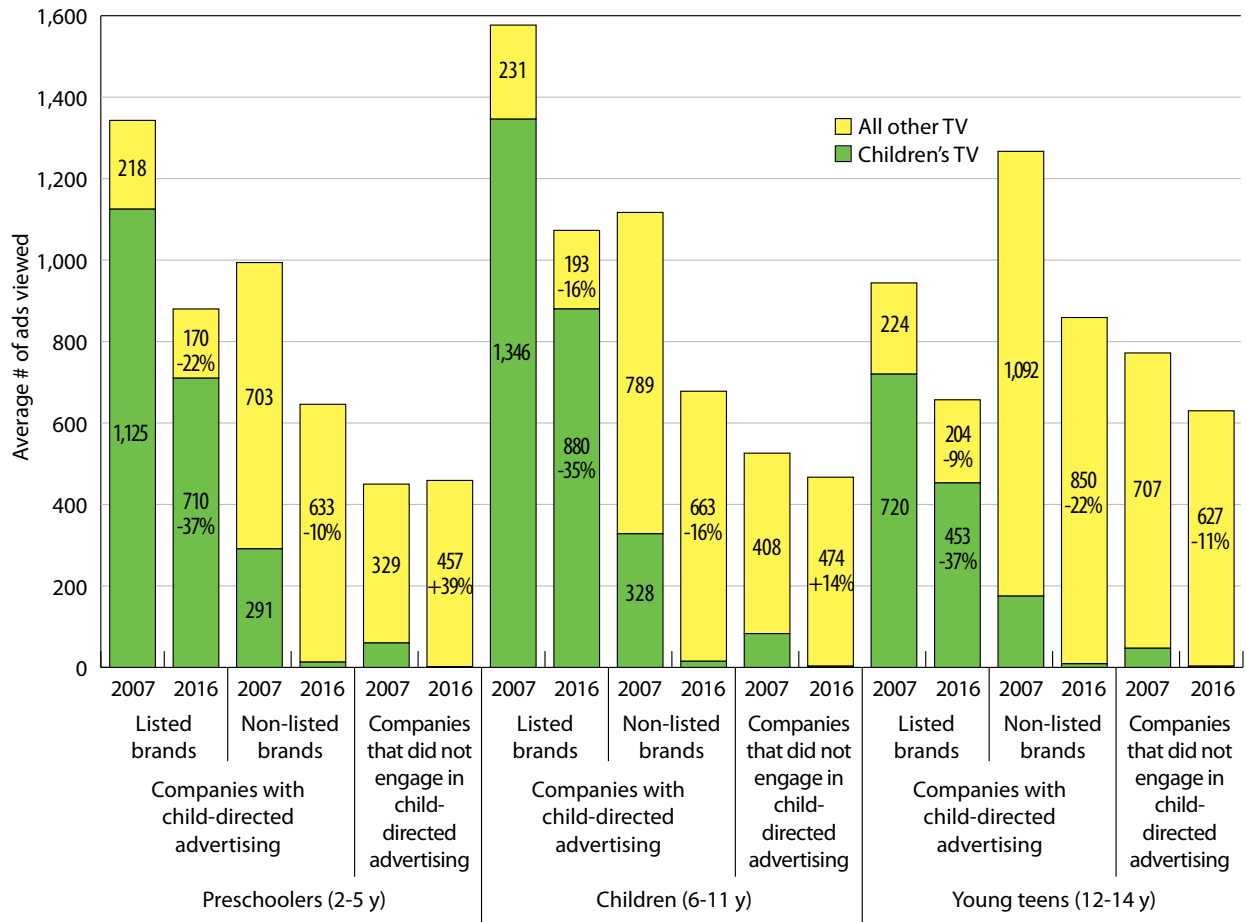
Source: Rudd Center analysis of Nielsen data (2017)

complied with their pledges to not advertise these brands in child-directed media (see **Table 12**). _____ for ads viewed by preschoolers and children versus adults for non-listed brands were approximately 0.4, which indicates that children saw 60% fewer ads for these brands than adults (ages 18-49) saw. Furthermore, 2% or less of the ads viewed by children for these brands appeared on _____ networks. On the other hand, targeted ratios for CFBAI listed brands ranged from 1.4 for young teens to 2.2 for children, indicating that these brands placed the majority of their advertisements during TV programming with larger audiences of children than of adults. Accordingly, more

than 80% of ads for _____ viewed by children under age 12 appeared on children's TV programming. These findings are consistent with CFBAI company pledges that they will only advertise listed brands on TV programming with an audience of 35% or more children under age 12.

On children's TV, nearly all ads from CFBAI companies viewed by children of all age groups were for CFBAI listed brands. This is a notable improvement from 2007 when approximately one-quarter of CFBAI company ads on children's TV were for CFBAI non-listed brands. It should be noted that these numbers reflect advertising on children's TV as defined by

Figure 13. Changes in ads viewed by CFBAI company type on children's TV vs. other TV



Source: Rudd Center analysis of Nielsen data (2017)

Nielsen, which may include some programming that did not meet the CFBAI threshold of 35% or more children under age 12 in the audience to qualify as child-directed. As noted earlier, TV ads for CFBAI companies appearing on children's TV decreased by approximately 50% from 2007 to 2016 for all child age groups. Children's exposure to TV ads for non-listed brands from companies with child-directed advertising also declined during this time on other types of TV (not children's TV) (see **Figure 13**). However, from 2007 to 2016, children's exposure to advertising on other TV for non-listed brands from CFBAI companies that pledged to not engage in child-directed advertising increased by 39% for preschoolers (ages 2-5) and 14% for children (ages 6-11).

CFBAI companies with the most TV advertising viewed by children

In 2016, children viewed 100 or more TV ads for brands from eight CFBAI participating companies (see **Table 13**). These companies represented approximately 90% of TV ads viewed by children from all CFBAI companies. General

Mills was responsible for the most TV advertising to children, contributing 12% of all food, beverage and restaurant ads viewed by children, and 11% and 8% for preschoolers and young teens, respectively. However, only General Mills, Kraft Heinz, and McDonald's averaged targeted ratios greater than 1.0 for all their brands combined, indicating that children saw more ads for their brands compared with adults. Children also viewed more than one-half of TV advertising for these three companies on children's TV. Kellogg brands averaged somewhat lower targeted ratios, while children viewed approximately 45% of ads for Kellogg brands on children's TV. For all other CFBAI companies, children under 12 viewed on average less than one-half the number of TV ads that adults viewed, and few of these ads appeared on children's TV.

Of the 11 CFBAI companies with child-directed brands, just 7 placed more than 15 ads per year (viewed by any child age group) on children's TV in 2016 (see **Table 14**). As on TV overall, General Mills advertised the most brands and placed the most advertising on children's TV, contributing 34% of CFBAI company ads viewed by children on children's TV. Not surprisingly, children in all age groups viewed approximately

Table 13. Total TV advertising viewed by children in 2016 by company*

Company	Preschoolers (2-5 y)				Children (6-11 y)				Young teens (12-14 y)			
	Avg # of ads viewed	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of ads viewed	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of ads viewed	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007
General Mills	409.5	1.13	64%	-31%	468.4	1.29	65%	-32%	336.1	0.93	44%	-34%
The Kraft Heinz Company	242.7	1.17	67%	18%	311.6	1.50	73%	22%	216.6	1.04	56%	3%
PepsiCo	192.1	0.42	3%	7%	203.6	0.44	2%	-4%	275.8	0.60	1%	3%
McDonald's	183.4	1.38	74%	-23%	203.2	1.53	77%	-24%	134.0	1.01	59%	-39%
Kellogg Company	157.8	0.76	45%	-67%	184.0	0.89	46%	-65%	166.1	0.80	27%	-55%
The Hershey Company	157.3	0.42	0%	564%	156.7	0.42	0%	435%	219.0	0.59	0%	345%
Mars	100.0	0.39	0%	-20%	105.6	0.41	0%	-36%	154.6	0.61	0%	-45%
Burger King Corporation	93.6	0.40	0%	-31%	101.0	0.43	0%	-41%	139.1	0.59	0%	-13%

*Includes all CFBAI companies with 100 or more ads viewed by children in any age group in 2016

Source: Rudd Center analysis of Nielsen data (2017)

Table 14. TV advertising viewed on children's TV in 2016 by company*

Company	# of brands advertised on children's TV	Preschoolers (2-5 y)		Children (6-11 y)		Young teens (12-14 y)	
		Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)
General Mills	11	262.6	4.87	305.4	5.66	149.2	2.77
The Kraft Heinz Company	4	163.0	4.30	227.7	6.02	121.2	3.20
McDonald's	2	135.2	4.65	156.0	5.36	79.1	2.72
Kellogg Company	2	70.7	4.31	85.2	5.19	44.9	2.73
Post Foods	2	38.5	4.35	49.7	5.61	27.0	3.04
Campbell Soup Company	1	19.6	3.86	31.4	6.17	18.0	3.54
The Dannon Company	3	18.0	4.08	22.5	5.09	13.5	3.06

*Includes all companies with 20 or more ads viewed on children's TV by children in any age group

Source: Rudd Center analysis of Nielsen data (2017)

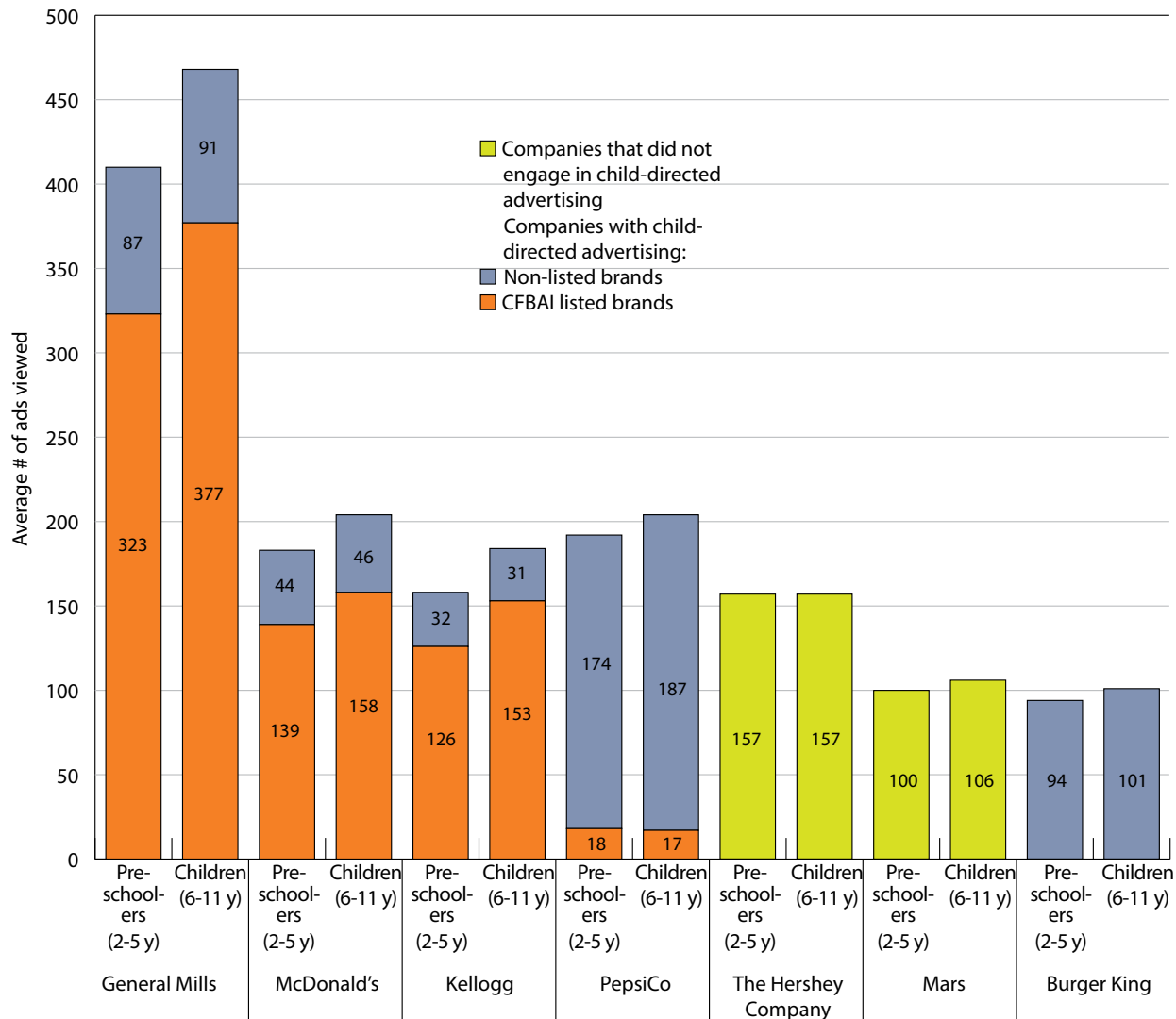
three to six times as many ads on children’s TV compared with adults. Four CFBAI companies listed brands that may be included in child-directed advertising, but placed little or no advertising for their brands on children’s TV in 2016: Burger King, ConAgra, PepsiCo, and Unilever.

General Mills, Kellogg, and McDonald’s were the only companies for which children viewed more ads for listed brands than for non-listed brands (see **Figure 14**). On the other hand, exposure to TV advertising for brands not listed for child-directed advertising represented at least 91% of all Burger King and PepsiCo ads viewed by children of all age groups. Notably, two companies that averaged 100 or more ads viewed by children had pledged that they would not direct any advertising to children under 12: The Hershey Company and Mars. However, low targeted ratios indicate that these companies did not specifically target children with their advertising, but that adults as well as children were exposed to frequent advertising for their brands.

Top-50 CFBAI listed brands

Sixteen CFBAI listed brands from six companies ranked among the top-50 brands advertised most to children on TV in 2016. Overall, children viewed the most TV ads for CFBAI top-50 listed brands (957 ads), followed by preschoolers (775 ads) and young teens (561 ads) (see **Appendix Table B1**). The average number of ads viewed by children for individual top-50 brands ranged from 26 ads for Cocoa Puffs to 158 ads for McDonald’s Happy Meals (see **Table 15**). Apart from Cheerios, children viewed more than 70% of TV advertising for these brands on children’s TV, with targeted ratios well above 1.0, indicating that advertising for these brands was primarily targeted to children (see **Appendix Table B2**). Notably, nearly 100% of TV advertising for brands with the highest targeted ratios (≥ 3.0) appeared on children’s programming. In contrast to the other brands on this list, less than 50% of TV advertising for Cheerios (including regular and Honey Nut varieties) appeared on children’s programming.

Figure 14. Total TV ads viewed by CFBAI company, brand type, and child age group in 2016



Source: Rudd Center analysis of Nielsen data (2017)

Table 15. Total TV ads viewed for top-50 CFBAI listed brands in 2016

Company	Brand	Preschoolers (2-5 y)				Children (6-11 y)				Young teens (12-14 y)			
		Avg # of TV ads viewed	Tgt'd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed	Tgt'd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed	Tgt'd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007
McDonald's	Happy Meal	139.0	4.41	95%	40%	157.6	5.00	96%	36%	79.9	2.53	97%	21%
The Kraft Heinz Company	Lunchables	68.1	3.08	88%	94%	96.8	4.38	88%	118%	57.8	2.61	80%	127%
General Mills	Big G Cereals	66.6	1.73	78%	212%	79.1	2.05	78%	235%	48.1	1.24	63%	187%
General Mills	Cinnamon/French Toast Crunch	51.8	2.26	84%	12%	61.4	2.67	84%	15%	37.3	1.63	68%	29%
General Mills	Cheerios	51.1	0.75	44%	-19%	59.3	0.87	47%	-19%	53.1	0.78	27%	-2%
The Kraft Heinz Company	Capri Sun	49.1	3.33	94%	57%	67.4	4.57	92%	71%	37.5	2.55	88%	42%
General Mills	Yoplait Go-Gurt	48.9	3.33	92%	2%	55.4	3.77	90%	0%	29.3	1.99	83%	-2%
Kellogg Company	Froot Loops	44.9	4.72	99%	14%	52.8	5.54	98%	18%	27.2	2.85	97%	15%
General Mills	Betty Crocker Fruit Snacks	40.2	4.08	95%	-44%	46.1	4.68	93%	-43%	23.9	2.43	84%	-45%
Post Foods	Fruity/Cocoa Pebbles	39.4	4.36	97%	-28%	50.5	5.60	98%	-30%	27.5	3.04	97%	-31%
General Mills	Lucky Charms	34.5	3.02	90%	-40%	42.0	3.67	89%	-37%	23.7	2.07	76%	-32%
Kellogg Company	Frosted Flakes	32.6	1.43	74%	-14%	40.4	1.77	74%	-1%	28.0	1.23	56%	28%
The Kraft Heinz Company	Kool-Aid	31.1	4.19	95%	-24%	42.6	5.74	95%	-22%	22.9	3.09	93%	-36%
The Kraft Heinz Company	Kraft Macaroni & Cheese	30.2	1.58	89%	-17%	42.0	2.19	94%	-13%	26.6	1.39	77%	-14%
Campbell Soup Company	Pepperidge Farm Goldfish	25.2	1.84	78%	-46%	37.6	2.74	83%	-31%	24.7	1.80	73%	-16%
General Mills	Cocoa Puffs	22.5	4.88	97%	32%	26.2	5.68	95%	27%	13.2	2.86	92%	20%

Source: Rudd Center analysis of Nielsen data (2017)

From 2007 to 2016, TV advertising viewed by children increased for approximately one-half of the brands on this list. Exposure to advertising for Big G Cereals and Lunchables increased at the highest rate. Children of all age groups viewed two to three times more TV ads for Big G Cereals, and approximately twice as many ads for Lunchables in 2016 than in 2007. Betty Crocker Fruit Snacks and Pepperidge Farm Goldfish had the largest declines in ad exposure. Ads for Betty Crocker Fruit Snacks were down by approximately 45% for children of all age groups. Exposure to Goldfish ads fell by 46% for preschoolers and by 31% and 16% for children and young teens, respectively.

Less-advertised CFBAI listed brands

Six companies also advertised listed brands that may be included in child-directed advertising, but that did not rank among the top-50 brands advertised most to children (see **Table 16**). CFBAI listed brands that did not advertise to children on TV at all in 2016

included Bolthouse Farms (Campbell Soup Company), Yoplait Trix and Kid Cup yogurts (General Mills), Kraft Polly-O and Singles cheese, Honey-Comb cereal (Post Foods), and Burger King Kid's Meal. Notably, children had viewed approximately 100 ads for Burger King Kid's Meal in 2007.

However, TV advertising for these brands in 2016 was low, totaling just 105 ads viewed by preschoolers and 116 ads by children for all brands combined (see **Appendix Table B1**). Among _____, Dannon advertised the most to children, totaling 56 ads viewed by preschoolers and 63 ads viewed by children for all its brands combined (no Dannon brands ranked among the top-50). With exception of PepsiCo Quaker brands, TV advertising for all other less-advertised brands that continued to advertise in 2016 decreased from 2007. Popsicle had the smallest decrease in ads viewed by preschoolers and children from 2007 to 2016 at -19% and -23%, respectively. Among these brands, only ConAgra Foods brands, General Mills kids' cereals, and

Table 16. Total TV ads viewed for less-advertised CFBAI listed brands in 2016

Company	Preschoolers (2-5 y)				Children (6-11 y)				Young teens (12-14 y)			
	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% ads viewed on children's TV	Change in ads viewed from 2007	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% ads viewed on children's TV	Change in ads viewed from 2007	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% ads viewed on children's TV	Change in ads viewed from 2007
The Dannon Company	55.5	0.7	32%	-64%*	63.3	0.8	36%	-65%*	50.2	0.6	27%	-58%*
PepsiCo	18.0	0.4	0%	25%	17.1	0.4	0%	4%	18.4	0.4	0%	-13%
Kellogg Company	14.5	0.4	0%	-91%	14.3	0.4	0%	-92%	16.6	0.5	0%	-86%
General Mills	7.0	4.9	98%	-94%	7.7	5.4	96%	-95%	3.7	2.6	93%	-95%
Unilever	6.8	5.4	94%	-19%	7.7	6.1	84%	-23%	3.8	3.0	76%	-32%
ConAgra Foods	3.4	3.8	88%	-95%	6.0	6.7	92%	-92%	4.1	4.6	93%	-90%

*Company had not joined CFBAI

Source: Rudd Center analysis of Nielsen data (2017)

Popsicles (Unilever) appeared to primarily target advertising to children, with targeted ratios of 2.8 or higher.

CFBAI company non-listed top-50 brands

In addition to 16 listed brands, nine brands that companies did not include on their lists of products that may be in child-directed advertising also ranked among the top-50 brands

with the most TV advertising to children (see **Table 17** and **Appendix Table B3**). Four of these brands were from three CFBAI companies that pledged to not engage in any child-directed advertising (Hershey Company, Coca-Cola, and Mars). The remaining brands were from five CFBAI companies that engaged in child-directed advertising but did not include these brand(s) in their lists of child-directed products (Burger King, McDonald's, General Mills, PepsiCo, and Kellogg).

Table 17. Total TV ads viewed for CFBAI company top-50 non-listed brands in 2016

Company	Brands	Preschoolers (2-5 y)				Children (6-11 y)				Young teens (12-14 y)			
		Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% ads viewed on children's TV	Change in ads viewed from 2007	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% ads viewed on children's TV	Change in ads viewed from 2007	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% ads viewed on children's TV	Change in ads viewed from 2007
Companies with child-directed advertising:													
Burger King Corporation	All products (excluding Kids Meal)	93.6	0.40	0%	101%	101.0	0.43	0%	65%	139.1	0.59	0%	38%
McDonald's	All products (excluding Happy Meal)	44.4	0.44	8%	-68%	45.6	0.45	9%	-70%	54.2	0.53	4%	-65%
Kellogg Company	Pop Tarts	23.8	0.56	6%	-69%	31.8	0.75	8%	-64%	40.6	0.96	5%	-12%
General Mills	Yoplait Yogurt	23.6	0.46	2%	304%	25.1	0.49	2%	186%	30.1	0.59	1%	115%
PepsiCo	Lays Potato Chips	19.2	0.43	0%	386%	20.3	0.45	0%	254%	27.5	0.61	0%	292%
Companies that did not engage in child-directed advertising:													
The Hershey Company	Hershey's	39.4	0.43	0%	258%	38.3	0.42	0%	174%	50.9	0.56	0%	140%
The Hershey Company	Reese's	32.1	0.41	0%	348%	33.2	0.43	0%	273%	45.9	0.59	0%	200%
The Hershey Company	Kit Kat	20.2	0.41	0%	**	20.5	0.42	0%	**	29.2	0.60	0%	**
The Coca-Cola Company	Coca Cola	19.7	0.49	2%	183%	22.3	0.56	4%	179%	27.6	0.69	2%	190%

**No TV advertising in 2007

Source: Rudd Center analysis of Nielsen data (2017)

Children of all age groups saw more than 90 ads in 2016 for Burger King products (not its Kid's Meal) and 44 or more McDonald's (not Happy Meals) ads in 2016 (see **Table 17**). For the other brands on this list, preschoolers and children saw 19 to 39 ads. In contrast to CFBAI listed brands, young teens saw more ads for top-50 non-listed brands than did younger children—young teens saw 445 ads, while preschoolers saw 316 ads, and children saw 338 ads. With young teen to adult targeted ratios of 1.0, it appears that Kellogg targeted PopTarts ads to this age group. In contrast, young teen to adult targeted ratios of 0.5 to 0.7 for all other brands indicate that young teens saw 30-50% fewer ads for the brands versus adults, which was comparable to differences in TV viewing time for young teens versus adults.

In contrast to reductions in TV advertising for most CFBAI listed brands, advertising for the majority of _____ increased from 2007 to 2016. Preschoolers experienced the largest increases, including more than four-fold increases in exposure to advertising for Yoplait Yogurt and Lays. On the other hand, exposure to TV ads for McDonald's brands (excluding Happy Meals) decreased by more than 50% for children of all age groups, and TV advertising for Pop Tarts was down by more than two-thirds for preschoolers and children, and 12% for young teens.

The top-50 brands from CFBAI companies that pledged to not engage in child-directed advertising included three Hershey candy brands and one soda brand (Coca-Cola). From 2007 to 2016, exposure to TV advertising for Hershey's Candy and Reese's more than doubled across all ages, while Kit Kat had no TV advertising in 2007. TV ads for Coca Cola nearly tripled during this time for children of all age groups.

