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Food Advertising to Children and Teens Score

Evaluating snack food nutrition and marketing to youth

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FOR FOOD POLICY & OBESITY

Snack FACTS 2015
Evaluating snack food nutrition and marketing to youth

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Frequency of snacking on high-calorie foods by youth has increased over the past 40 years, contributing to poor diet and excess calories. Extensive marketing of unhealthy snack foods aimed at children and teens likely contributes to this problem.

Snack food ads make up more than 40% of all food and beverage TV ads viewed by children and teens and primarily promote candy, sweet snacks (including cookies, snack bars, and fruit snacks), and savory snacks (including chips and crackers). Although companies have begun to develop and market some healthier snack foods, independent research is needed to determine whether companies have begun to advertise these healthier snacks to young people.

Snack FACTS presents a comprehensive analysis of snack food marketing in the United States that:

- Examines the current status of the nutritional quality of snack foods marketed to children and teens on TV, the internet, and in schools;
- Documents the amount of snack food advertising in all media by brand, company, and category in 2014, including comparisons from five years earlier; and
- Measures young people's exposure to snack food advertising on TV and the internet.

Scope and methods

We defined snack foods as any portable food that is customarily consumed on its own outside of main meals and requires minimal preparation. We evaluated the nutrition and marketing of 90 snack food brands that spent at least $1 million in all types of measured media in 2014. They were offered by 43 different companies in seven snack food categories: yogurt, sweet snacks (e.g., cookies, snack bars, fruit snacks), savory snacks (e.g., chips, crackers), nuts, fruit, cheese, and multiple-category products. We excluded chocolate and other candy and cereal products as they have been evaluated previously.

Nutritional analyses

We analyzed the nutritional quality of all products from brands that spent more than $200,000 on TV advertising in 2014, totaling 604 individual snack products. Nutrition data were collected May through July 2015.

Three sets of nutrition standards that have been used to determine appropriate snacks for youth were applied:

- *USDA Smart Snacks* standards were developed to identify foods and beverages that can be sold in schools outside of the school meal programs (otherwise known as "competitive foods"). They set limits on calories, sodium, total fat, saturated fat, trans fat, and total sugar per serving.
- *The Nutrition Profiling Index (NPI)* is a scoring system (1-100) based on the nutrition-profiling model used by the U.K. Office of Communications to identify nutritious foods that can be advertised to children. Only foods with a score of 64 or more are permitted to be advertised to children under age 16 on TV in the UK.
- *Interagency Working Group (IWG)* nutrition standards were developed by federal agencies in the United States as proposed voluntary standards for foods advertised to children. They set limits on saturated fat, added sugar, and sodium, and require that foods contain ingredients that make a meaningful contribution to a healthy diet (i.e., fruit, vegetable, whole grain, skim or 1% milk, extra lean meat, fish, nuts or seeds).

In 2006, the Council of Better Business Bureaus introduced the Children's Food & Beverage Advertising Initiative (CFBAI), a voluntary industry self-regulatory program. Participating companies pledge to advertise only "healthy dietary choices" in "child-directed" media, and the CFBAI regularly publishes lists of "foods that participants have indicated may be the subject of child-directed advertising."[i] We examined the nutritional quality of CFBAI-approved products according to the Smart Snacks, NPI, and IWG nutrition standards and compared them to other advertised products offered by the same companies and brands. Finally, we compared the nutritional quality of Smart Snacks offered for sale in schools to other advertised products offered by the same companies and brands.

Marketing analyses

Marketing data were analyzed at the category, company, and brand levels to identify the following:

- *Total advertising spending.* Nielsen syndicated data provided advertising spending by category, company, and brand in all measured media (including TV, magazines, Sunday supplements, and internet) to all age groups in 2010 and 2014.
- *Youth exposure to TV advertising.* Using Nielsen syndicated data, we calculated exposure to TV advertising by preschoolers (2-5 years), children (6-11 years), and teens (12-17 years) in 2010 and 2014. Exposure rates are compared across age groups and to adult exposure.[ii]
- *Digital media marketing.* We used comScore syndicated data to identify child and teen visitors to snack food

i. All products on the list of CFBAI-approved products meet the CFBAI's uniform category-specific nutrition standards, but not all products that meet these standards are included on companies' lists of CFBAI-approved products that may be advertised to children.

ii. Our analyses examined children's exposure to all snack food advertising on TV, whereas CFBAI companies' pledges only address advertising in child-directed media, which primarily consist of children's TV programming, such as Nickelodeon and Cartoon Network.

websites and snack food advertising viewed on websites popular with children and teens in 2014.

- *Targeted marketing to black and Hispanic youth.* We used syndicated data from Nielsen and comScore to identify cases of disproportionate exposure to advertising on TV (2010 and 2014) and the internet (2014) for black and Hispanic youth.

Results

These analyses identified wide variation in the nutritional quality and marketing of snack foods by company, brand, and category, as well as significant changes in snack food advertising from 2010 to 2014.

Snack food nutrition

Advertised snacks ranged from brands with healthy products that met all nutrition standards to brands comprised solely of very unhealthy products.

- The yogurt category offered the most products (*n*=230), and the majority met all three nutrition standards. Nearly all (95%) of the yogurts contained added sugar, and 33% also contained non-nutritive sweeteners.
- Savory (*n*=160) and sweet (*n*=157) snacks were the two next largest categories of products. Approximately one-quarter of sweet and savory snacks met Smart Snacks nutrition standards. However, the highest median NPI score for a sweet or savory snack brand was 58, which is below the healthy cut-off of 64; therefore, none of these brands could be advertised to children under age 16 on TV in the United Kingdom. Furthermore, none of the sweet snacks and just three savory snack products (two varieties of Triscuits and one Wheat Thins variety) met the proposed IWG nutrition standards.
- Products in the nut (*n*=22) and fruit (*n*=12) categories were more nutritious. All advertised fruit products met all three nutrition standards. The majority of advertised nuts had healthy NPI scores and met Smart Snack nutrition standards, but not IWG standards.

There were 93 CFBAI-approved products offered by 12 brands. CFBAI participating companies specifically identified these products as products that may be included in child-directed advertising.

- On a positive note, products offered by eight CFBAI-approved brands had median NPI scores at or above the healthy cut-off of 64, including Activia, Danimals, Light & Fit, and Oikos yogurts from Dannon, and Yoplait Minion Made, Trix, and GoGurt yogurts from General Mills.
- However, median NPI scores for all other CFBAI-approved brands ranged from a low of 36 (Betty Crocker Fruit Snacks/Roll-Ups) to 51 (Honey Maid Teddy Grahams), and many of these brands did not offer any advertised products that met Smart Snacks standards (including Betty Crocker Fruit Snacks, Honey Maid Grahamfuls, and Pepperidge Farm Goldfish/Flavor Blasted).
- Notably, there were no CFBAI-approved products in the fruit or nut categories.
- Median NPI scores for CFBAI-approved brands were virtually identical to scores for other advertised products in the same categories. Therefore, the products companies selected as appropriate to advertise to children were no more nutritious than products advertised to older audiences.

We evaluated 270 *Smart Snacks* products that were offered for sale in schools by nine of the companies in our analyses.

- Smart Snacks yogurt products were nutritionally similar to companies' advertised yogurt products (both sets of products tended to meet most nutrition standards), while Smart Snacks products in the sweet and savory snack categories often had significantly higher median NPI scores than sweet and savory snacks that the same companies and brands advertised on TV.
- Further examination of the Smart Snacks versions of some sweet and savory snack brands (e.g., Doritos, Cheetos, Cheez-It, PopTarts) revealed that companies had reformulated some products and/or offered them in smaller-sized package to meet the Smart Snacks nutrition standards. However, packaging for these products looked similar to advertised versions of the brands. In some cases, Smart Snacks versions were not available in stores outside of schools (i.e., look-alike or copycat products).

Advertising spending

In 2014, $1.28 billion was spent to advertise all snack foods in all measured media to consumers of all ages. The 43 companies in our analysis were responsible for 99% of this snack food advertising.

- Almost 60% of advertising spending promoted sweet and savory snacks. Yogurt also accounted for a considerable 26% of advertising spending. However, just 11% of total advertising went to fruit and nut brands.
- Four companies dominated snack food advertising in 2014: General Mills, PepsiCo, Kellogg Company, and Mondelez Global were responsible for 62% of advertising spending totaling $784 million.
- Approximately 40% of General Mills advertising promoted its yogurt brands ($133 million), while the remaining advertising by the top-four companies promoted sweet and savory snacks. Two yogurt companies (The Dannon Company and Chobani) together contributed another 10% of total advertising spending.

Overall, 43% of snack food advertising spending promoted brands that met Smart Snacks standards and could be sold in schools, although this proportion varied widely by company.

- General Mills and Mondelez Global devoted approximately two-thirds of their snack food advertising budgets to brands that met these standards, compared with just 12% of advertising for Kellogg Company brands.
- Not one of PepsiCo's advertised brands met Smart Snacks standards.
- One-half of advertising spending for all other companies promoted brands that met Smart Snacks standards.

From 2010 to 2014, total snack food advertising spending increased by just 4%; however, changes in spending varied by company and category.

- General Mills and PepsiCo both increased their snack food spending (by 26% and 17%, respectively), while Kellogg and Dannon reduced their spending considerably (by 34% and 51%, respectively).
- There were notable increases in spending on yogurt, nuts, and fruit. Some smaller companies offering products in these healthier categories began advertising or substantially increased their advertising in 2014, including Chobani and FAGE Greek yogurt companies and The Wonderful Company, which ranked seventh in snack food advertising in 2014 for its fruit and nut brands.

TV advertising to children and teens

Of the 90 brands with advertising in any media in 2014, 72 brands offered by 29 different companies advertised on TV on 2014.

- On average, preschoolers (2-5 years) viewed 1.6 of these ads every day, and children (6-11 years) and teens (12-17 years) viewed 1.7 ads daily.
- From 2010 to 2014, exposure to snack food advertising increased across all youth age groups, ranging from an increase of 10% for children to 29% for teens. Notably, these increases were higher than the 4% increase in total snack food advertising spending.
- In 2014, nine out of ten ads viewed by children and teens on TV promoted sweet and savory snacks or yogurt, while fruit and nuts represented less than 6% of snack food ads viewed.
- Positively, from 2010 to 2014, youth exposure to nut advertising almost doubled and exposure to fruit advertising increased 3.5 to almost 6 times. However, youth exposure to yogurt advertising remained flat.
- Savory snack advertising to all youth also increased by 23% for children and by 60% for teens. Sweet snack advertising to children did not change, but advertising to teens increased by 17%.

A few companies and brands dominated snack food advertising to youth on TV in 2014.

- General Mills was responsible for more than one-half of the snack food ads that preschoolers and children saw on TV in 2014. Two of the company's brands – Betty Crocker Fruit Snacks and Yoplait GoGurt – represented 29% of all snack food ads viewed by children. Of note, GoGurt advertising increased by 60% from 2010 to 2014.
- From 2010 to 2014, PepsiCo advertising to teens almost tripled, while advertising to children more than doubled. This growth was largely due to increased advertising for four brands: Doritos, Cheetos, Tostitos, and Lay's Potato Chips. PepsiCo brands were responsible for 20% of TV ads viewed by teens and 10% of ads viewed by preschoolers and children in 2014.
- Six of the 10 snack food brands advertised most to children on TV in 2014 were CFBAI-approved for advertising to children: Betty Crocker Fruit Snacks, Yoplait GoGurt, Pepperidge Farm Goldfish, Yoplait, Dannon Danimals, Yoplait, and Yoplait Trix.
- However, four additional brands from CFBAI companies also ranked among the top-10 in TV advertising to children: Nature Valley Snack Bar, Yoplait Greek yogurt, PopTarts, and Tostitos. Although companies did not advertise these products during children's programming – therefore companies did not directly violate their pledges – advertisements for these products appeared during other types of programming with large child audiences.
- Two healthy fruit and nut brands ranked in the top-20 for TV advertising to children: Wonderful Halos and Wonderful Nuts.
- PopTarts, Doritos, Tostitos, and Cheetos appeared to target teens directly, evidenced by high ratios of ads viewed by teens compared with adults. Notably, none of the top teen-targeted brands met Smart Snacks standards for foods that can be sold to children or teens in schools.
- Dole Fruit Bowls appeared to target its advertising to teens, although the brand ranked 42nd in number of ads viewed by this age group.

Digital media marketing

Snack food marketing on the internet was much less prevalent than advertising on TV. Just 30 snack food websites had enough youth visitors in 2014 to provide data for analysis.

- Campbell Soup Company's GoldfishFun.com had the most youth visitors in total, averaging 53,000 children and 10,500 teens each month.
- KelloggsFamilyRewards,com – the site visited most often by teens (30,000 per month) – promoted the company's rewards program for all its brands.
- Kellogg's SpecialK.com and PepsiCo's DoUsAFlavor.com (a site to vote for new flavors of Lay's Potato Chips) and FritoLay.com also ranked among the top-five sites visited by all youth (averaging 16,000 to 27,000 children and teens per month).

- The two child-targeted websites identified in this analysis (Danimals.com and GoldfishFun.com) both featured only CFBAI-approved products.
- Teens were more likely than adults to visit three of the snack food websites analyzed: PopTarts.com, Chobani.com, and DoUsAFlavor.com. PopTarts.com featured the most clearly youth-targeted content, such as promotions with musical artists Jessie J, Rixton, and Jhené Aiko, and a Rock the Flavor promotion to "vote for your new favorite flavor" and win "cool stuff."

In 2014, 12.7 million display ads promoting snack foods were viewed monthly on third-party (i.e., not food company) websites visited relatively more often by youth under 18.

- Positively, 37% of snack food ads placed on youth websites promoted yogurt (approximately one-half of these ads were for Yoplait yogurt), compared to approximately 20% of ads each devoted to sweet and savory snacks.
- Mott's applesauce ranked second in advertising on youth websites.
- Children's websites with the most advertising included Nickelodeon sites, WeeWorld.com, and Roblox.com
- Advertising for several snack food brands that were not approved for advertising to children by CFBAI companies also appeared on children's websites in 2014, including Fiber One, Nature Valley, and Chex Mix from General Mills; Planters Nuts from Kraft Foods; Doritos and Lay's Potato Chips from PepsiCo; and Keebler from Kellogg Company.

An additional 163 million display ads were placed on Facebook and YouTube monthly in 2014, accounting for 35% of all snack food ads viewed online. Over 11 million youth ages 2 to 17 visited Facebook monthly and 15 million visited YouTube in 2014, although large numbers of adults also visited these sites.

- 80% of snack food ads on Facebook promoted PepsiCo's savory snacks, while three-quarters of ads on YouTube promoted various savory and sweet snack brands.
- Doritos and Lay's Potato Chips each accounted for more than 50 million ads viewed on Facebook per month, followed by Cheetos and Fiber One Snack Bars with more than 10 million ad views monthly.
- On YouTube, Lay's Potato Chips placed the most ads, followed by PopTarts; each averaged more than 2 million ads viewed per month. Pringles and Cheetos also averaged more than 1 million ads viewed per month on YouTube.
- In contrast to advertising on youth websites, ads for yogurt, fruit, and nuts rarely appeared on Facebook or YouTube.

Marketing to Hispanic youth

In 2014, five companies spent $45 million to advertise 13 snack food brands on Spanish-language TV.

- Sweet and savory snack brands dominated, representing almost 90% of Spanish-language advertising. There were no ads for fruit brands on Spanish-language TV in 2014.
- Although total snack food advertising spending on Spanish-language TV declined by 6% from 2010 to 2014, advertising for sweet snacks increased by 30% and advertising for savory snacks increased 551%. Notably, Spanish-language advertising for yogurt declined by 93% from $29 million (the most advertised category in 2010) to approximately $2 million in 2014.
- General Mills was the number-one snack food advertiser on Spanish-language TV in both 2010 and 2014, devoting the majority of its 2014 advertising spending to Nature Valley and Fiber One Snack Bars. The company reduced Spanish-language advertising for Yoplait yogurt by 78% from 2010 to 2014 and discontinued Spanish-language advertising for Yoplait Light and Yoplait GoGurt.
- In 2014, Kellogg Company spent $12.9 million to advertise its PopTarts, Sunshine Cheez-It, and Pringles brands to Hispanic consumers. The company's Spanish-language snack food advertising increased 253% from 2010 to 2014.
- Cheetos from PepsiCo was the most highly advertised brand on Spanish-language TV, spending $8.7 million in 2014. Of note, the brand had not advertised on Spanish-language TV in 2010.
- Among Hispanic youth, preschoolers viewed the most snack food advertising on Spanish-language TV, averaging 87 ads viewed in 2014, compared with 53 and 59 ads viewed by Hispanic children and teens, respectively. From 2010 to 2014, savory snack ads to Hispanic youth increased approximately three-fold and sweet snack ads viewed by children increased by 28%.
- On the internet, Hispanic youth were, on average, 30% more likely to visit the most popular snack food company websites compared to all youth visitors. Hispanic youth were approximately twice as likely to visit Kashi.com and Danimals.com compared to all youth.

Marketing to black youth

In 2014, black children saw 64% more snack food ads on TV compared to white children, and black teens viewed more than twice as many versus white teens. On average, black children (6-11 years) viewed 2.7 ads per day and black teens viewed 3.1 ads per day.

- This disparity in exposure increased dramatically from 2010 to 2014. Black children and teens viewed 29% and 49% more snack food ads on TV, respectively, in 2014 than in 2010, while exposure for white children and teens increased by only 16% and 25%, respectively.
- Black teens saw 129% more ads for savory snacks compared to white teens, an increase from 2010 when black teens viewed 71% more of these ads.

- Of note, black teens also saw approximately 80% more TV ads for fruit and yogurt compared with white teens, while black children viewed approximately 50% more compared to white children.
- On the internet, black youth were, on average, almost 50% more likely to visit the most popular snack food websites compared to all youth visitors

We also identified several brands that appeared to target black youth as evidenced by high ratios of ads viewed by black versus white youth. High ratios indicate that companies purchased advertising during programming that black youth were more likely to watch.

- Doritos had the highest targeted ratio for black teens who viewed three times as many Doritos ads than white teens viewed.
- Additional brands with high targeted ratios included Tostitos and Lay's Potato Chips, Oreo Cookies, and PopTarts; black teens viewed 2.6 to 3 times as many ads for these brands compared to white teens.
- On the internet, black youth were 3.6 and 2.6 times as likely to visit Danimals.com and Motts.com, respectively, compared with all youth.

Conclusions

These comprehensive analyses identify several positive developments in the nutrition and marketing of snack foods to children and teens over the past five years.

Companies offered a variety of nutritious snack food products, especially yogurts, and they have dramatically increased advertising for healthier fruit and nut brands to children and teens.