Among the CFBAI top-50 non-listed brands, children saw some ads for PopTarts, McDonalds (not Happy Meals), Yoplait yogurt, and Coca-Cola on children's TV programming (see **Appendix Table B4**). Presumably, these ads were not placed on TV programming with a child audience greater than 35% and these companies complied with their CFBAI pledges to not advertise in child-directed media according to their definition. Nevertheless, placement on children's TV programming indicates that these brands were not targeting adults with their advertising.

Key findings

- CFBAI listed brands appeared to be the only CFBAI brands with advertising directly targeted to children, evidenced by advertising on children's TV programming and high child to adult targeted ratios (i.e., average number of ads viewed by children vs. adults).
- Of the 47 CFBAI listed brands in 2016, just 16 were responsible for almost 90% of all TV ads for CFBAI listed brands viewed by preschoolers and children. The remaining brands that were included on CFBAI company lists of products that may be in child-directed advertising had little or no advertising to children in 2016. General Mills, McDonald's, and Kellogg had the most TV advertising to preschoolers and children for listed brands (averaging more than 100 ads viewed each).
- However, approximately one-third of all TV ads for CFBAI company brands viewed by preschoolers (33%) and children (31%) were for non-listed brands that companies did not include on lists of products that may be featured in child-directed advertising. Advertising for many of these brands appeared to be primarily targeted to teens and/or adults, nevertheless children under 12 also viewed large numbers of these ads. For example, children and preschoolers viewed 187 and 174 TV ads, respectively, for PepsiCo non-listed brands. They also viewed 91 and 87 ads for General Mills non-listed brands and approximately 100 ads for Burger King products (not Kid's Meals).
- Since 2007, TV advertising viewed by children under 12 for CFBAI listed and non-listed brands from the 11 CFBAI companies that directed advertising for some of their brands to children declined by approximately one-third. The number of ads for CFBAI brands viewed by children on children's TV declined at even higher rates (approximately 50% for all child age groups).
- Additionally, exposure to advertising on children's TV programming for non-listed brands from companies that have pledged to not direct any advertising to children, decreased by nearly 100% for children of all ages from 2007 to 2016.

Banner advertising on kids' websites and social media sites

We examined syndicated data from comScore to measure _____ placed on _____ by CFBAI companies in 2016, including on _____ (e.g., CartoonNetwork.com) and two _____ (Facebook and YouTube). We used comScore's definitions to identify kids' websites (Family & Youth – Kids). comScore defined kids' websites as sites where 70% of the content was for kids.

Although comScore does not report the age of individuals who viewed banner ads placed on kids' websites, an analysis of the content and age of visitors to the kids' sites where CFBAI companies placed ads most often confirms that they were directed to children (see **Table 18**). More than 60% of banner ads placed by CFBAI companies on kids' websites appeared on these 10 sites. The proportion of visitors to these sites who were children (ages 2-12) all exceeded the 10% of visitors to all internet sites who were children. Despite their child-directed content, child visitors to five of the ten sites did not exceed the threshold established by the CFBAI to identify child-directed websites (i.e., $\geq 35\%$ of visitors aged 2 to 11). Of note, comScore defines children as ages 2 to 12 and does not report ages 2 to 11 as a separate age group. Therefore, it is not possible to independently confirm the CFBAI definition of child-directed websites.

Table 18. Kids' websites with the most banner ads for CFBAI brands* in 2016

Kids' website	# of food-related banner ad impressions on the site (000)	% of visitors to the site who were children (2-12 years)	Site content
Roblox.com	192,708	17%	Games for kids
PopTropica.com	33,611	42%	Educational games for kids
ABCYA.com	21,121	**	Educational games for kids
CartoonNetwork.com	13,038	48%	Games, videos, and full episodes for kids
Nick.com	9,952	45%	Games, videos, and full episodes for kids
GirlsGoGames.com	8,868	45%	Games for kids
AGame.com	6,425	28%	Games for kids
FunBrain.com	4,627	39%	Educational games for kids
GamesGames.com	2,748	15%	Games for kids
Disney Online sites	2,637	20%	Games, videos, Disney merchandise for kids

*Includes ads placed by CFBAI brands with 5 million or more banner ads on kids' websites in 2016 (Lunchables, Capri Sun, Froot Loops, Kool-Aid, Post Cereals, and McDonald's Happy Meal)

**comScore did not report number of visitors

Bold indicates that the proportion of child visitors to the website exceeded 35% and qualified as child-directed according to the CFBAI

Sources: comScore Ad Metrix Advertiser report and comScore Media Metrix Key Measures report for children (January - December 2016)

CFBAI companies

Sixteen of the eighteen companies participating in the CFBAI placed a total of _____ on kids' websites in 2016 (see **Table 19**). Only Burger King and American Licorice Company did not advertise on kids' websites. Nine out of ten banner ads for CFBAI brands on kids' websites were placed by either Kraft Heinz (77%) or Kellogg (13%), primarily for CFBAI listed brands. McDonald's, ConAgra, PepsiCo, and Unilever also placed ads for CFBAI listed brands on kids' websites, but these companies placed more ads for CFBAI non-listed brands than for listed brands. Notably, Nestle USA, Coca-Cola, PepsiCo, and Kellogg Company each placed over 18 million ads for CFBAI non-listed brands on kids' websites in 2016, while only Post Foods and Dannon did not place any banner ads for non-listed brands on kids' websites.

A total of 126 CFBAI brands placed banner ads on kids' websites in 2016 (see **Table 20**). Twenty-two CFBAI listed brands, those with products that may be in child-directed advertising, placed 70% of these ads. In addition, 9% of all banner ads for CFBAI listed brands appeared on kids' websites, almost twice as many banner ads than appeared on social media sites (Facebook and YouTube). CFBAI company non-listed brands also placed 143 million banner ads on kids' websites, with a majority of these ads placed by companies with child-directed advertising, however these ads represented just 1% of all banner ads placed by those brands. In contrast, these companies placed almost 3 billion ads on Facebook and YouTube in 2016, 13% of all banner ads placed by these brands.

Table 19. Total banner ads placed by CFBAI companies on kids' websites in 2016

Company	# of banner ad impressions (000)	
	CFBAI listed brands	Non-listed brands
The Kraft Heinz Company	254,193	10,256
Kellogg Company	42,549	18,177
PepsiCo	2,031	16,527
McDonald's	5,526	10,841
General Mills	10,382	4,021
ConAgra Foods	1,460	12,065
Post Foods	13,287	0
Unilever	101	3,575
The Dannon Company	1,094	0
CFBAI companies that did not engage in child-directed advertising:		
Nestle USA	n/a	31,280
The Coca-Cola Company	n/a	25,253
Mars	n/a	9,850
The Hershey Company	n/a	396
Ferrero USA	n/a	290
Mondelez Global	n/a	253

Source: comScore Ad Metrix Advertiser report (January - December 2016)

Table 20. Banner ads placed by CFBAI company brands on kids' websites and social media sites in 2016

	Brands with advertising on kids' websites		Kids' websites		Social media sites*	
	# of brands	% of total brands	# of ad impressions (000)	% of total brand impressions	# of ad impressions (000)	% of total brand impressions
CFBAI companies with child-directed advertising						
CFBAI listed brands	22	47%	330,622	9%	185,387	5%
Non-listed brands	62	n/a	75,462	0%	2,193,654	14%
Companies that did not engage in child-directed advertising	42	n/a	67,322	1%	493,766	10%

*Facebook and YouTube

Source: comScore Ad Metrix Advertiser report (January - December 2016)

CFBAI listed brands

Twenty-two of the 47 _____ placed banner ads on third-party kids' websites in 2016. Fifteen of these brands placed over 1 million ads on kids' sites (see **Table 21**). Not surprisingly, top-50 CFBAI listed brands advertised more often on kids' websites (totaling 325 million ads) compared to less-advertised CFBAI listed brands (5 million ads).

Ads for Lunchables appeared on kids' sites more often than ads for any other CFBAI brand. Two additional Kraft Heinz brands, Capri Sun and Kool-Aid, ranked second and fourth in number of ads placed on kids' websites. Froot Loops (Kellogg Company)

ranked third with 37.7 million ads on kids' websites in 2016. The brands placing the highest proportion of their banner ads on kids' websites included Kid Cuisine and Go-Gurt, which placed more than 70% of their ads on these sites, while Kool-Aid and Cinnamon Toast Crunch placed approximately one-half.

In addition to ads on kids' websites, Lunchables also placed by far the most ads on social media sites (11% of all its ads), including over 80 million ads on YouTube. One-quarter of Go-Gurt ads appeared on YouTube, while 13% of Cinnamon Toast Crunch ads appeared on the two social media sites. Quaker placed the most ads on Facebook, but they represented less than 7% of all banner ads for this brand in 2016.

Table 21. Banner ads placed by CFBAI listed brands* on kids' and social media websites in 2016

Company	Brand*	Top-50 brand	Kids' websites		Social media sites		
			# of ad impressions (000)	% of total brand impressions	# of ad impressions on Facebook (000)	# of ad impressions on YouTube (000)	% of total brand impressions***
The Kraft Heinz Company	Lunchables (excluding Uploaded varieties)	✓	165,871	24%	8,207	81,038	11%
The Kraft Heinz Company	CapriSun (including Roarin' Waters)	✓	67,770	16%	9,431	1,530	3%
Kellogg Company	Froot Loops	✓	37,659	39%	1,076	719	2%
The Kraft Heinz Company	Kool-Aid	✓	18,142	50%	319	277	2%
Post Foods	Post Cereals **	✓	13,287	26%	1,263	1,849	6%
McDonald's	Happy Meal	✓	5,526	40%	227	307	4%
Kellogg Company	Frosted Flakes	✓	4,068	6%	587	70	1%
General Mills	Cinnamon Toast Crunch	✓	3,335	46%	338	584	13%
General Mills	Lucky Charms	✓	2,968	5%	2,504	511	5%
General Mills	Cheerios	✓	2,623	3%	3,576	2,339	6%
The Kraft Heinz Company	Kraft Macaroni & Cheese	✓	2,031	1%	4,663	686	2%
PepsiCo	Quaker		2,031	0%	31,314	2,509	7%
ConAgra Foods	Kid Cuisine		1,460	77%	0	0	0%
General Mills	Go-Gurt	✓	1,331	71%	0	492	26%
The Dannon Company	Dannon, Activia, Light & Fit		1,094	2%	1,458	2,780	7%

*Includes brands with 1,000,000 or more banner ads on kids' websites in 2016.

**comScore did not specify a brand, but these ads may have promoted the company's CFBAI listed brands.

*** Facebook and YouTube

Source: comScore Ad Metrix Advertiser report (January - December 2016)

CFBAI non-listed brands

Of the 104 CFBAI _____ that placed any banner ads on kids' websites in 2016, 34 brands placed more than 1 million ads on these websites, but just four of these brands ranked among the 50 brands advertised most to children on TV (see **Table 22**). Nestle Waters ranked first with 26 million ads on kids' websites. McDonald's (excluding Happy Meal ads) and Coca-Cola each placed almost 11 million banner ads on kids' websites. PepsiCo non-listed brands with more than 2 million banner ads each on kids' websites included Frito-Lay snacks (such as Funyuns, Tostitos, Cheetos, and Ruffles), Gatorade,

Lays, and Mountain Dew. Notably, Lunchables also placed almost 8 million ads on kids' websites for its Uploaded varieties, which did not meet CFBAI nutrition standards for foods that may be advertised in child-directed media (in addition to the ads reported earlier for Lunchables products that did meet the standards). Although the number of ads was relatively low (1.3 million), 85% of ads for Krave cereal were placed on kids' websites, more than any other CFBAI brand in our analysis (including those that may be advertised in child-directed media).

In addition to banner ads on kids' websites, Frito Lay Snacks also placed 1.1 billion ads on Facebook.com in 2016, one-

Table 22. Banner ads placed by CFBAI non-listed brands* on kids' and social media websites in 2016

Company	Brand	Top-50 brand	Kids' websites		Social media sites		
			# of ad impressions (000)	% of total brand impressions	# of ad impressions on Facebook (000)	# of ad impressions on YouTube (000)	% of total brand impressions**
Nestle USA	Nestlé Waters		25,968	4%	64,909	6,195	11%
McDonald's	All products (excluding Happy Meal)	✓	10,841	1%	56,263	6,973	12%
The Coca-Cola Company	Coca-Cola	✓	10,633	2%	57,414	7,178	11%
The Kraft Heinz Company	Lunchables Uploaded		7,881	7%	1,301	20,444	20%
Kellogg Company	Special K		6,119	1%	14,152	1,872	3%
PepsiCo	Frito-Lay (excluding Lays)		4,893	0%	1,084,014	9,328	51%
The Coca-Cola Company	Fanta		4,197	4%	6,220	1,931	7%
Kellogg Company	Pringles		3,515	1%	3,894	594	2%
Kellogg Company	Cheez-It		3,426	1%	11,370	1,383	4%
PepsiCo	Gatorade		3,198	1%	8,464	1,131	4%
ConAgra Foods	Healthy Choice		3,123	4%	5,543	1,009	8%
The Coca-Cola Company	Dasani		2,713	3%	9,096	1,047	11%
Mars	Wrigley		2,567	0%	29,664	6,866	5%
Kellogg Company	Kellogg's Raisin Bran		2,558	2%	2,012	175	2%
Nestle USA	Nestea		2,284	9%	1,554	225	7%
Mars	Snickers		2,241	2%	6,038	1,037	5%
PepsiCo	Lays	✓	2,226	0%	310,970	1,239	52%
PepsiCo	Mountain Dew		2,213	2%	6,362	2,219	7%
ConAgra Foods	Hebrew National		2,188	2%	3,856	929	3%
ConAgra Foods	Snack Pack		2,099	2%	7,406	1,521	8%
Mars	CocoaVia		1,905	2%	5,620	4,613	11%
Unilever	Ragu		1,701	2%	19,095	274	23%
Nestle USA	Nespresso		1,640	0%	132,858	1,776	35%
General Mills	Yoplait	✓	1,562	2%	2,487	656	4%
ConAgra Foods	Reddi Wip		1,557	1%	24,010	1,027	12%
ConAgra Foods	Banquet Frozen Meals		1,543	1%	5,596	1,337	4%
The Coca-Cola Company	Diet Coke		1,434	3%	1,431	333	4%
The Coca-Cola Company	Glaceau		1,390	1%	3,097	1,218	2%
Kellogg Company	Krave		1,343	85%	0	0	0%
The Coca-Cola Company	Mello Yello		1,340	6%	1,015	306	6%
The Coca-Cola Company	Diet Coke Lime		1,337	6%	1,005	301	6%
Mars	Starburst		1,270	1%	8,734	814	8%
PepsiCo	Naked Juice		1,257	1%	7,278	1,032	3%
Unilever	Lipton		1,058	1%	3,258	5,335	10%

*Includes brands with 1,000,000 or more banner ads on kids' websites in 2016

**Facebook and YouTube

Source: comScore Ad Metrix Advertiser report (January - December 2016)

half of all its banner ads and more than any other brand in our analysis. Similarly, Lays, a top-50 Frito-Lay brand placed more than half of its ads on Facebook, totaling 311 million. Two additional brands that ranked among the top-50 brands advertised most to children on TV also placed more than 10% of their ads on social media sites: McDonald's (excluding Happy Meals) and Coca-Cola placed over 50 million ads each on Facebook. In addition, Lunchables Uploaded placed 20 million ads on YouTube, 20% of banner ads for the brand.

Key findings

- The majority of banner ads placed by CFBAI companies on kids' websites (identified by comScore due to their primarily child-directed content) appeared on ten sites. Children (ages 2-12) were more likely to visit these sites than were adults, although just five of the ten would qualify as child-directed according to the CFBAI definition (i.e., ≥35% child audience).
- Nearly all CFBAI companies placed banner ads on kids' websites in 2016, but Kraft Heinz placed more than all other CFBAI companies combined totaling 253 million ads for four brands (53% of ads placed by CFBAI companies). Lunchables, Capri Sun, Kool-Aid, and Kraft Macaroni & Cheese.
- Seventy percent of banner ads on kids' websites promoted CFBAI listed brands, and these brands tended to place a relatively high proportion of all their ads on kids' websites. CFBAI listed brands also tended to place more banner ads on kids' websites than on social media sites, although a few brands (Lunchables, Cinnamon Toast Crunch, and Go-Gurt) also placed 10% or more of their ads on Facebook and/or YouTube.

- The majority of CFBAI companies also placed banner ads for non-listed brands on kids' websites, including more than 25 million ads for Nestle and Coca-Cola brands (two companies that pledged to not engage in child-directed advertising). Although all kids' websites did not meet the CFBAI definition of child-directed media, the majority of the content on these sites was designed to appeal to children.
- CFBAI non-listed brands placed a higher proportion of their ads on social media websites. Frito-Lay brands (including Lays) placed more than 1.4 billion ads on Facebook in 2016.

Food company websites

Fifteen of the eighteen companies participating in CFBAI had _____ with enough child _____ on the comScore panel in 2016 to measure.⁷ Visitors to American Licorice Company, Ferrero USA, and Post Foods websites were not available.

The total number of child (ages 2-12) and teen (ages 13-17) visitors to all websites from CFBAI companies varied widely (see **Table 23**). McDonald's websites had by far the most unique child visitors, averaging 168,000 per month, followed by General Mills with 86,000. Although Kraft Heinz ranked third with 54,000 unique child visitors monthly, the company's sites attracted the highest _____, who represented 15% of all visitors to its sites. Dannon was the only other company with websites that attracted a higher proportion of children than did the internet overall (13% of visitors to Dannon sites were children versus 10% of visitors to all internet sites). However, the total number of children visiting Dannon sites was relatively low. Three companies that pledged to not engage in advertising to children attracted more than 34,000

Table 23. Unique visitors to all websites for CFBAI companies in 2016

Company	Avg monthly unique visitors (000)		% of total unique visitors	
	Children (2-12 y)	Teens (13-17 y)	Children (2-12 y)	Teens (13-17 y)
McDonald's	167.9	182.5	7%	8%
General Mills	85.7	111.7	2%	3%
The Kraft Heinz Company	54.1	20.1	15%	5%
PepsiCo	46.9	44.9	5%	5%
Nestle USA	43.1	51.7	3%	3%
Unilever	42.4	50.6	4%	5%
The Coca-Cola Company	39.2	39.4	4%	4%
Mars	34.2	38.6	5%	6%
Kellogg Company	32.7	35.8	4%	5%
Burger King Corporation	21.4	31.3	6%	9%
The Dannon Company	14.8	8	13%	7%
ConAgra Foods	14.8	18.7	3%	4%
Campbell Soup Company	4.7	5.3	2%	2%
The Hershey Company	3.7	13.6	2%	6%
Mondelez Global	2.5	7.7	1%	3%

Bold indicates that a higher proportion of visitors to the company's sites were children or teens compared to visitors to the internet in total. For the internet overall in 2016, 10% of visitors were 2-12 years old and 7% were 13-17 years old.

Source: comScore Media Metrix Key Measures report for children and teens (January - December 2016)

Table 24. Youth visitors to CFBAI company websites by brand type in 2016

	# of websites	% of total	Avg monthly unique visitors (000)				Avg % of total unique visitors	
			Children (2-12 y)		Teens (13-17 y)		Children (2-12 y)	Teens (13-17 y)
			Median	(Range)	Median	(Range)		
CFBAI companies with child-directed advertising:								
CFBAI listed brands	17	36%	1.5	(0.1-62.3)	1.1	(0.2-20.8)	19%	8%
Non-listed brands	73	n/a	0.7	(<0.1-85.8)	1.2	(<0.1-125.5)	4%	5%
Companies that did not engage in child-directed advertising	62	n/a	0.3	(<0.1-13.1)	0.9	(<0.1-13.6)	5%	7%

Source: comScore Media Metrix Key Measures report for children and teens (January - December 2016)

children to their websites per month: Nestle, The Coca-Cola Company, and Mars.

More teens than children visited websites for the majority of CFBAI companies in 2016, with a few exceptions. Websites from Kraft Heinz, PepsiCo, and Dannon attracted more children, while equal numbers of children and teens visited Coca-Cola's sites. The two fast food restaurants in the CFBAI had the highest proportions of teen visitors to any CFBAI company's websites. McDonald's sites attracted 182,500 teens (13-17y) per month in 2016, where they represented 8% of visitors. Burger King attracted just 31,300 teens monthly, but teens represented 9% of visitors to these sites. These proportions were somewhat higher than the proportion of teen visitors to the internet overall (7%).

The analysis of individual websites from CFBAI companies found 152 different websites that were visited by enough children (ages 2-12) in 2016 to measure in comScore (see **Table 24**). However, just over one-third of the CFBAI listed brands attracted enough children to their websites to be measured in comScore. The median number of unique child visitors to these sites per month was just 1,500. In contrast, more than 100 non-listed brands from CFBAI companies maintained websites with enough child visitors to measure in comScore. However, 54% of these websites were from companies with child-directed

advertising and 46% were from companies that did not engage in child-directed advertising resulting in a median of just 400 child visitors per month for all non-listed brands.

Although the numbers of children visiting CFBAI company websites tended to be small, children represented a higher than average proportion of visitors to websites for CFBAI listed brands. Children under age 13 represented 10% of all visitors to the internet in total in 2016, but 19% of visitors to these sites. In addition, on average more than twice as many children visited websites for CFBAI company listed brands than teens. In contrast, websites for non-listed brands tended to be visited by more teens than children. However, for both types of CFBAI brands, proportions of teen visitors to their sites were comparable to teen visitors to the internet in total (where teens represented 7% of all unique visitors).

CFBAI listed brands

Six of the sites for _____ were for brands that ranked among the top-50 brands advertised most to children (see **Table 25**). Another 11 less-advertised CFBAI listed brands also had websites with enough child visitors to measure in comScore, but just four of these sites averaged more than 1,000 child visitors per month. Additional sites with

Table 25. Youth visitors to individual websites for CFBAI listed brands* in 2016

Company	Website	Top-50 brand	Avg monthly unique visitors (000)		% of total unique visitors	
			Children (2-12 y)	Teens (13-17 y)	Children (2-12 y)	Teens (13-17 y)
McDonald's	HappyMeal.com	✓	62.3	20.8	43%	15%
The Kraft Heinz Company	Lunchables	✓	44.1	9.6	78%	17%
The Dannon Company	Activia.com		11.6	5.4	28%	13%
Kellogg Company	FrootLoops.com	✓	9.2	5.3	22%	13%
General Mills	LuckyCharms.com	✓	5.9	2.2	58%	21%
Kellogg Company	LeggoMyEggo.com		3.2	0.9	12%	4%
The Dannon Company	Danimals.com		2.2	1.1	18%	9%
General Mills	Cheerios.com	✓	1.8	3.5	4%	7%
General Mills	GoGurt.com	✓	1.4	0.7	45%	22%
PepsiCo	QuakerOats.com		1.2	2.9	1%	3%

*Includes websites from CFBAI listed brands that averaged more than 1,000 unique child visitors per month in 2016.

Bold indicates that a higher proportion of visitors to the site were children or teens compared to visitors to the internet in total.

Source: comScore Media Metrix Key Measures report for children and teens (January - December 2016)

fewer than 1,000 child visitors (not listed in the table) included RiceKrispies.com and FrostedMini-Wheats.com (Kellogg), OikosYogurt.com and LightAndFit.com (Dannon), Popsicle.com (Unilever), and ChefBoyardee.com (ConAgra).

Except for Cheerios.com and QuakerOats.com, websites for CFBAI listed brands were relatively more popular with children under 13, who represented between 12% and 78% of visitors to the sites. However, just four of the sites met the 35% child audience threshold to qualify as child-directed according to the CFBAI.⁸ Lunchables had the highest proportion of child visitors at 78%, while just 5% of visitors to the site were 18 years or older. However, the number of visitors to most of these sites was low, with only HappyMeal.com and Lunchables attracting more than 12,000 child visitors per month in 2016.

CFBAI non-listed brands

In 2016, an additional 135 brands that were not included on CFBAI company lists of products that may be advertised to children maintained websites with enough child visitors to report in comScore. Twenty-two of these sites averaged more than 1,000 child visitors monthly or had audience shares that exceeded the share of child and teen visitors to the total

internet in 2016 (see **Table 26**). Websites on this list include nine sites from four sugary drink brands (Coca Cola, Pepsi, Mountain Dew, and Powerade), three candy brand sites (Hershey's, M&Ms, and Skittles), and three snack brands (Pop Tarts, FritoLay, and Doritos), while just one promoted a brand in a healthy food category (Planters.com).