- Snack food companies have taken positive steps to develop nutritionally improved sweet and savory snacks that meet Smart Snacks nutrition standards.
- More than one-third of TV ads viewed by preschoolers and children and one-quarter of ads viewed by teens promoted yogurt, and the majority of these products met all nutrition standards evaluated. Although yogurt advertising to children and teens did not increase from 2010 to 2014 overall, GoGurt advertising increased substantially from 2010 to 2014 and the brand ranked number two in TV advertising to children in 2014.
- There was a significant increase in advertising of healthier brands by smaller companies, including Chobani and FAGE Greek yogurts and The Wonderful Company (advertising nuts and clementines). Children's exposure to TV ads for fruit and nuts more than tripled during this period.
- Yoplait Greek and Dole Fruit Bowls appeared to target teens. On the internet, Mott's applesauce ranked second in ads viewed on youth websites.
- Many of the companies that advertised brands in the sweet and savory snack categories have developed significantly more nutritious products that are now offered for sale in schools as Smart Snacks.

Few companies advertised to children on the internet.

- We identified just two child-targeted snack food company websites, and only one of these sites attracted a large number of child visitors (GoldfishFun.com). Both sites were CFBAI-approved for advertising to children.
- Just 4% of display ads for snack foods appeared on youth-targeted websites.

However, these analyses also document troubling developments and considerable cause for continued concern.

The nutritional quality of advertised sweet and savory snack products remains poor.

- Nearly all sweet and savory snack brands advertised on TV failed to meet IWG nutrition standards or achieved a healthy NPI score, and three-quarters of advertised brands did not meet Smart Snacks nutrition standards.

Most CFBAI companies did not advertise healthier snacks to children.

- The nutritional quality of products offered by CFBAI-approved brands (i.e., brands that participating companies have designated as healthy dietary choices that may be included in child-directed advertising) was no better than the quality of products in the same categories that CFBAI companies did not choose to advertise to children directly.
- There were no CFBAI-approved brands in the healthier fruit or nut categories.
- Although all CFBAI-approved yogurts met Smart Snacks nutrition standards, the majority of CFBAI-approved sweet and savory snacks did not meet Smart Snacks standards and could not be sold to children or teens in schools.
- Furthermore, four out of 10 brands advertised most to children on TV and seven brands advertised on children's websites were offered by CFBAI companies but were not brands they had approved for advertising to children.

Youths' relative exposure to TV advertising for more nutritious snack food categories and brands did not improve from 2010 to 2014.

- Yogurt TV advertising to children and teens did not increase. Fruit and nut ads increased exponentially, but remained a small proportion of total snack food ads viewed by youth.

- Savory and sweet ads continued to dominate snack food TV ads viewed by children and teens. There was a 32% increase in TV ads to children for savory snacks, and a 62% increase in savory snack ads viewed by teens, as well as a 17% increase in sweet snack ads to teens.
- PepsiCo advertising doubled for children and tripled for teens from 2010 to 2014. The company's Tostitos brand ranked in the top-10 brands advertised to children, and its Lay's Potato Chips, Cheetos, and Doritos brands also ranked in the top-10 brands advertised to teens on TV. Furthermore, the company's savory snack brands were responsible for 80% of snack food ads viewed on Facebook, and its websites promoting Frito Lay Snacks ranked third and fifth in snack food websites visited by teens.
- Among sweet snack brands, PopTarts from Kellogg Company targeted teens with its advertising and almost doubled the number of TV ads viewed by children and teens from 2010 to 2014. PopTarts also ranked second in snack food ads viewed on YouTube. In addition, General Mills increased TV advertising to preschoolers for Betty Crocker Fruit Snacks by 23%, and the brand ranked number one in TV ads viewed by young children.

Companies may be moving from more traditional forms of internet advertising (i.e., company-sponsored websites and advertising on third-party internet sites) toward newer forms of digital marketing.

- Snack food companies placed 163 million internet ads monthly on Facebook and YouTube, social media sites popular with older children and teens. As social media sites enlist teens to market unhealthy products virally to their friends, this form of marketing raises additional concerns among health experts.
- The majority of youth exposure to social media now occurs on mobile devices; however, data are not available to measure youth exposure to advertising on mobile websites or apps.

Disparities in unhealthy snack food advertising to black and Hispanic youth have increased.

- From 2010 to 2014, the nutritional quality of advertising targeted to Hispanic youth on Spanish-language TV worsened. Advertising for yogurt declined by 93%, while sweet snack advertising increased by 30% and savory snack ads went up 551%. Just five companies advertised 13 brands on Spanish-language TV in 2014, led by Cheetos, Nature Valley Snack Bar, PopTarts, Sunshine Cheez-It, and Pringles. No fruit or nut brands advertised on Spanish-language TV.
- Disproportionate exposure to unhealthy snack food ads by black youth compared to white youth also worsened from 2010 to 2014. In 2014, black children saw 64% more snack food ads than white children saw, and black teens saw more than twice as many ads compared with white teens. This disparity in exposure was higher for savory snacks than for other snack food categories. Highly targeted brands included Doritos, Oreos, Tostitos, Lay's Potato Chips, and PopTarts. In addition, black youth were 50% more likely to visit snack food websites.

The introduction of nutritionally improved Smart Snacks for sale in schools is a positive first step, but companies could do more to encourage young people to consume healthier snack choices.

- Differences in the nutritional quality of Smart Snacks versus TV advertised varieties of the same brands may lead to consumer confusion and potential misperceptions about the nutritional quality of advertised snacks.
- Furthermore, many brands offered nutritionally improved Smart Snacks products for sale in schools that were not available outside of schools (i.e., look-alike or "copycat" products). Similar packaging for these products to the advertised versions also increases the potential for consumer confusion.
- Smart Snacks nutrition standards represent minimum requirements for snack foods sold in schools. Although Smart Snacks in the sweet and savory snack categories were of better nutritional quality than advertised snacks offered by the same brands, the majority did not meet other nutrition standards for foods that children should be encouraged to consume.

Recommendations

The findings in Snack FACTS indicate three primary areas of improvement to help reduce the harm associated with marketing of unhealthy snack foods aimed at children and teens.

Improve CFBAI self-regulatory pledges to protect children from continued aggressive marketing of unhealthy snack foods.

- CFBAI companies should implement Smart Snacks nutrition standards for products advertised to children. Foods that cannot be sold to children in schools should not be advertised to them in the media.
- Loopholes in the CFBAI definitions of child-directed advertising should be closed to reduce children's exposure to advertising for unhealthy snack foods. As recommended by a panel of experts commissioned by Healthy Eating Research, companies should define children as youth up to at least 14 years old (up from the current age of 11); expand the definition of child-directed media to include all venues where children are the intended audience; incorporate qualitative measures to identify advertising with significant appeal to children; and ensure that brands marketed to children include only products that meet nutrition standards.

- Companies should implement meaningful measures to protect children under age 6 from all advertising, as promised.

Stop marketing practices that disproportionately target unhealthy snack foods to young people of color.

- As black and Hispanic children are exposed to more food advertising than white non-Hispanic children, suggested improvements to CFBAI pledges will provide even greater benefits for children of color.
- Snack food brands should stop targeting advertising for high-calorie, nutritionally poor foods to all young people, especially advertising aimed at youth of color.
- Industry commitments to increase sales and marketing of healthier products should also address advertising in black- and Hispanic-targeted media, where healthier snacks are now significantly underrepresented.
- Media companies should also set nutrition standards for advertising to young people, particularly those with large audiences of Hispanic and/or black youth. Media companies could also provide lower rates for advertising that promotes nutritious foods.

Further improve the nutritional quality of Smart Snacks sold to children and teens in schools.

- Schools should encourage companies to continue to develop and offer Smart Snacks for sale to children and teens in schools that exceed minimum nutrition requirements.
- Companies should not concentrate their in-school offerings on less unhealthy versions of heavily advertised brands of unhealthy sweet and savory snacks, including cookies, chips, and crackers. In particular, look-alike versions of unhealthy brands that are not available outside of schools should not be sold to children in schools.
- Alternatively, companies could agree to sell and advertise only the healthier versions of their snack food brands outside of schools, if they also offer them for sale to students in schools.

Companies have recognized the business opportunity in marketing healthy snacks to young people. Now, they must also recognize that aggressive marketing of unhealthy snack foods to children and teens exacerbates the crisis of poor diet and related diseases among young people. Increasing profits at the cost of children's health is not an acceptable trade-off.

Extensive marketing of calorie-dense nutrient-poor snack foods likely contributes to increased calorie consumption and poor diets among youth. To help understand this link, we document the nutritional quality of snack foods marketed to children and teens and young people's exposure to advertising for these foods.

Young people's snacking habits have changed markedly over the past four decades in the United States[1]—they are snacking more often, consuming higher calorie snack foods, and substituting snacks for regular meals – leading to concerns among nutrition professionals and public health experts about the potential relationship between increased snacking and the childhood obesity epidemic.[2] However, snacking does not necessarily contribute to overconsumption of calories and poor diet. Nutrition professionals recommend that children consume two small nutritious snacks per day, such as fruits and vegetables.[3] Therefore, understanding the nutrition content and quality of snack foods that are most heavily marketed – and how those products are advertised to children and teens – is crucial to evaluating the link between food marketing and young people's eating and snacking habits.

Why snack foods?

In addition to snacking more often and eating more calories from snack foods, youth are also consuming more added sugars and carbohydrates when they snack. Two-thirds of 2- to 5- year olds and more than one-half of youth ages 6 to 19 report having three or more snacks per day.[4] Over the past 40 years, the number of children and adolescents (ages 2-18) who report snacking at least once per day increased from 74% to 98%;[5] snacking frequency has increased from one snack per day to two snacks per day on average;[6] and the amount of time between eating occasions (snacks or meals) among children decreased from 1977 to 2005, from just over four hours to just over three hours.[7] The energy density of snacks has also increased: on average, youth (ages 2-18) eat 168 calories more per snack than they did 40 years ago.[8] Children ages two to five consume almost 29% of their daily calories from snacks,[9] while all youth (2-17 years) consume 27% of their daily calories from snacks.[10]

Americans are also spending more on snack foods. In 2014, consumers spent more than $10 billion on foods purchased from stores, bars, and vending machines alone, representing an increase of more than $100 million from 2012 to 2015.[11] In North America, the largest snack food market is savory/salty snacks, totaling $28 billion in sales, followed by refrigerated snacks (including yogurt, cheese snacks, and pudding) and confections (including chocolate, other candy, and gum) at $22 and $20 billion, respectively.[12] Adolescents also spend a high proportion of their money on food; in the United States, they spend more than $16 billion on snack foods (18% of their income).[13]

While snacking is increasing in frequency and energy density, snacks can also be an important part of a healthy diet. Certain snack foods can contribute positively to intake of nutrients that children consume in insufficient amounts, including vitamin D, calcium, potassium, and fiber.[14] However, snack foods currently consumed by Americans contribute more nutrients that are associated with health risks, including sodium, saturated fat, and added sugars.[15,16] Further, snack foods provide the lowest ratio of some nutrients (protein, iron, vitamin D, fiber, and potassium) to energy, indicating that a majority of snacks are energy dense and nutrient poor.[17] In fact, 31% of added sugars and 15% of saturated fat in the diet of Americans ages 2 and older come from snacks and sweets.[18] Chips, crackers, and salty snack foods contribute 4.6% of total energy to the American diet,[19] and more than 14% of snack calories consumed daily.[20] Public health experts have identified increased consumption of energy-dense and nutrient-poor snacks as a potential contributor to increased energy intake among children and adolescents (ages 2-18).[21]

Concerns about snack food marketing to youth

As young people's snacking has increased over the years, marketing and availability of snack foods also has increased. A 2012 Federal Trade Commission (FTC) report documented trends in marketing expenditures and nutrition of 44 major food and beverage companies from 2006 to 2009. The report identified a number of concerns regarding the nutrition and marketing of snack foods and dairy products (including yogurt and cheese) to youth ages 2 to 17.[22] For example, in 2009, expenditures on snack food[23] marketing directed to youth totaled $123.3 million, ranking fourth in spending behind restaurants, carbonated beverages, and breakfast cereals. TV advertising represented the largest share of snack food marketing expenditures (45%) directed at children and youth.[24] Other traditional advertising (including radio and print) represented a small proportion of expenditures (<1% combined). However, newer forms of media, including internet advertising and websites, as well as promotional support (e.g., premiums, cross-promotion licenses, sponsorships, celebrity fees, and philanthropy) totaled another $40 million (one-third of total expenditures).

Among snack food categories, children and teens see the most TV ads for candy, followed by sweet snacks (including cookies, snack bars, and fruit snacks), yogurt, and savory snacks (including chips and crackers).[25] These four categories represent more than 40% of food and beverage ads viewed by children and teens (excluding restaurants); by contrast fruits and vegetables make up less than 1% of all TV food ads viewed by youth. The FTC food marketing report also described the nutrition content of the snacks most heavily marketed to children and teens and noted that snacks marketed to youth showed little or no improvement from 2006 to 2009.[26] The report highlights that the majority of youth-directed yogurt marketing promoted products containing 24 grams or more of total sugar per 6-ounce serving (approximately half of that sugar consisted of added sugar contained in the flavorings).

The Children's Food & Beverage Advertising Initiative (CFBAI), an industry self-regulatory program, was launched in 2007.[27] Participating companies pledged to market healthy dietary choices in media directed at children under age 12. While the FTC report commended CFBAI self-regulatory efforts for both decreasing total advertising to youth and for small improvements in the nutrition content of some advertised snacks, it also highlighted that some companies advertise brands as opposed to specific products, and not all products marketed under the same brand name meet CFBAI nutrition criteria.[28] Another limitation of the CFBAI is that it only covers advertising in media where children under age 12 make up 35% or more of the audience.[29] However, more than half of the food advertising that children see on TV appears during other types of programming,[30] primarily during programming where slightly older children (ages 12 to 14) comprise a disproportionately high share of the audience.[31]

Rudd Center research has found evidence that the CFBAI has led to some improvements in food advertising to children by some food companies.[32] From 2007 to 2014, children's exposure to TV advertising declined by 57% for sweet snacks and by 11% for crackers and savory snacks, while children viewed 8% more ads for yogurt. Among teens, exposure to sweet snack ads on TV declined by 17% (less of a decline than child exposure), while teens' exposure to yogurt ads increased by 62%. On the other hand, teens' exposure to savory snack advertising increased by 10%. Furthermore, advertising for many nutritionally poor snack food brands appears to directly target black and Hispanic youth, who also face higher rates of obesity and other diet-related diseases.[33] Thus, snack food marketing likely contributes to health disparities affecting these communities.

The 2010 Healthy Hunger-Free Kids Act directed the U.S. Department of Agriculture (USDA) to establish the first significant federal nutrition standards for snack foods sold in schools – often referred to as "Smart Snacks."[34] While previous regulations limited foods of minimal nutritional value from being sold in school lunches, the Smart Snacks standards set nutrition guidelines for all foods and beverages sold a la carte in school cafeterias, as well as foods and beverages sold in vending machines, school stores, and during fundraisers on school grounds during the school day.[35] Smart Snacks nutrition standards were implemented nationwide during the 2014-2015 school year. As a result, many food companies have reformulated existing products to meet these nutrition standards.

Implementation of the Smart Snacks nutrition standards has improved the nutritional profile of snacks sold in schools. However, more information is needed to understand how snacks sold in schools compare to the snacks that are most heavily marketed to youth outside of schools. In particular, public health advocates have raised concerns about reformulated versions of unhealthy snacks that meet the standards for sale in schools, but that are not marketed or in some cases not even available to purchase outside schools (these look-alike snacks are also known as "copycat snacks").[36] Sales of nutritionally improved varieties of brands in schools also serve as a form of marketing that may increase brand recognition and preference. Health experts raise concerns that this practice could also cause confusion among children and parents about the nutritional quality of products sold outside of schools, especially if the healthier Smart Snacks versions offered by some brands are not available in the broader marketplace. In addition, offering brands in schools may imply the school's endorsement of the brand, which could also influence parents' and children's attitudes about unhealthier varieties offered by the brand outside of schools.

Measuring progress

This report quantifies the nutrition content and marketing of snack foods to children and teens, including changes in advertising over the past five years. There is no consistent definition of snack food, so we define snacks as foods that are customarily consumed on their own outside of main meals, are easily portable, and require minimal preparation.

We examined seven categories of snack foods, including sweet snacks, savory snacks, yogurt, fruits and vegetables, nuts, cheese snacks, and multiple-category snacks. The advertising analyses examined 90 brands spending more than $1 million in total advertising in 2014 from 43 different companies. We also analyzed the nutrition of all products offered by brands that spent more than $200,000 on TV advertising in 2014, totaling 604 products from 67 brands and 30 companies. As a point of comparison, we also analyzed the nutrition of school-based Smart Snacks products offered by the same companies for sale in schools. The advertising analyses utilized syndicated market research data from Nielsen and comScore for 2014 and from 2010, when available. Product nutrition information was obtained in May through July 2015 through company websites, retail visits, or by contacting company representatives.

Our analyses document differences by snack food category, company, and brand, including changes in the past five years when available. These analyses include:

- Nutrition content and nutritional quality of advertised snack food products;
- Nutrition content and nutritional quality of Smart Snacks products;
- Advertising spending in all media and TV advertising exposure, including advertising targeted to children and teens;
- Child and teen visits to snack food company websites;
- Advertising on third-party websites, including children's sites, youth sites, Facebook, and YouTube; and

- Targeted advertising of snack foods to black and Hispanic youth.

The findings in this report serve to evaluate snack food companies' commitment to improving the nutritional quality of snack food marketing to children and youth. We highlight positive findings, including examples of advertising of nutritious products to youth and reductions in advertising for nutritionally poor brands. However, we also document marketing of nutritionally poor products directed at youth, including marketing aimed at black and Hispanic youth, to identify opportunities for snack food companies to further improve their marketing practices to benefit young people's health.

Snack food market

Snack food market	Definitions
Snack food	Foods that are customarily consumed on their own outside of main meals, are easily portable, and require minimal preparation.
Company	The company that owns the brand, as listed on the product package or the official brand website.
Brand	The main marketing unit for each product.
Variety	A subset of products within a brand that differ substantially in nutritional quality, marketing practices (e.g., promotions targeted to children), or other features (e.g., mini vs. regular Oreos).
Product	Each specific flavor or variation of a brand.
Category	The type of snack food (e.g., cheese, nuts, sweet snacks).
Advertised brands	Snack food brands spending $1 million or more on advertising in all media in 2014.
CFBAI-approved	Products that are included on Children's Food & Beverage Advertising Initiative (CFBAI) company lists of products that meet CFBAI category-specific nutrition criteria and participating companies have indicated that they may be advertised in media directed at children younger than age 12.[1]
Smart Snacks	Products that companies have designated as snacks that can be sold in schools. These products meet category-specific nutrition standards set by the USDA[2] for competitive foods (i.e., foods sold outside the school meal program) that can be sold in schools during the school day, including a la carte, in school stores, and in vending machines.