McDonalds.com attracted 86,000 children monthly, more than any other CFBAI brand website in this analysis, including sites for child-directed brands. Notably, more children visited McDonalds.com than visited HappyMeal.com in 2016. Three Coca-Cola sites (Coca-Cola.com, Coca-ColaStore.com, and MyCokeRewards.com) and Pillsbury.com (General Mills) also averaged more than 10,000 unique child visitors monthly. Five sites on this list attracted a disproportionately high share of child visitors. Although none of the sites reached the 35% child audience threshold set by CFBAI companies to qualify as child-directed, MuellersPasta.com and CocaColaStore.com had child audience shares of 33% and 30%, respectively. In addition, 10 of the 22 sites had teen (ages 13-17) audience shares that exceeded teens' share of visitors to the total internet. The sites attracting the highest shares of total youth (under age 18) included MuellersPasta.com (51%), Coca-ColaStore.com (39%), and 5Gum.com (39%).

Table 26. Youth visitors to individual websites for CFBAI non-listed brands* in 2016

Company	Website	Top-50 brand	Avg monthly unique visitors (000)		% of total unique visitors	
			Children (2-12 y)	Teens (13-17 y)	Children (2-12 y)	Teens (13-17 y)
McDonald's	McDonalds.com	✓	85.8	125.5	6%	9%
General Mills	Pillsbury.com		28.6	23.6	2%	2%
The Coca-Cola Company	Coca-Cola.com	✓	13.1	9.7	13%	9%
The Coca-Cola Company	Coca-ColaStore.com	✓	12.7	3.8	30%	9%
The Coca-Cola Company	MyCokeRewards.com	✓	11.5	13.6	2%	2%
PepsiCo	Pepsi.com		8.3	7.4	7%	7%
The Coca-Cola Company	Coca-ColaCompany.com	✓	8.2	6.5	5%	4%
PepsiCo	Fritolay.com		6.1	6.4	5%	5%
PepsiCo	MountainDew.com		4.6	9.3	5%	11%
PepsiCo	PepsiCo.com		4.1	3.9	3%	3%
The Hershey Company	Hersheys.com	✓	3.9	13.5	2%	6%
Mars	MyMMS.com		3.5	3.0	4%	3%
ConAgra Foods	MuellersPasta.com		3.2	1.8	33%	18%
PepsiCo	Doritos.com		3.1	2.2	9%	6%
Mars	5Gum.com		3.0	2.6	21%	18%
Mars	MMS.com		2.9	4.3	4%	6%
PepsiCo	MyPepsiCo.com		2.4	1.1	3%	1%
ConAgra Foods	Orville.com		1.8	0.8	15%	7%
The Coca-Cola Company	Powerade.com		1.8	1.6	10%	9%
The Kraft Heinz Company	Planters.com		1.6	5.4	3%	10%
Kellogg Company	PopTarts.com	✓	1.4	2.3	6%	10%
Mars	Skittles.com		1.0	1.3	9%	12%

*Includes websites from CFBAI top-50 brands that averaged more than 1,000 unique child visitors per month in 2016. Includes websites for less-advertised brands averaging 5,000+ unique child visitors or with audience shares that exceeded the share of child and teen visitors to the total internet in 2016.

Bold indicates that the site attracted relatively more child or teen visitors than visited the internet in total.

Source: comScore Media Metrix Key Measures report for children and teens (January - December 2016)

Changes in child visits to CFBAI company websites

Using a previous Rudd Center analysis,⁹ we also compared the number of child visitors to CFBAI brand websites in 2016 and in 2009. From 2009 to 2016, the number of child visitors to all websites declined substantially. Of the 26 CFBAI brand

websites that were most popular with children in 2009, eight have been discontinued and eleven averaged fewer than 1,000 child visitors per month in 2016 (see **Tables 27** and **28**). Notably, four of the seven sites with more than 60,000 child visitors in 2009 have been discontinued, including Millsberry.com (averaging 284,000 child visitors per month in 2009) and McWorld.com (averaging 101,000 child visitors).

Table 27. Status of CFBAI company websites that were popular with children in 2009 but not in 2016

Company	Website	2009		2016 status
		Avg monthly unique child (2-12 y) visitors (000)	Proportion of unique child (2-12 y) visitors to the website	
CFBAI listed brands:				
General Mills	Millsberry.com	284.3	18%	Discontinued
McDonald's	McWorld.com	100.9	33%	Discontinued
Campbell Soup Company	PfGoldfish.com	74.1	35%	Low volume*
Kellogg Company	AppleJacks.com	72.0	23%	Discontinued
Post Foods	Postopia.com	60.9	17%	Discontinued
Burger King	ClubBK.com	35.2	19%	Discontinued
Kellogg Company	RiceKrispies.com	17.1	6%	Low volume*
General Mills	ReesesPuffs.com	12.4	18%	Discontinued
Kellogg Company	CornPops.com	12.3	21%	Discontinued
CFBAI non-listed brands:				
Unilever	Klondikebar.com	32.7	25%	Low volume*
Nestle USA	Wonka.com	26.1	19%	Low volume*
Mondelez Global (formerly Kraft Foods)	NabiscoWorld.com	24.9	5%	Discontinued
The Coca-Cola Company	CocaColaZero.com	15.5	20%	Low volume*
The Coca-Cola Company	MyCoke.com	15.5	11%	Low volume*
Mars	M-MS.com	8.6	8%	Low volume*
Nestle USA	Butterfinger.com	6.6	14%	Low volume*
Mars	Twix.com	6.3	9%	Low volume*
Cadbury Adams	Stridegum.com	4.3	6%	Low volume*
Unilever	Pringles.com	2.9	9%	Low volume*

*Not enough child visitors on the comScore panel to measure child visitors or less than 1,000 unique child visitors monthly in 2016.

Source: comScore Media Metrix Key Measures report for children (January - December 2009; January - December 2016)

Table 28. CFBAI company websites with child visitors in 2009 and 2016

Company	Website	Avg monthly unique child (2-12 y) visitors (000)		
		2009	2016	Change from 2009 to 2016
CFBAI listed brands:				
McDonald's	HappyMeal.com	189.3	62.3	-67%
Kellogg Company	FrootLoops.com	58.6	9.2	-84%
General Mills	LuckyCharms.com	31.5	5.9	-81%
CFBAI non-listed brands:				
Mars	MMS.com	25.7	2.9	-89%
Kellogg Company	PopTarts.com*	21.4	1.4	-93%
Unilever	CountryCrock.com	10.9	2.2	-80%
PepsiCo	Cheetos.com	2.6	1.7	-35%

*In 2009, PopTarts was included on Kellogg's list of brands that may be advertised in child-directed media.

Source: comScore Media Metrix Key Measures report for children (January - December 2009; January - December 2016)

and company-level accounts also had the most followers on Instagram, as well as the most YouTube video views among the brands and companies examined.

CFBAI listed brands

We identified 26 _____ with active social media accounts in 2016, including 11 of the 16 listed brands that ranked in the top-50 brands advertised to children on TV in 2016. All brands had Facebook accounts, while about three-quarters ($n=20$) also had Twitter accounts, and one-third ($n=10$) had active Instagram accounts. Fourteen of those brands had 1 million or more fans or followers on at least one social media account (see **Table 30**). Brands with the most fans/followers differed by platform. Ten brands had more than 1 million Facebook fans. Kool-Aid had the most fans (almost 3 million), followed by Eggo with approximately 2 million fans. Quaker and Popsicle had the only Twitter accounts with more than 100,000 followers, followed by Cheerios with 75,000.

Only Cheerios and Bolthouse Farms had more than 10,000 Instagram fans, while Goldfish Smiles (Pepperidge Farm Goldfish) had 4,500.

Bolthouse Farms was the most active brand, leading in the number of Facebook posts (349), tweets (6,643), and Instagram posts (341) in 2016. Five listed brands in total had more than 100 Facebook posts, six brands exceeded 1,000 tweets in 2016, and three had more than 100 Instagram posts.

In addition, about 60% of CFBAI listed brands ($n=16$) with active Facebook accounts also had active YouTube channels in 2016. Six had more than 1 million video views in 2016 (see **Table 31**). Quaker had more than 50 million video views in 2016, while Cheerios and Cinnamon Toast Crunch had more than 25 million each. Quaker and PFGoldfishSmiles each posted more than 60 videos in 2016.

Although CFBAI listed brands that ranked in the top-50 brands advertised most to children on TV were more likely to maintain

Table 30. Popular social media accounts for CFBAI listed brands* in 2016

Company	Brand	Top-50 brand	Facebook		Twitter		Instagram	
			Fans (000)***	Posts	Followers (000)***	Tweets	Fans (000)***	Posts
The Kraft Heinz Company	Kool-Aid	✓	2,966	5				
Kellogg Company	Eggo		2,006	29	**			
The Kraft Heinz Company	Kraft Macaroni & Cheese	✓	1,481	25	22	524	2	15
PepsiCo	Quaker		1,362	130	187	1,686	**	
General Mills	Cinnamon Toast Crunch	✓	1,267	113	17	753	1	88
Unilever	Popsicle		1,243	4	113	924		
The Kraft Heinz Company	CapriSun	✓	1,196	31	4	1,367		
General Mills	Cheerios	✓	1,078	97	75	2,252	18	177
Kellogg Company	Frosted Flakes	✓	1,027	35				
Kellogg Company	Frosted Mini-Wheats		1,000	41	**			
The Kraft Heinz Company	Lunchables	✓	918	37	6	1,410		
Campbell Soup Company	Goldfish Smiles	✓	641	146	33	1,639	5	171
Campbell Soup Company	Bolthouse Farms		595	349	17	6,643	13,386	341
General Mills	Lucky Charms	✓	585	96	17	3,239		

*Includes all accounts with 1,000,000 or more fans or followers on any social media platform

**Account was active in 2016, but data not available

***As of December 31, 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

Table 31. CFBAI listed brands with active YouTube channels* in 2016

Company	Brand	Top-50 brand	Video views (000)	Videos uploaded
PepsiCo	Quaker		52,152	68
General Mills	Cheerios	✓	30,928	39
General Mills	Cinnamon Toast Crunch (CTCtelevision)	✓	26,708	21
The Dannon Company	Oikos Yogurt		16,516	11
The Dannon Company	Activia		15,419	5
The Kraft Heinz Company	CapriSun Videos	✓	4,212	7

*Channels with more than 1,000,000 video views in 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

Table 32. Popular social media accounts for CFBAI non-listed top-50 brands in 2016

Company	Brand	Facebook		Twitter		Instagram	
		Fans (000)*	Posts	Followers (000)*	Posts	Fans (000)*	Posts
The Hershey Company	Reese's Peanut Butter Cups	11,982	180	224	3,316		
PepsiCo	Lays	6,855	73	426	292	328	41
Kellogg Company	Pop Tarts	4,494	54	44	3,895	**	
General Mills	Yoplait	1,965	121	72	1,247	2	144
The Hershey Company	Kit Kat	1,066	60	**	629		

*As of December 31, 2016

**Account active in 2016, but data not available

Source: Rudd Center analysis of Unmetric data (January – December 2016)

active social media accounts (63%) compared with less-advertised brands (47%), some brands with less traditional advertising had the and active social media accounts. For example, Eggo, Quaker, Popsicle, and Frosted Mini-Wheats all had more than 1 million Facebook fans, while two of these brands (Quaker and Popsicle) were most popular on Twitter. Quaker also posted the most videos and had the most video views on YouTube in 2016. Bolthouse Farms had no advertising spending in 2016, but maintained popular and active accounts on all four platforms. Among the CFBAI listed brands with the most advertising to children, Cheerios and Cinnamon Toast Crunch (General Mills brands) maintained popular and active accounts on all four platforms. Capri Sun and Kraft Macaroni and Cheese (Kraft Heinz brands) ranked among the most popular on three of four social media platforms.

CFBAI company non-listed brands

Five CFBAI company brands that ranked in the top-50 brands advertised most to children on TV, but were not included on CFBAI lists of products that may be featured in child-directed advertising, also maintained social media accounts (see **Table 32**). All had Facebook and Twitter accounts, and three had Instagram accounts. Facebook accounts for these brands were some of the most popular accounts compared with all the companies in our analysis. One candy brand (Reese's) had more than 10 million fans on Facebook, while all had more than 1 million fans. Accounts for these brands also were among the most active in 2016. Reese's posted more than 100 times on Facebook. Three brands tweeted more than 1,000 times in 2016, while PopTarts and Reese's exceeded 3,000 tweets. Yoplait Yogurt posted more than 100 times on Instagram.

All CFBAI non-listed brands also maintained active YouTube channels in 2016 (see **Table 33**). All YouTube channels had more than 2 million video views in 2016, while Lays had over 85 million. All accounts also uploaded new videos frequently in 2016, ranging from 13 for KitKat to 34 for Yoplait.

Compared with CFBAI listed brands, CFBAI top-50 non-listed brands also marketed extensively on social media. Notably, these brands tended to be popular on Instagram and YouTube, which have become some of the most popular platforms for

Table 33. CFBAI non-listed top-50 brands with active YouTube channels in 2016

Company	Brand	Video views (000)	Videos uploaded
PepsiCo	Lays	85,243	18
The Hershey Company	Kit Kat	14,027	13
Kellogg Company	Pop Tarts	7,174	15
The Hershey Company	Reese's Peanut Butter Cups	3,773	21
General Mills	Yoplait	2,053	34

Source: Rudd Center analysis of Unmetric data (January – December 2016)

youth (under 18).¹² Furthermore, many of the YouTube channels promote versions of TV commercials, and companies are increasingly promoting their brands on YouTube to increase viewers¹³ given declining rates of TV viewing.

Company-level accounts

In addition to brand-level social media accounts, 11 CFBAI companies maintained 13 social media accounts that promoted multiple brands and/or the company generally. General Mills maintained three company-level accounts (General Mills, Betty Crocker, and General Mills Cereal). Twelve companies also maintained company-level Twitter accounts, and eight had accounts on Instagram. Nine of these accounts had 1 million or more fans or followers on at least one social media platform (see **Table 34**). Not surprisingly, company-level accounts tended to be more popular and more active than companies' individual brand accounts. On all three platforms, Coca-Cola Company and McDonald's had the most fans and followers, followed by Burger King. Each of these companies had more than 7 million Facebook fans, 1 million Twitter followers, and 400,000 Instagram fans. Hersheys and Betty Crocker also were among the six most popular CFBAI company-level accounts on Facebook, Twitter, and Instagram, while Nestle had a popular Twitter account. Notably, Ferrero USA spent less than \$100,000 in traditional advertising, but had more than 1 million Facebook fans.

Betty Crocker was the most active Facebook account, posting more than 500 times in 2016 while six additional accounts

Table 34. Popular CFBAI company-level social media accounts* in 2016

Company	Brand	Facebook		Twitter		Instagram	
		Fans (000)**	Posts	Followers (000)**	Posts	Fans (000)**	Posts
The Coca-Cola Company	Coca-Cola	12,651	177	3,308	36,429	775	133
McDonald's	McDonald's	10,534	325	3,331	174,294	970	151
Burger King Corporation	Burger King	7,512	187	1,454	3,411	445	187
The Hershey Company	Hershey's	6,915	180	178	4,112	64	149
General Mills	Betty Crocker	3,323	534	151	658	93	152
Ferrero USA	Ferrero USA	1,447	13	2	**		
Nestle USA	Nestle, USA	132	212	177	2,795		
Mondelez Global	Mondelez International	127	165	14	1,929		
General Mills	General Mills	16	26	73	2,258	7,227	461

*Includes all accounts with 1,000,000 or more fans or followers on any social media platform

**Account active in 2016, but data not available

***As of December 31, 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

had more than 100 posts. On Twitter, McDonald's tweeted 174,000 times and Coca-Cola had 36,000 tweets in 2016. All other company-level Twitter accounts, except one, tweeted approximately 2,000 or more times. All company-level Instagram accounts had more than 100 posts, including 461 posts by General Mills.

In addition, 10 of the 13 company-level accounts had active YouTube channels in 2016, and six of these channels had more than 6 million video views (see **Table 35**). Coca-Cola Company also had the most popular and active YouTube channel among all the companies and brands in our report, with more than 1 billion views and 3,620 videos uploaded in 2016. BettyCrockerTV was second with 55 million views and 125 videos uploaded. Fast food companies, McDonald's and Burger King, as well as Hershey's and Mondelez also had very popular YouTube channels.

Table 35. CFBAI company-level active YouTube channels* in 2016

Company	Brand	Video views (000)	Videos uploaded
The Coca-Cola Company	Coca-Cola	1,245,322	3,620
General Mills	Betty Crocker TV	55,471	125
The Hershey Company	Hershey's	36,976	57
Mondelez Global	Mondelez International	20,220	54
McDonald's	McDonald's	16,904	122
Burger King Corporation	Burger King	6,688	56

*Channels with 1,000,000 or more video views in 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

Key findings

- Approximately one-half of CFBAI listed brands maintained social media accounts, averaging 2.8 platforms per account. Some brands with little or no traditional advertising were among the most popular on social media, including Eggo, Quaker, and Popsicle. Bolthouse Farms had the most active social media accounts across all platforms.
- All top-50 CFBAI non-listed brands also maintained popular and active social media accounts (either brand or company-level accounts), and these accounts tended to be more popular than accounts for CFBAI listed brands. Reese's and/or Lays led in followers and fans on Facebook, Twitter, and Instagram, as well as YouTube video views, more than all other CFBAI brands in our analysis.
- However, company-level accounts that promoted more than one brand were most popular on all social media platforms. Coca-Cola and McDonald's had the most fans and followers on Facebook, Twitter, and Instagram, followed by Burger King. Coca-Cola's YouTube channel surpassed all others with 1.2 billion video views.

SPECIAL ISSUES IN INDUSTRY SELF-REGULATION

In this section, we examine three special issues regarding food industry self-regulatory programs: a) Children's Food and Beverage Advertising Initiative (CFBAI) category-specific uniform nutrition criteria used to identify products that may be in child-directed advertising; b) age ranges of children that are covered by CFBAI company pledges and c) Children's Confection Advertising Initiative (CCAI) company pledges to not direct advertising to children under age 12.

CFBAI nutrition criteria

The 11 _____ that engaged in _____ in 2016 listed 47 brands with products that met CFBAI's _____ as of January 1, 2017.¹ We examined the nutritional quality of all packaged food and drink products offered by these brands, including those on CFBAI company lists of products that may be advertised to children (i.e., CFBAI listed products) as well as products offered by the same brands that were not included on these lists (i.e., non-listed products). In addition, we analyzed the nutritional quality of products offered by CFBAI company brands that were not included on lists of products that may be advertised to children, but that ranked

in the top-50 brands with the most TV advertising viewed by children in 2016 (i.e., non-listed top-50 brands).

Two fast food brands were excluded from these analyses: Burger King Kid's Meal and McDonald's Happy Meal. Burger King included three Kid's Meal combinations and McDonald's included 12 Happy Meal combinations on their lists of products that may be advertised to children. Nutrition information about these products are included on the Company Profiles for McDonald's and Burger King. A previous analysis of fast food marketing in 2015 showed that McDonald's and Burger King offered 261 and 204 potential combinations, respectively, of main dish, side and drink in their kids' meals.² In addition, Scooby Doo cereal was not included in the analysis as the brand had been discontinued as of May 2017 (when nutrition data were collected). The Big G cereals brand included products offered by multiple General Mills cereal brands that are each reported separately in this analysis.

The remaining 43 CFBAI packaged food and drink brands offered 319 products that were included on the CFBAI list of products that may be featured in child-directed advertising as of January 1, 2017 (see **Table 36**).³ Twenty-five of these brands offered 386 additional _____ on company websites. In total, 55% of products offered by CFBAI brands with child-directed advertising were not included on lists of products that may be advertised to children. For example, General Mills was a CFBAI participating company

Table 36. Listed and non-listed products offered by CFBAI brands with child-directed advertising

Company	Brand	Listed products	Non-listed products
		Products on CFBAI company lists of products that may be in child-directed advertising	Other products offered by the same brands
Campbell Soup Company	Bolthouse Farms*	Shakedown (n=1)	none
	Pepperidge Farm Goldfish	Goldfish, Baked with Whole Grain (Cheddar, Pretzel, Xtra Cheddar), Favorites, Flavor Blasted, Grahams, Mix (n=17)	Baked with Whole Grain (other flavors), Favorites, Made with Organic Wheat, Special Edition (n= 13)
ConAgra Foods	Chef Boyardee pasta	Miscellaneous canned pasta (n=11)	All other canned pasta (n=33)
	Kid Cuisine	All other products (n=9)	Cheese Pizza, Mini Corn Dogs (n=2)
	Peter Pan Peanut Butter	All other plain flavors (n=9)	Honey Roasted flavor (n=4)
General Mills	Betty Crocker Fruit Snacks (Fruit by the Foot, Fruit Gushers, Fruit Roll-ups)	Fruit by the Foot (all), Fruit Gushers (all), Fruit Roll Ups (all), Fruit Snacks (Scooby Doo) (n=22)	Fruit Snacks (all other varieties) (n=9)
	Cheerios	Cheerios (original), Honey Nut (n=2)	All other flavors (n=10)
	Cinnamon and French Toast Crunch	Cinnamon and French Toast Crunch (n=2)	none
	Cocoa Puffs	Cocoa Puffs (n=1)	none
	Lucky Charms	Lucky Charms, Chocolate Lucky Charms (n=2)	none
	Other General Mills cereals	Cookie Crisp, Monsters (Count Chocula, Franken Berry, Boo Berry) Golden Grahams, Reese's Peanut Butter Puffs, Trix (n=7)	none
	Yoplait Go-Gurt	All flavors (n=10)	none
	Yoplait Kid Cup and Trix	All flavors (n=11)	none

Table 36. Listed and non-listed products offered by CFBAI brands with child-directed advertising (continued)

Company	Brand	Listed products	Non-listed products
Kellogg Company	Eggo	Homestyle Waffles, Eggo Bites Pancakes Chocolatey Chip (<i>n</i> =2)	Eggo Waffles (all other flavors), Eggo Minis (all flavors), Eggo Wafflers (all flavors) (<i>n</i> = 27)
	Froot Loops	Froot Loops, Froot Loops Bloopers (<i>n</i> =2)	Froot Loops with Marshmallows (<i>n</i> =1)
	Frosted Flakes	Frosted Flakes, Cinnamon Frosted Flakes (<i>n</i> =2)	w/ Marshmallows, w/ Choco Zucaritas (<i>n</i> =2)
	Frosted Mini-Wheats	Mini-Wheats Bite Size Original (<i>n</i> =1)	Frosted Mini-Wheats (all other flavors) (<i>n</i> =7)
	Other Kellogg's cereals	Apple Jacks*, Corn Pops, Rice Krispies (<i>n</i> =3),	Cocoa Krispies, Frosted Krispies, Rice Krispies Treats (<i>n</i> =3)
PepsiCo	Quaker Life	Original (<i>n</i> =1)	Cinnamon, Pumpkin Spice, Vanilla (<i>n</i> =3)
	Quaker Oats (and Instant Oatmeal)	Old Fashioned, Quick, Original Instant Oatmeal (<i>n</i> =3)	Instant Oatmeal (all other flavors) (<i>n</i> =28)
Post Foods	Fruity Pebbles Treats	Fruity Pebbles Treats (<i>n</i> =1)	none
	Other Post cereals	Alpha-Bits, Honey-Comb (<i>n</i> =2)	none
	Pebbles	Fruity Pebbles, Cocoa Pebbles, Cinnamon Pebbles (<i>n</i> =3)	Marshmallow Fruity Pebbles (<i>n</i> =1)
The Dannon Company	Activia	Fiber, Fruit, Light, Nonfat Greek (<i>n</i> =21)	Fruit Fusion, Lactose Free, Probiotic Drink (<i>n</i> =16)
	DanActive and Danimals	DanActive (all flavors), Nonfat Yogurt,	none
	Dannon Yogurt	Creamy Strawberry, Plain Nonfat (<i>n</i> =2)	Fruit on the Bottom, Lowfat, Plain Lowfat, Whole Milk (<i>n</i> =23)
	Light & Fit Yogurt	Nonfat Greek, Nonfat (<i>n</i> =35)	Carb & Sugar Control, Greek Crunch, Greek Mousse, Greek/Regular Zero Artificial Sweeteners, Yogurt Drink (<i>n</i> =33)
	Oikos Yogurt	Nonfat Greek, Triple Zero (<i>n</i> =17)	Whole Milk Greek, Yogurt Drinks (<i>n</i> =19)
The Kraft Heinz Company	Capri Sun	100% Juice, Organic, Roarin' Waters, Super V (<i>n</i> = 17)	Juice Drink, Sport Flavored Water Beverage (<i>n</i> =17)
	Kool-Aid	Easy Mix Liquid, Jammers, Liquid Drink Mix, On the Go Drink Mix, Singles (<i>n</i> =33)	Aguas Frescas, Drink Mix, Bursts, Soft Drink Mix (<i>n</i> =57)
	Kraft Macaroni & Cheese	Blue Box, Microwavable (<i>n</i> =23)	Deluxe (<i>n</i> =7)
	Kraft Polly-O	Mozzarella & Cheddar Twists (Regular, Reduced Fat, 2%), Reduced Fat String Cheese Mozzarella, 2% String Cheese (<i>n</i> =6)	All other flavors (<i>n</i> =10)
	Kraft Singles	All other flavors (<i>n</i> =10)	Skim American, Skim Sharp Cheddar (<i>n</i> =2)
	Lunchables	With 100% Juice (<i>n</i> =4)	Uploaded with drink, all other varieties with or without drinks (<i>n</i> =32)
Unilever	Popsicle	Disney Frozen, Hello Kitty, Marvel Avengers, Orange Cherry Grape, Rainbow, Red Classics, Scribblers, Spongebob Squarepants PopUp (<i>n</i> =8)	All other flavors (<i>n</i> =27)

*In addition to the Scooby Doo cereals brand, three products from other brands were discontinued after January 2017 (Bolthouse Farms Kids Fruit Tubes and Kids Smoothies and Kellogg's Cinnamon Jacks) and not included in the analyses. The Big G cereal brand includes multiple General Mills children's cereals.