In this section we describe the snack foods offered by companies and brands in our analysis, including advertised snacks, a subset of advertised snacks that were approved by CFBAI participating companies for advertising directly to children, and Smart Snacks offered for sale in schools. We assigned all snacks to one of seven snack food categories.

Snack food categories	Definitions
Cheese	Individually portioned cheese products (containing milk and pasteurized cultures as the main ingredients) such as string cheese and cheese sticks. Other cheese products packaged for other uses (e.g., shredded cheese for cooking, cheese slices for sandwiches) are not included.
Fruits and vegetables	Products whose primary ingredients are whole, unprocessed produce, such as fresh fruits and vegetables and dried fruit, as well as prepared fruit cups and applesauce packaged in cups or pouches.
Nuts	Products with whole nuts as the first ingredient, including almonds, peanuts, pecans, and pistachios. This category excludes nuts that are packaged for other purposes (e.g., crushed walnuts for cooking).
Savory snacks	Non-sweet products such as crackers, potato chips, tortilla chips, and jerkies.
Sweet snacks	Products such as brownies, cookies, puddings, gelatin desserts, snack bars, fruit snacks, snack cakes, and other dessert products that contain added sugar and/or non-nutritive sweeteners.
Yogurt	Products that are identified by the manufacturer as yogurt and that contain cultured milk as the first ingredient, including regular yogurts, Greek yogurts, reduced-calorie yogurts, and squeezable yogurts. Yogurt smoothies are not included in this snack food analysis.
Multiple	Products that combine more than one of the above categories, such as snack boxes with multiple components.

In total, we analyzed 90 snack food brands that were advertised in 2014 offered by 43 different companies. Sweet snacks represented the largest category with 33 advertised brands from 16 different companies, followed by 24 advertised savory snack brands (13 companies) and 14 advertised yogurt brands (5 companies). Nine companies each offered one advertised fruit brand; there were no advertised vegetable brands. The nuts, cheese, and multiple-category products were the smallest, totaling 10 products from 10 companies.

Nine companies offered brands in more than one category (see **Table 1**). Five companies – General Mills, Kellogg Company, Mondelez Global, PepsiCo, and The Dannon Company – produced one-half of the advertised brands. Brands from these companies all belonged to the yogurt, savory snack, and/or sweet snack categories. General Mills offered the most snack brands (*n*=12) followed closely by Kellogg (*n*=11). General Mills also offered brands across all three categories, while the other companies advertised brands in two of the three categories. Just seven brands from these

Table 1. Advertised brands from companies with brands in multiple categories

Company	Yogurt	Sweet snacks	Savory snacks	Other
General Mills	**Yoplait** **Yoplait GoGurt** Yoplait Greek Yoplait Light **Yoplait Trix**	**Betty Crocker Fruit Snacks** Fiber One Brownies Fiber One Cookies Fiber One Snack Bar Nature Valley Breakfast Biscuits Nature Valley Snack Bar	Chex Mix	
Kellogg Company		Kashi Snack Bar* Keebler Cookies* Nutri-Grain Snack Bar PopTarts Special K Snack Bar Special K Snacks*	Kashi Crisps* Keebler Crackers* Pringles Special K Crackers Sunshine Cheez-It	
Mondelez Global		Belvita Breakfast Biscuits Chips Ahoy **Honey Maid** **Honey Maid Teddy Grahams** Newtons Cookies Oreo Cookies	Ritz Crackers Triscuit Crackers Wheat Thins	
PepsiCo		Quaker Snack Bar	Cheetos Doritos Frito Lay Snacks Lay's Kettle Cooked Potato Chips Lay's Potato Chips Stacy's Pita Chips Tostitos	
The Dannon Company	**Dannon Activia** **Dannon Danimals** **Dannon Light & Fit** **Dannon Oikos**	Dannon Creamery		
Campbell Soup Company		**Pepperidge Farm Goldfish Grahams**	**Pepperidge Farm Goldfish**	
Kraft Foods				Oscar Mayer P3 Planters Nuts
J.M. Smucker Company				Fruit-Fulls Applesauce* Jif to Go Snack Dippers*
The Wonderful Company				Wonderful Halos Wonderful Pistachios

*Brands that did not advertise on TV in 2014
Bold = brands with CFBAI-approved products
Source: 2015 Rudd Center Product Analysis

companies spent $1 million or more on total advertising but did not advertise on TV in 2014 – two J.M. Smucker Company brands (Fruit-Fulls Applesauce, Jif to Go Snack Dippers) and five Kellogg brands (Kashi Snack Bar, Kashi Crisps, Keebler Cookies, Keebler Crackers, Special K Snacks).

Just four of these companies – General Mills, Mondelez Global, The Dannon Company, and Campbell Soup Company – offered 12 CFBAI-approved brands with products that were approved for advertising in media directed to children under 12 years old. However, not all products offered by these brands were CFBAI-approved. For example, eight individual Pepperidge Farm Goldfish varieties were approved for advertising to children, but four other varieties were not approved. The remaining CFBAI companies did not include any snack food brands on their lists of products that may be in child-direct advertising. Of note, all products on these lists must meet CFBAI category-specific uniform nutrition standards, but not all products that meet the standards are indicated by the CFBAI as approved for advertising to children.

The remaining 34 companies had one or two brands in just one category with $1 million or more in advertising spending in 2014 (see **Table 2**). These single-category companies included ten sweet snack brands, seven fruit brands. seven savory snack brands, four nut brands, three yogurt brands, two cheese brands, and one brand of snack boxes containing multiple products. Two-thirds of these brands advertised on television, while the other third only advertised in other media (e.g., magazines, Sunday supplements, and/or internet).

We also analyzed 50 Smart Snack brands from nine of the companies in our analysis (see **Table 3**). These companies

Table 2. Companies offering advertised brands in just one snack category

Company	Brands advertised on TV	Brands advertised only in other media
Sweet snacks		
Clif Bar & Company		Clif Mojo
Ferrero USA	Nutella & Go!	
Kozy Shack Enterprises		Kozy Shack Pudding
McKee Foods	Little Debbie; Sun Belt Bakery Granola Bar	
Procter & Gamble	META Health Snack Bar	
Sheila G Brands		Sheila G's Brownie Brittle
ThinkThin Products	ThinkThin Snack Bar	
Weight Watchers		Weight Watchers Brownie Bliss
Welch Foods Inc.		Welch's Snacks
Savory snacks		
B&G Foods		Pirate's Booty
ConAgra Foods	Slim Jim	
Link Snacks	Jack Links	
Mars		Combos
Oberto Brands	Oberto Beef Jerky	
Popchips	Popchips	
Snyder's of Hanover	Snyder's of Hanover	
Fruit		
Bard Valley		Natural Delights Medjool Dates
California Table Grape Commission	Grapes from California	
Del Monte Foods		Del Monte Peaches
Dole Food Company	Dole Fruit Bowls	
Dr Pepper Snapple Group	Mott's Snack & Go Applesauce	
Materne	GoGo Squeeze Applesauce	
Pear Bureau Northwest		USA Pears
Nuts		
Almond Board of California	California Almonds	
Blue Diamond Growers	Blue Diamond Almonds	
Diamond Foods		Emerald Cocoa Roasted Almonds
National Peanut Board		Peanuts
Yogurt		
Chobani	Chobani Greek; Chobani 100	
FAGE	FAGE FruYo; FAGE Total	
Sun Valley Dairy	Voskos	
Cheese		
Bel Brands USA	Laughing Cow	
Sargento Foods	Sargento	
Multiple		
Nature Delivered	Graze Snack Boxes	

Source: 2015 Rudd Center Product Analysis

Table 3. Smart Snack brands from companies with advertised snack brands

Company	Savory snacks	Sweet snacks	Fruit	Yogurt
Campbell Soup Company	**Pepperidge Farm Goldfish**	**Pepperidge Farm Goldfish Grahams**		
The Dannon Company				**Dannon** **Dannon Activia** Dannon Dan-o-nino **Dannon Danimals** **Dannon Light & Fit** **Dannon Oikos**
Dole Food Company		Dole Fruit in Gel Bowls	**Dole Fruit Bowls**	
Dr Pepper Snapple Group			Mott's Applesauce Mott's Fruit Snacks	
General Mills	**Chex Mix**	**Betty Crocker Fruit Snacks** Betty Crocker Snack Bars Nature Valley Cinnamon Crisps **Nature Valley Snack Bar**		**Yoplait** **Yoplait GoGurt** **Yoplait Greek** **Yoplait Trix**
Kellogg Company	Eagles Popped Crisps Kashi Crisps Keebler Crackers Special K Cracker Chips **Sunshine Cheez-It**	Kashi Snack Bar Keebler Cookies **Nutri-Grain Snack Bar** **PopTarts** Rice Krispies Granola Bar **Special K Snack Bar**		
Mondelez Global		Belvita Breakfast Biscuit **Honey Maid** **Honey Maid Teddy Grahams**		
PepsiCo	Baked Munchies Baked Cheetos Baked Lays Baked Tostitos **Cheetos** **Doritos** Quaker Snack Mix Rold Gold Smartfood Popcorn Sunchips **Tostitos**	Quaker Breakfast Cookies **Quaker Snack Bar**		
Popchips	**Popchips**			

Bold = brands that were advertised on TV in 2014
Source: 2015 Rudd Center Product Analysis

offered 19 savory snack brands and 18 sweet snack brands, as well as 10 yogurt brands and three fruit brands as Smart Snacks for sale in schools. There was some overlap between advertised brands and those offered by the same companies as Smart Snacks. Nine of the ten Smart Snack yogurt brands offered by General Mills and Dannon advertised on TV in 2014, as well as one Dole fruit brand. However, just five of the 19 Smart Snack brands in the savory snack category and 10 of the 19 Smart Snack brands of sweet snacks were supported by TV advertising in 2014.

Snack food market summary

In 2014, 43 different companies advertised 90 snack food brands. Categories with the most advertised brands included sweet snacks (33 brands), savory snacks (24 brands), and yogurt (14 brands). Nine fruit brands were advertised, but there were no advertised vegetable brands. Together, nuts, cheese, and multiple-category snack foods totaled ten brands. The market was highly concentrated, with just five companies offering 50% of these brands – General Mills, Kellogg Company, Mondelez Global, PepsiCo, and The Dannon Company – all within the sweet and savory snack and yogurt categories. The other 38 companies in this analysis advertised just one or two snack food brands.

Snack food nutrition

Nutrition content	Definitions
Nutrition information	Serving size, calories (kcal), fat (g), saturated fat (g), sugar (g), sodium (mg), fiber (g), and protein (g) per serving as provided on the product nutrition facts panel. Medians and ranges are reported for snack brands and varieties with multiple products.
Ingredient information	Presence or absence of artificial colors, non-nutritive sweeteners, partially hydrogenated oils, or added sugars as indicated on the ingredient list of the nutrition facts panel.
Added sugars	Caloric sweeteners including sugar, corn syrup, corn syrup solids, dextrose, invert sugar, and fruit nectar added to products during processing.
Non-nutritive sweeteners	Natural and artificial sweeteners that do not have any significant energy content including acesulfame potassium (Ace-K), aspartame, stevia, and sucralose.

In this section we report the nutrition content of products offered by snack food brands spending at least $200,000 in TV advertising in 2014, including those listed by CFBAI companies as products that meet nutrition standards and may be advertised in child-directed media (i.e., CFBAI-approved brands). We also report the nutrition of Smart Snacks that were marketed and sold to children in schools. In total, we evaluated 604 individual snack products offered by 67 advertised brands, including 93 products (15%) that were CFBAI-approved, as well as 270 individual Smart Snack products.

We evaluated the nutritional quality of advertised snacks according to USDA Smart Snack standards to identify foods that could be sold to children and teens in schools. We also evaluated products using two nutrition standards that have been implemented or proposed to identify healthy products that should be advertised directly to children: NPI score (based on U.K. regulations for foods that can be advertised to children) and Interagency Working Group (IWG) proposed voluntary standards for foods marketed to children in the United States.

Nutritional quality	Definitions
NPI score	Measure of the overall nutritional composition of snack foods based on total calories and proportion of nutrients to encourage and limit. The model is used to identify nutritious foods that can be advertised to children on TV in the United Kingdom with a score of 64 or higher.
USDA Smart Snacks standards	Category-specific nutrition standards set by the USDA for competitive foods (i.e., foods sold outside the school meals program) that can be sold in schools during the school day, including a la carte, in school stores, and in vending machines. The standards set limits on calories, sodium, fat, saturated fat, trans fat, and sugar; requires inclusion of nutrients to promote; and grants some exceptions.
IWG proposed nutrition principles	Nutrition standards proposed by representatives of the U.S. CDC, FTC, FDA, and USDA for foods that should be marketed to children. The criteria specify nutrients to limit, as well as require foods to consist of 50% or more foods that make a meaningful contribution to a healthy diet (e.g., fruits, vegetables, whole grains).

Nutrition of advertised snacks

The yogurt category offered the most products from advertised brands (*n*=230), followed by savory snacks (*n*=160) and sweet snacks (*n*=157). The other categories had far fewer advertised products, including just 22 products in the nut category and 12 fruit products. One-quarter of yogurt products and approximately one in five sweet snacks were CFBAI-approved for advertising to children, but just 4% of savory snacks. As noted earlier, there were no advertised vegetable snack products nor CFBAI-approved snack brands in the cheese, fruit, or nut categories.

The nutrition content of advertised snacks varied widely by category (see **Table 4**). Nuts had the highest median calories due to their fat content, followed by sweet and savory snacks. Sugar content was highest for fruit, but these were all naturally occurring as no advertised fruit products contained added sugar. Median sugar content for yogurt products was 15 grams per serving, but this also included approximately 5 to 12 grams of naturally occurring sugar per 150-gram serving. Savory snacks had high median fat content at 7 grams per serving and sodium at 210 milligrams. Cheese products had the highest median saturated fat at 4 grams per serving.

There was also wide variation in nutrition content within some categories. For example, yogurt products ranged from 60 calories-per-serving (Yoplait GoGurt) to 210 calories (Honey-flavored FAGE Total) and 4 grams of sugar (Chobani Plain Greek) to 29 grams of sugar (Honey-flavored FAGE Total). Similarly, sweet snacks ranged from 40 calories per serving (Betty Crocker Fruit Roll-Up Mini Rolls) to 330 calories (Little Debbie Oatmeal Cream Pies), with up to 31 grams of sugar per serving (Dannon Creamery puddings). One variety of

Table 4: Nutrition content of advertised snacks by category

	# of products (% of category)		Serving size (g)	Calories (kcal)*		Sugar (g)*		Fat (g)*	Saturated fat (g)*	Sodium (mg)*
	Total	CFBAI-approved	Median	Median	Range	Median	Range	Median	Median	Median
Yogurt	230	55 (24%)	150	120	60-210	15	4-29	0	0	62.5
Savory snacks	160	8 (5%)	28	140	80-250	1	0-10	7	1	210
Sweet snacks	157	30 (19%)	34	150	40-330	10	0-31	5	2	120
Cheese	27	--	21	70	35-140	0	0-1	6	4	180
Nuts	22	--	28	160	140-290	1	1-13	14	2	105
Fruit	12	--	113	75	47-90	16.5	9-20	0	0	5

*per serving indicated on the nutrition facts panel
Source: 2015 Rudd Center Product Analysis

Tostitos Cantina was the highest calorie savory snack at 180 calories per 28-gram serving.

Advertised fruit and cheese products did not contain any of the individual ingredients examined (i.e., added sugars, artificial sweeteners or colors, or partially hydrogenated oil) (see **Table 5**). Among sweet snacks, only ThinkThin Snack Bars contained no added sugars or non-nutritive sweeteners. In the yogurt category, 12 products did not contain added sugar or non-nutritive sweeteners (plain flavors of Dannon Oikos, FAGE Total, and Chobani Greek yogurts), but one-third of yogurts contained both non-nutritive sweeteners and added sugar. Artificial colors also were present in 16% of yogurts, including some Yoplait Light and Dannon Light & Fit flavors. Two-thirds of savory snacks also included added sugar. Approximately one-third of sweet snacks and one-quarter of savory snacks also contained artificial colors, including PopTarts, Betty Crocker Fruit Snacks, Doritos, Cheetos, and Chex Mix. Despite generally low saturated fat content, partially hydrogenated oils were present in 10% or more of sweet and savory snacks.

The nutritional quality of advertised snacks also varied widely. All fruit and the majority of yogurt products had NPI scores of 64 or above, the minimum score for healthy foods. Nearly half of the nut products in our analysis also had healthy NPI scores, with a median category score just below the healthy cutoff of 64. However, median NPI scores for sweet snacks (42), savory snacks (40), and cheese (28) were well below the healthy cut-off. None of the cheese products analyzed had a healthy NPI score, while just four sweet snack products (Cinnamon-flavored Belvita Soft-Baked Breakfast Biscuits and Lemon, Cherry, and Strawberry flavors of Dannon Creamery pudding) and four savory snacks (Sweet Potato Popchips, Hint of Salt Triscuits, Reduced Fat Triscuits, and Garden Herb Triscuits) met the healthy cut-off. Of note, the lowest scoring product in the analysis was Snyder's of Hanover Maple Bacon Sweet and Salty Pretzel Pieces with a score of 14.

All fruit products also met Smart Snacks and IWG standards. While the majority of yogurt and nut products met Smart Snacks standards, these products were less likely to meet IWG standards due to differing limits on sugar and fat content. Although one-quarter of sweet and savory snacks met Smart Snacks standards, just three savory snack products met IWG standards (Hint of Salt and Brown Rice/Sweet Potato Triscuits, Hint of Salt Wheat Thins). One cheese product (Laughing Cow Light Swiss Cheese) met Smart Snacks but not IWG standards.