Source: Rudd Center nutrition analysis (2017)

that had child-directed advertising. Cheerios was one of the company's CFBAI listed brands. General Mills listed three Cheerios products (original Cheerios, Honey Nut Cheerios, and Banana Nut Cheerios) that met CFBAI nutrition criteria and might be in child-directed advertising (i.e., CFBAI listed products). Cheerios also offered 10 products (e.g., Frosted Cheerios, Fruity Cheerios) that were not included on the CFBAI product list and therefore should not be advertised to children (i.e., non-listed products).

Overview of CFBAI listed and non-listed products

There was wide variation in the types of food and drinks listed by CFBAI companies for advertising to children. Most products

fell within eight general food and two beverage categories (see **Table 37**). These categories corresponded to 8 of the 10 CFBAI category designations used in the CFBAI category-specific uniform nutrition criteria. Approximately three out of four _____ were yogurts, meals or entrees, fruit-flavored drinks, or breakfast cereals. Only one vegetable and no fruit products were listed by CFBAI companies (excluding fast food side items) as products that may be featured in child-directed advertising, while 5% of listed products were 100% juice or juice drinks (with no added sweeteners).

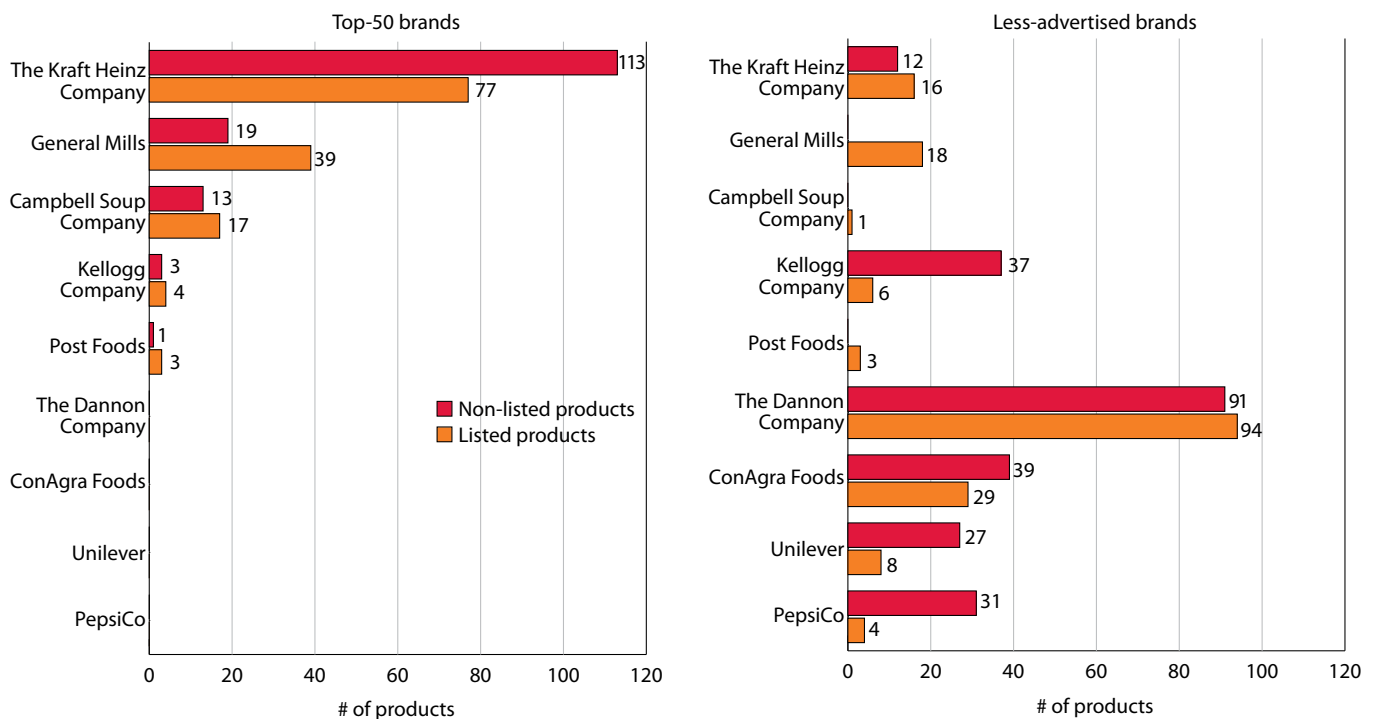
Top-50 brands with the most TV advertising to children offered approximately 40% of both the listed products (*n*=140) and non-listed products (*n*=149) (see **Figure 15**). Among top-50 brands, Kraft Heinz offered the most listed and non-listed products. Among less-advertised brands, Dannon offered the

Table 37. Distribution of CFBAI listed products by food and beverage categories

General food category	# listed products	% of total listed products	CFBAI category
Yogurt	115	36%	Yogurts and yogurt-type products
Meal or entree	47	15%	Mixed dishes, main dishes and entrees, small meals and meals
Sweet snack	37	12%	Grain, fruit and vegetable products, and items not in other categories
Fruit-flavored drink	33	10%	Low-calorie drinks (exempt)
Cereal	31	10%	Grain, fruit and vegetable products, and items not in other categories
Juice	17	5%	Juices
Cheese	16	5%	Cheese and cheese products
Savory snack	13	4%	Grain, fruit and vegetable products, and items not in other categories
Peanut butter	9	3%	Seeds, nuts, and nut butters and spreads
Vegetable	1	<1%	Grain, fruit and vegetable products, and items not in other categories

Source: Rudd Center nutrition analysis (2017)

Figure 15. Listed and non-listed products offered by CFBAI brands with child-directed advertising



Source: Rudd Center nutrition analysis (2017)

most listed and non-listed products. Most companies offered more non-listed than listed products for the same brands, with a few exceptions: 75% of General Mills products, 58% of Campbell Soup products, and six of seven Post Foods products were included on companies' list of products that may be featured in child-directed advertising.

Nutrition analyses

From May to July 2017, researchers collected information on _____ and product _____ from company or brand websites for both listed and non-listed products offered by CFBAI brands (see **Methods** for detailed procedures).

When information was not available online, we obtained products from local stores or called company helplines if products were not available locally. CFBAI companies posted nutrient content and ingredient lists on their websites for nearly all CFBAI listed products, with the exception of The Kraft Heinz Company, which did not provide complete nutrition information for many of its brands. In calls to the Kraft Heinz customer service phone number, researchers were told that the company's products are continually modified and the product package is the only reliable source of nutrition information. Notably, none of the listed Lunchables products was available locally, but colleagues in other states were able to obtain the products and provide the nutrition information.

We evaluated the nutritional quality of packaged food and beverage products according to three nutrition criteria: the CFBAI category-specific uniform nutrition criteria,⁴ USDA Smart Snacks nutrition standards,⁵ and the Nutrition Profiling Index (NPI) score.⁶ CFBAI sets different nutrition criteria for 10 food and drink categories (including four subcategories for dairy), while Smart Snacks sets standards for three different food and drink categories. Both establish limits for energy, saturated fat, sodium, and sugar, and also set different requirements by food category for ingredients to encourage (e.g. ½ serving of whole grain, have vegetable as first ingredient). The NPI score was adapted from the nutrition rating system established by University of Oxford researchers for the Food Standards Agency in the United Kingdom to identify nutritious food and drinks that can be advertised to children on TV.⁷ The NPI scoring model produces a continuous score (0-100) to measure overall nutritional quality of the food based on total calories and proportion of nutrients to encourage and limit per weight of product. A NPI score of 64 or higher indicates a healthy food that may be advertised to children in the United Kingdom, and a score of 70 or higher indicates a healthy drink. Detailed descriptions of these nutrition criteria are included in the **Methods**. (See **Appendix C** for more detailed nutrient information.)

Product nutrition by CFBAI category

The CFBAI category-specific nutrition criteria established nutrients to limit and components to encourage for each designated food/drink category. In this analysis, we report results in six categories of food and drinks. In some cases, we separated or combined CFBAI categories when pertinent by nutrients, ingredients, and/or number of products offered.

We report the following: 1) yogurts (including “yogurts and yogurt-type products”); 2) meals and entrees (including “mixed dishes,” “main dishes and entrees,” “small meals,” and “meals”); 3) breakfast cereals (a subset of “grain, fruit and vegetable products, and items not in other categories”); 4) all other products in the “grain, fruit and vegetable products, and items not in other categories”; 5) all other food product categories (including “cheese and cheese products” and “seeds, nuts, and nut butters and spreads”); and 6) beverages (including “juices” and “low-calorie beverages”). As of January 2017, there were no listed products in two CFBAI categories: “soups and meal sauces” and “meat, fish, and poultry products.”

Yogurt products

Yogurt products comprised 30% of all listed products in this analysis, and products in the yogurt category were most likely to meet all nutrition standards. All listed yogurts had healthy _____ of 64 or higher, with concentration of sugar and protein as the main differences in overall nutritional quality (see **Table 38**). For example, Yoplait Go-Gurt had the lowest median NPI score due to relatively high sugar density (14% sugar by weight). Conversely, Oikos Yogurt had the highest NPI score because of its low sugar density (4% by weight) and high protein content at 10% per weight. Notably, Yoplait Go-Gurt was the only brand of yogurt that ranked in the top-50 brands with the most TV advertising to children in 2016.

Most CFBAI listed yogurt products (89%) met _____ limits for calories, sodium, total fat, and sugar. Notably, all products offered by DanActive, Danimals, and Yoplait Kid Cup, Trix and Go-Gurt were included on CFBAI lists of products that may be featured in child-directed advertising. However, some

Table 38. Yogurts: NPI scores and nutrient content per serving for CFBAI listed products

Company	Brand	Top-50 brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
				Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
The Dannon Company	Oikos Yogurt		17	88	(74-88)	120	(80-120)	6	(6-14)	65	(50-150)	0.0	
The Dannon Company	Light & Fit Yogurt		35	76	(72-80)	80	(70-120)	7	(6-9)	55	(45-95)	0.0	
The Dannon Company	Activia		21	72	(68-78)	90	(60-120)	13	(6-17)	55	(50-75)	1.0	(0.0-1.0)
The Dannon Company	Dannon Yogurt		2	71	(70-72)	100	(80-120)	14	(12-15)	115	(80-150)	0.0	
The Dannon Company	DanActive and Danimals		19	68	(66-70)	70	(60-80)	12	(10-14)	40	(40-65)	0.0	(0.0-1.0)
General Mills	Yoplait Kid Cup and Trix		11	66	(66-68)	100	(70-100)	13	(8-13)	60	(45-60)	0.0	(0.0-1.5)
General Mills	Yoplait Go-Gurt	✓	10	64	(64-66)	60	(50-60)	9	(8-9)	30	(30-30)	0.0	

Source: Rudd Center nutrition analysis (2017)

Table 39. Yogurts: Ingredients and Smart Snacks limits for listed products

Company	Brand	# of products	% of products that contained:			Smart Snacks standards	
			Fruit or vegetable	Added sugar	Non-nutritive sweetener	% of products meeting limits	Nutrients exceeding limits
The Dannon Company	Oikos Yogurt	17	12%	18%	76%	100%	
The Dannon Company	Light & Fit Yogurt	35	37%	97%	97%	100%	
The Dannon Company	Activia	21	52%	76%	33%	67%	Sat fat
The Dannon Company	Dannon Yogurt	2	0%	50%	0%	100%	
The Dannon Company	DanActive and Danimals	19	0%	100%	0%	79%	Sat fat
General Mills	Yoplait Kid Cup and Trix	11	0%	100%	0%	82%	Sat fat
General Mills	Yoplait Go-Gurt	10	0%	100%	0%	100%	

Source: Rudd Center nutrition analysis (2017)

Table 40. Yogurts: NPI scores and nutrient content per serving for non-listed products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
The Dannon Company	Oikos Yogurt	19	72	(68-78)	150	(110-180)	13	(11-21)	50	(40-140)	1.5	(0.0-3.0)
The Dannon Company	Light & Fit Yogurt	33	76	(72-82)	90	(45-130)	10	(2-12)	85	(25-115)	0.0	(0.0-2.5)
The Dannon Company	Activia	16	70	(66-72)	100	(90-170)	13	(12-26)	55	(50-75)	1.0	(0.0-2.0)
The Dannon Company	Dannon Yogurt	23	66	(66-72)	140	(100-150)	16	(10-22)	80	(70-150)	3.0	(1.0-5.0)

Source: Rudd Center nutrition analysis (2017)

DanActive, Danimals, and Yoplait Kid Cup and Trix products did not meet Smart Snacks limits due to more than 10% of calories from saturated fat (see **Table 39**). In addition, all products from Danactive, Danimals, and Yoplait Go-Gurt, Kid Cup, and Trix contained _____ and no fruit as _____ (i.e., listed as one of the first five ingredients). Activia, Light & Fit Yogurt, and Oikos Yogurt were the only yogurt brands with fruit as main ingredients in any of their products, although at least one-third of products offered by those brands also had non-nutritive sweeteners.

A total of 91 yogurt products (44%) offered by CFBAI brands were not listed as products that may be featured in child-directed advertising (see **Table 40**). These products were similar in overall nutritional quality to listed products with a median NPI score of 70. However, non-listed products had more median calories (50 kcal), sugar (4.5 g), sodium (25 mg), and saturated fat (1 g) per weight (100g) compared to median values for listed yogurts.

Meals and entrees

A total of 47 listed products belonged to the CFBAI mixed dishes, main dishes and entrees, small meals, or meals categories. As with yogurts, all listed meals and entrees had healthy NPI scores with little variation between products (see **Table 41**). Chef Boyardee pasta dishes had the highest median NPI score and lowest median calories and saturated

fat per serving. Even though Kid Cuisine products had some of the highest median calories and saturated fat per serving, they also had the highest median protein (6%) and fiber (3%) per weight compared to the other products in this category. There was low variability in sodium content in this category. It is interesting to note that Kraft Macaroni and Cheese Blue Box products had higher NPI scores than the brand's Microwavable pre-made products, as well as higher median calories, sugar, sodium, and saturated fat per serving. Even after controlling for serving size, the Microwaveable products contained more calories, saturated fat, sugar, and sodium, and less fiber and protein than Blue Box products.

All listed Chef Boyardee pasta products had tomatoes and whole grains as main ingredients, but every product also contained added sugars (see **Table 42**). Similarly, all Kid Cuisine products included whole grains, and some also had vegetables, as main ingredients. However, all Kid Cuisine products also included added sugars and some contained non-nutritive sweeteners. In contrast, just one of the listed Kraft Macaroni & Cheese Blue Box products included whole grains. All listed Lunchables products included 100% fruit juice, but all also contained added sugar in their ingredients. Despite generally healthy NPI scores, most of the products in this category (81%) exceeded the Smart Snacks limits for sodium, and some products also exceeded limits for saturated fat and calories.

Table 41. Meals and entrees: NPI scores and nutrient content per serving for listed products

Company	Brand	Top-50 brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
				Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
ConAgra Foods	Chef Boyardee pasta		11	72	(70-76)	170	(150-200)	7	(6-11)	550	(500-600)	0.5	(0.0-2.0)
ConAgra Foods	Kid Cuisine		9	72	(68-74)	410	(330-440)	9	(5-16)	480	(430-540)	3.5	(1.5-4.5)
The Kraft Heinz Company	Kraft Macaroni & Cheese (Blue Box)	✓	16	68	(66-70)	280	(240-290)	8	(7-9)	565	(470-610)	2.3	(1.0-3.0)
The Kraft Heinz Company	Lunchables (with 100% Juice)	✓	4	67	(64-68)	380	(360-430)	36	(24-37)	580	(570-600)	4.3	(4.0-4.5)
The Kraft Heinz Company	Kraft Macaroni & Cheese (Microwaveable)	✓	7	64	(64-66)	220	(210-220)	6	(3-6)	460	(460-530)	2.0	(1.5-2.0)

Source: Rudd Center nutrition analysis (2017)

Table 42. Meals and entrees: Ingredients and Smart Snacks limits for listed products

Company	Brand	# of products	% of products that contained:				Smart Snacks standards		
			Fruit or vegetable	Whole grain	Added sugar	Non-nutritive sweetener	% of products meeting limits	Nutrients exceeding limits	
ConAgra Foods	Chef Boyardee pasta	11	100%	100%	100%	0%	0%	Sodium	
ConAgra Foods	Kid Cuisine	9	33%	100%	100%	44%	33%	Calories, sodium	
The Kraft Heinz Company	Kraft Macaroni & Cheese (Blue Box)	16	0%	6%	0%	0%	6%	Sodium, sat fat	
The Kraft Heinz Company	Lunchables (with 100% Juice)	4	100%	0%	100%	0%	0%	Calories, sodium	
The Kraft Heinz Company	Kraft Macaroni & Cheese (Microwaveable)	7	0%	0%	29%	0%	71%	Sodium	

Source: Rudd Center nutrition analysis (2017)

Table 43. Meals and entrees: NPI scores and nutrient content per serving for non-listed products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
ConAgra Foods	Chef Boyardee pasta	33	68	(62-72)	220	(150-290)	8	(2-10)	700	(410-850)	3.0	(0.0-6.0)
ConAgra Foods	Kid Cuisine	2	67	(66-68)	470	(450-490)	22		620	(480-760)	4.3	(3.5-5.0)
The Kraft Heinz Company	Lunchables (Uploaded)	7	66	(64-66)	440	(380-510)	20	(17-25)	750	(660-810)	6.0	(3.5-7.0)
The Kraft Heinz Company	Kraft Macaroni & Cheese (Deluxe)	7	62	(62-66)	310	(270-320)	4	(3-6)	900	(700-980)	3.0	(2.0-3.5)
The Kraft Heinz Company	Lunchables (all other varieties)*	23	46	(22-70)	320	(140-500)	13	(2-32)	620	(370-870)	7.0	(1.5-8.0)

*Nutrition information could not be obtained for two products

Source: Rudd Center nutrition analysis (2017)

CFBAI brands also offered 74 meal and entree products (61% of products in the category) that were not listed as products that may be featured in advertising to children. For all CFBAI brands in this category, non-listed products were generally less nutritious than listed products, with the biggest differences between listed and non-listed Lunchables and Kraft Macaroni and Cheese products (see **Table 43**). All listed products from these brands had healthy NPI scores (≥ 67), while the median NPI score was 46 for non-listed Lunchables and 62 for non-listed Kraft Macaroni and Cheese products. In addition, non-listed Lunchables (including Uploaded products) contained as many as 510 calories.

Breakfast cereals

CFBAI companies listed a total of 31 hot and cold breakfast cereal products from 14 brands that may be featured in child-directed advertising. NPI scores and median nutrient content were calculated individually for top-50 brands, but we combined results for less-advertised brands when nutrient content was similar (labeled as "other *Company* cereals") (see **Table 44**).

The two most nutritious products in this category were offered by two less-advertised brands: Quaker Oats and Kellogg's

Frosted Mini-Wheats had healthy median NPI scores. Although Frosted Mini-Wheats had the highest grams of sugar per serving, the product also weighed more than other cereals. As a result, when compared gram by gram to other cereals, such as Lucky Charms, Frosted Mini-Wheats had 16% less sugar per gram. Of the two listed Cheerios products, Original Cheerios had a healthy NPI score of 70 while Honey Nut Cheerios had an unhealthy score of 46. The nutrient differences between healthy and unhealthy NPI scores in this category were primarily sugar, sodium, and dietary fiber per gram of product.

All Quaker Oats and General Mills cereals contained whole grains as main ingredients, but Quaker Oats products were the only cereals that did not contain added sugars (see **Table 45**). The majority of cereals (87%) met Smart Snacks limits for nutrients of concern, with the exception of General Mills Lucky Charms, Kellogg's Froot Loops, and other Kellogg's cereals that exceeded sugar or sodium limits.

All products from Cinnamon and French Toast Crunch, Cocoa Puffs, Lucky Charms, other General Mills cereals, and other Post Cereal brands were listed as products that may be advertised to children (see **Table 46**). However, 63% of all cereal products

Table 44. Breakfast cereals: NPI scores and nutrient content per serving for listed products

Company	Brand	Top-50 brand	# of products	NPI score	Total calories (kcal)	Total sugar (g)	Sodium (mg)	Sat fat (g)
				Median (Range)	Median (Range)	Median (Range)	Median (Range)	Median (Range)
PepsiCo	Quaker Oats (and Instant Oatmeal)		3	80 (78-80)	150 (100-150)	1 (0-1)	0 (0-75)	0.5 (0.0-0.5)
Kellogg Company	Frosted Mini-Wheats		1	74	190	11	0	0.0
General Mills	Cheerios	✓	2	58 (46-70)	105 (100-110)	5 (1-9)	150 (140-160)	0.3 (0.0-0.5)
PepsiCo	Quaker Life		1	54	120	6	160	0.0
General Mills	Cocoa Puffs	✓	1	48	100	9	100	0.0
Post Foods	Other Post cereals		2	48 (44-52)	125 (120-130)	8 (6-10)	180	0.0
General Mills	Other General Mills cereals		7	46 (38-46)	120 (100-130)	9 (9-10)	150 (120-240)	0.0 (0.0-0.5)
Kellogg Company	Other Kellogg's cereals		3	46 (44-46)	120 (110-130)	9 (4-10)	150 (105-190)	0.0 (0.0-0.5)
Kellogg Company	Froot Loops	✓	2	46 (46-46)	110 (110-110)	10 (10-10)	150 (150-150)	0.5 (0.5-0.5)
General Mills	Lucky Charms	✓	2	45 (42-48)	110 (110-110)	10 (10-10)	160 (150-170)	0.0
General Mills	Cinnamon and French Toast Crunch	✓	2	44 (44-44)	120 (110-130)	9 (9-9)	160 (140-180)	0.3 (0.0-0.5)
Kellogg Company	Frosted Flakes	✓	2	40 (38-42)	110 (110-110)	10 (10-10)	150 (150-150)	0.0
Post Foods	Pebbles	✓	3	30 (28-36)	120 (110-120)	10 (9-10)	170 (140-180)	1.0 (0.0-1.0)

Source: Rudd Center nutrition analysis (2017)

Table 45. Breakfast cereals: Ingredients and Smart Snacks limits for listed products

Company	Brand	% of products that contained:			Smart Snacks standards	
		# of products	Whole grain	Added sugar	products meeting limits	Nutrients exceeding limits
PepsiCo	Quaker Oats (and Instant Oatmeal)	3	100%	0%	100%	
Kellogg Company	Frosted Mini-Wheats	1	100%	100%	100%	
General Mills	Cheerios	2	100%	100%	100%	
PepsiCo	Quaker Life	1	100%	100%	100%	
General Mills	Cocoa Puffs	1	100%	100%	100%	
Post Foods	Other Post cereals	2	50%	100%	100%	
General Mills	Other General Mills cereals	7	100%	100%	100%	
Kellogg Company	Other Kellogg's cereals	3	0%	100%	67%	Sodium
Kellogg Company	Froot Loops	2	0%	100%	50%	Sugar
General Mills	Lucky Charms	2	100%	100%	0%	Sugar
General Mills	Cinnamon and French Toast Crunch	2	100%	100%	100%	
Kellogg Company	Frosted Flakes	2	0%	100%	100%	
Post Foods	Pebbles	3	0%	100%	100%	

Source: Rudd Center nutrition analysis (2017)

Table 46. Breakfast cereals: NPI scores and nutrient content per serving for non-listed products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
Kellogg Company	Frosted Mini-Wheats	7	74	(54-82)	190	(190-200)	12	(0-12)	0	(0-210)	0.0	(0.0-1.0)
PepsiCo	Quaker Instant Oatmeal and Oats	28	52	(46-82)	160	(100-240)	11	(0-14)	205	(0-290)	0.5	(0.0-2.0)
General Mills	Cheerios	10	51	(46-56)	110	(100-220)	9	(5-17)	123	(105-280)	0.0	(0.0-0.5)
PepsiCo	Quaker Life	3	54	(52-54)	120	(120-120)	6	(6-8)	160	(150-160)	0.0	(0.0)
Kellogg Company	Other Kellogg's cereals	3	38	(36-40)	120	(120-120)	12	(9-12)	130	(110-170)	0.5	(0.0-0.5)
Kellogg Company	Froot Loops	1	40		110		14		115		0.0	
Kellogg Company	Frosted Flakes	2	32	(30-34)	115	(110-120)	12	(12-12)	148	(135-160)	0.5	(0.0-1.0)
Post Foods	Pebbles	1	32		110		13		160		0.0	

Source: Rudd Center nutrition analysis (2017)

($n=55$) from CFBAL brands were not listed, primarily products from Quaker Oats ($n=28$) and Cheerios ($n=10$). On average, non-listed cereal products had lower median NPI scores compared to listed products, but differences varied widely by brand. For example, all listed and non-listed Frosted Mini-Wheats and Quaker Life products had the same NPI scores, while non-listed products were healthier than listed products

for other Kellogg's cereals and Pebbles. In contrast, non-listed Quaker Oats products had median NPI scores that were 28 points lower than scores for listed products. Notably, all non-listed Cheerios products were similar in nutrition content to one listed product (Honey Nut Cheerios), but 19 points lower than the brand's other listed product (regular Cheerios).