Comparison by company

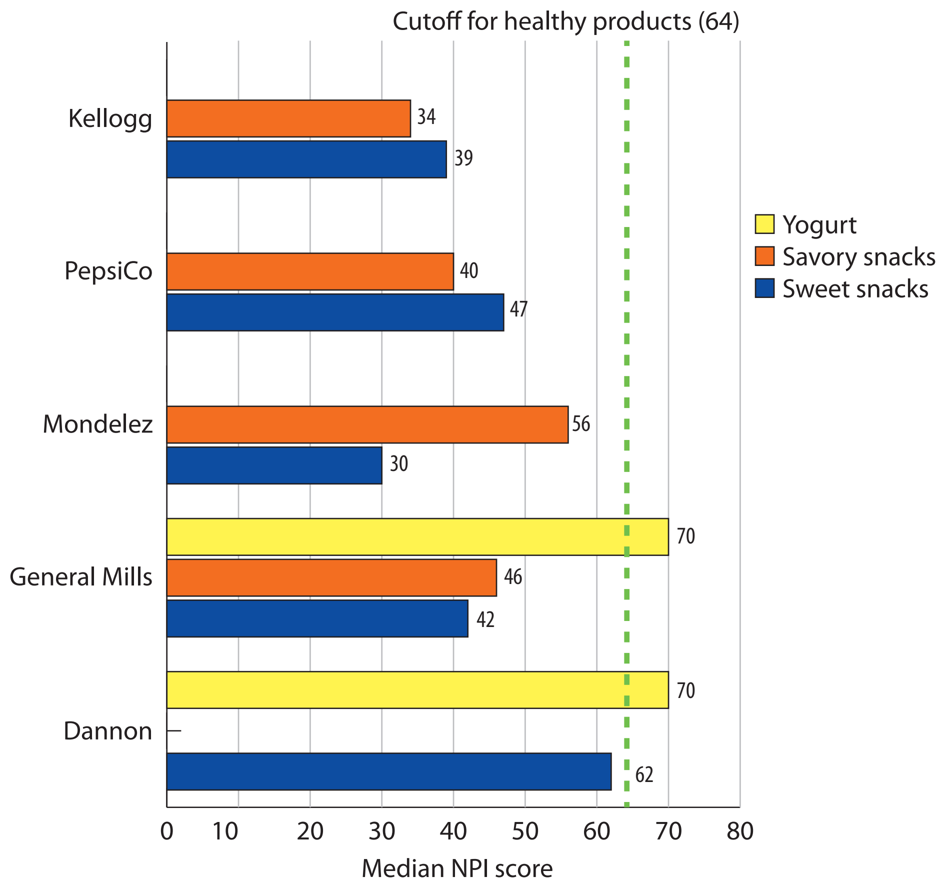
Five companies – General Mills, Kellogg Company, PepsiCo, The Dannon Company, and Mondelez Global – produced 70% (*n*=419) of the advertised snack products examined. As noted earlier, all products from these companies belonged to the yogurt, sweet, and savory snack categories. Together,

Table 5. Nutritional quality of advertised snacks by category

	# of products containing (% of category)				NPI score		# of products meeting standards (% of category)	
	Added sugars	Non-nutritive sweeteners	Artificial colors	Partially hydrogenated oil	Median	Range	Smart Snacks	IWG
Fruit	--	--	--	--	76	74-80	12 (100%)	12 (100%)
Yogurt	218 (95%)	76 (33%)	36 (16%)	--	70	58-84	191 (83%)	140 (61%)
Nuts	9(41%)	--	--	--	63	54-80	20 (91%)	1 (5%)
Sweet snacks	144* (92%)		52 (33%)	24 (16%)	42	18-66	40 (25%)	--
Savory snacks	103 (64%)	--	35 (22%)	16 (10%)	40	14-76	42 (26%)	3 (2%)
Cheese	--	--	--	--	28	22-38	1 (4%)	--

*The remaining 13 products (8%) contained maltitol, a reduced-calorie sweetener
Source: 2015 Rudd Center Product Analysis

Figure 1. Median NPI score of advertised sweet and savory snacks by company



Source: 2015 Rudd Center product analysis

these five companies manufactured 81% of sweet snack products and 74% of savory snacks analyzed. Two of these companies (Dannon and General Mills) manufactured 77% of advertised yogurt products.

In comparing nutritional quality of snacks offered by the top-five companies, median NPI scores for yogurt products from General Mills and Dannon were the same (70). However, nutritional quality varied for sweet and savory snacks offered by different companies (see **Figure 1**). Kellogg's savory snacks (including Pringles and Sunshine Cheez-It) had the lowest median NPI score of 34, while Mondelez savory snacks had the highest median score of 56. In contrast, Mondelez sweet snack brands had a low median NPI score of 30, while Dannon's single sweet snack brand (Creamery puddings) had the highest median NPI score of 62.

Advertised snack brands

Ranking Table 1 presents 103 varieties of advertised brands ranked by median NPI score. The top-11 brands had median NPI scores of 74 or higher and included four varieties of yogurt brands (Chobani Simply 100, Dannon Activia/Greek Light, Yoplait/Greek 100, and Dannon Danimals/Superstars), five fruit brands (Wonderful Halos, Smucker's Fruit-Fulls Applesauce, GoGo Squeeze Applesauce, Grapes from California, and Dole Fruit Bowls/100% Juice), and two nut brands (California Almonds and Blue Diamond Almonds). In total, 26 varieties of advertised snack brands had healthy median NPI scores of 64 or higher, including 17 yogurt brand/varieties, five fruit brands, and four nut brands.

Dannon Creamery pudding had the highest median NPI score (62) of any sweet snack, and Triscuit Crackers,with a median NPI score of 58, was the highest ranked savory snack brand. On the other hand, the 10 advertised brands with the lowest median NPI scores included seven sweet snacks (Sunbelt Bakeries Granola Bar, Nutella & Go!, Little Debbie Snack Cakes, Donuts and Nutty Bars, Oreo Cookies, and Chips Ahoy) and three savory snacks (Slim Jim and Snyder's Pretzel Pieces, and Snyder's Sweet and Salty pretzel pieces).

CFBAI-approved snack brands

Just 12 advertised snack brands included products that CFBAI companies indicated may be included in child-directed advertising (i.e., CFBAI-approved products), including 55 yogurts, 30 sweet snacks, and 8 savory snacks (see **Table 6**). General Mills had the most CFBAI-approved products, including 20 yogurts. Dannon made the remaining

Table 6. Nutrition content of CFBAI-approved snacks by category

	CFBAI-approved		Serving size (g)	Calories (kcal)*		Sugar (g)*		Fat (g)*	Saturated fat (g)*	Sodium (mg)*
	# of products	% of category total	Median	Median	Range	Median	Range	Median	Median	Median
Yogurt	55	59%	150	80	60-130	11	6-21	0	0	50
Sweet snacks	30	32%	30	130	40-140	8	5-12	2.5	0	102.5
Savory snacks	8	9%	30	140	130-150	0	0-0.5	5	1	250

*per serving indicated on the nutrition facts panel
Source: 2015 Rudd Center Product Analysis

35 yogurt products. The only savory snack brand on the CFBAI-approved list was Pepperidge Farm Goldfish (*n*=8 products) from Campbell Soup Company, while approved sweet snack brands included Betty Crocker Fruit Snacks (*n*=13) from General Mills, Honey Maid Grahams and Teddy Grahams (*n*=6,4) from Mondelez Global, and Pepperidge Farm Goldfish Grahams (*n*=7).

Compared with other advertised sweet snacks and yogurts, CFBAI-approved sweet snack and yogurt products tended to come in smaller serving sizes, resulting in fewer calories and less sugar. For example, all varieties of Honey Maid Grahamfuls were CFBAI-approved and contained 7 grams of sugar and 130 calories per 25-gram serving, compared to the median serving size of 30 grams or more for most other sweet snacks. Within the yogurt category, CFBAI-approved Yoplait Minion Made contained 13 grams of sugar and 100 calories per 113-gram serving, while Yoplait Original Style yogurts contained 18 grams of sugar and 150 calories per 170-gram serving. CFBAI-approved savory snacks were comparable to all advertised savory snacks in serving size and calories, but fat content was somewhat lower (5 g for CFBAI vs. 7 g for all advertised savory snacks).

The only CFBAI-approved snacks that did not contain added sugar were plain yogurts and six Pepperidge Farm Goldfish flavors (see **Table 7**). Almost one-third of CFBAI-approved yogurts contained non-nutritive sweeteners and 16% contained artificial colors. Almost half of CFBAI-approved sweet snacks had artificial colors and 40% contained partially hydrogenated oils, although none of them totaled more than 0.5 grams (so they were not reported on the nutrition facts panel). None of the savory snacks had non-nutritive sweeteners, artificial colors, or partially hydrogenated oils.

NPI scores for all CFBAI-approved snacks in the yogurt category fell in the healthy range (64-80), while none of the sweet snacks and savory snacks qualified as healthy, with median NPI scores of 42 and 41, respectively. Therefore, these products could not be advertised to children on TV in the United Kingdom. Similarly, all CFBAI-approved yogurts met Smart Snacks standards and more than 90% met IWG standards. One-half of CFBAI-approved sweet snacks met Smart Snacks standards, as well as one of the savory snack products. However, none of the CFBAI-approved sweet or savory snacks met IWG nutrition standards. Further, all CFBAI-approved savory snacks exceeded the stricter sodium limits in the IWG standards.

Only the CFBAI-approved brands in the yogurt category had healthy median NPI scores – Dannon Activia, Danimals, Light & Fit, and Oikos, as well as Yoplait Minion Made, Trix, and GoGurt. Furthermore, the majority of CFBAI-approved yogurt products, as well as Honey Maid Teddy Grahams, Honey Maid Graham Crackers, and Pepperidge Farm Goldfish Grahams met Smart Snacks standards. On the other hand, the majority of CFBAI-approved brands in the sweet and savory snack categories ranked in the bottom half of snack foods with median NPI scores of 46 or lower, including Honey Maid Graham; Betty Crocker Fruit Snacks; and Pepperidge Farm Goldfish and Goldfish Grahams. The highest scoring CFBAI-approved sweet snack was Honey Maid Teddy Grahams with a median NPI score of 51.

Table 7. Nutritional quality of CFBAI-approved snacks by category

	# of products containing (% of category)				NPI score		# of products meeting nutrition standards (% of category)	
	Added sugars	Non-nutritive sweeteners	Artificial colors	Partially hydrogenated oil	Median	Range	Smart Snacks	IWG
Yogurt	54 (98%)	16 (29%)	9 (16%)	--	70	64-80	55 (100%)	51 (93%)
Sweet snacks	30 (100%)	--	14 (47%)	12 (40%)	42	34-52	15 (50%)	--
Savory snacks	2 (25%)	--	35 (22%)	16 (10%)	41	36-46	1 (13%)	--

Source: 2015 Rudd Center Product Analysis

Table 8. Nutrition content of Smart Snacks by category

	Serving size (g)		Calories (kcal)*		Sugar (g)*		Fat (g)*	Saturated fat (g)*	Sodium (mg)*
	# of products	Median	Median	Range	Median	Range	Median	Median	Median
Yogurt	140	150	100	45-200	13	2-28	0	0	60
Sweet snack	62	35	135	45-200	8	4-16	3	0.5	110
Savory snack	51	25	110	50-200	1	0-4	3.5	0	170
Fruit	17	113	60	50-100	14	11-24	0	0	0

*per serving indicated on the nutrition facts panel
Source: 2015 Rudd Center product analysis

Smart Snacks

We also analyzed the nutrition content of 270 Smart Snacks products offered for sale in schools by the companies in our analysis. More than half (*n*=140) of Smart Snacks products analyzed were yogurts, followed by sweet snacks (*n*=62), savory snacks (*n*=51), and fruit (*n*=17) (see **Ranking Table 2**). The companies in our analysis did not offer any Smart Snacks in the nut or cheese categories.

Table 8 presents the nutrition content of Smart Snack products by category. In the yogurt category, median serving sizes and most nutrition content measures were comparable for Smart Snacks products and those offered by advertised brands. However, in other categories nutrition content of Smart Snacks products differed from advertised products. For example, although median serving size was the same, median calories in sweet and savory Smart Snacks were lower than median calories for advertised snacks (135 vs. 150 kcal for sweet snacks and 110 vs. 140 kcal for savory snacks). Smart Snacks in the sweet snack category also had lower median sugar (8 g per serving) compared with 10 grams for advertised sweet snacks. Similarly, Smart Snacks in the sweet and savory snack categories had lower median fat (3 g per serving for sweet snacks and 3.5 g for savory snacks) compared with sweet and savory advertised snacks (5 and 7 g per serving, respectively). Median sodium in Smart Snacks was somewhat lower than advertised snacks in the same categories (60, 110, and 170 mg per serving for Smart Snacks yogurts, sweet snacks, and savory snacks vs. 65, 120, and 210 mg for advertised snacks).

Eight out of ten Smart Snacks products (82%) contained added sugar, including 4 of 17 fruits products (see **Table 9**). Smart Snacks yogurts were comparable to advertised yogurts in the proportion of products containing added sugar (92% vs. 97%) and artificial colors (8% vs. 17%), but they were more likely to contain non-nutritive sweeteners (43% vs. 35%). Smart Snacks were less likely to contain partially hydrogenated oils: just 7% of sweet and savory Smart Snacks versus 16% of advertised snacks in these categories. As with advertised snacks, the majority of Smart Snacks in the fruit and yogurt categories fell in the healthy NPI score range of 64 or higher. However, with median NPI scores of 52 and 50, the majority of sweet and savory Smart Snacks available for sale in schools did not meet the cut-off for healthy snacks (64) that could be advertised to children in the United Kingdom.

Smart Snack nutrition by company and brand

The four largest producers of Smart Snacks were Dannon (*n*=97 products), General Mills (*n*=67), Kellogg (*n*=38), and PepsiCo (*n*=33). Together, these four companies produced 87% of the Smart Snacks in our analysis. The remaining companies (Campbell Soup Company, Del Monte Foods, Dole Food Company, Dr Pepper Snapple Group, and Popchips) each offered 10 or fewer Smart Snacks products.

Both Dannon and General Mills offered Smart Snacks yogurt brands with a healthy median NPI score of 72 (see **Table 10**). However, Dannon's yogurt products were lower in calories: 80 median calories versus 130 calories for General Mills yogurts, as most General Mills yogurts were offered in larger serving sizes. While 36 Dannon yogurt products had a serving size of 113 grams or less, just four General Mills yogurt products were offered in this smaller size. PepsiCo's sweet snacks had the lowest median NPI score (44), although the company offered

Table 9. Nutritional quality of Smart Snacks by category

	# of products containing (% of category)				NPI score	
	Added sugars	Non-nutritive sweeteners	Artificial colors	Partially hydrogenated oil	Median	Range
Fruit	4 (24%)	--	--	--	76	68-78
Yogurt	129 (92%)	60 (43%)	11 (8%)	--	72	64-80
Savory snacks	39 (76%)	--	11 (22%)	1 (2%)	52	42-68
Sweet snacks	62 (100%)	3 (5%)	13 (21%)	6 (10%)	50	36-70
Total	87%	23%	13%	3%		

Source: 2015 Rudd Center product analysis

Table 10. Comparison of Smart Snacks by company and category

Company	Category	# of products	NPI score Median	NPI score Range	Serving size (g) Median	Calories (kcal)* Median
The Dannon Company	Yogurt	97	72	66-80	150	80
General Mills	Yogurt	43	72	64-80	150	130
General Mills	Sweet snacks	21	54	46-60	35	150
Kellogg Company	Savory snacks	13	54	42-58	22	100
PepsiCo	Savory snacks	24	52	44-68	27	115
General Mills	Savory snacks	3	52	50-54	26	110
Kellogg Company	Sweet snacks	25	50	40-70	35	130
PepsiCo	Sweet snacks	9	44	36-54	24	100

*per serving indicated on the nutrition facts panel
Source: 2015 Rudd Center product analysis

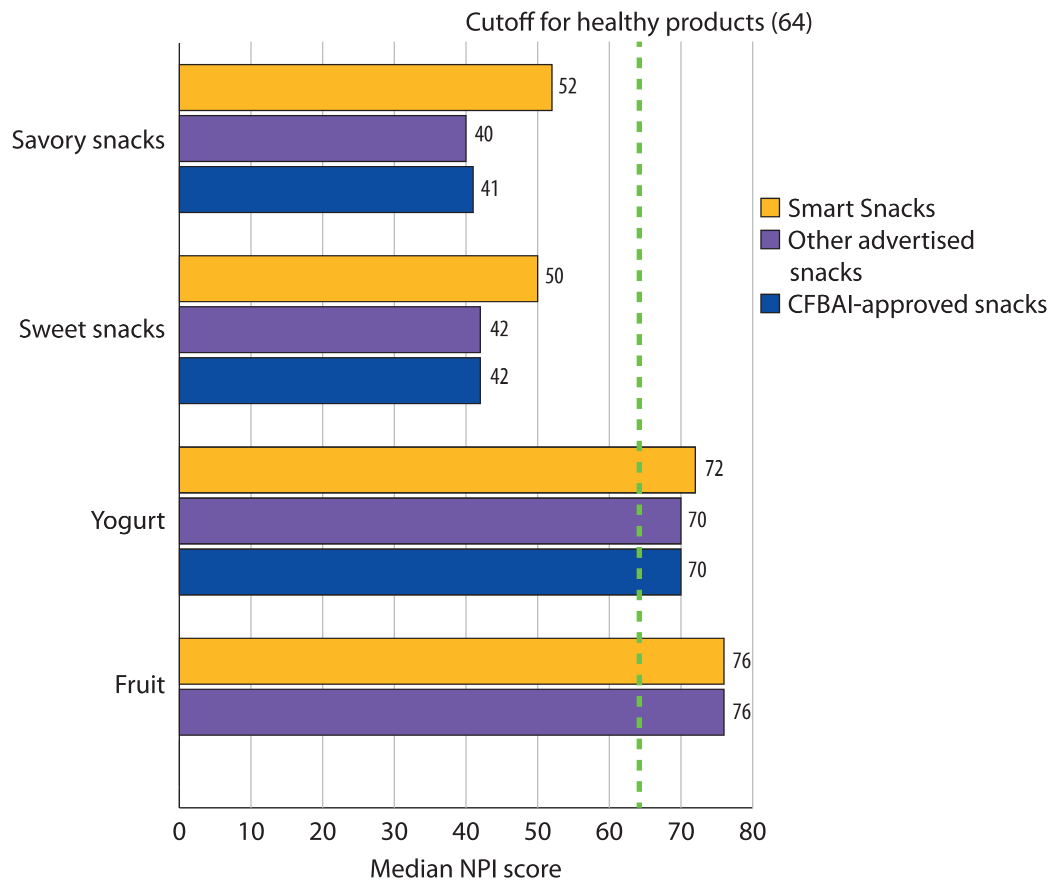
just two sweet Smart Snacks brands. Median NPI scores for General Mills and Kellogg sweet snacks and all companies' savory snacks were somewhat higher, ranging from 50 to 54, but still below the healthy score of 64.

Ranking Table 2 presents nutrition information for the 92 Smart Snacks brands and varieties in our analysis. One-third of these brands had median NPI scores in the healthy range of 64 or higher, primarily in the yogurt and fruit categories. One Kashi Snack Bar, Baked Lays, and Baked Tostitos also had healthy NPI scores. On the other hand, one-quarter of Smart Snacks brands had median NPI scores below 50. Quaker Snack Bar/Reduced-Sugar Chewy Granola Bar Peanut Butter Chocolate Chip had the lowest NPI score of 36. Other brands ranking in the bottom 10 by NPI score included Sunshine Cheez-It, Pepperidge Farm Goldfish Grahams, and Keebler Cookies.