Other grain, fruit and vegetable products, and items not in other categories

This CFBAI category includes baked grains, sweet and savory snacks, vegetables, and frozen desserts (in addition to the breakfast cereals analyzed in the previous section). The 50 listed products in this category (excluding breakfast cereals) belonged to a range of food groups (see **Table 47**). The only vegetable on the list was Bolthouse Farms Shakedown Carrot Meets Ranch, which also had the only healthy NPI score in the category. Other products in this category included Betty Crocker Fruit Snacks and Popsicles,⁸ which were high in sugar without any substantial nutritional value. Pepperidge Farm Goldfish had lower sugar and relatively high fiber and protein, but also contained high amounts of saturated fat and

the highest energy density in the category. Eggo waffles and Fruity Pebbles Treats had high concentrations of saturated fat.

When assessing these products against Smart Snacks standards, Bolthouse Farms and Pepperidge Farm Goldfish failed to meet the sodium standard (see **Table 48**). Every Pepperidge Farm Goldfish product listed included whole grains, but one-quarter failed to meet Smart Snacks limits for sugar. Furthermore, just one-third of the Betty Crocker Fruit Snacks listed fruit as a main ingredient, and all failed to meet the sugar limit. Fruity Pebbles Treats had whole grains, but also high concentrations of saturated fat.

Two brands, Bolthouse Farms and Fruity Pebbles Treats, offered and listed only one product. Other brands in this category offered 76 non-listed products (60% of products

Table 47. Other grain, fruit and vegetable products, and items not in other categories: NPI scores and nutrient content per serving for listed products

Company	Brand	Top-50 brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
				Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
Campbell Soup Company	Bolthouse Farms		1	78		25		4		200		0.0	
Unilever	Popsicle		8	63	(62-64)	50	(20-70)	9	(7-11)	0	(0-15)	0.0	(00-0.5)
Kellogg Company	Eggo (Waffles and Bites)		2	51	(46-56)	160	(140-180)	6	(2-10)	275	(190-360)	1.3	(1.0-1.5)
Campbell Soup Company	Pepperidge Farm Goldfish	✓	17	40	(12-48)	140	(120-140)	1	(0-10)	250	(105-290)	1.0	(0.0-1.5)
General Mills	Betty Crocker Fruit Snacks	✓	22	34	(30-42)	80	(40-90)	10	(5-10)	48	(25-50)	0.5	(00-0.5)
Post Foods	Fruity Pebbles Treats		1	24		90		9		75		1.5	

Source: Rudd Center nutrition analysis (2017)

Table 48. Other grain, fruit and vegetable products, and items not in other categories: Ingredients and Smart Snacks limits for listed products

Company	Brand	# of products	% of products that contained:			Smart Snacks standards	
			Fruit or vegetable	Whole grain	Added sugar	% of products meeting limits	Nutrients exceeding limits
Campbell Soup Company	Bolthouse Farms	1	100%	0%	0%	0%	Sodium
Unilever	Popsicle	8	0%	0%	100%	100%	
Kellogg Company	Eggo (Waffles and Bites)	2	0%	0%	50%	100%	
Campbell Soup Company	Pepperidge Farm Goldfish	17	0%	100%	47%	29%	Sodium, sugar
General Mills	Betty Crocker Fruit Snacks	22	36%	0%	100%	0%	Sugar, sodium
Post Foods	Fruity Pebbles Treats	1	0%	0%	100%	0%	Sugar

Source: Rudd Center nutrition analysis (2017)

Table 49. Other grain, fruit and vegetable products, and items not in other categories: NPI scores and nutrient content per serving for non-listed products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
Unilever	Popsicle	27	64	(58-70)	40	(15-110)	8	(0-17)	0	(0-35)	0.0	(0.0-1.0)
Kellogg Company	Eggo	27	50	(34-68)	180	(140-300)	6	(2-16)	300	(240-550)	2.0	(0.5-3.5)
Campbell Soup Company	Pepperidge Farm Goldfish	13	42	(26-52)	140	(130-150)	0	(0-8)	240	(140-430)	1.0	(0.5-1.0)
General Mills	Betty Crocker Fruit Snacks	9	42	(42-42)	80	(80-80)	10	(10-10)	25	(25-25)	0.0	

Source: Rudd Center nutrition analysis (2017)

within this category) (see **Table 49**). As with listed products, most non-listed products did not have a healthy NPI score. However, median NPI scores of non-listed products were 14 points lower than listed products. In contrast, one Eggo product, NutriGrain Low Fat Waffles, had a higher NPI score (68) than any of the brand's listed products due to lower calories, saturated fat, and sugar, and more fiber, even though these products may not be featured in child-directed advertising. Four non-listed Popsicles had healthy NPI scores (≥ 70), including one product with reduced sugar and three products with no added sugars, but non-nutritive sweeteners.

Other food categories

Three CFBAI listed brands offered 25 products in two additional CFBAI food categories ("cheese and cheese products", "seeds, nuts, and nut butters and spreads"). None of the 25 listed cheese and nut butter products were top-50 brands, and all had unhealthy NPI scores (see **Table 50**). Peter Pan Peanut Butter had relatively high saturated fat and energy-density. Kraft Polly-O string cheese and Kraft Singles were less energy-dense, but high in saturated fat and sodium, provided little or no fiber, and were relatively low in protein.

Table 50. Cheese and peanut butter: NPI scores and nutrient content per serving for listed products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
ConAgra Foods	Peter Pan Peanut Butter	9	56	(54-66)	210	(150-210)	3	(2-4)	130	(100-150)	3.0	(2.0-3.5)
The Kraft Heinz Company	Kraft/Polly-O	6	34	(30-34)	60	(50-70)	0	(0-1)	145	(140-190)	2.3	(2.0-2.5)
The Kraft Heinz Company	Kraft Singles	10	22	(20-28)	60	(45-60)	2	(1-2)	235	(200-280)	2.5	(1.5-2.5)

Source: Rudd Center nutrition analysis (2017)

Table 51. Cheese and peanut butter: Ingredients and Smart Snacks limits for listed products

Company	Brand	# of products	% of products that contained:		Smart Snacks standards	
			Added sugar	% of products meeting limits	% of products meeting limits	Nutrients exceeding limits
ConAgra Foods	Peter Pan Peanut Butter	9	100%	44%	44%	Calories
The Kraft Heinz Company	Kraft/Polly-O	6	0%	100%	100%	
The Kraft Heinz Company	Kraft Singles	10	0%	40%	40%	Sodium

Source: Rudd Center nutrition analysis (2017)

Table 52. Cheese and peanut butter: NPI scores and nutrient content per serving for non-listed products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
ConAgra Foods	Peter Pan Peanut Butter	4	35	(28-36)	210	(210-220)	7	(6-8)	115	(100-130)	3.0	(3.0-3.0)
The Kraft Heinz Company	Kraft/Polly-O	10	30	(24-32)	70	(70-80)	0	(0-1)	185	(150-220)	3.0	(2.5-3.5)
The Kraft Heinz Company	Kraft Singles	2	46	(46-46)	25	(25-25)	1	(1-1)	250	(250-250)	0.0	(0.0)

Source: Rudd Center nutrition analysis (2017)

More than half of Peter Pan Peanut Butter products exceeded Smart Snacks limits for calories per serving, and all had added sugars (see **Table 51**). Kraft/Polly-O cheese products met Smart Snacks limits for calories, sugar, and sodium, but 17% did not meet standards for saturated fat. Most Kraft Singles products did not meet the limit for sodium.

These three brands also offered 25 non-listed products. Non-listed Peter Pan Peanut Butter products included its Honey Roast products, which had higher sugar content than listed products. Despite some reduced-fat Kraft/Polly-O listed products, median NPIs for non-listed products were just four points lower than listed products (see **Table 52**). On the other hand, non-listed Kraft Singles Skim products had less saturated fat and calories and higher median NPI scores than listed (regular and 2% fat) products.

Beverages

The CFBAI category-specific uniform nutrition criteria contained one beverage category (juices), which required at least 4 ounces of 100% fruit and/or vegetable juice per serving and no added sugar. However, low-calorie beverages were exempt from these criteria (i.e., products with ≤40 kcal

per 8 oz serving). Capri Sun listed 11 juice products that may be advertised to children (see **Table 53**). Some Capri Sun varieties (Organic, Super V Fruit and Vegetable Juice Drink Blend) consisted of water and 100% fruit juice, thus lowering calorie and sugar concentrations without adding non-nutritive sweeteners. In addition, Kool-Aid and Capri Sun Roarin' Waters brands also listed 39 low-calorie beverages. The added sugar content of these products varied widely, ranging from 0 to 11 grams per serving. Notably, all CFBAI listed brands in the beverage category were offered by The Kraft Heinz Company.

Smart Snacks standards allow 8-ounce containers of 100% juice, but they only allow low-calorie drinks with added sugar and/or non-nutritive sweeteners in high schools (but not elementary or middle schools). All Capri Sun Roarin' Waters products contained both added sugar and non-nutritive sweeteners, while two-thirds of listed Kool-Aid products had added sugar and three-quarters contained non-nutritive sweeteners as shown in **Table 54**.

In addition to 17 listed products, Capri Sun offered 17 non-listed products, including a sports drink and a fruit drink that were not included on the list of products that may be featured

Table 53. Beverages: NPI scores and nutrient content per serving for listed products

Company	Brand	Top-50 brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
				Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
The Kraft Heinz Company	Capri Sun - 100% juice and juice blends*	✓	11	70	(68-76)	70	(70-90)	17	(14-21)	25	(20-30)	0.0	
The Kraft Heinz Company	Kool-Aid	✓	33	70	(68-70)	30	(0-40)	7	(0-11)	0	(0-20)	0.0	
The Kraft Heinz Company	Capri Sun Roarin' Waters	✓	6	68	(68-68)	30	(30-30)	8	(8-8)	15	(15-15)	0.0	

*Includes Capri Sun 100% Juice, Organic Juice, and Super V Fruit & Vegetable Juice Blend

Source: Rudd Center nutrition analysis (2017)

Table 54. Beverages: Ingredients for listed products

Company	Brand	# of products	% of products that contained		
			Fruit or vegetable	Added sugar	Non-nutritive sweetener
The Kraft Heinz Company	Capri Sun - 100% juice and juice blends*	11	100%	0%	0%
The Kraft Heinz Company	Kool-Aid	33	0%	70%	76%
The Kraft Heinz Company	Capri Sun - Roarin' Waters	6	0%	100%	100%

*Includes Capri Sun 100% Juice, Organic Juice, and Super V Fruit & Vegetable Juice Blend

Source: Rudd Center nutrition analysis (2017)

Table 55. Beverages: NPI scores and nutrient content per serving for non-listed products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
The Kraft Heinz Company	Kool-Aid	39	70	(70-70)	0	(0-20)	0	(0-5)	10	(0-30)	0.0	
The Kraft Heinz Company	Capri Sun Sport	3	68	(68-68)	30	(30-30)	8	(8-8)	85	(85-85)	0.0	
The Kraft Heinz Company	Capri Sun	14	68	(66-68)	50	(50-60)	13	(13-16)	15	(15-25)	0.0	
The Kraft Heinz Company	Kool-Aid Drink Mix	18	68	(68-68)	60	(60-70)	16	(16-17)	0	(0-25)	0.0	

Source: Rudd Center nutrition analysis (2017)

in child-directed advertising (see **Table 55**). Capri Sun fruit drinks had lower calories than its fruit juices, but contained 13 to 16 grams of total sugar per serving and just 5% fruit juice. Capri Sun Sports drinks had both added sugars and non-nutritive sweeteners. Kool-Aid also offered 57 non-listed drink products (63% of products). All Kool-Aid non-listed products were drink mix powders, including some unsweetened products for consumers to add their own sugar.

Evaluation of CFBAI nutrition criteria

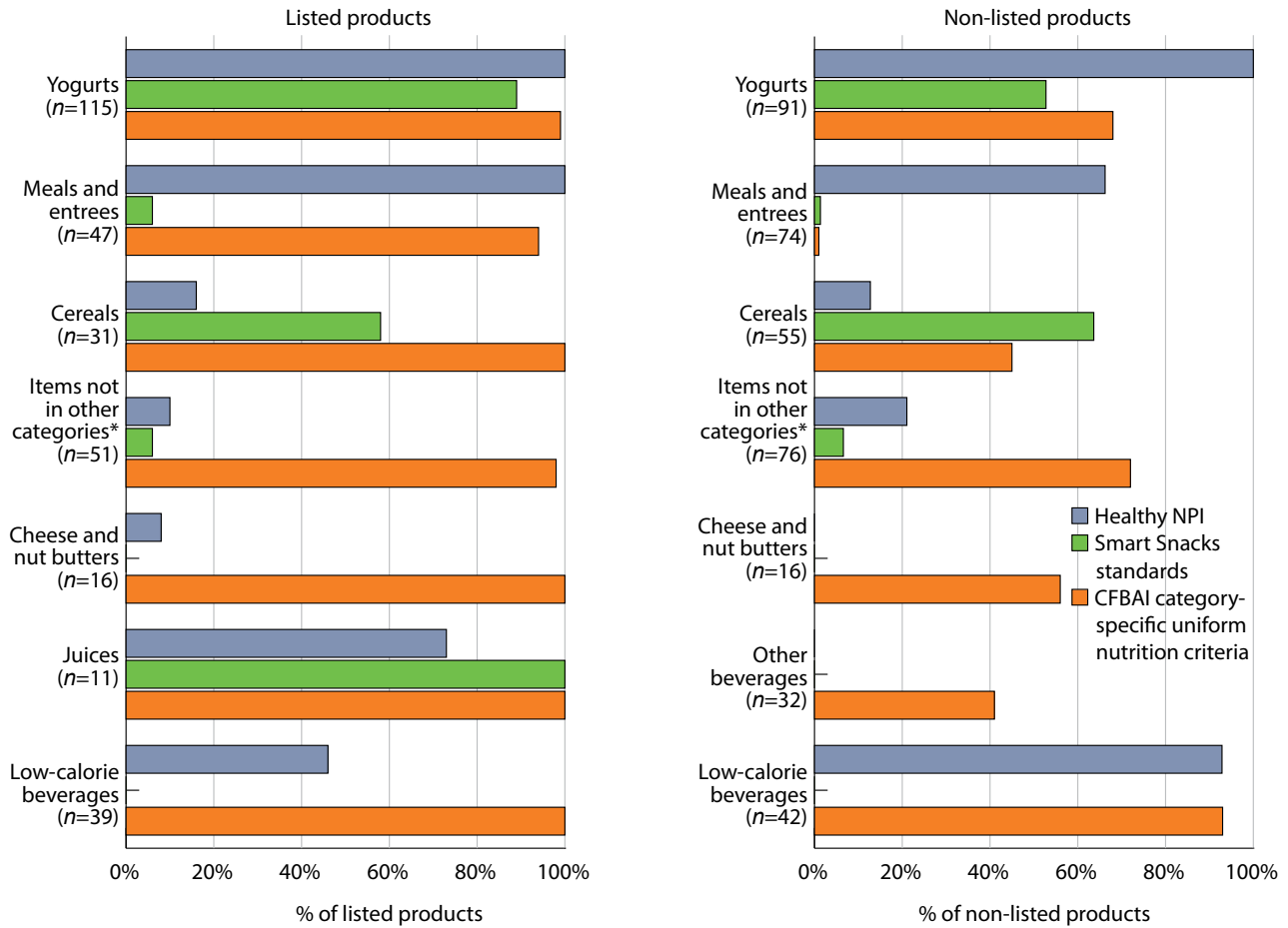
These analyses identify two main concerns about the CFBAI category-specific uniform nutrition criteria. First, there is wide variation between product categories in how well the criteria distinguish nutritious foods that should be marketed to children (as compared to Smart Snacks criteria and NPI scores). The second concern is the difference in nutrition quality of products included on CFBAI lists of products that may be advertised to children compared with non-listed products offered by the same brands that may not be featured in child-directed advertising. **Figure 16** shows the proportion of listed and non-listed products that met each nutrition criteria by category.

The CFBAI nutrition criteria for yogurts conformed with other nutrition standards, with the majority of listed yogurt products meeting Smart Snacks standards and NPI healthy food cut-

offs. Similarly, all listed juice products met Smart Snacks standards, and 77% met NPI healthy beverage cut-offs. In the meals and entrées categories, all listed products had healthy NPI scores, but only 6% met Smart Snacks standards due to high sodium, calories, and/or saturated fat per serving. Notably, many of these products would meet Smart Snacks standards if serving sizes were smaller.

However, listed products in other CFBAI categories were much less likely to meet Smart Snacks standards or qualify as healthy according to NPI scores, even though they met CFBAI category-specific uniform nutrition standards. Over half of listed breakfast cereals and products in other categories (cheese and nut butters) met Smart Snacks standards, but just 16% and 8%, respectively, had overall healthy NPI scores. Slightly less than one-half of low-calorie beverages met the NPI cut-off for healthy beverages, but all products in this category also contained non-nutritive sweeteners and therefore did not meet Smart Snacks standards for elementary schools. Listed products in the CFBAI “grains, vegetables, and items not in other categories” (excluding breakfast cereals) had the worst nutrition profile. This category included one vegetable product, as well as snack foods such as Pepperidge Farm Goldfish, Betty Crocker Fruit Snacks, and Popsicles. Although 98% of these products met CFBAI uniform nutrition criteria for this category, just 6% met Smart Snacks standards and 10% met the minimum NPI score to qualify as a healthy food.

Figure 16. Percent of listed and non-listed products meeting nutrition criteria by category



*Includes items in the CFBAI "Other grains, vegetables and items not in other categories" category, excluding cereals.

Source: Rudd Center nutrition analysis (2017)

The difference in nutritional quality for listed ($n=319$) versus non-listed ($n=386$) products from the same brands supports concerns that CFBAI companies may be promoting brands with primarily unhealthy products in their child-directed advertising. Nearly all listed products (98%) met the CFBAI nutrition criteria, whereas only half (54%) of non-listed products from the same brands met CFBAI standards. This difference was found in all CFBAI categories, but was greatest for the meal and entrée categories, where just 1% of non-listed products in all categories

met CFBAI nutrition criteria for the category. Furthermore, just 29% of non-listed products in all categories met Smart Snacks standards compared with 43% of listed products, and 49% of listed products met the NPI cut-off for healthy products, versus 63% of listed products. As noted previously by public health experts, this practice allows companies to advertise brands with nutritionally poor products directly to children, while still complying with their specific CFBAI pledges.⁹

Table 56. CFBAI top-50 non-listed brands: NPI scores and nutrient content per serving for all products

Company	Brand	# of products	NPI score		Total calories (kcal)		Total sugar (g)		Sodium (mg)		Sat fat (g)	
			Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)	Median	(Range)
General Mills	Yoplait Yogurt	79	68	(46-72)	150	(90-180)	18	(10-28)	95	(60-135)	1.0	(0.0-15)
PepsiCo	Lays	53	40	(20-58)	150	(130-160)	1	(0.6-12)	140	(45-290)	1.5	(0.5-4.5)
Kellogg Company	Pop Tarts	27	38	(32-42)	200	(190-210)	16	(12-19)	180	(160-300)	1.5	(1.5-2.5)

Source: Rudd Center nutrition analysis (2017)

Products from CFBAI company non-listed top-50 brands

In addition to products offered by CFBAI listed brands, we also examined the nutrient content of products offered by CFBAI non-listed brands that ranked in the top-50 brands with the most TV advertising viewed by children. This nutrition analysis did not include two fast food brands (McDonald's and Burger King) that also ranked in the top-50 non-listed brands, or three top-50 candy brands (Hershey's, Kit Kat, and Reese's Peanut Butter Cups), and one soda brand (Coca Cola) that offered only nutritionally poor products.

The three remaining non-listed top-50 brands analyzed offered 159 products. There was wide variation in the nutrition quality of these brands (see **Table 56**). Yoplait Yogurt had a healthy median NPI, with only one product (Yoplait Thick & Creamy Vanilla) that did not qualify as healthy. Lays potato chips were energy-dense (22 calories per gram) and had high concentrations of saturated fat and sodium, especially given the reported serving size of 1 ounce or about 15 chips. Pop Tarts pastries were also energy dense (17 calories per gram), with 32% of those calories from sugar. These pastries were also high in saturated fat and sodium.

Key findings

- As of January 2017, the eleven CFBAI companies with child-directed advertising listed 319 products that met the CFBAI category-specific uniform nutrition criteria and could be advertised to children. One-third of listed products were yogurts, while meals and entrees, fruit-flavored drinks, sweet and savory snacks, and breakfast cereals comprised another 50%. There was only one vegetable and no fruit products on the list (excluding fast food side items).
- The CFBAI category-specific uniform nutrition criteria's agreement with other expert standards to assess nutritional quality (i.e., NPI score and Smart Snacks nutrition standards) differed by CFBAI category. All CFBAI listed yogurts had healthy NPI scores and 89% met Smart Snacks standards for nutrients to limit. Listed meals and entrees had healthy NPI scores, but one-third did not meet Smart Snacks standards due to calories, saturated fat, and/or sodium that exceeded per serving limits. Most breakfast cereals (84%) did not have healthy NPI scores, but approximately 60% met Smart Snacks limits for serving sizes listed on nutrition facts panels. More than 80% of other grains and items not in other categories, cheese, and nut butters did not meet either NPI or Smart Snacks standards.
- The same brands also offered 386 products (55% of products offered by these brands) that were not included on companies' lists of products that may be advertised to children. These products were less likely to meet all three nutrition standards (including the CFBAI nutrition criteria). Categories with fewer listed than non-listed products included meals and entrees, other grains,

vegetables and items not in other categories (including breakfast cereals), and beverages.

Ages of children covered by CFBAI pledges

Public health experts have raised concerns about the age ranges of children covered by CFBAI pledges. The first concern is about advertising to preschool-age children. All participating companies (except McDonald's) have pledged that they will not direct any advertising to children under 6 years old, even for products that meet CFBAI nutrition criteria.¹⁰ However, as shown in the previous sections, preschoolers (ages 2 to 5) viewed on average 5.4 TV ads per day for CFBAI company brands in 2016, just 11% fewer ads compared with children (ages 6 to 11). In addition, public health experts have called on the CFBAI to expand the self-regulatory program to also cover advertising directed to young teens ages 12 to 14, who are still highly vulnerable to the influence of unhealthy food advertising.¹¹ In this section, we examine evidence of the need for CFBAI companies to expand their pledges to more effectively protect both younger and older children.

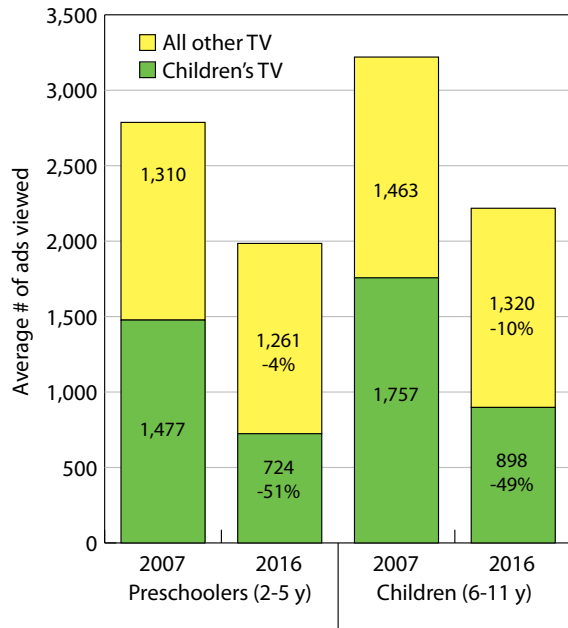
Protecting children under age 6

Not all _____ who have pledged to not advertise directly to children under 6 specify how they define advertising to children under 6. When specified in their pledges, companies have promised to not advertise in media where children ages 2 to 5 comprise 35% or more of the audience.¹² Our analysis of children's exposure to TV advertising on individual networks found just two networks where preschoolers were the primary audience: Sprout and Nickjr. Both networks describe themselves as "preschool" networks.^{13,14} Preschoolers viewed on average 60 food-related ads on these networks in 2016, compared with 15 ads viewed by children. Notably, all of these ads were placed by _____. Therefore, CFBAI companies appear to have complied with their pledges to not advertise in TV programming primarily directed to children under age 6.

Nevertheless, preschoolers watch largely the same TV programming as older children and thus view similar numbers and types of food advertising. A previous analysis of _____ on individual TV networks in 2011 showed that four networks contributed the greatest number of food advertisements viewed by both preschoolers (ages 2-5) and somewhat older children (ages 6-8): Nickelodeon, Cartoon Network, Nick-at-Nite, and ABC Family.¹⁵ However, only programming on Nickelodeon and Cartoon Network qualified as child-directed according to the CFBAI requirement that the program audience consist of 35% or more children under age 12.

Another concern raised by our results is that the difference in number of ads viewed by preschoolers relative to children has narrowed somewhat in recent years. In 2007, preschoolers

Figure 17. Changes in CFBAI company ads viewed on children's and other TV programming



Source: Rudd Center analysis of Nielsen data (2017)

viewed 13% fewer CFBAI company ads than did children compared with 11% fewer in 2016. The decline in CFBAI company TV ads viewed by preschoolers from 2007 to 2016 was also somewhat lower for preschoolers (-29%) than for children (-31%). As noted in the overview section, this discrepancy may be primarily due to somewhat lower declines in total amount of _____ for preschoolers (-15%) compared to children (-20%).

However, we also examined changes in exposure to TV advertising by CFBAI companies on _____ versus _____ (see **Figure 17**). CFBAI company ads viewed on children's TV declined by approximately 50% from 2007 to 2016 for both preschoolers and children. During this time, the difference in ads viewed by preschoolers versus children on children's TV widened; in 2007 preschoolers saw 16% fewer CFBAI company ads on children's TV compared with children, while they saw 19% fewer ads in 2016. In contrast,

this gap narrowed on other TV programming; preschoolers had seen 10% fewer ads in total on other TV in 2007 compared with children, but they saw just 4% fewer ads in 2016. Preschoolers' exposure to advertising by CFBAI companies on other TV programming also decreased by just 4% during this time, while children's exposure declined by 10%. Therefore, CFBAI company reductions in TV advertising on children's TV have benefited children under age 6 somewhat more than for children 6 to 11 years old, while reductions in TV advertising on other TV programming has had less benefit for preschoolers.

In addition, there was variation between companies in the difference between numbers of TV ads viewed by preschoolers and children on children's TV (see **Table 57**). Three of the four CFBAI companies with the most advertising on children's TV in 2016 had comparable ratios of ads viewed by preschoolers versus children: preschoolers saw approximately 15% fewer ads for General Mills, McDonald's, and Kellogg's products than children saw. However, preschoolers saw 28% fewer ads for Kraft Heinz products. Although the number of ads viewed changed dramatically from 2007 to 2016 for all companies – with some companies increasing ads viewed by both age groups (Kraft Heinz and McDonald's) and others decreasing their advertising (e.g., General Mills and Kellogg) – the ratios of ads viewed by preschoolers versus children on children's TV were comparable both years.

There was also considerable variation between companies in the ratio of ads viewed by preschoolers versus children on other types of TV programming. In addition, the number of ads viewed and _____ by preschoolers versus children on other TV programming changed considerably from 2007 to 2016 (see **Table 58**). For the majority of CFBAI companies, preschoolers viewed 4% to 10% fewer ads compared to children in 2016. However, there were some notable exceptions. Preschoolers viewed *more* ads for Campbell Soup, McDonald's, Mondelez, and Unilever products on other TV programming than children viewed, the same number of ads for Ferrero USA and Hershey products, and just 1% and 2% fewer ads for ConAgra Foods and Nestle products, respectively. In contrast, preschoolers viewed 12% fewer ads for Kellogg's products. In addition, for most companies, the difference between ads viewed by preschoolers and children has decreased since 2007.

Table 57. Differences in TV ads viewed by preschoolers and children on children's TV by CFBAI company

Company	2007			2016			Change in ads viewed by preschoolers (2007 to 2016)
	Avg # of ads viewed		Ttgd ratio Preschoolers vs. children	Avg # of ads viewed		Ttgd ratio Preschoolers vs. children	
	Preschoolers (2-5 y)	Children (6-11 y)		Preschoolers (2-5 y)	Children (6-11 y)		
General Mills	446.7	518.1	0.86	262.6	305.4	0.86	-41%
The Kraft Heinz Company	123.4	163.2	0.76	163.0	227.7	0.72	32%
McDonald's	99.1	115.8	0.86	135.2	156.0	0.87	36%
The Kellogg Company	358.7	411.2	0.87	70.7	85.2	0.83	-80%

Source: Rudd Center analysis of Nielsen data (2017)

Table 58. Differences in TV ads viewed by preschoolers and children on other TV programming by CFBAI company*

Company	2007			2016			TV ads viewed by preschoolers (2007 to 2016)
	Avg # of ads viewed		Ttgd ratio Preschoolers vs. children	Avg # of ads viewed		Ttgd ratio Preschoolers vs. children	
	Preschoolers (2-5 y)	Children (6-11 y)		Preschoolers (2-5 y)	Children (6-11 y)		
PepsiCo	152.9	184.7	0.83	186.6	198.8	0.94	22%
The Hershey Company	23.7	29.3	0.81	157.3	156.6	1.00	564%
General Mills	149.4	174.8	0.85	146.9	163.0	0.90	-2%
Mars	110.4	144.8	0.76	100.0	105.6	0.95	-9%
Burger King Corporation	39.0	51.5	0.76	93.6	101.0	0.93	140%
Kellogg Company	112.9	117.1	0.96	87.2	98.9	0.88	-23%
The Kraft Heinz Company	81.8	91.1	0.90	79.8	83.8	0.95	-3%
Nestle USA	142.3	131.9	1.08	76.6	78.2	0.98	-46%
The Coca-Cola Company	29.2	37.5	0.78	52.5	55.7	0.94	79%
Mondelez Global	75.0	88.7	0.84	49.6	45.9	1.08	-34%
McDonald's	138.9	152.1	0.91	48.1	47.2	1.02	-65%
Unilever	16.4	16.2	0.99	43.2	42.4	1.02	163%
The Dannon Company	59.0	55.6	0.94	37.5	40.8	0.92	-23%
Campbell Soup Company	112.4	114.4	0.98	30.2	29.5	1.02	-73%
ConAgra Foods	40.4	44.9	0.90	25.6	25.9	0.99	-37%
Post Foods	17.2	17.6	0.98	24.6	25.5	0.96	43%
Ferrero USA	9.2	10.6	0.87	21.4	21.5	1.00	133%

*Companies with >20 ads viewed by preschoolers on other TV programming

Source: Rudd Center analysis of Nielsen data (2017)

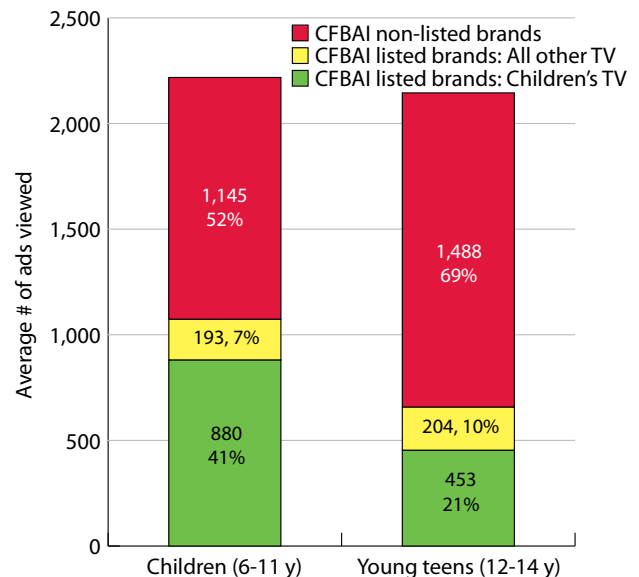
There were also notable increases in ads viewed by preschoolers on other types of TV programming from 2007 to 2016 by companies who pledged to not direct any advertising to children under age 12, including by 564% for Hershey, 133% for Ferrero USA, and 79% for Coca-Cola. Burger King advertising of other products (not Kid's Meal) viewed by preschoolers also increased 140% during this time.

In sum, we found no evidence that CFBAI companies advertised on the two preschool TV channels that accepted commercial advertising. However, we also found no evidence that companies have taken any additional steps to protect children under age 6 from exposure to their advertising. Furthermore, some of the improvements that CFBAI companies have made in advertising directed to children under age 12 have benefited preschoolers less than they have benefited children ages 6 to 11.

Advertising to children ages 12 to 14

Analysis of Nielsen data on CFBAI company TV advertising viewed by young teens (ages 12-14) compared with children (ages 6-11) provides further evidence that protections from exposure to unhealthy food advertising should extend to children up to at least 14 years old. Although young teens viewed 3% fewer CFBAI company TV ads in 2016 than children viewed, the composition of types of CFBAI brands advertised to each age group differed (see **Figure 18**). Approximately four of ten CFBAI company ads viewed by children were for listed brands on children's TV programming, compared with 21% of ads viewed by young teens. On the other hand, 69%

Figure 18. CFBAI company TV ads viewed by children and young teens by type of programming in 2016



Source: Rudd Center analysis of Nielsen data (2017)

of CFBAI company ads that young teens viewed were for products that were not approved for advertising to children, compared with 52% of ads viewed by children. Overall, young teens saw 39% fewer ads for _____ but 30% more ads for _____ compared with children.

Table 59. TV ads viewed for CFBAI non-listed brands that ranked in the top-50 for young teens but not children in 2016*

Company	Brand	Children (6-11 y)		Young teens (12-14 y)		Tgtd ratio
		Avg # TV ads viewed	Ranking in ads viewed	Avg # TV ads viewed	Ranking in ads viewed	Young teens vs. children
PepsiCo	Gatorade	13.9	59	26.8	35	1.59
PepsiCo	Mountain Dew	17.0	51	26.3	36	1.55
The Hershey Company	Ice Breakers	15.7	55	25.8	39	1.64
Mars	M&Ms	16.5	52	23.7	45	1.44
PepsiCo	Doritos	15.0	58	23.6	46	1.63
PepsiCo	Pepsi	16.7	54	23.6	47	1.57
PepsiCo	Cheetos	16.8	53	23.2	48	1.38
Mars	Wrigley's	15.4	57	23.0	49	1.49

*Excludes brands in top-50 ads viewed by children

Source: Rudd Center analysis of Nielsen data (2017)

Much of this difference can be attributed to young teens' lower viewing of children's TV programming. Nevertheless, young teens are exposed to significantly more advertising for CFBAI non-listed brands compared with children just a few years younger. In addition, it appears that some CFBAI brands placed disproportionately more of their advertising in TV programming aimed at young teens as evidenced by eight brands that ranked in the top-50 for TV ads viewed by young teens but not by children (see **Table 59**). These brands included one candy brand from Mars, two brands of breath mints from Mars and Hershey, and three sugary drinks and three snack foods from PepsiCo. For all these brands, young teens saw at least 45% more ads compared with children, with the biggest difference for Gatorade (68%). These differences are notable given that young teens spent 15% less time watching TV compared with children.

Key findings

- CFBAI companies appear to have kept their pledges to not advertise any products in media primarily directed to children under age 6 (i.e., preschool programming).
- However, these pledges do not appear to have led to improvements in advertising viewed by preschoolers relative to children. In 2016, preschoolers viewed just 11% fewer TV ads by CFBAI companies than did children. In 2007, preschoolers had viewed 13% fewer ads than children viewed.
- Furthermore, differences in ads viewed by preschoolers relative to children varied widely by CFBAI company, especially for advertising in other (not children's) TV programming. In 2016, preschoolers saw more ads on non-children's programming for Campbell Soup, McDonald's, Mondelez, and Unilever brands compared with children, equal numbers of Ferrero USA and Hershey ads, and just 1% to 2% fewer ads for ConAgra Foods and Nestle products.
- CFBAI company improvements in advertising to children under 12 have had limited benefit for young teens (ages 12-14), who viewed 39% fewer ads for CFBAI listed brands

than did children (ages 6-11), but 30% more ads for non-listed brands.

- As a result, young teens saw 45% to 68% more TV ads than children saw for candy, sugary drink, and snack food brands from CFBAI companies, as well as 32% more ads for fast food products from CFBAI companies that were not approved for advertising to children. Brands that appeared to target young teens directly as evidenced by the greatest discrepancy between ads viewed by young teens versus children included one candy brand, three sugary drinks, and three snack foods.

CCAI companies

In this section, we analyze companies that participated in the Children's Confection Advertising Initiative (CCAI) in 2016. The CCAI was established in 2016, and participating candy manufacturers have pledged not to advertise their products in media directed to children under age 12.¹⁶

Advertising spending

_____ companies spent just \$18 million combined in total _____ in 2016, down 33% from 2007 (see **Appendix Table A3**). _____ spending represented 60% of CCAI total spending in 2016. Of the eight companies participating in CCAI, three did not advertise in traditional media (Ferrara, RM Palmer, and Wolfgang), and two spent \$70,000 or less in 2016 (see **Table 60**).

Of the three remaining companies, Ghirardelli had the most advertising, spending almost \$14 million in total and \$8 million in English-language TV advertising in 2016. Jelly Belly spent \$4 million in total. Just Born Quality Confections spent \$193,000, but did not advertise on TV in 2016. Notably, the company had significantly more advertising in previous years before the CCAI pledges were implemented, spending \$6.6 million in total and \$4.6 million in English-language TV advertising in 2013. Jelly Belly was the only CCAI company to increase ad spending from 2013 to 2016, more than doubling its spending from 2013 to 2016.

Table 60. Advertising spending by CCAI companies in 2016

Company	Total ad spending (\$ mil)	TV % of total*	Change in total spending from 2007
Ghirardelli Chocolate	\$13.9	58%	-38%
Jelly Belly Candy Company	\$4.2	71%	16%
Just Born Quality Confections	\$0.2	0%	-87%
The Promotion in Motion Companies	\$0.1	0%	0%
Brown & Haley	< \$0.1	0%	-32%

*English-language TV advertising

Source: Rudd Center analysis of Nielsen data (2017)

TV advertising to children

Children also viewed small numbers of TV ads by CCAI companies in all years examined (see **Appendix Table B5**). Furthermore, _____ for CCAI companies declined by

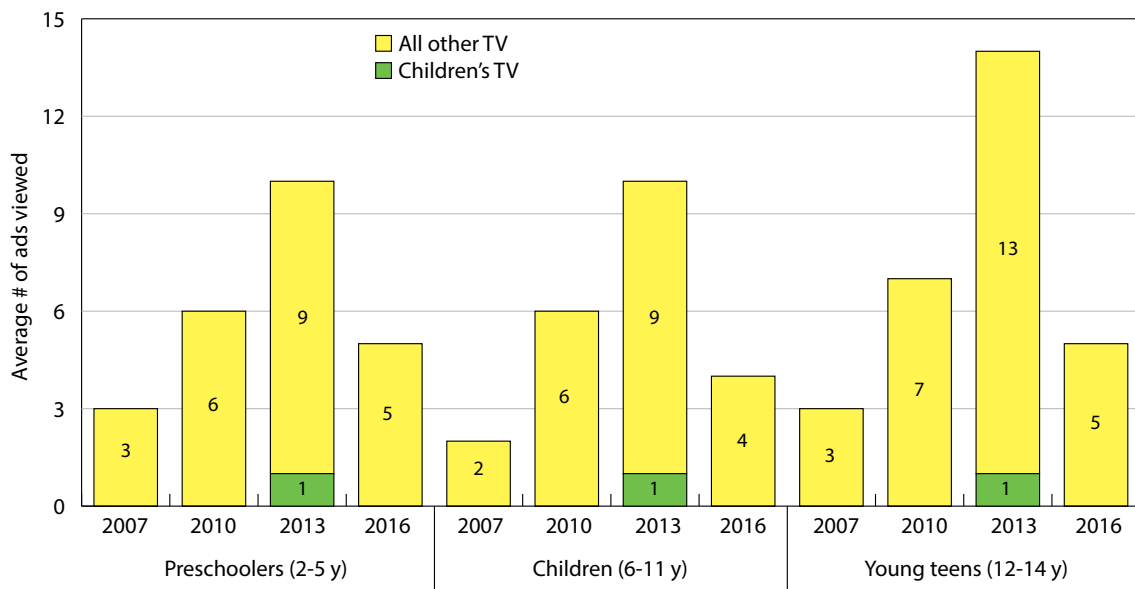
approximately 60% from 2007 to 2016 for preschoolers and young teens, and by almost 50% for children (6-11 years) (see **Figure 19**).

In 2016, only Ghirardelli and Jelly Belly advertised their products on any type of TV programming, but the numbers were very low (see **Table 61**). In all years examined, Just Born was the only CCAI company to advertise on _____ in any year examined (approximately 1 ad viewed in 2013) (see **Appendix Table B6**). However, from 2013 to 2016, the company substantially reduced its total advertising spending and did not advertise on TV at all in 2016.

Digital marketing

The two CCAI companies that advertised on TV in 2016 were also the only companies with _____ on _____ in 2016: Ghirardelli Chocolate and Jelly Belly (see **Table 62**). As with TV advertising, the number of ads appearing on kids' websites for both companies was low. However, Jelly Belly also placed more than 2 million ads on Facebook, which represented 18% of all banner ads for the company.

Figure 19. Changes in TV advertising viewed by children for CCAI companies



Source: Rudd Center analysis of Nielsen data (2017)

Table 61. TV advertising viewed by children for CCAI brands in 2016

Company	Preschoolers (2-5 y)			Children (6-11 y)			Young teens (12-14 y)		
	Avg # of ads viewed	Tgtd ratio vs adults (18-49 y)	Change in ads viewed from 2007	Avg # of ads viewed	Tgtd ratio vs adults (18-49 y)	Change in ads viewed from 2007	Avg # of ads viewed	Tgtd ratio vs adults (18-49 y)	Change in ads viewed from 2007
Ghirardelli Chocolate	3.3	0.42	15%	2.7	0.34	32%	3.4	0.34	4%
Jelly Belly Candy Company	1.7	0.58	**	1.6	0.56	**	1.6	0.56	**

**No ads viewed in 2007

Source: Rudd Center analysis of Nielsen data (2017)

Table 62. Banner ads placed by CCAI companies on kids' and social media websites in 2016

Company	Kids' websites		Social media sites*		
	# of ad impressions (000)	% of brand impressions	# of ad impressions on Facebook (000)	# of ad impressions on YouTube (000)	% of brand impressions
Ghirardelli Chocolate	161	1%	542	348	3%
Jelly Belly Candy Company	21	<1%	2,270	45	18%

*Facebook and YouTube

Source: comScore Ad Metrix Advertiser report (January-December 2016)

Table 63. Youth visitors to CCAI company websites in 2016

Company	Website	Avg monthly unique visitors (000)		% of total unique visitors	
		Children (2-12 y)	Teens (13-17 y)	Children (2-12 y)	Teens (13-17 y)
Ghirardelli	Ghirardelli.com	6.1	2.8	9%	4%
Jelly Belly Candy Company	JellyBelly.com	0.8	5.1	1%	8%

Source: comScore Ad Metrix Advertiser report (January-December 2016)

These same two companies were also the only ones that had _____ with enough child visitors to measure in comScore (see **Table 63**). At Ghirardelli.com, 9% of visitors were ages 2 to 12, which was comparable to the 10% of total visitors to the internet in this age group. In contrast, only 1% of visitors to JellyBelly.com were children, while 8% of its visitors were teens (ages 13 -17). For both websites, the total number of youth visitors (under age 18) averaged 7,000 to 8,000 per month.

In contrast to more _____, CCAI companies were more _____ (see **Table 64**). All eight CCAI companies maintained active _____ in 2016, but only Ghirardelli and Welch's Fruit Snacks (The Promotion in Motion Companies) had more than 1 million _____. Fewer CCAI companies had _____ ($n=4$) or _____ ($n=5$). Welch's Fruit Snacks was the most popular and active Twitter account with just 87,000 _____ and 842 _____ in 2016. Both Ghirardelli and Jelly Belly had more than 25,000 _____

Table 64. Popular social media accounts for CCAI companies* in 2016

Company	Brand	Facebook		Twitter		Instagram	
		Fans (000)***	Posts	Followers (000)***	Tweets	Followers (000)***	Posts
Ghirardelli Chocolate	Ghirardelli	1,568	264	16	397	31	244
The Promotion in Motion Companies	Welch's Fruit Snacks	1,112	272	87	842	**	**
Jelly Belly Candy Company	Jelly Belly	675	91			26	56
The Promotion in Motion Companies	Sour Jacks	649	323	**	**	**	**

Company	Account name	YouTube	
		Video views (000)	Videos uploaded
Ghirardelli Chocolate	GhirardelliDigital	5,925	36
The Promotion in Motion Companies	MyWelchsFruitSnacks	1,727	2
Jelly Belly Candy Company	JellyBelly	697	12

*Includes accounts with 500,000 or more fans or followers on any social media platform

**Account active in 2016, but data not available

***As of December 31, 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

_____. Three CCAI companies also maintained active YouTube accounts. As with Facebook and Twitter, _____ for Ghirardelli and Welch's Fruit Snacks had the most _____, including almost 6 million views for Ghirardelli Digital.

Key findings

- CCAI companies have kept their pledges not to advertise in media directed to children under 12. In 2016, Ghirardelli Chocolate and Jelly Belly were the only CCAI companies that advertised on any TV or on third-party kids' websites. These companies also attracted the most children to their websites. However, most CCAI companies also had little or no advertising in any media before their pledges were implemented.
- The CCAI appears to have had differing outcomes for the three companies with TV advertising in 2013 (prior to CCAI implementation). From 2013 to 2016, Ghirardelli Chocolate and Just Born substantially reduced their total ad spending and TV advertising viewed by children. Notably, Just Born was the only company that appeared to target children with advertising on children's TV in 2013. On the other hand, Jelly Belly more than doubled its total advertising spending from 2013 to 2016, and the number of TV ads viewed by children increased (although the numbers are small).
- In contrast to their limited presence in traditional media, all CCAI companies maintained at least one active social media account in 2016. Welch's Fruit Snacks, which did not advertise in traditional media in 2016, maintained popular and active social media accounts.

ADVERTISING BY NON-PARTICIPATING COMPANIES

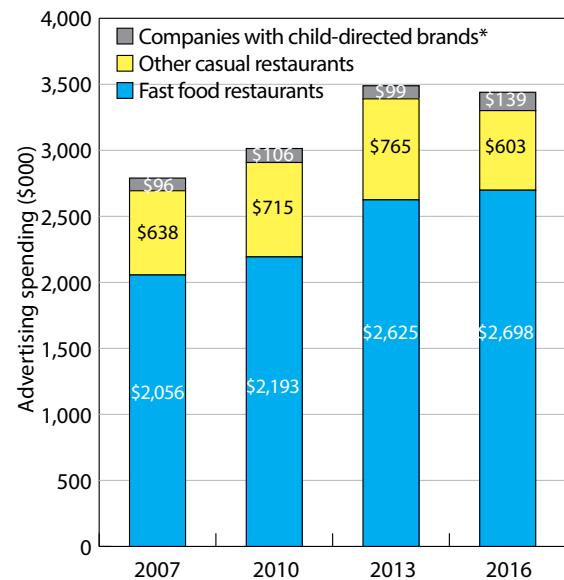
In this section we examine advertising by 24 companies that did not participate in the CFBAI or CCAI, but had brands that ranked among the 50 brands with the most TV advertising viewed by children in 2016. Total advertising spending by non-participating companies with top-50 brands exceeded \$3.4 billion in 2016, one-quarter of all food-related advertising spending. These companies also were responsible for approximately 30% of all food-related TV ads viewed by children in 2016. In this section, we also examine six additional companies that advertised healthy brands to children in 2016.