Comparing CFBAI-approved and other advertised snacks versus Smart Snacks

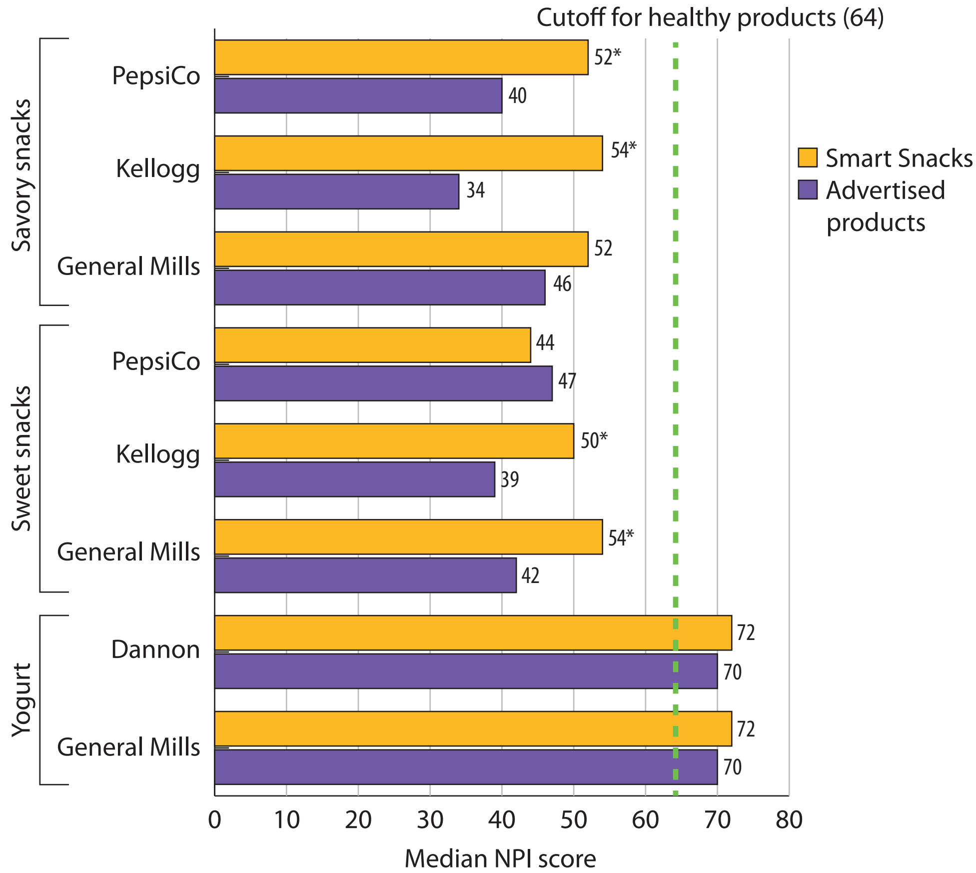
We also compared NPI scores of Smart Snacks products to NPI scores for CFBAI-approved and other advertised snacks (see **Figure 2**). Fruit and yogurt products in all groups had

Figure 2. Median NPI score of CFBAI-approved, other advertised, and Smart Snacks by category



Source: 2015 Rudd Center product analysis

Figure 3. Comparison of NPI scores for advertised products and Smart Snacks by company and category



*Indicates significant difference (*p*<.05)
Source: 2015 Rudd Center Product Analysis

similar median NPI scores, although as noted earlier, there were no CFBAI-approved fruit brands. However, Smart Snacks in the sweet and savory snack categories had higher median NPI scores than either CFBAI-approved or other advertised snacks. Of note, median NPI scores for CFBAI-approved savory and sweet snacks were the same as median NPI scores for other advertised sweet snacks, indicating that products that CFBAI companies indicated may be included in child-directed advertising were not more nutritious than the products they only advertised to older audiences.

Differences by company

We also compared NPI scores for the four largest companies that produced both Smart Snacks and advertised snacks: General Mills, Kellogg, Dannon, and PepsiCo (see **Figure 3**). Advertised yogurt products and PepsiCo's sweet snacks were nutritionally similar to the companies' Smart Snacks products. However, advertised savory snacks from PepsiCo and Kellogg and advertised sweet snacks from General Mills and Kellogg had significantly lower NPI scores than their Smart Snacks products. Therefore, these companies offered healthier products for sale in schools, but advertised their less healthy products on TV.

Table 11 presents brands in our analysis offering both advertised and Smart Snack products. For some brands, Smart Snacks were nutritionally similar to brands' advertised products, including Dole Fruit Bowls, General Mills' yogurt brands, Popchips, Dannon Danimals, and most Mondelez snacks.

Smart Snacks were often offered in smaller serving sizes than the same brand's advertised snacks (as listed on the products' nutrition facts panels), including Pepperidge Farm Goldfish, Dannon Light & Fit yogurt, Betty Crocker Fruit Snacks, and most Kellogg snacks. In many cases, NPI scores for Smart Snacks exceeded median NPI scores for the brands' advertised snacks, including most Dannon yogurts, as well as sweet and savory snacks from General Mills, Kellogg, Mondelez, and PepsiCo. As noted earlier, these companies offered nutritionally improved products for sale in schools, but typically featured nutritionally poorer products in their advertising. Therefore, advertising of the less healthy versions of brands when nutritionally improved products are for sale in schools also occurs at the brand level.

Table 11. Advertised brands that offered Smart Snacks products

		Advertised products			Smart Snacks		
Company	Brand	# of products	Serving size (g)	Median NPI score	# of products	Serving size (g)	Median NPI score
Campbell Soup Company	Pepperidge Farm Goldfish	11	30	42	6	23.5*	46*
Dole Food Company	Dole Fruit Bowls	8	113	74	7	113	74
The Dannon Company	Dannon Activia	12	113	67	33	113	72*
	Dannon Light & Fit	12	170	70	31	150*	76*
	Dannon Danimals	7	113	74	8	113	74
	Dannon Oikos	11	150	70	12	150	72*
General Mills: Yogurt	Yoplait Greek	33	150	76	22	150	76
	Yoplait Trix	4	113	66	3	113	66
	Yoplait GoGurt	15	64	64	1	64	64
	Yoplait	35	170	68	17	170	68
General Mills: Sweet and savory snacks	Betty Crocker Fruit Snacks	20	23	42	4	14*	54*
	Nature Valley Snack Bar	14	35	39	4	38.5	51*
	Chex Mix	19	29	42	3	26	52*
Kellogg Company	Special K Cracker Chips	5	30	54	4	25*	55*
	Sunshine Cheez-It	14	30	36	3	21*	42*
	PopTarts	18	51	37	3	50	50*
Mondelez Global	Honey Maid	6	31	46	1	30	50*
	Honey Maid Teddy Grahams	4	30	51	1	30	52*
	Belvita Breakfast Biscuit	5	50	58	3	50	58
PepsiCo	Doritos	9	28	42	3	28	54*
	Cheetos	10	28	30	4	24*	50*
	Tostitos	4	28*	50	1	41	56*
	Quaker Snack Bar	4	38	47	7	24*	56*
Popchips	Popchips	7	28	52	7	28	52

*Indicates significant difference (p<.05)
Source: 2015 Rudd Center Product Analysis

Look-alike snacks

Some advertised brands also offered look-alike (or "copycat") Smart Snacks products, or products that are marketed and packaged in a similar way to advertised snacks, but are nutritionally improved and not generally available in stores.[3] We identified 12 savory snack and eight sweet snack products that appeared to be copycat products: Sunshine Cheez-It (3 whole grain products), Cheetos (2 reduced fat products), Doritos (3 reduced fat products), Fruit Roll Ups (3 reduced sugar products), Chex Mix (3 Simply Chex products), and PopTarts (3 whole grain products). **Table 12** illustrates differences in serving sizes and nutrition for a selection of these products.

Nutrition content overview

We evaluated the nutrition content of 604 individual snack products offered by snack food brands that were advertised on TV in 2014. These analyses demonstrate considerable variation in the nutrition content and quality of advertised snacks, ranging from nutritious products that met all nutrition standards to very unhealthy products. For example, all advertised fruit products met all nutrition standards, although just five fruit brands advertised on TV. Products in the yogurt and nut categories also tended to have healthy NPI scores (64 or greater) and the majority met Smart Snacks nutrition standards. However, products in these categories were less likely to meet IWG standards due primarily to differing limits on sugar and fat content.

In contrast, the nutritional quality of advertised brands in other snack food categories varied widely. Approximately one-quarter of sweet and savory snacks met Smart Snacks nutrition standards, and a few sweet and savory snacks (including some flavors of Belvita Breakfast Biscuits, Dannon Creamery pudding, Popchips, and Triscuits) met the NPI cut-off of 64 for healthy foods that can be advertised to children on TV in the United Kingdom. Yet the majority of advertised sweet and savory snacks had median NPI scores below 50 and did not meet Smart Snack standards. Chips Ahoy (Mondelez Global) was notable for being the lowest scoring product in this analysis with a median NPI score of 18.

We also evaluated the nutritional quality of 93 products offered by 12 advertised brands that CFBAI-participating companies listed as products that may be in child-directed advertising. On a positive note, seven CFBAI-approved brands had median NPI scores at or above the healthy cut-off of 64, including Activia, Danimals, Light & Fit, and Oikos yogurts from Dannon, as well as Yoplait Minion Made, Trix, and GoGurt yogurts from General Mills. However, median NPI scores for all other CFBAI-approved brands ranged from a low of 36 (Betty Crocker Fruit Snacks/Roll-ups) to 51, and many of these brands did not offer any advertised products that met Smart Snack standards (including Betty Crocker Fruit Snacks, Honey Maid Grahamfuls, and Pepperidge Farm Goldfish/Flavor Blasted). In addition, there were no CFBAI-approved fruit or nut snacks, which were the healthiest categories of snacks advertised to other audiences. Further, median NPI scores for CFBAI-approved brands were virtually identical to

Table 12. Differences between Smart Snacks look-alike products and advertised products

		Advertised products		Smart Snacks
Sunshine Cheez-It Whole Grain (Mondelez)				
Serving size		30 g		21 g
Calories-per-serving		150 kcal		100 kcal
Fat-per-serving		8 g		3.5 g
Saturated fat-per-serving		2 g		1 g
Protein-per-serving		2 g		3 g
NPI score		36		48
Cheetos (PepsiCo)				
Serving size		28 g		20 g
Calories-per-serving		150 kcal		90 kcal
Fat-per-serving		10 g		3.5 g
Saturated fat-per-serving		1.5 g		0 g
Sugar-per-serving		1.0 g		0.5 g
Sodium-per-serving		300 mg		135 mg
NPI score		30		50
PopTarts (Kellogg)				
Serving size		51 g		50 g
Calories-per-serving		200 kcal		180 kcal
Fat-per-serving		5 g		3 g
Saturated fat-per-serving		1.8 g		1.0 g
Sugar-per-serving		19 g		16 g
Sodium-per-serving		230 mg		190 mg
Fiber-per-serving		1 g		3 g
Protein-per-serving		2.5 g		3.0 g
NPI score		36		48
Doritos (PepsiCo)				
Serving size		28 g		28 g
Calories-per-serving		150 kcal		130 kcal
Fat-per-serving		8 g		5 g
Sodium-per-serving		180 mg		160 mg
NPI score		48		52

scores for other advertised products in the same category. Therefore, the products approved for advertising to children were not more nutritious than products CFBAI companies advertised to older audiences. In addition, many of these CFBAI-approved products contained ingredients, such as non-nutritive sweeteners and artificial colors, which parents express concerns about serving to their children.[4]

Nine of the companies in our analysis also offered Smart Snacks products for sale in schools that tended to be more nutritious. Although Smart Snacks yogurt products were nutritionally similar to companies' advertised yogurt products (both tended to meet most nutrition standards), Smart Snacks products in the sweet and savory snack categories often had significantly higher median NPI scores than sweet and savory snacks that the same companies and brands advertised on TV. Furthermore, Smart Snacks often were provided in smaller serving sizes, and some nutritionally improved Smart Snacks products (i.e., look-alike products) were not generally available outside of schools, potentially causing confusion among parents and children about the nutritional quality of advertised snacks.

Traditional media advertising

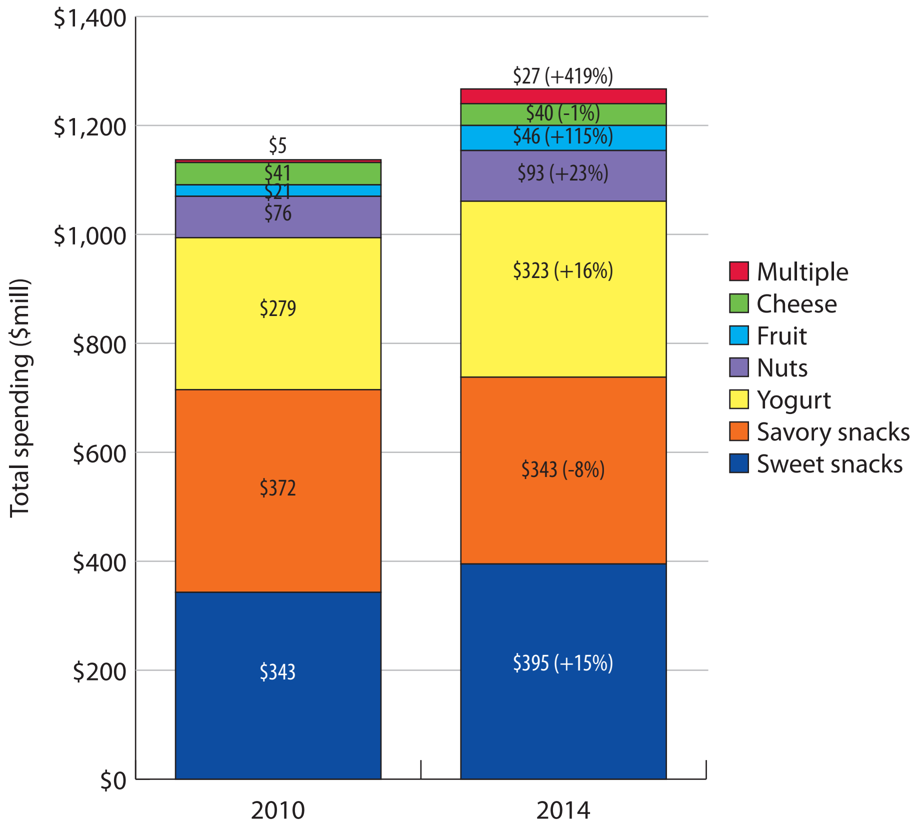
In this section, we examine traditional advertising for snack foods in 2014 and changes versus 2010. We present advertising spending in measured media, including TV, magazines, Sunday supplements, coupons, and the internet. We then provide data on child and teen exposure to snack food advertising on TV.

Advertising spending

Advertising spending	Definition
Advertising spending	Total media spending in 18 different media including national (Network, cable, and syndicated) and local (spot) TV, Spanish-language TV, internet, radio, magazines, newspapers, free standing insert coupons (FSIs), and outdoor advertising, measured by Nielsen.
TV spending	Spending on advertising in national (Network, cable, and syndicated) and local television, including Spanish-language programming.
Magazines and Sunday supplements	Nationally distributed magazines and magazines inserted into Sunday newspapers, such as Parade Magazine.
FSI coupons	Coupons inserted into other publications, most typically Sunday newspapers. These include individual coupons as well as coupon booklets such as Red Plum and Smart Source.

Total snack food advertising spending reached almost $1.28 billion in 2014, an increase of 4% over the $1.23 billion spent in 2010. As shown in **Figure 4**, savory snacks were the most highly advertised category at $395 million, representing 31% of all snack food spending. Sweet snacks and yogurt followed closely at $343 million and $323 million, respectively, or 27% and 26% of all snack food advertising expenditures. The remaining categories (nuts, fruit, cheese, and multiple-category snack products) totaled $206 million in advertising spending, together accounting for just 16% of all snack food advertising. Advertising for the healthier categories (yogurt, nuts, and fruit) represented slightly more than one-third (36%) of total snack food advertising spending aimed at consumers of all ages.

Figure 4: Snack food advertising spending by category in 2010 and 2014



Source: Rudd Center analysis of Nielsen data (2015)

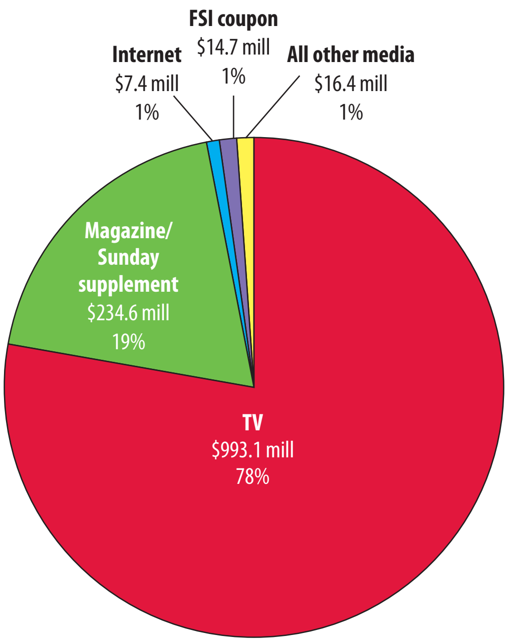
Although total advertising spending increased from 2010 to 2014, changes in spending varied across snack food categories. Advertising for sweet snacks declined by 8%, while total spending on savory snacks and yogurt increased 15% and 16%, respectively. Total advertising for nuts also increased by almost one-quarter. Of note, advertising spending for fruit brands more than doubled, overtaking advertising for cheese snacks, which did not change from 2010 to 2014. However, fruit continued to account for less than 4% of total snack food advertising spending. Advertising for multiple-category packaged snacks increased more than five-fold.

Advertising spending by media and category

As shown in **Figure 5**, television represented more than three-quarters of snack food advertising spending, totaling almost $1 billion in 2014. Spending on nationally distributed magazines and Sunday supplements in newspapers followed at $235 million, or 19% of snack food advertising expenditures. All other types of media accounted for 1% or less of advertising expenditures.