Companies with top-50 brands

_____ included 12 fast food restaurants, nine casual restaurants, two candy, and one cheese manufacturer (see **Table 65**). Seven of these companies had at least one child-directed brand, as evidenced by advertising on _____ and high _____ by children relative to adults.¹ Sonic and Subway appeared to direct kids' meal advertising to children, but not advertising for their other products.

Fast food restaurants (excluding kids' meals) spent \$2.7 billion on advertising in 2016, 78% of all spending by these companies (see **Figure 20**). _____ for other casual restaurants totaled \$600 million, while companies

Figure 20. Total advertising spending by non-participating top-50 companies



*Totals for companies with child-directed brands include Subway and Sonic kids' meals. Kids' meals were not included in fast food restaurants numbers.

Source: Rudd Center analysis of Nielsen data (2017)

with child-directed brands spent \$139 million (see **Appendix Table A4**). For these companies combined, 87% of their spending was devoted to TV advertising.

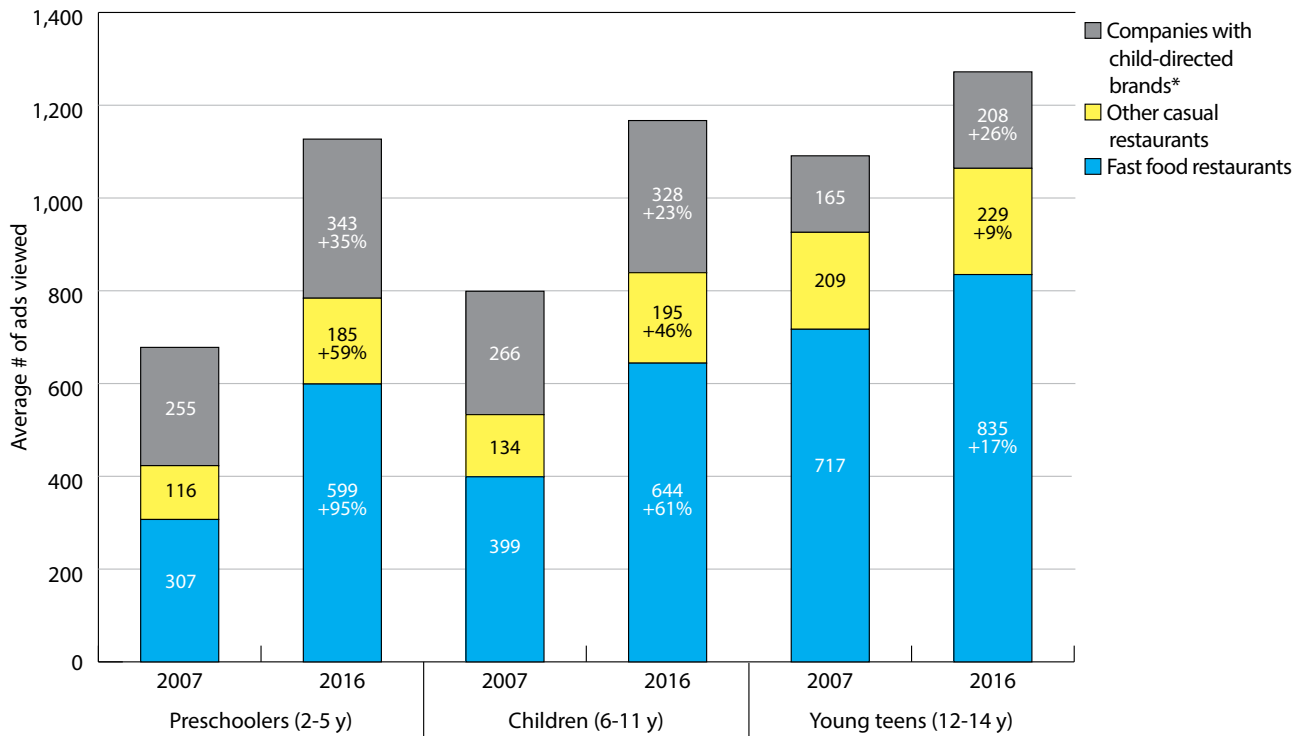
From 2007 to 2016, total advertising spending by fast food restaurants increased by \$640 million, up 31%. Although total spending by companies with child-directed brands was

Table 65. Non-participating companies with top-50 brands

Company	Child-directed brand	Company	Child-directed brand
Fast food restaurants		Other casual restaurants	
Arby's		Applebee's Grill & Bar	
Dairy Queen		Chili's Grill & Bar	
Domino's Pizza		Chuck E. Cheese's	✓
KFC		Dave & Buster's	✓
Little Caesars		Denny's Restaurant	
Papa John's		Golden Corral Restaurant	
Pizza Hut		Olive Garden	
Popeye's		Outback Steakhouse	
Sonic kids' meals	✓	Red Lobster	
Sonic other products			
Subway kids' meals	✓	Food manufacturers	
Subway other products		Perfetti Van Melle (candy)	✓
Taco Bell		The Bel Group (cheese)	✓
Wendy's		The Topps Company (candy)	✓

Source: Rudd Center analysis of Nielsen data (2017)

Figure 21. Changes in TV ads viewed by age group for non-participating companies with top-50 brands



*Totals for companies with child-directed brands include Subway and Sonic kids' meals. Kids meals were not included in fast food restaurants totals.
Source: Rudd Center analysis of Nielsen data (2017)

considerably lower, advertising by companies with child-directed brands showed the greatest percent increase, growing 45% from 2007 to 2016. In contrast, ad spending by other casual restaurants declined by 6% during this time.

Non-participating companies with top-50 brands were responsible for two to three TV _____ per day on average by children in all age groups (see **Figure 21**). Fast food restaurants (excluding kids' meals) represented approximately 55% of ads viewed by preschoolers and children from non-participating companies and two-thirds of ads viewed by young teens. Approximately 30% of ads viewed by preschoolers and children for these companies promoted child-directed brands, although child-directed brands represented just 16% of ads viewed by young teens, who saw somewhat more ads for other casual restaurants.

From 2007 to 2016, exposure to TV advertising by non-participating fast food companies with top-50 brands increased the most for preschoolers and children (95% and 61%, respectively). In contrast, fast food advertising to young teens increased by just 17%. Similarly, despite a decline in advertising spending by other casual restaurants, exposure to TV advertising for these companies increased by 59% and 46% for preschoolers and children, respectively, compared with just 9% for young teens. These trends indicate a potential increased focus by fast food and casual restaurants on advertising to reach a younger audience. TV advertising for companies with child-directed brands also increased substantially for children in all age groups, although at somewhat lower rates.

Companies with child-directed brands

Of the seven _____ in 2016, The Bel Group spent the most, nearly \$50 million, 99.9% of which was devoted to three child-directed brands (see **Table 66**). Two child-directed casual restaurants, Chuck E. Cheese's and Dave & Buster's, spent another \$51 million combined. The two candy companies differed in how much of their advertising was devoted to child-directed brands. The Topps Company spent almost three-quarters of its advertising budget (\$8.1 million) on three child-directed brands, while Perfetti Van Melle spent one-third of its budget (\$6.8 million) on Airheads, its only child-directed brand. Of the two non-participating fast food restaurants with child-directed advertising, Subway spent the most (\$6.8 million) to advertise its kids' meals, which was less than 2% of its total budget, while Sonic spent only \$146,000 to advertise its kids' meals. The majority of companies dedicated more than 80% of 2016 ad dollars for their child-directed brands to English-language TV advertising. However, Subway dedicated 70% of its kids' meal ad spending to Spanish-language TV advertising. Chuck E. Cheese's and Mini Babybel also allocated 28% and 18% of their spending, respectively, to advertising on Spanish-language TV; and Mini Babybel spent 23% of its ad budget on magazine advertising.

All but one child-directed brand increased its total advertising spending from 2007 to 2016. Five brands more than doubled their spending (Mini Babybel, Juicy Drop Candy, Ring Pop, Laughing Cow, and Dave & Buster's), while another three

Table 66. Advertising spending by non-participating company child-directed brands in 2016

Company	Brand	Total ad spending (\$ mil)	TV % of total*	Change in total ad spending from 2007
Chuck E. Cheese's		\$28.0	71%	24%
The Bel Group	Mini Babybel	\$27.2	58%	567%
Dave & Buster's		\$22.8	98%	100%
The Bel Group	Laughing Cow	\$12.1	100%	110%
The Bel Group	Laughing Cow Cheese Dippers Snacks	\$9.4	100%	**
Subway	Kids' meals	\$6.8	30%	-83%
Perfetti Van Melle	Airheads	\$6.8	99%	74%
The Topps Company	Juicy Drop Candy	\$3.8	100%	355%
The Topps Company	Crunchkins	\$2.5	100%	**
The Topps Company	Ring Pop	\$1.7	100%	123%
Sonic	Kids' meals	\$0.1	100%	**

The Bel Group, The Topps Company, and Perfetti Van Melle also allocated ad dollars to brands that were not child-directed and are not listed here.

*English-language TV advertising only

**No spending in 2007

Source: Rudd Center analysis of Nielsen data (2017)

brands with child-directed advertising in 2016 had not advertised in 2007 (Laughing Cow Cheese Dippers Snacks, Crunchkins, and Sonic kids' meals). Subway kids' meals was the only child-directed brand to reduce its total ad spending from 2007 to 2016 (-83%).

Table 67 and **Appendix Table B7** detail the _____ for child-directed brands in 2016. Chuck E. Cheese's aired by far the most TV advertising, with 147 and 109 ads viewed by preschoolers and children, respectively. The three Topps candy brands contributed an additional 70 and 89 ads viewed by children in these age groups. In most

Table 67. TV ads viewed for non-participating company child-directed brands in 2016

Company	Brand	Preschoolers (2-5 y)				Children (6-11 y)				Young teens (12-14 y)			
		Avg # of TV ads viewed (18-49 y)	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed (18-49 y)	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed (18-49 y)	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007
Chuck E. Cheese's		147.1	4.42	88%	-17%	108.6	3.26	87%	-36%	58.5	1.76	83%	-32%
The Topps Company	Juicy Drop Candy	37.0	4.22	88%	520%	47.6	5.43	86%	515%	26.0	2.97	83%	528%
Dave & Buster's		20.8	0.79	55%	390%	24.0	0.91	55%	344%	21.8	0.83	31%	56%
Perfetti Van Melle	Airheads	17.4	1.67	64%	-38%	22.7	2.17	61%	-29%	17.7	1.69	42%	0%
The Topps Company	Crunchkins	17.4	3.16	89%	**	21.8	3.95	87%	**	13.3	2.42	76%	**
The Topps Company	Ring Pop	15.8	4.11	99%	172%	20.0	5.21	100%	157%	11.1	2.90	99%	173%
Subway	Kids' meals	11.8	4.70	95%	34%	16.4	6.55	96%	57%	9.2	3.70	95%	-51%
The Bel Group	Laughing Cow	16.5	1.81	71%	**	8.1	0.88	48%	**	5.9	0.65	29%	**
The Bel Group	Mini Babybel	15.1	1.65	69%	727%	7.6	0.83	49%	330%	5.7	0.62	28%	187%
The Bel Group	Laughing Cow Cheese Dippers Snacks	10.6	1.54	65%	**	5.3	0.77	41%	**	4.0	0.58	20%	**
Sonic	Kids' meals	0.8	5.83	99%	**	0.8	5.59	99%	**	0.3	2.33	99%	**

The Bel Group, The Topps Company and Perfetti Van Melle advertised brands that were not child-directed and are not listed here.

**No ad exposure in 2007

Source: Rudd Center analysis of Nielsen data (2017)

Table 68. TV ads viewed for child-directed brands on preschool channels in 2016

Company	Brand	Avg # of ads viewed	
		Preschoolers (2-5 y)	Children (6-11 y)
Chuck E. Cheese's		23.5	5.6
The Bel Group	Laughing Cow Cheese	11.0	2.6
	Laughing Cow Cheese Dippers	6.7	1.7
	Mini Babybel	9.5	2.3

Source: Rudd Center analysis of Nielsen data (2017)

cases, children viewed more ads for child-directed brands than preschoolers viewed, but there were some exceptions. Preschoolers saw more ads than any other age group for Chuck E. Cheese's and the three Bel Group brands. Young teens saw fewer ads for all child-directed brands compared with children. However, compared with preschoolers, young teens viewed approximately the same number of ads for Dave & Buster's and Airheads.

Preschoolers, children, and young teens viewed 276, 254, and 133 ads, respectively, for non-participating companies' child-directed brands on children's TV in 2016, which was approximately 80% of all ads viewed for these brands (see **Appendix Table B8**). However, 86% or more of ads viewed for Chuck E. Cheese's, Subway and Sonic kids' meals, and all Topps brands appeared on children's TV, while a lower proportion of ads viewed for Bel brands, Airheads, and Dave & Buster's appeared on children's TV.

From 2007 to 2016, TV advertising viewed by children increased for the majority of child-directed brands, with some differences between brands by age group. Chuck E. Cheese's ads viewed by children and young teens dropped by 36% and 32%, respectively, compared to a decline of just 17% for preschoolers. Exposure to Airheads ads decreased for preschoolers and children (by 38% and 29%, respectively), but not for young teens. In contrast, young teens viewed fewer ads for Subway kids' meals (-51%) in 2016 than they did in 2007, while ads viewed by preschoolers and children increased.

On children's TV, the number of ads viewed by preschoolers and children for these brands on children's TV increased by 36% and 27%, respectively, from 2007 to 2016. Notably, the majority of brands that advertised on children's TV in 2016 had not advertised there in 2007, including Dave & Buster's, Sonic kids' meals, all Bel brands, and Crunchkins. Topps' Juicy Drop Candy and Ring Pop had a limited presence on children's TV in 2007, but advertising on children's TV for both brands more than doubled by 2016.

Of note, 16% of ads for Chuck E. Cheese's and two-thirds of Bel Group brands' ads were viewed by preschoolers on children's TV _____, including Nickjr. (70% of these ads) and Sprout (30% of these

ads) (see **Table 68**). As would be expected, preschoolers viewed more ads on preschool channels compared with children, while adults viewed on average less than 2 ads each for Chuck E. Cheese's and all Bel Group brands.

Fast food and other casual restaurants

All non-participating top-50 companies that did not have child-directed brands were fast food or casual restaurants (see **Table 69**). In this section, we also include advertising for Subway and Sonic products that were not child-directed (i.e., not kids' meals). Five fast food restaurants accounted for one-half of total advertising spending by these companies in 2016 (Subway, Taco Bell, Domino's Pizza, Sonic, and Wendy's). Another five fast food and two casual restaurants spent more than \$100 million each in total advertising. Only two of these restaurants, Popeye's and Denny's, allocated less than 80% of their total spending to English-language TV advertising. Of note, both devoted 20% of their ad budgets to Spanish-language TV advertising.

From 2007 to 2016, all but three of these fast food restaurants increased their _____. Little Caesars had the biggest increase (\$151 million), while Popeye's advertising increased four-fold and both Domino's Pizza and Dairy Queen advertising almost doubled during this time. Four of the seven casual restaurants also increased their ad spending from 2007 to 2016, but at lower rates. Golden Corral had the biggest increase at 77%.

Table 69. Advertising spending by non-participating fast food and other casual restaurants in 2016

Company	Total ad spending (\$ mil)	TV % of total*	Change in total ad spending from 2007
Subway (excluding kids' meals)	\$457.5	84%	35%
Taco Bell	\$339.5	84%	38%
Domino's Pizza	\$277.1	86%	96%
Sonic (excluding kids' meals)	\$242.0	92%	47%
Wendy's	\$230.7	76%	-22%
KFC	\$204.2	91%	-29%
Pizza Hut	\$203.0	95%	-14%
Papa John's	\$165.2	89%	60%
Little Caesars	\$161.7	83%	1466%
Arby's	\$150.3	96%	18%
Popeye's	\$139.0	77%	293%
Olive Garden	\$130.7	89%	4%
Dairy Queen	\$127.4	99%	93%
Applebee's Grill & Bar	\$122.8	86%	-20%
Chili's Grill & Bar	\$96.1	90%	26%
Red Lobster	\$79.4	99%	-33%
Outback Steakhouse	\$70.0	91%	-18%
Denny's Restaurant	\$61.4	76%	12%
Golden Corral Restaurant	\$42.4	92%	77%

*English-language TV advertising only

Source: Rudd Center analysis of Nielsen data (2017)

Table 70. TV ads viewed for non-participating fast food and other casual restaurants in 2016

Company	Preschoolers (2-5 y)				Children (6-11 y)				Young teens (12-14 y)			
	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007
Domino's Pizza	73.5	0.47	0%	206%	78.9	0.50	0%	166%	97.2	0.62	0%	68%
Taco Bell	69.1	0.40	0%	70%	74.8	0.44	0%	30%	110.3	0.65	0%	-4%
Sonic (excluding kids' meals)	59.6	0.47	9%	144%	65.5	0.51	13%	51%	82.9	0.64	6%	1%
Subway (excluding kids meals)	56.7	0.44	2%	45%	64.0	0.51	8%	102%	82.9	0.65	3%	31%
Wendy's	67.9	0.47	12%	91%	73.5	0.50	2%	22%	92.1	0.64	1%	-17%
Little Caesars	54.2	0.43	0%	**	58.4	0.46	0%	**	72.6	0.58	0%	**
Pizza Hut	53.2	0.46	0%	6%	57.9	0.51	0%	1%	75.8	0.66	0%	1%
Applebee's Grill & Bar	36.1	0.42	0%	45%	39.8	0.46	0%	41%	47.8	0.56	0%	21%
Olive Garden	40.2	0.45	0%	43%	40.2	0.45	0%	21%	46.2	0.52	0%	-13%
KFC	36.7	0.41	0%	-32%	38.0	0.42	0%	-44%	52.0	0.57	0%	-54%
Arby's	34.7	0.48	0%	202%	37.9	0.53	0%	150%	52.4	0.73	0%	74%
Dairy Queen	34.2	0.41	0%	120%	34.9	0.42	0%	51%	42.8	0.52	0%	2%
Popeye's	29.9	0.48	0%	1783%	34.0	0.55	0%	1293%	41.3	0.66	0%	789%
Papa John's	29.4	0.48	10%	177%	26.5	0.44	3%	110%	33.0	0.54	1%	37%
Chili's Grill & Bar	23.7	0.43	0%	66%	26.5	0.48	0%	36%	34.3	0.62	0%	-5%
Denny's Restaurant	20.7	0.55	4%	33%	24.4	0.65	4%	29%	28.9	0.76	2%	-2%
Outback Steakhouse	21.6	0.45	0%	223%	23.0	0.47	0%	217%	25.9	0.53	0%	140%
Red Lobster	22.3	0.40	0%	-15%	21.2	0.38	0%	-20%	24.1	0.44	0%	-41%
Golden Corral Restaurant	19.9	0.45	0%	**	20.1	0.45	0%	**	21.4	0.49	0%	**

**No ad exposure in 2007

Source: Rudd Center analysis of Nielsen data (2017)

Although less than 2% of these ads appeared on _____, children in all age groups viewed large numbers of TV ads for _____ on other TV programming (see **Table 70**). Preschoolers and children averaged more than 50 ads viewed each for Domino's, Taco Bell, Sonic, Subway, Wendy's, Little Caesars, and Pizza Hut in 2016, while young teens averaged 73 or more ads viewed for the same fast food restaurants. However, some fast food restaurants did advertise some products that were not kids' meals on children's TV, including Sonic, Subway, Wendy's, and Papa John's. Preschoolers also viewed Papa John's ads on _____ networks. Denny's was the only casual restaurant that did not qualify as child-directed with some advertising on children's TV.

From 2007 to 2016, exposure to TV advertising increased for the majority of non-participating fast food and other casual restaurants, with the greatest increases in ads viewed by preschoolers and children. For these age groups, ad exposure more than doubled for Domino's Pizza, Sonic, Arby's, Papa John's, and Outback Steakhouse. Increases in ad exposure were even greater for preschoolers than for children for nearly all fast food and casual restaurants, including Wendy's (91% vs. 51%) and Dairy Queen (120% vs. 51%). Notable increases in ads viewed by young teens included a seven-fold increase

for Popeye's, and ads viewed for Outback Steakhouse almost doubled. TV advertising for just one fast food and one casual restaurant (KFC and Red Lobster) decreased for preschoolers and children, while young teens viewed fewer ads for seven of the 19 fast food and casual restaurants.

Digital marketing

Non-participating fast food and other casual restaurants were some of the most popular and active companies in marketing to youth online and through social media platforms. By comparison, most child-directed brands had less marketing in digital media.

Banner advertising on third-party websites

Of the 11 child-directed brands analyzed, just four placed ads on _____ in 2016 (see **Table 71**). Chuck E. Cheese's placed more _____ on kids' websites than other child-directed brands (1.5 million), but these brands placed less than 2% of their banner ads on kids' websites. These brands all placed a somewhat higher proportion of their banner ads on _____, led by Chuck E.

Table 71. Banner ads placed by child-directed brands from non-participating companies in 2016

Company	Brand	Kids' websites		Social media sites		
		# of ad impressions (000)	# of ad % of total brand impressions	# of ad impressions on Facebook (000)	impressions on YouTube (000)	% of total brand impressions*
Chuck E. Cheese's		1,523	2%	5,799	1,125	9%
Subway	Kids' meals	102	<1%	2,041	122	6%
The Bel Group	Babybel	34	1%	263	0	6%
Perfetti Van Melle	Airheads	31	<1%	357	78	4%

*Facebook and YouTube

Source: comScore Ad Metrix Advertiser report (January - December 2016)

Cheese's with almost 7 million ads, representing 9% of its total banner ads. Child-directed brands placed more than six times as many ads on Facebook than on YouTube.

On the other hand, 13 of the 19 fast food and other casual restaurants placed banner ads on _____ in 2016 (see **Table 72**). The percent of restaurants' total ads placed on kids' websites was low (2% or less), but three fast food and one casual restaurant placed more than 5 million ads each, including Pizza Hut, Papa John's, and Olive Garden.

Non-participating fast food and other casual restaurants also placed a much higher proportion of their banner ads on social media sites, including 61% of Wendy's ads and more than 30% of ads by Taco Bell, Applebee's, and Papa John's. Some of these restaurants also placed high numbers of ads on social media sites in 2016, including 150 million ads for Papa John's and more than 40 million ads each for Pizza Hut, Applebee's Grill & Bar, and Subway on Facebook. On the other hand, Wendy's and Taco Bell placed the most ads on YouTube (45

million and 39 million, respectively). Notably, non-participating fast food and other casual restaurants placed more banner ads on social media sites compared with all other types of companies in our analysis, and they also placed the highest proportion of their ads on social media (15%).

Non-participating company websites

In 2016, just three child-directed brands from non-participating companies sponsored _____ with enough child visitors (ages 2-12) to obtain exposure data from comScore (see **Table 73**). As found with display ads on third-party websites, Chuck E. Cheese's attracted the most _____, averaging 139,000 visits per month, which was the most visitors for any of the non-participating company sites in our analysis. Notably, 42% of visitors to ChuckE Cheese.com and 30% of visitors to SubwayKids.com were children under age 13.