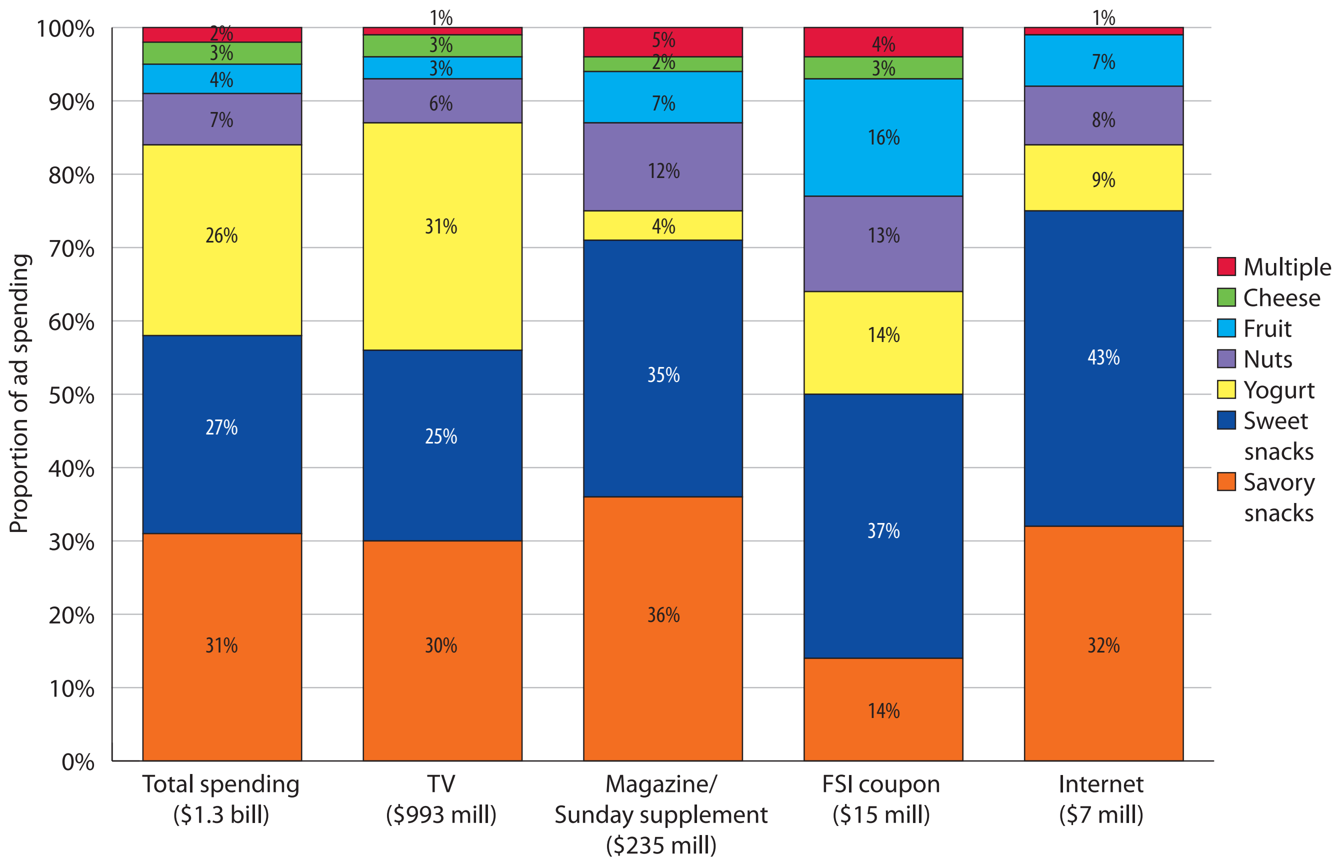
However, the distribution of advertising spending across different snack categories varied by medium (see **Figure 6**). Sweet and savory snacks combined represented almost 60% of

Figure 5. Snack food advertising spending by media type



Source: Rudd Center analysis of Nielsen data (2015)

Figure 6. Proportion of advertising spending on snack food categories by medium



Source: Rudd Center analysis of Nielsen data (2015)

spending on TV, but approximately three-quarters of spending on the internet and in magazines/Sunday supplements. Sweet snacks replaced savory snack brands as the highest spending advertisers on the internet and through FSI coupons.

Among the healthier snack categories, yogurt had the highest share of advertising spending on TV, surpassing sweet and savory snacks at nearly one-third of TV advertising. However, yogurt accounted for less than 15% of advertising spending in all other media. Although fruit brands represented just 3% of TV advertising spending, they accounted for 7% of spending on both internet and magazine/Sunday supplement advertising and 16% of FSI coupon spending. Similarly, brands in the nut category represented 12% of advertising spending on magazine/Sunday supplements and 13% of FSI coupon spending, compared with 6% of TV advertising.

Advertising spending by company

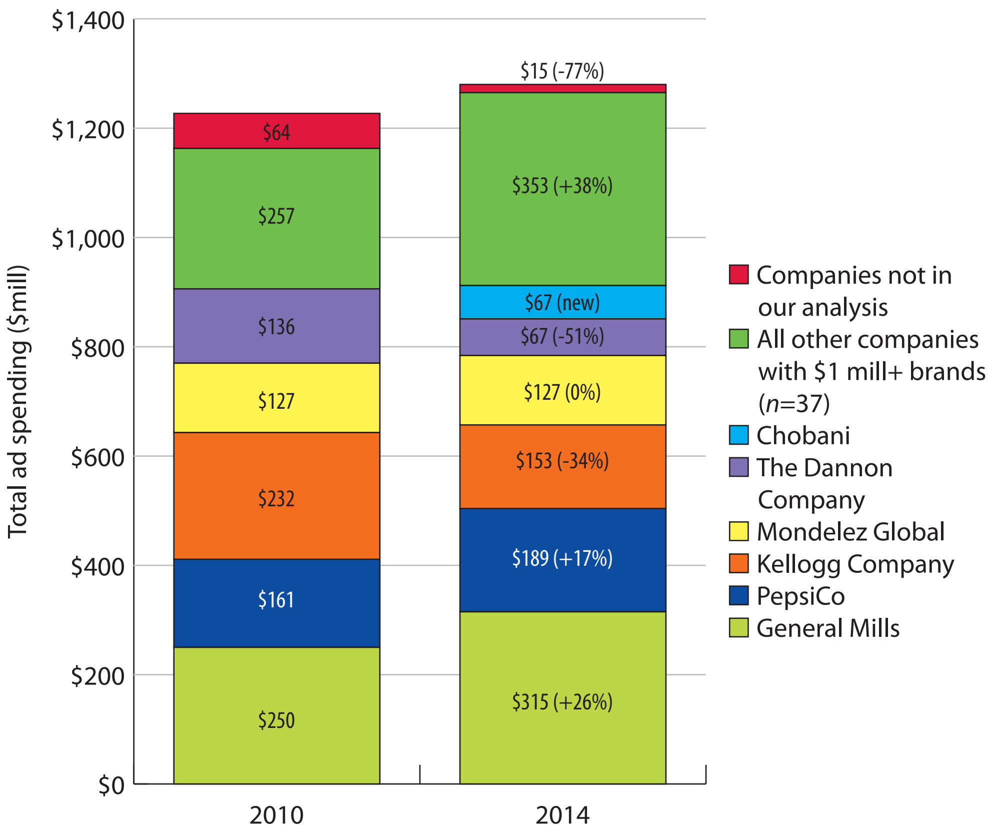
We also examined advertising spending by the 43 companies with $1 million or more in advertising for at least one brand in 2014, detailed in **Ranking Table 3**. Four companies were responsible for 62% of total snack food advertising spending: General Mills, PepsiCo, Kellogg Company, and Mondelez Global (see **Figure 7**). General Mills contributed 25% of all snack food advertising, spending two-thirds more than PepsiCo (which ranked second in company spending) and more than twice as much as Kellogg and Mondelez. Two yogurt companies (Dannon and Chobani) spent another $128 million combined, or 10% of the total. The remaining companies in our analysis contributed another 28% of snack food advertising spending in 2014. Together, the companies analyzed in our report represented over 99% of all snack food advertising spending in 2014 in media measured by Nielsen.

Of the combined $784 million spent by the top-four companies advertising in 2014, General Mills spent $133 million to promote yogurt, approximately 40% of its total snack food advertising budget (see **Figure 8**). The remaining $615 million (78%) of advertising from these four companies was spent on sweet and savory snacks. The top four companies were responsible for over 80% of spending on savory snacks and nearly 90% of spending on sweet snacks. In comparison, less than 25% of spending from all other companies was dedicated to sweet and savory snacks combined.

Changes in advertising spending by company

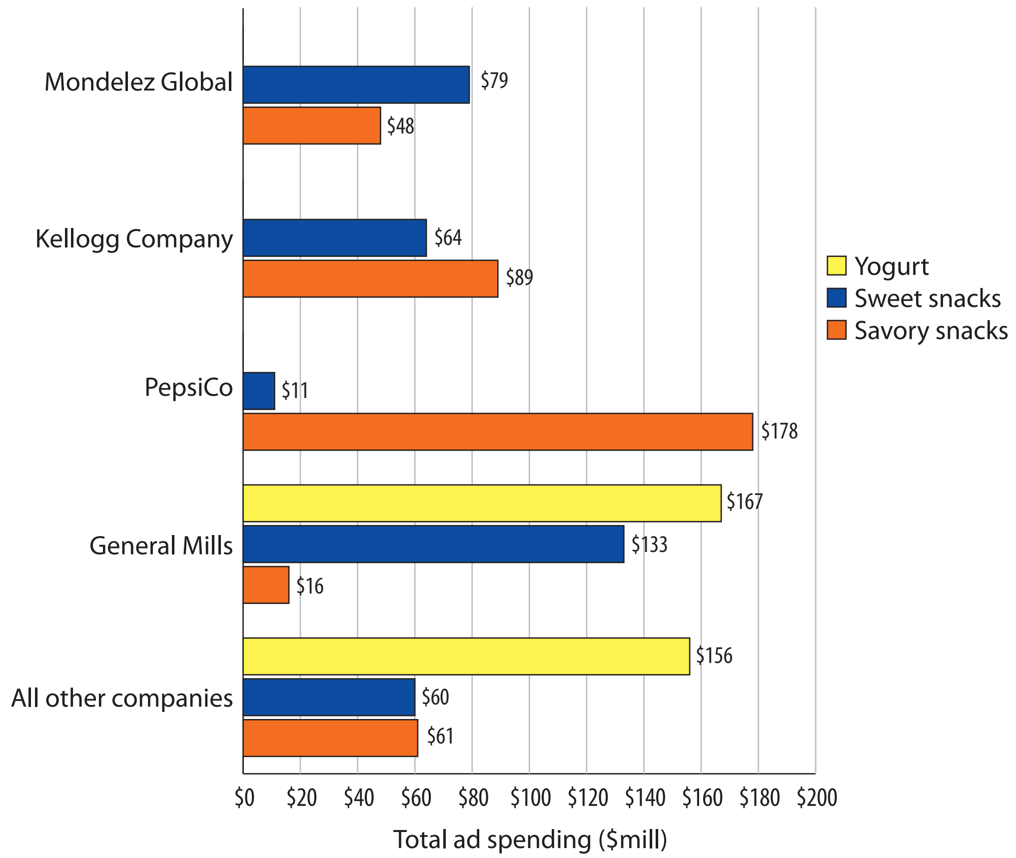
Changes in total advertising spending on snack foods from 2010 to 2014 varied widely by company. Although order of rankings for the top-five snack food companies did not change from 2010 to 2014, General Mills and PepsiCo increased their spending substantially (+26% and +17%, respectively), while Kellogg and Dannon reduced their spending by 34% and 51%, respectively. One company, Greek yogurt manufacturer Chobani spent just $35,000 on advertising in 2010, but over

Figure 7. Total advertising spending by company in 2010 and 2014



Source: Rudd Center analysis of Nielsen data (2015)

Figure 8. Spending by company and category in 2014



Source: Rudd Center analysis of Nielsen data (2015)

$61 million in 2014, making it the number-six snack food advertiser in 2014. Another Greek yogurt company, FAGE, also increased its advertising by 348%.

The total number of companies spending $1 million or more in snack food advertising from 2010 to 2014 also increased. Total advertising spending by the 37 smaller companies in our analysis increased by nearly $100 million (+38%), raising these companies' share of snack food advertising spending from 22% in 2010 to 28% in 2014. Twenty of these companies spent less than $1 million or did not advertise at all in 2010. These newcomers contributed $156 million (approximately 12%) of 2014 snack food ad spending. Some smaller companies also spent much more to advertise fruit and nut brands in 2014 than in 2010. For example, The Wonderful Company increased its advertising (primarily for pistachios and clementines) by 250% to become the seventh highest spender on snack food advertising in 2014.

On the other hand, nine companies spent $1 million or more in advertising on at least one brand in 2010, but not in 2014. Together, these companies spent $55 million in 2010, nearly half of which went to advertise fruit brands, including Sunsweet Growers (Sunsweet Ones), Cavendish Global (Chiquita brand), Evans Agriculture Group (Cuties clementines), and Chilean Fresh Fruit Association (grapes).

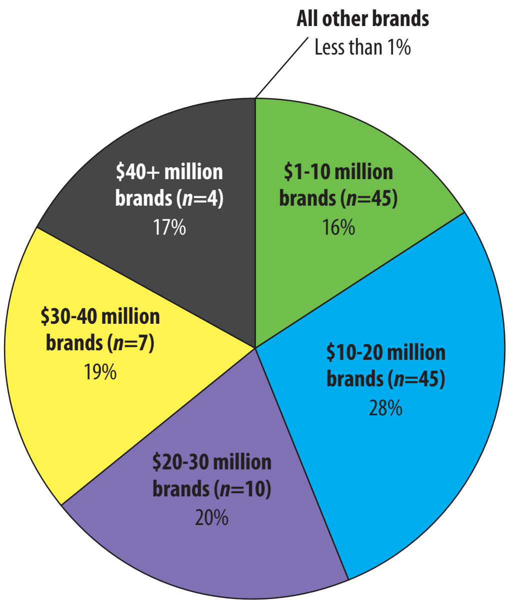
Advertising spending by brand

Ranking Table 3 also details total advertising spending by brand for all snack food brands with at least $1 million in 2014 expenditures, detailing spending on TV, internet, magazines and Sunday supplements, and FSI coupons. Ninety brands spent at this level in 2014.

Four brands, all owned by General Mills, spent more than $40 million in all measured media: Yoplait, Nature Valley Snack Bar, Yoplait Greek, and Fiber One Snack Bar. An additional seven brands spent between $30 and $40 million: Chobani Greek Yogurt; Lay's Potato Chips, Tostitos, Cheetos, and Doritos from PepsiCo; Wonderful Nuts; and Pringles from Kellogg. In total, 21 brands spent more than $20 million each in advertising spending and accounted for 56% of all snack food advertising spending (see **Figure 9**). These brands included seven yogurts, six savory snacks, five sweet snacks, two brands of nuts, and one cheese brand. The highest spending fruit brand (Wonderful Halos) spent $16 million in advertising in 2014 (ranking number 29 in advertising spending).

In contrast, approximately one-quarter of brands analyzed (*n*=24) spent from $10 to $20 million in advertising in 2014 and more than one-half (*n*=45) spent less than $10 million. Together, these 69 smaller brands represented just 16% all snack food advertising spending.

Figure 9. Proportion of total advertising spending by snack food brand size



Source: Rudd Center analysis of Nielsen data (2015)

Advertising spending by brand varied considerably for different snack food categories (see **Table 13**). Yogurt had the highest median spending per brand at approximately $20 million, while sweet snacks and fruit brands spent the least. Yogurt, nuts, and savory snacks had the highest proportion of $10 million+ brands, representing at least 6 out of 10 brands. In contrast, there was just one $10 million+ fruit brand (out of nine).

Changes in spending by brand

From 2010 to 2014, the distribution of advertising spending by company changed considerably. More than 40% of brands that spent $1 million or more to advertise in 2014 (*n*=38) spent less than $1 million or did not advertise at all in 2010, including more than one-half of brands in the fruit and sweet snack categories (see **Table 13**). An additional 16% of brands (*n*=14) increased their advertising spending by 100% or more from 2010 to 2014, including five savory snack brands, as well as seven brands in the healthier yogurt, fruit, and nut categories. On the other hand, nine brands reduced their advertising spending by 50% or more. Spending in the yogurt category had the most variation, with one-third of yogurt brands more than doubling their ad spending and 21% of brands reducing their ad spending by 50% or more.

Table 14 presents brands with increases of $10 million or more in advertising spending from 2010 to 2014. These 22 brands included six yogurts, six savory snacks, and six sweet snacks. Three Greek yogurt brands, as well as Yoplait yogurt and Lay's Potato Chips, had the highest spending increases totaling $20 million more in 2014 than in 2010. This list also included two nut brands (Wonderful Nuts, Planters Nuts) and one fruit brand (Wonderful Halos).

On the other hand, just six brands in our analysis reduced their advertising spending by $10 million or more from 2010 to 2014 (see **Table 15**). Two yogurt brands had the biggest reductions in spending: Dannon Activia fell from the highest spending snack food in 2010 to number 18 in 2014, while Yoplait Light moved from number 2 in 2010 to number 11 in 2014. PopTarts also decreased its spending by nearly $30 million, falling from number three in snack food advertising in 2010 to number 17 in 2014.

Eight additional brands spent $10 million or more in 2010, but then spent less than $1 million or did not advertise at all in 2014, including one savory snack brand, five sweet snack brands, and one yogurt brand, as well as one fruit brand from a company not included in our analysis (Sunsweet Growers' Sunsweet Ones). In addition, Chiquita brand from Cavendish Global spent $8.7 million in 2010, but did not advertise in 2014.

Advertising spending on brands that met Smart Snack standards

We also compared total spending for brands according to whether the majority of their products met Smart Snacks standards. Overall, 43% of advertising spending promoted snack food brands that did meet Smart Snacks standards and could be sold in schools. Of the largest snack food companies,

Table 13. Advertising spending by brand size and category in 2014 and changes from 2010

	Ad spending by brand in 2014 ($ mill)		Distribution of brands by size: 2014 # (%) of brands		Change in ad spending: 2010 to 2014 # (%) of brands		
Category	Median	Range	Total brands	$10 mill+ total ad spending	<$1 mill in 2010	100%+ increase	50%+ reduction
Sweet snacks	$6.3	$1.3 - $53.2	32	11 (34%)	18 (56%)	1 (3%)	3 (9%)
Savory snacks	$15.3	$1.2 - $35.9	25	15 (60%)	5 (20%)	5 (20%)	1 (4%)
Yogurt	$19.4	$1.9 - $67.9	14	11 (76%)	5 (36%)	3 (21%)	3 (21%)
Fruit	$2.5	$1.1 - $16.4	9	1 (11%)	7 (78%)	1 (11%)	1 (11%)
Nuts	$13.1	$2.4 - $32.4	6	4 (67%)	1 (17%)	3 (50%)	1 (17%)
Cheese	--	$10.8 - $28.7	2	2 (100%)	0 (0%)	1 (50%)	0
Multiple	--	$7.8 - $18.6	2	1 (50%)	2 (100%)	0	0

Source: Rudd Center analysis of Nielsen data (2015)
Changes in advertising spending by brand

Table 14. Brands with advertising spending increases of $10 million+ from 2010 to 2014

Company	Brand	Category	Ad spending increase ($ mill)	Change
General Mills	Yoplait Greek	Yogurt	$43.9	2452%
Chobani	Chobani Greek Yogurt	Yogurt	$39.9	new
General Mills	Yoplait	Yogurt	$34.6	104%
Chobani	Chobani Simply 100	Yogurt	$21.3	new
PepsiCo	Lay's Potato Chips	Savory snack	$20.2	129%
Kraft Foods	Oscar Mayer P3	Multiple	$18.6	new
Mondelez Global	Newtons Cookies	Sweet snack	$18.4	new
The Wonderful Company	Wonderful Nuts	Nuts	$18.3	131%
General Mills	Fiber One Snack Bar	Sweet snack	$17.0	63%
Mondelez Global	Belvita Breakfast Biscuits	Sweet snack	$16.9	new
Oberto Brands	Oberto Beef Jerky	Savory snack	$16.6	new
The Dannon Company	Dannon Oikos	Yogurt	$16.4	new
The Wonderful Company	Wonderful Halos	Fruit	$16.4	new
Kraft Foods	Planters Nuts	Nuts	$15.7	124%
FAGE	FAGE FruYo	Yogurt	$15.5	new
PepsiCo	Lay's Kettle Cooked Potato Chips	Savory snack	$15.4	263%
PepsiCo	Cheetos	Savory snack	$13.8	72%
PepsiCo	Frito Lay Snacks	Savory snack	$12.6	722%
General Mills	Nature Valley Snack Bar	Sweet snack	$11.5	28%
Kellogg Company	Special K Snacks	Sweet snack	$10.8	new
ThinkThin Products	ThinkThin Snack Bar	Sweet snack	$10.7	new
PepsiCo	Doritos	Savory snack	$10.4	47%

Source: Rudd Center analysis of Nielsen data (2015)

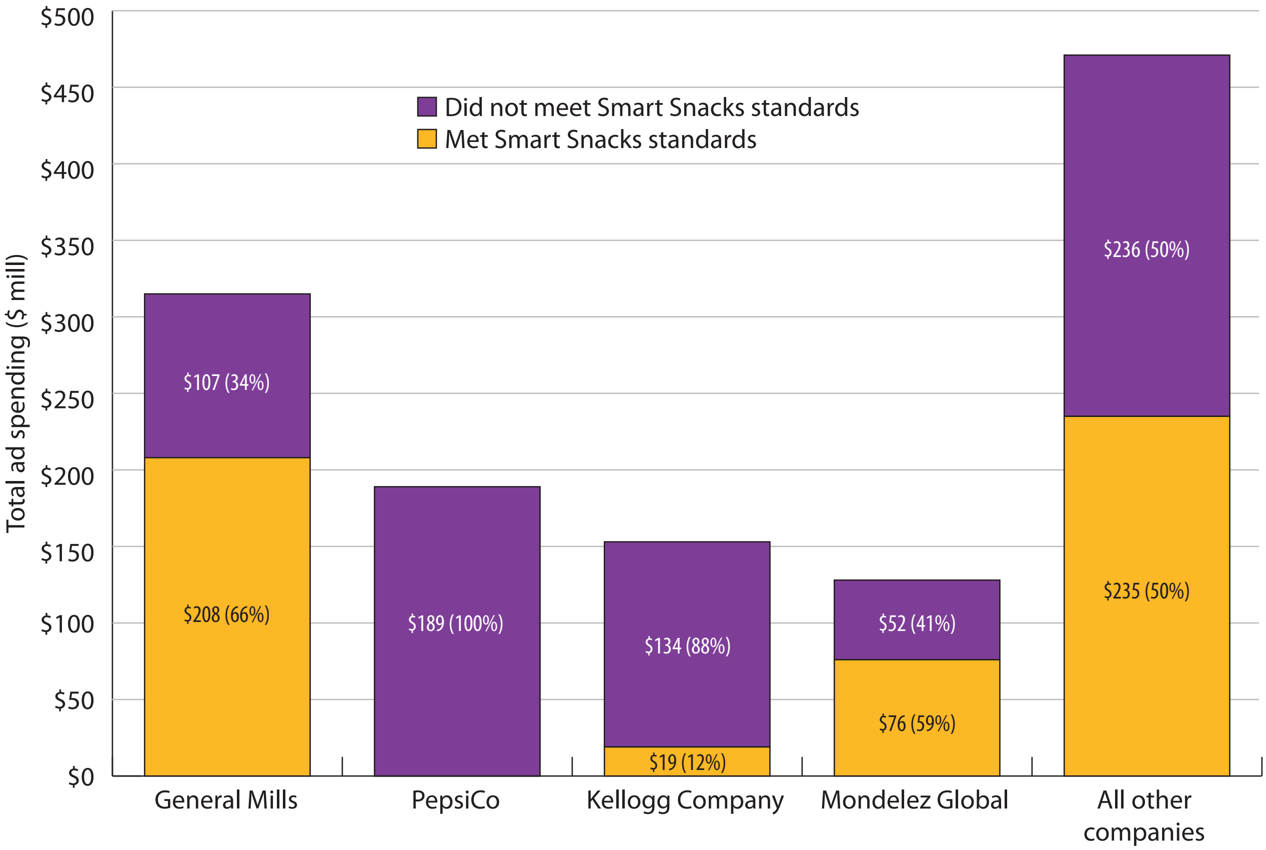
Table 15. Brands with advertising spending decreases of $10 million+ from 2010 to 2014

Company	Brand	Category	Ad spending decrease ($ mill)	Change
The Dannon Company	Dannon Activia	Yogurt	-$54.6	-71%
General Mills	Yoplait Light	Yogurt	-$37.5	-56%
Kellogg Company	PopTarts	Sweet snack	-$29.6	-53%
PepsiCo	Sun Chips	Savory snack	-$27.2	*
The Dannon Company	Dan-O-Nino	Yogurt	-$26.0	*
Otsuka Pharmaceutical Company	SoyJoy Snack Bar	Sweet snack	-$18.6	*
Mondelez Global	Ritz Crackers	Savory snack	-$17.9	-51%
Kellogg Company	Nutri-Grain Snack Bar	Sweet snack	-$17.5	-70%
Kraft Foods Group	Jello Prepared Gelatin Cups	Sweet snack	-$13.8	*
Kellogg Company	Rice Krispie Treat Snack Bar	Sweet snack	-$11.7	*
Kellogg Company	Fiber Plus Snack Bar	Sweet snack	-$11.7	*
PepsiCo	Quaker True Delights Snacks	Sweet snack	-$11.6	*
Mondelez Global	Oreo Cookies	Sweet snack	-$10.9	-27%
Sunsweet Growers	Sunsweet Ones	Fruit	-$10.6	*

*Brand spent <$1 mill in 2014
Source: Rudd Center analysis of Nielsen data (2015)

General Mills and Mondelez Global dedicated the highest proportion of their advertising budgets (approximately two-thirds) to snack food brands that met Smart Snacks standards (see **Figure 10**). However, just 12% of snack food advertising spending by Kellogg Company promoted brands that met Smart Snacks standards, and not one of PepsiCo's brands with $1 million or more in advertising spending met Smart Snacks standards. For all other companies in our analysis, brands that met Smart Snacks standards and brands that did not meet Smart Snacks standards were nearly evenly advertised.

Figure 10. Advertising spending in 2014 on brands that met Smart Snacks nutrition standards



Source: Rudd Center analysis of Nielsen data (2015); Rudd Center product analysis

Summary of advertising spending

In 2014, companies spent $1.28 billion to advertise snack foods in all measured media. Almost 60% of this advertising promoted sweet and savory snacks. Yogurt – one of the healthier categories in our analysis – also accounted for a considerable 26% of advertising spending. However, just 11% of total advertising went to fruit and nuts brands, totaling $139 million. From 2010 to 2014, total snack food advertising spending increased by just 4%, but there was considerable variation across categories. Advertising spending on savory snacks, yogurt, and nuts increased at somewhat higher rates (9%, 18%, and 23%, respectively), while advertising for fruit more than doubled. In contrast, advertising spending decreased moderately for sweet snacks (-13%). In all categories, the majority of spending was devoted to TV advertising, followed by magazines and Sunday supplements (at 19% of total ad spending). Yogurt brands devoted a higher proportion of their advertising to TV compared with other categories, while sweet snacks and fruit were more likely to advertise on the internet.

Four companies dominated snack food advertising in 2104; General Mills, PepsiCo, Kellogg Company, and Mondelez Global were responsible for 62% of total advertising spending totaling $784 million. Approximately 40% of General Mills advertising promoted yogurt brands ($133 million), while the remaining advertising by these companies promoted sweet and savory snacks. Two yogurt companies (Dannon and Chobani) together contributed another 10% of total advertising spending. The other 37 companies in our analysis combined were responsible for 38% of snack food advertising.

From 2010 to 2014, the distribution of advertising spending by company changed. General Mills and PepsiCo both increased their spending (by 26% and 17%, respectively), while Kellogg and Dannon reduced their spending by 34% and 51%, respectively. The total number of companies advertising snack foods also increased during this period, with 20 companies advertising in 2014 but not in 2010. Positively, some smaller companies offering products in healthier categories began advertising or substantially increased their advertising in 2014, including Chobani and FAGE Greek yogurt companies and The Wonderful Company, which ranked seventh in snack food advertising in 2014 for its fruit and nut brands.

Overall, 43% of snack food advertising spending promoted brands that met Smart Snacks standards and could be sold in schools, although this proportion varied widely by company. General Mills and Mondelez Global devoted approximately two-thirds of their snack food advertising budgets to brands that met these standards, compared with just 12% of advertising for Kellogg Company brands. Notably, not one of PepsiCo's advertised brands met Smart Snacks standards. However, one-half of advertising spending for all other companies promoted brands that met the standards.

TV advertising to children and teens

TV advertising exposure	Definitions
Gross rating points (GRPs)	Measure of the per capita number of TV advertisements viewed by a specific demographic group over a period of time across all types of programming. GRPs for specific demographic groups are also known as targeted rating points (TRPs).
Average advertising exposure	GRPs divided by 100. Provides a measure of the number of ads viewed by individuals in a specific demographic group, on average, during the time period measured.
Targeted ratios: Preschooler to adult Child to adult Teen to adult	A measure of relative exposure by youth versus adults, calculated by dividing GRPs for preschoolers (2-5 years), children (6-11 years), or teens (12-17 years) by GRPs for adults (25-49 years).

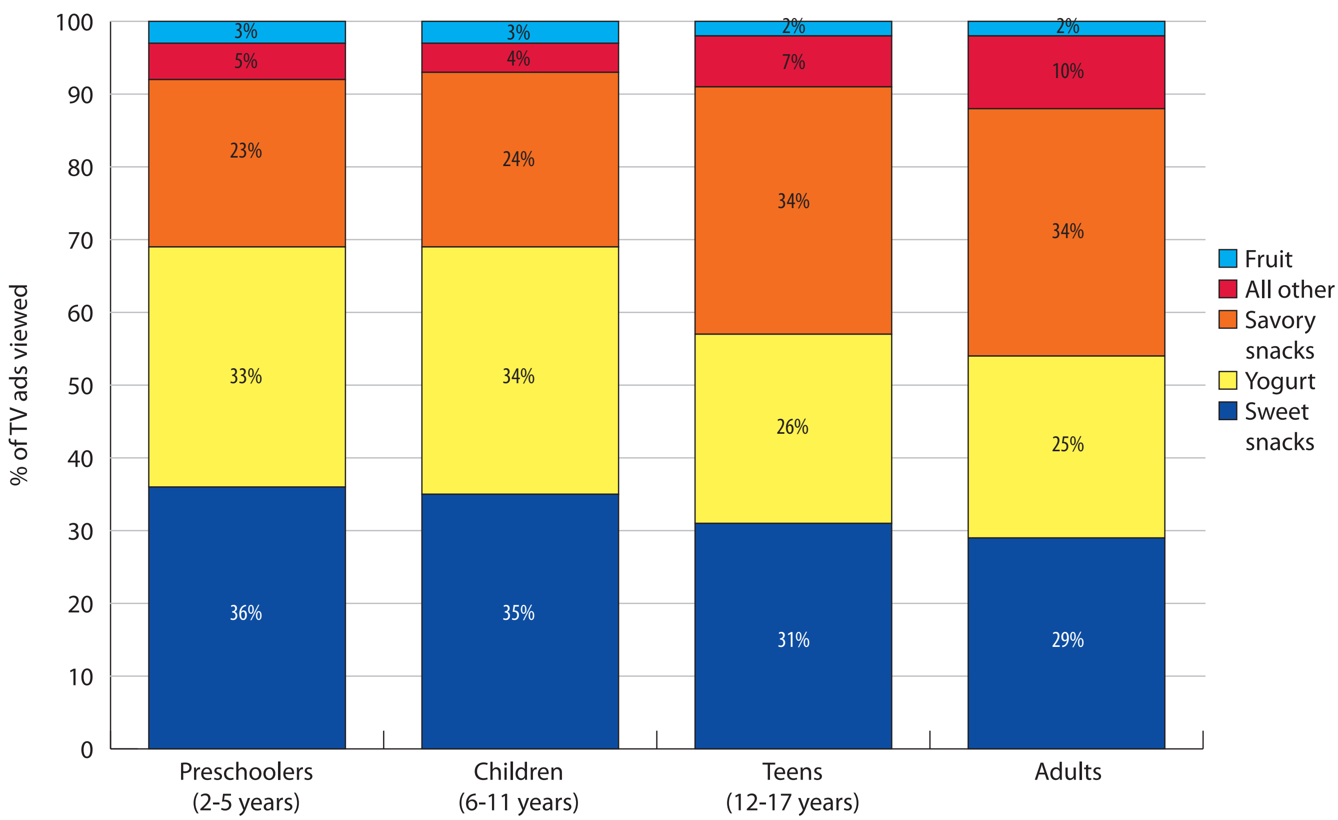
In this section, we examine 72 snack brands advertised on TV in 2014, offered by 29 different companies. Of note, 14 companies in our analysis did not advertise on TV, although they did support their brands with advertising in other media, including four fruit brands (Natural Delights Medjool Dates, Del Monte Peaches, Mott's Snack & Go Applesauce, Pear Bureau Northwest) and two nut brands (Emerald Nuts and the National Peanut Board).

In 2014, preschoolers (ages 2-5) viewed on average 582 snack food ads on TV, children (ages 6-11) viewed 629 ads, and teens (ages 12-17) viewed 635 ads. Adults viewed the most TV ads for snack foods in 2014 (793 ads). As noted, total spending on TV advertising increased by 4% from 2010 to 2014, but increases in ads viewed were higher, with greater increases for teens and adults than for children. Teens viewed 29% more TV ads for snack foods in 2014 than they had in 2010, and adults' exposure increased by 32% over the same time period. Increases for younger viewers were somewhat lower: children viewed 10% more TV ads for snack foods in 2014 versus 2010, while preschoolers viewed 18% more ads.

TV advertising by snack food category

Three categories dominated snack food advertising on TV in 2014: sweet snacks, yogurt, and savory snacks comprised nine out of ten snack ads viewed by all age groups. However, the distribution of ads in these categories varied somewhat by age group (see **Figure 11**). Sweet snacks and yogurt

Figure 11. Proportion of snack ads viewed by category in 2014



Source: Rudd Center analysis of Nielsen data (2015)

Table 16. TV ads viewed by preschoolers and children by category in 2010 and 2014

	Preschoolers (2-5 years)			Children (6-11 years)			2010 targeted ratios		2014 targeted ratios	
Category	2010	2014	Change	2010	2014	Change	Preschooler: adult	Child: adult	Preschooler: adult	Child: adult
Sweet snacks	183.1	206.4	+13%	219.8	221.8	+1%	1.07	1.28	0.91	0.97
Yogurt	197.7	193.2	-2%	220.7	211.3	-4%	0.92	1.03	0.97	1.06
Savory snacks	94.0	135.3	+44%	113.0	149.6	+32%	0.56	0.68	0.50	0.55
Fruit	2.2	19.4	+800%	3.2	18.6	+484%	0.4	0.59	1.06	1.01
Nuts	6.8	12.6	+85%	7.2	13.3	+84%	0.35	0.37	0.32	0.34
Cheese	7.8	10.1	+29%	7.8	12.8	+25%	0.33	0.33	0.41	0.40
Multiple	0.0	4.6		0.0	4.4				0.39	0.37
Total ads viewed	491.5	581.6	+18%	571.8	628.8	+10%	0.82	0.95	0.73	0.79

Source: Rudd Center analysis of Nielsen data (2015)

each represented approximately one-third of ads viewed by preschoolers and children, followed by savory snacks at slightly less than one-quarter of ads viewed. On the other hand, savory snacks contributed more than one-third of ads viewed by teens and adults, followed closely by sweet snacks, while yogurt represented approximately one-quarter of ads viewed. For preschoolers and children, fruit represented the fourth most frequent snack food category viewed, although this category contributed just 3% of all ads viewed by these age groups. For teens, nuts ranked fourth in number of snack ads viewed, followed by fruit. Taken together, the healthier yogurt, fruit, and nut categories contributed approximately 40% of snack ads viewed by preschoolers and children and 30% of ads viewed by teens in 2014.

Table 16 presents TV ads viewed by preschoolers and children in 2010 and 2014 for each snack food category. Five-year changes in TV ads viewed varied substantially by category. Yogurt advertising to preschoolers and children declined slightly (by less than 5%). However, advertising for all other snack categories increased. Sweet snack advertising increased at the lowest rate: preschoolers viewed 13% more of these ads in 2014 than in 2010, while children viewed just 1% more. In contrast, 6- to 11-year-olds viewed 32% more ads for savory snacks in 2014 than in 2010, and preschoolers viewed 44% more ads for the category.

Some of the smaller categories had the largest increases in ads viewed. Notably, fruit ads viewed by preschoolers increased nine-fold from 2010 to 2014, and fruit ads viewed by children increased nearly five-fold. However, absolute numbers of fruit ads viewed remained low, averaging less than one ad every two weeks for both age groups. Preschoolers and children also viewed approximately 85% more nut ads in 2014 versus 2010, while snack boxes consisting of multiple-category products (e.g., Oscar Mayer P2, Graze Boxes) represented a new category in 2014.