Table 72. Banner ads placed by non-participating fast food and other casual restaurants in 2016

Company	Kids' websites		Social media sites		
	# of ad impressions (000)	% of total brand impressions	# of ad impressions on Facebook (000)	# of ad impressions on YouTube (000)	% of total brand impressions*
Pizza Hut	11,290	1%	72,005	6,055	9%
Papa John's	8,762	2%	149,971	6,244	31%
Olive Garden	5,047	2%	17,674	3,462	8%
Subway (all products, excluding kids' meals)	4,343	1%	40,893	7,183	7%
Wendy's	1,310	2%	1,268	45,126	61%
Denny's Restaurant	641	1%	3,808	591	5%
KFC	248	<1%	11,445	12,660	11%
Pizza Hut	186	1%	1,056	76	5%
Red Lobster	176	<1%	205	79	1%
Applebee's Grill & Bar	174	<1%	42,159	632	35%
Outback Steakhouse	98	<1%	1,202	5,966	13%
Taco Bell	57	<1%	2,630	38,976	37%
Dairy Queen	33	<1%	522	2,314	22%

*Includes Facebook and YouTube

Source: comScore Ad Metrix Advertiser report (January - December 2016)

Table 73. Youth visitors to websites for non-participating company child-directed brands in 2016

Company	Website	Avg monthly unique visitors (000)		% of total unique visitors	
		Children (2-12 y)	Teens (13-17 y)	Children (2-12 y)	Teens (13-17 y)
Chuck E Cheese's	ChuckE Cheese.com	139.4	16.8	42%	5%
Dave & Buster's	DaveAndBusters.com	7.8	10.1	4%	6%
Subway	SubwayKids.com	6.0	0.8	30%	4%

Source: comScore Media Metrix Key Measures report for children & teens (January - December 2016)

Table 74. Youth visitors to websites for non-participating fast food and other casual restaurants* in 2016

Company	Website	Avg monthly unique visitors (000)		% of total unique visitors	
		Children (2-12 y)	Teens (13-17 y)	Children (2-12 y)	Teens (13-17 y)
Pizza Hut	PizzaHut.com	137.8	134.3	5%	5%
Domino's Pizza	Dominos.com	104.1	136.9	4%	5%
Papa John's	PapaJohns.com	76.7	85.5	4%	4%
Subway	Subway.com	30.3	42.5	3%	4%
Olive Garden	OliveGarden.com	24.8	29.1	3%	4%
Taco Bell	TacoBell.com	23.4	46.3	4%	7%
Applebee's Grill & Bar	Applebees.com	22.1	17.7	4%	3%
Wendy's	Wendys.com	20.0	29.6	4%	6%
Red Lobster	RedLobster.com	17.3	9.0	4%	2%
KFC	KFC.com	13.2	20.2	4%	6%
Chili's Grill & Bar	Chilis.com	12.8	7.8	3%	2%
Popeye's	Popeyes.com	10.8	5.4	5%	3%
Outback Steakhouse	Outback.com	10.3	7.8	2%	2%

*Includes websites that averaged more than 10,000 unique child visitors per month

Source: comScore Media Metrix Key Measures report for children & teens (January - December 2016)

In contrast, all but one of the fast food and other casual restaurants (Arby's) maintained websites with enough child visitors to measure in comScore. Thirteen of these sites averaged more than 10,000 unique child visitors per month in 2016 (**Table 74**). PizzaHut.com and Dominos.com each averaged more than 100,000 child visitors monthly, while PapaJohns.com averaged 77,000. Notably, eleven restaurant websites attracted more child than teen visitors, including PizzaHut.com, Applebees.com, and RedLobster.com.

Social media accounts

With the exception of Subway and Sonic kids' meals, all child-directed brands from non-participating companies maintained _____ on _____, _____, and _____. However, only Airheads and Chuck E. Cheese's had 1 million or more _____ or _____ on any of their accounts (see **Table 75**). Compared with other companies in our analyses, child-directed brands also were less active in social media. However, the majority of these brands _____ approximately 100 times or more on Facebook in 2016, while Chuck E. Cheese's _____ about 18 times per day. Laughing Cow Cheese had

more than 200 _____ in 2016. Five child-directed brands also maintained active YouTube channels in 2016. Chuck E. Cheese's had 41 million video views in 2016 and 46 uploaded videos. Laughing Cow, Airheads, and Babybel also had 1.7 million or more cumulative video views each.

In contrast, 19 non-participating fast food and other casual restaurants in our analysis maintained U.S. social media accounts on Facebook, Twitter, and Instagram. Total Facebook fans exceeded 1 million for all companies except Popeye's and Golden Corral (see **Table 76**). KFC had almost 40 million Facebook fans, followed by Subway with 26 million. Domino's, Taco Bell, and Dairy Queen each had approximately 10 million Facebook fans. Subway, KFC, Domino's, Taco Bell, Pizza Hut, and Wendy's also had approximately 1 million or more Twitter followers. These same companies had 250,000 or more Instagram followers. Many of these restaurants were also quite active on Facebook, with Pizza Hut, Olive Garden, Golden Corral Restaurant, Papa John's, Little Caesars, and Applebee's averaging one post per day in 2016. Applebee's and Taco Bell tweeted over 380 times per day. Olive Garden, Pizza Hut, Domino's, and Applebee's also posted approximately once per day on Instagram in 2016.

Table 75. Social media accounts for non-participating company child-directed brands* in 2016

Company	Brand	Facebook		Twitter		Instagram	
		Fans (000)***	Posts	Followers (000)***	Tweets	Followers (000)***	Posts
Perfetti Van Melle	Airheads	1,134	226	18	1,937	**	**
Chuck E. Cheese's		952	212	21	6,747	**	**
Dave & Buster's		539	126	31	836	11	119
The Bel Group	Laughing Cow Cheese	314	191	10	432	7	208
The Topps Company	Ring Pop	280	97	**	**	**	**
The Bel Group	Babybel	127	79	5	728	**	**

YouTube			
Company	Account name	Video views (000)	Uploaded videos
Chuck E. Cheese's	ChuckE CheeseVideo	40,615	46
The Bel Group	LaughingCowTV	2,556	11
Perfetti Van Melle	therealairheads	1,747	4
The Bel Group	USBabybel	1,676	5
Dave & Buster's	DaveAndBustersFun	**	**

*Includes brands with 100,000+ fans or followers on any social media platform

**Account active in 2016, but data were not available

***As of December 31, 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

All fast food and other casual restaurants in this analysis also maintained active _____ channels. Popular accounts on other social media platforms were also popular on YouTube; Domino's, KFC, Wendy's, and Pizza Hut had the most YouTube _____, each exceeded 22 million in 2016. Among casual restaurants, Denny's and Outback Steakhouse led with more

than 10 million views. All restaurants _____ more than 10 videos in 2016, with the majority uploading 40 or more. Wendy's uploaded 141 different videos in 2016, followed by 65 Pizza Hut videos.

Table 76. Social media accounts for non-participating fast food and other casual restaurants in 2016

Company	Facebook		Twitter		Instagram	
	Fans (000)*	Posts	Followers (000)*	Tweets	Followers (000)*	Posts
KFC	39,628	204	1,110	3,293	350	108
Subway	25,795	111	2,420	10,176	349	68
Domino's Pizza	10,380	216	1,127	65,733	479	333
Taco Bell	10,304	98	1,790	140,867	308	127
Dairy Queen	10,239	235	417	11,400	162	159
Wendy's	7,763	265	992	18,477	253	127
Olive Garden	6,469	424	354	30,225	192	373
Applebee's Grill & Bar	5,953	320	595	159,809	154	297
Pizza Hut	5,778	584	1,493	31,228	453	361
Chili's Grill & Bar	4,008	216	348	78,574	103	196
Red Lobster	3,955	175	268	18,562	103	104
Sonic	3,408	194	314	10,078	165	214
Outback Steakhouse	3,109	109	282	3,846	32	94
Little Caesars	2,757	332	172	10,515	**	**
Arby's	2,645	114	709	4,019	71	34
Papa John's	2,402	422	458	6,573	113	168
Denny's Restaurant	1,052	201	337	509	70	126
Popeye's	542	139	79	11,402	44	50
Golden Corral Restaurant	475	387	36	2,971	3	118

Table 76. Social media accounts for non-participating fast food and other casual restaurants in 2016 (continued)

Company	YouTube***		
	Account name	Video views (000)	Uploaded videos
Domino's Pizza	dominosvids	60,130	24
KFC	kfccolonelsanders	46,435	36
Wendy's	wendys	31,547	141
Pizza Hut	pizzahut	22,438	65
Denny's Restaurant	dennys	15,137	52
Subway	subway	11,696	45
Outback Steakhouse	outbacksteakhouse1	10,360	25
Arby's	arbys	7,720	48
Taco Bell	tacobell	5,459	57
Sonic	sonicdrivein	5,151	58
Chili's Grill & Bar	chilis	4,754	13
Olive Garden	olivegarden	4,718	46
Little Caesars	littlecaesarspizza	2,276	29
Papa John's	papajohns	1,705	24
Red Lobster	redlobsterseafood	1,398	26
Applebee's Grill & Bar	applebeeing	1,338	49

*As of December 31, 2016

**Account active in 2016, but data was not available

***Channels with more than 1 million video views in 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

Key findings

- The 24 non-participating companies with top-50 brands spent \$3.4 billion to advertise in 2016, one quarter of advertising spending by all food, beverage, and restaurant companies. These companies also were responsible for approximately 30% of TV ads viewed by preschoolers, children, and young teens in 2016, averaging 2 to 3 ads viewed per day for these age groups. As noted earlier, from 2007 to 2016, advertising spending and TV advertising to children by these companies increased substantially, more than offsetting declines by CFBAI companies.
- Seven non-participating companies had top-50 brands that were child-directed brands in 2016, including two fast food restaurants (Subway and Sonic kids' meals), two casual restaurants (Chuck E. Cheese's and Dave & Buster's), two candy companies (Topps and Perfetti Van Melle), and The Bel Group (Laughing Cow and BabyBel cheeses). From 2007 to 2016, these companies increased their advertising spending by 45%, while TV ads viewed by preschoolers and children increased by 35% and 23%, respectively.
- More than 80% of TV ads for companies with top-50 child-directed brands were viewed on children's programming, and from 2007 to 2016 these companies increased the number of ads viewed by preschoolers and children on children's TV by 36% and 27%, respectively.
- Preschoolers and children viewed 147 and 109 TV ads, respectively, for Chuck E. Cheese's in 2016. Topps candy brands were responsible for another 70 ads viewed by preschoolers and 89 ads viewed by children.
- Chuck E. Cheese's had the most advertising to preschoolers (under age 6) of any single brand in our analysis. Both Chuck E. Cheese's and Bel brands advertised on preschool TV channels (Nickjr. and Sprout) in 2016.
- The 12 fast food restaurants in this category (excluding kids' meals) spent \$2.7 billion on advertising in 2016, an increase of \$640 million compared with 2007. Preschoolers and children saw 600 and 644 TV ads from these fast food restaurants in 2016, increases of 95% and 61%, respectively, compared to 2007. Although young teens saw far more ads for these restaurants (835 in 2016) than did younger children, their exposure increased by just 17% from 2007 to 2016.
- Some fast food restaurants advertised products that were not kids' meals on children's TV programming (including Sonic, Subway, Wendy's, and Papa John's). However, 97% of non-participating fast food restaurant ads viewed by preschoolers and children appeared on other types of television.
- Despite a decline in advertising spending by the other casual restaurants in our analysis, from 2007 to 2016 TV advertising viewed by preschoolers and children for these restaurants increased by 59% and 46%, respectively. Nearly all these ads appeared on other types of TV programming; Denny's was the only restaurant in this category to advertise on children's TV.

- Chuck E. Cheese's and five fast food and other casual restaurants placed more than 1 million banner ads each on kids' websites in 2016.
- Chuck E. Cheese's had the most child visitors to its website in 2016 compared with all other non-participating companies. However, two fast food websites (PizzaHut.com and Dominos.com) also averaged more than 100,000 child visitors per month.
- All 19 fast food and other casual restaurants examined maintained social media accounts in all four platforms. Fast food restaurants had the most popular Facebook and Twitter accounts of any type of company in our analysis, including a median 6.8 million Facebook fans per account.

Companies with healthy brands

In this section, we discuss advertising by non-participating companies with brands in the healthier fruit, vegetable, nuts, milk, and yogurt categories. We include information about six companies that averaged at least 10 TV ads viewed by children ages 2 to 11 in 2016. These companies promoted 10 brands with at least two ads viewed by children in 2016. Although the amount of TV advertising for these brands was low, they were notable for advertising products in the healthiest categories directly to children.

Advertising spending

_____ for companies with healthy brands totaled \$290 million in 2016, 68% of which was dedicated to English-language TV advertising (see **Appendix Table A3**). Although total ad spending for these companies increased by 14% from 2007 to 2016, these companies contributed just 2% of all food, beverage, and restaurant ad spending in 2016.

Three brands each spent more than \$40 million in total advertising in 2016: MilkPEP (marketing campaigns funded

by U.S. milk companies, including GotMilk? and Milk Life), Silk almond milk, and Chobani yogurt (see **Table 77**). Three Wonderful brands spent more than \$20 million each (POM Wonderful, Wonderful Pistachios & Almonds, and Wonderful Halos). In addition to English-language TV advertising, five brands devoted approximately 20% or more of their advertising budgets to national magazines in 2016: Silk, Fiji Water, MilkPEP, Wonderful Pistachios & Almonds, and Wonderful Halos. MilkPEP also spent \$6.4 million on Spanish-language TV advertising in 2016.

Nine of these ten brands increased total advertising spending from 2007 to 2016. Notably, six brands had little or no advertising in 2007: MilkPEP, Chobani, Pom Wonderful, Wonderful Pistachios & Almonds, Wonderful Halos, and Dole Fruitocracy. Only Birds Eye reduced its advertising spending from 2007 to 2016. The brand had only advertised its frozen vegetables in 2007, but also advertised frozen entrees in 2016.

TV advertising to children

On average, preschoolers, children and young teens each viewed approximately 110 TV ads in 2016 for the companies with healthy brands in this analysis combined (see **Figure 22**). This exposure included some advertising on _____, ranging from 11% of _____ by young teens to 22% for preschoolers. From 2007 to 2016, TV advertising by these companies increased substantially for all child age groups, including approximately six-fold increases for preschoolers and children (see **Appendix B5**). Increases in ads viewed on children's TV were even greater, although the total number of ads viewed remained low (see **Appendix B6**). Furthermore, the number of TV ads viewed by preschoolers and children (but not young teens) increased each year of the analysis, albeit a small number relative to other categories.

Combined, Wonderful brands had more TV ads viewed by all age groups than any other company with healthy brands in this analysis: averaging more than 30 ads viewed by preschoolers,

Table 77. Advertising spending by non-participating companies with healthy brands in 2016

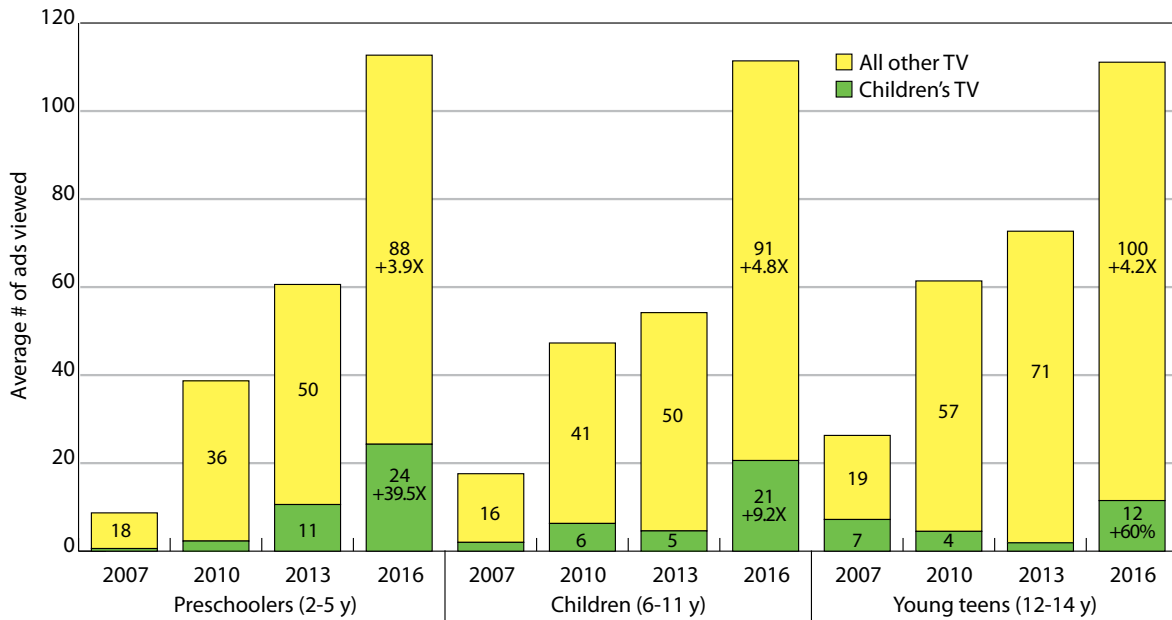
Company	Brand	Total ad spending (\$ mil)	TV % of total*	Change in total spending from 2007
MilkPEP	MilkPEP	\$57.5	62%	**
WhiteWave Foods Co	Silk	\$49.6	46%	118%
Chobani	Chobani	\$42.9	93%	**
The Wonderful Company	POM Wonderful	\$32.0	81%	**
The Wonderful Company	Wonderful Pistachios & Almonds	\$30.8	69%	**
The Wonderful Company	Wonderful Halos	\$23.8	73%	**
The Wonderful Company	Fiji Water	\$9.2	59%	63%
Dole Food Company	Dole Fruit Bowls	\$7.2	95%	118%
Birds Eye	Birds Eye Frozen Vegetables/Entrees	\$4.4	96%	-45%
Dole Food Company	Dole Fruitocracy	\$2.7	85%	**

*English-language TV advertising only

**No ad spending in 2007

Source: Rudd Center analysis of Nielsen data (2017)

Figure 22. Changes in ads viewed for companies* with healthy brands on children's and all other TV



*Company totals for all brands

Increases shown from 2007 to 2016, 38.4X indicates an increase of 38 times.

Source: Rudd Center analysis of Nielsen data (2017)

Table 78. TV ads viewed for non-participating company healthy brands in 2016

Company	Brand	Preschoolers (2-5 y)				Children (6-11 y)				Young teens (12-14 y)			
		Avg # of TV ads viewed (18-49 y)	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed (18-49 y)	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007	Avg # of TV ads viewed (18-49 y)	Tgtd ratio vs adults (18-49 y)	% Change viewed on children's TV	% Change in ads viewed from 2007
MilkPEP		15.9	0.79	12%	**	13.8	0.69	3%	**	12.3	0.61	1%	**
The Wonderful Company	Wonderful Halos	15.2	1.00	31%	**	14.2	0.93	7%	**	10.4	0.68	6%	**
Dole Food Company	Dole Fruitocracy	11.4	3.50	85%	**	15.5	4.73	82%	**	9.5	2.89	78%	**
Chobani		8.5	0.41	0%	**	8.1	0.40	0%	**	10.6	0.52	0%	**
The Wonderful Company	POM Wonderful	8.4	0.37	0%	**	8.1	0.36	0%	**	9.5	0.42	0%	**
Birds Eye	Birds Eye Frozen Vegetables/ Entrees	7.4	0.70	22%	160%	5.0	0.47	11%	122%	5.1	0.49	4%	61%
WhiteWave Foods Co	Silk	7.1	0.42	89%	40%	6.7	0.40	89%	35%	7.6	0.45	44%	1%
The Wonderful Company	Wonderful Pistachios & Almonds	6.4	0.38	0%	**	6.5	0.38	0%	**	7.5	0.44	0%	**
Dole Food Company	Dole Fruit Bowls	4.3	0.53	0%	**	5.2	0.65	0%	**	4.8	0.60	0%	**
The Wonderful Company	Fiji Water	2.8	0.41	0%	**	3.1	0.46	0%	**	4.8	0.71	0%	**

** Fewer than two ads viewed in 2007

Source: Rudd Center analysis of Nielsen data (2017)

Table 79. TV ads viewed on preschool channels for non-participating company healthy brands in 2016

Company	Brand	Avg # of ads viewed	
		Preschoolers (2-5 y)	Children (6-11 y)
Birds Eye	Birds Eye Frozen Vegetables	1.66	0.54
MilkPEP		1.88	0.40
The Wonderful Company	Wonderful Halos	4.73	1.00

Source: Rudd Center analysis of Nielsen data (2017)

children, and young teens in 2016 (see **Table 78**). Among the healthy brands, Wonderful Halos, Dole Fruitocracy, and MilkPEP each had more than 10 ads viewed by preschoolers and children. For young teens, Wonderful Halos, MilkPEP, and Chobani averaged more than 10 ads viewed. From 2007 to 2016, Silk and Birds Eye increased their advertising to all child age groups, while all other brands did not advertise to children until 2010 or 2013.

Several healthy brands appeared to target children with their TV advertising. Dole Fruitocracy had the highest targeted ratios, with children in all age groups viewing three to five times as many ads as adults viewed. Preschoolers and children

also saw relatively more ads for Wonderful Halos compared with adults, with targeted ratios of 1.0 and 0.93, respectively.² More than 80% of TV ads for Silk and Dole Fruitocracy viewed by preschoolers and children in 2016 appeared on children's TV. MilkPEP and Birds Eye also advertised on children's TV. In addition, preschoolers viewed on average 2 ads each for Birdseye Frozen Vegetables, MilkPEP, and Wonderful Halos on _____ (see **Table 79**).

Digital marketing

Dole Food and MilkPEP were the only companies with healthy brands to place _____ on _____ in 2016, although these ads represented just 1% of their total banner ad impressions (See **Table 80**). These two companies advertised somewhat more on Facebook and YouTube. However, the total number of banner ads placed by these companies was low relative to other companies in our analysis.

Dole was the only company with healthy brands that had enough child visitors to its _____, Dole.com, to report in comScore. Just 1% of visitors to Dole.com were between the ages of 2 and 12 (averaging 300 unique child visitors per month) in 2016, and just 2% were ages 12 to 17.

However, these brands were more active in social media. All healthy brands in our analysis maintained _____ on _____ and _____, while only Birds Eye did

Table 80. Banner ads on kids' and social media websites for companies with healthy brands in 2016

Company	Kids' websites		Social media sites		
	# of ad impressions (000)	% of ad impressions	# of ad impressions on Facebook (000)	# of ad impressions on YouTube (000)	% of brand impressions*
MilkPEP	401	1%	1,443	239	6%
Dole Food Company	53	1%	324	414	14%

*Includes Facebook and YouTube

Source: comScore Ad Metrix Advertiser report (January - December 2016)

Table 81. Social media accounts for companies with healthy brands in 2016

Company	Brand	Facebook		Twitter		Instagram	
		Fans (000)*	Posts	Followers (000)*	Tweets	Followers (000)*	Posts
Dole Food Company	Dole	1,919	345	10	1,566	4	330
Chobani		1,162	295	104	3,221	32	296
Birds Eye	Birds Eye Vegetables	843	37	16	470		
The Wonderful Company	Wonderful Pistachios	815	102	41	845	3	27
WhiteWave Foods Co	Silk	704	252	47	1,812	20	246
The Wonderful Company	Wonderful Halos	614	108	10	624	24	65
The Wonderful Company	Fiji Water	563	146	44	5,321	26	119
MilkPEP		475	294	22	603	1	237
The Wonderful Company	POM Wonderful	300	120	15	259	8	105

Table 81. Social media accounts for companies with healthy brands in 2016 (continued)

YouTube**			
Company	Account name	Video views (000)	Uploaded videos
Chobani	chobaniyogurt	25,719	41
Dole Food Company	doletube	6,188	25
MilkPEP	MilkMustacheCampaign	5,907	30
WhiteWave Foods Co	TheSilkChannel	5,026	65
The Wonderful Company	POMWonderful	1,798	2
The Wonderful Company	FIJIWaterCompany	1,030	14

* As of December 31, 2016

**Includes channels with 1,000,000+ views in 2016

Source: Rudd Center analysis of Unmetric data (January – December 2016)

not have an _____ account (see **Table 81**). The Wonderful Company had separate accounts for all its four brands, but Dole had just one account for all brands. Dole and Chobani had more than one million _____, Chobani had the most _____ and _____, and Silk, Fiji Water, and Wonderful Halos had more than 20,000 Instagram followers each. These companies were also quite active on social media. Dole, Chobani, Silk, and MilkPEP averaged more than 200 _____ each in 2016, and Fiji Water and Chobani averaged more than 3,000 _____ per year. Six of the eight brands with Instagram accounts posted more than 100 times in 2016, including 330 _____ on Dolepics.

YouTube was also a popular marketing platform for healthy brands in 2016. Six of the nine brands with active _____ had accumulated more than 1 million _____, including 26 million for Chobani, 6 million for Dole and MilkPEP, and 5 million for Silk. All but three channels also uploaded more than 10 videos in 2016, including 65 videos on TheSilkChannel and 41 on ChobaniYogurt.

Key findings

- The six companies in this analysis with healthy brands represented less than 1% of total food-related advertising spending in 2016 and 3% or less of all TV food advertising viewed by children, averaging approximately 110 TV ads viewed by preschoolers and children for the six companies combined in 2016.
- However, exposure by preschoolers and children to TV advertising for healthy brands increased five-fold or more from 2007 to 2016, and most healthy brands placed some advertising on children's TV.
- In contrast to relatively little advertising in traditional media, most of these companies maintained popular and active social media accounts, averaging 3.9 platforms per account.