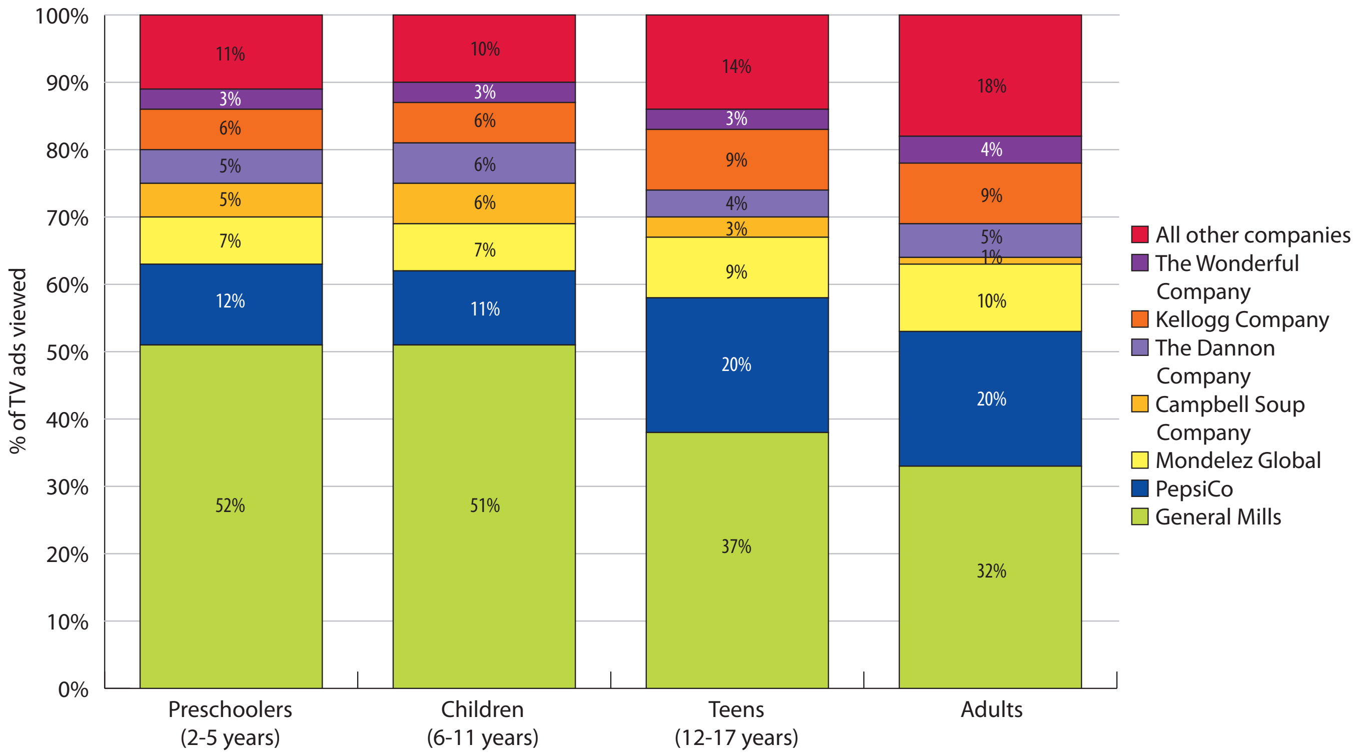
Compared with adults, preschoolers viewed approximately 25% fewer total snack ads in 2014, and children viewed approximately 20% fewer snack ads than adults. However, targeted ratios varied greatly by category. In the sweet snack, yogurt, and fruit categories, preschoolers and children saw almost as many or more ads than adults saw in 2014, but they viewed one-half as many ads or less compared with adults for all other snack food categories. From 2010 to 2014, there were some notable improvements in ads viewed by preschoolers and children compared with adults. Targeted ratios declined for sweet and savory snacks, but increased for yogurts. Therefore, relative to adults, children saw fewer sweet and savory snack ads in 2014 than in 2010 but more yogurt ads. Notably, preschoolers and children saw somewhat *more* fruit ads than adults saw in 2014, whereas in 2010 they had seen about 50% fewer fruit ads compared with adults.

Table 17. TV ads viewed by teens and adults by category in 2010 and 2014

	Teens (12-17 years)			Adults (18-49 years)			Teen:adult targeted ratio	
Category	2010	2014	Change	2010	2014	Change	2010	2014
Savory snacks	132.2	214.3	+62%	166.7	272.8	+64%	0.79	0.79
Sweet snacks	170.1	199.5	+17%	171.5	227.8	+33%	0.99	0.88
Yogurt	163.1	163.5	0%	214.1	199.1	-7%	0.76	0.82
Nuts	10.9	20.8	+92%	19.5	39.2	+101%	0.56	0.53
Fruit	4.1	15.1	+266%	5.4	28.5	+242%	0.77	0.82
Cheese	12.5	12.7	+3%	23.6	24.4	+3%	0.53	0.53
Multiple	0.0	8.7		0.0	11.8			0.74
Total ads viewed	492.9	634.2	+29%	600.8	792.9	+32%	0.82	0.80

Source: Rudd Center analysis of Nielsen data (2015)

Figure 12. Proportion of ads viewed in 2014 by company and age group



Source: Rudd Center analysis of Nielsen data (2015)

Table 17 presents TV ads viewed by teens (12-17 years) and adults in 2010 and 2014 by category. The number of yogurt ads viewed by teens did not change from 2010 to 2014, while yogurt ads viewed by adults declined by 7%. For teens and adults, savory and sweet snack and nut ads viewed increased at a greater rate than they did for children. Compared with 2010, teens viewed 17% more sweet snack ads and over 60% more ads for savory snacks in 2014. In 2014, savory snacks overtook sweet snacks and yogurt as the most advertised snack food category to teens. Teens also saw almost twice as many ads for nuts in 2014 than in 2010. Although the increase in fruit ads to teens and adults was lower than the increase for children, teens viewed almost four times as many of these ads in 2014 versus 2010.

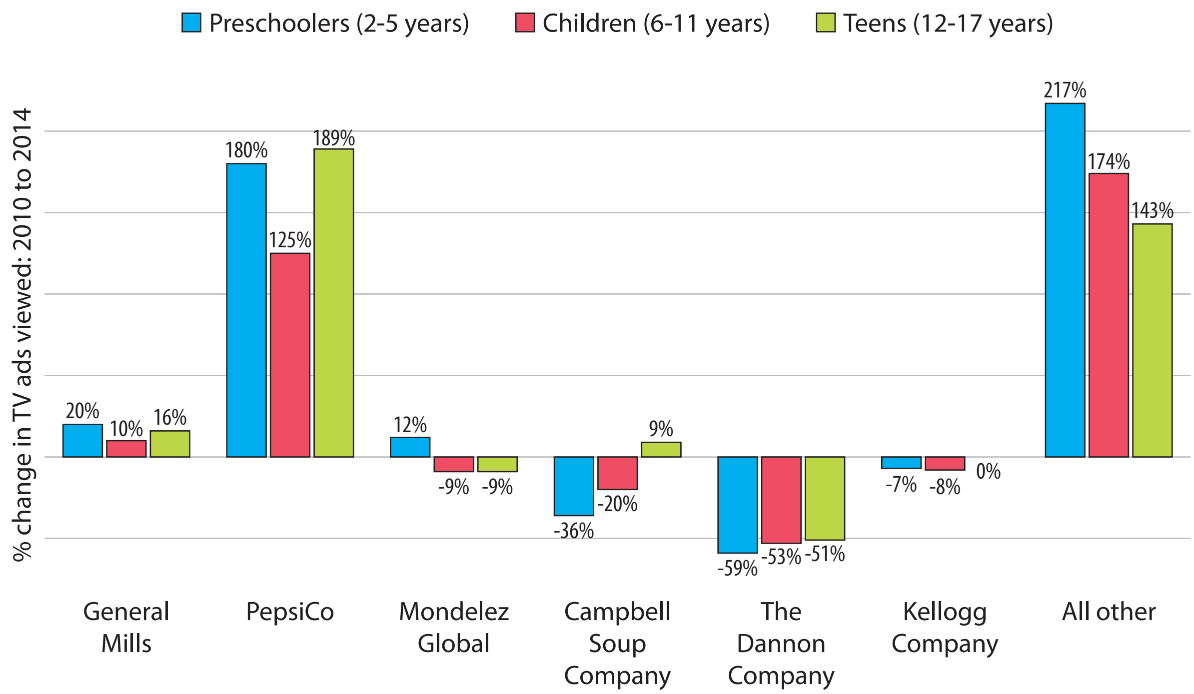
Overall, teens viewed 20% fewer snack food ads than adults viewed in 2014. However, teens watched 33% less traditional TV compared to adults in 2014,[5] therefore this difference in ads viewed is lower than would be expected given differences in their TV viewing rates. This difference in ads viewed by teens versus adults was higher than average for sweet snacks, yogurt, and fruit, but lower for nuts and cheese. From 2010 to 2014, teen to adult targeted ratios increased slightly for yogurt and fruit, and declined slightly for nuts and sweet snacks. Of note, targeted ratios for savory snacks did not change.

TV advertising by company

Ranking Tables 4 and **5** present snack ads viewed by company for preschoolers, children, teens, and adults. The distribution of snack ads viewed by company also varied by age group (see **Figure 12**). General Mills was responsible for more than one-half of snack food ads that preschoolers and children saw in 2014, totaling over 300 ads on average for both age groups. Notably, 50% of these ads promoted General Mills yogurts, while 46% promoted its sweet snacks. For teens and adults, TV ads from General Mills represented a smaller proportion of snack food ads viewed – approximately one-third of ads, totaling 236 ads viewed by teens. On the other hand, PepsiCo was responsible for 20% of TV ads viewed by teens, but approximately 10% of ads viewed by children and preschoolers. Mondelez Global ranked third in snack food ads viewed in 2014, although it contributed 10% or less of snack food ads viewed by all age groups. Of note, Campbell Soup Company and Dannon ads represented a somewhat higher percentage of ads viewed by preschoolers and children versus teens and adults, while Kellogg Company, the Wonderful Company, and all other companies combined contributed a higher percentage of ads viewed by teens and adults.

Changes in TV ads viewed from 2010 to 2014 also varied greatly by company (see **Figure 13**). Among the largest snack food companies, PepsiCo had the highest percent increases in ads viewed for all age groups. PepsiCo ads viewed by teens almost tripled from 2010 to 2014, equivalent to 83 additional ads viewed on average by youth in this age group. For children, PepsiCo ads more than doubled, resulting in 40 additional ads viewed. Although PepsiCo ads viewed by preschoolers also increased by 180%, the increase in actual

Figure 13. Percent change in ads viewed from 2010 to 2014 by company



Source: Rudd Center analysis of Nielsen data (2015)

ads viewed by preschoolers was slightly higher for General Mills. Preschoolers viewed 51 additional ads for General Mills and 44 additional PepsiCo ads in 2014 versus 2010. General Mills ads viewed by children (6-11 years) increased at a lower rate than the company's ads viewed by preschoolers. However, this increase was greater for General Mills yogurts (+15%) compared with General Mills sweet snacks (+5%). Mondelez ads increased for preschoolers, but declined for children and teens, whereas Campbell Soup Company ads viewed by teens increased, but declined for preschoolers and children. Of note, Dannon had the greatest reductions in ads viewed – declining by more than 50% for all age groups.

For all other companies combined, preschoolers and children viewed approximately three times as many ads in 2014 versus 2010, while teens viewed 2.4 times as many ads. Among these smaller companies, The Wonderful Company was responsible for the most ads viewed by all age groups in 2014 (17 ads for preschoolers and children and 21 ads for teens). TV advertising for this company also increased substantially from 2010 to 2014, ranging from 4.3 times more ads viewed by teens to 5.6 times more ads for preschoolers. Many of these smaller companies did not advertise on TV in 2010, including 11 of the 24 smaller companies analyzed. Among these new companies, Ferrero USA, Chobani, Materne, and FAGE were responsible for the most ads viewed by all age groups.

TV advertising to children by brand

Ranking Table 4 details TV ads viewed by preschoolers and children by snack food brand. Two General Mills brands – Betty Crocker Fruit Snacks and Yoplait GoGurt – were responsible for 29% of snack food ads viewed by preschoolers and children. These two brands each advertised 2.4 to 4 times as much to these age groups than any other snack brand. The three brands ranking third to fifth in TV ads viewed by preschoolers and children – Pepperidge Farm Goldfish (Campbell Soup Company), Yoplait (General Mills), and Nature Valley Snack Bar (General Mills) – were each responsible for 20 to 34 TV ads viewed in 2014. Rounding out the top-10 list of brands with the most TV advertising to children were Dannon Danimals, Yoplait Trix and Yoplait Greek yogurts; PopTarts (Kellogg); and Tostitos (PepsiCo).

Although children saw TV ads for 71 different snack food brands in 2014, just eight brands appeared to target children directly, as evidenced by higher numbers of ads viewed by children than by adults (see **Table 18**). Five of the 10 brands with the most advertising to children met this definition of child-targeted: Dannon Danimals, Betty Crocker Fruit Snacks, Yoplait Trix, Yoplait GoGurt, and Pepperidge Farm Goldfish. Children saw from three to seven times as many ads for these brands as compared to adults. Additional child-targeted brands included two sweet snacks (Pepperidge Farm Goldfish Grahams and Honey Maid) and one fruit (GoGo Squeez applesauce), but these brands ranked lower in number of ads viewed by children. Preschoolers and children also saw approximately the same number of TV ads for one other fruit brand (Wonderful Halos) compared with adults. Of note, all child-targeted brands were approved for advertising to children by the CFBAI, with the exception of the two fruit brands owned by companies not participating in the CFBAI.

GoGurt TV ad featuring characters from The Spongebob Movie

Pepperidge Farm Goldfish child-targeted TV ad

Dannon Danimals TV ad featuring Disney Channel stars Bella Thorne and Ross Lynch

GOGO Squeez applesauce child-targeted TV ad

Table 18. Brands targeted to children on TV

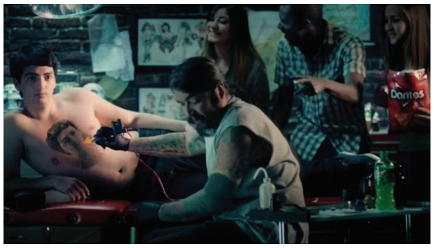
			Preschoolers (2-5 years)		Children (6-11 years)	
Company	**Brand**	**Category**	**Avg # ads viewed in 2014**	**Targeted ratio (vs. adults)**	**Avg # ads viewed in 2014**	**Targeted ratio (vs. adults)**
The Dannon Company	Dannon Danimals*	Yogurt	15.1	4.85	21.8	7.03
General Mills	Betty Crocker Fruit Snacks*	Sweet snack	91.7	5.93	97.1	6.28
General Mills	Yoplait Trix*	Yogurt	20.5	6.68	18.6	6.04
Campbell Soup Company	Pepperidge Farm Goldfish*	Savory snack	22.7	3.97	34.0	5.93
Campbell Soup Company	Pepperidge Farm Goldfish Grahams*	Sweet snack	3.4	4.42	4.6	5.93
General Mills	Yoplait GoGurt*	Yogurt	72.4	2.47	80.6	2.74
Mondelez Global	Honey Maid*	Sweet snack	11.9	1.75	16.0	2.35
Materne	GoGo Squeez Applesauce	Fruit	7.7	1.66	6.1	1.30
The Wonderful Company	Wonderful Halos	Fruit	8.7	8.7	.96	.96

*CFBAI company child-directed brands
Source: Rudd Center analysis of Nielsen data (2015)

Among the top-20 brands advertised to children on TV in 2014, there were some notable increases in advertising exposure from 2010 to 2014. Children's exposure to ads for Lay's Potato Chips (PepsiCo) increased by 5.5 times, while ads for Nature Valley Snack Bars (General Mills), PopTarts (Kellogg), Doritos and Tostitos (PepsiCo), and Wonderful Nuts increased by 2.6 times or more. In addition, three of the 20 snack food brands advertised most to children in 2014 had not advertised in 2010: Yoplait Greek (General Mills), Honey Maid (Mondelez Global), and Wonderful Halos. On the other hand, advertising for some brands that were heavily advertised in 2010 declined by 60% or more in 2014, including Dannon Danimals and Activia yogurts, Oreo Cookies and Ritz Crackers (Mondelez Global), and Pepperidge Farm Goldfish Grahams.

TV advertising to teens by brand

Ranking Table 5 details TV ads viewed by teens for the 72 snack food brands in our analysis. The amount of TV advertising to teens was less concentrated among just a few




Teen-targeted Doritos "For the Bold" ad

Chester Cheetah offers Cheetos Cheezy Salsa Mix-Ups to characters from The Book of Life

brands compared with advertising to children. On average, the 10 snack food brands advertised most to teens ranged from 22 to 45 ads viewed in 2014. As with children, Yoplait GoGurt and Betty Crocker Fruit Snacks ranked first and second in TV ads viewed by teens (although the order was reversed). However, three of the 10 brands advertised most to teens ranked further down for children, including Lay's Potato Chips (#6), Cheetos (#8) and Doritos (#10) from PepsiCo. In addition, PopTarts from Kellogg ranked fourth in ads viewed by teens compared with seventh for children.

We also identified snack food brands with teen to adult targeted ratios of 0.80 or more. As noted, because teens watched 33% less TV compared with adults in 2014,[6] this ratio indicates that teens saw relatively more of these ads than

Table 19. Brands targeted to teens on TV

			Teens (12-17 years)		
Company	**Brand**	**Category**	**Avg # ads viewed in 2014**	**Change vs. 2010**	**Targeted ratio (vs. adults)**
Child-targeted brands					
General Mills	Dannon Danimals	Yogurt	9.5	-55%	3.07
General Mills	Betty Crocker Fruit Snacks	Sweet snack	43.9	+17%	2.84
General Mills	Yoplait Trix	Yogurt	8.1	-46%	2.64
Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	18.6	+55%	3.25
Campbell Soup Company	Pepperidge Farm Goldfish Grahams	Sweet snack	2.1	-70%	2.67
General Mills	Yoplait GoGurt	Yogurt	44.5	+57%	1.51
Mondelez Global	Honey Maid	Sweet snack	9.9	new	1.46
Materne	GoGo Squeez Applesauce	Fruit	4.0	new	0.87
The Wonderful Company	Wonderful Halos	Fruit	6.9	new	0.76
Additional teen-targeted brands					
Kellogg Company	PopTarts	Sweet snacks	36.9	+208%	1.15
Dole Food Company	Dole Fruit Bowls	Fruit	3.9	new	0.99
PepsiCo	Doritos	Savory snack	21.9	+188%	0.96
PepsiCo	Tostitos	Savory snack	42.7	+193%	0.96
PepsiCo	Cheetos	Savory snack	26.1	+53%	0.90
Ferrero	Nutella & Go!	Sweet snack	8.7	new	0.87
Nature Delivered	Graze Boxes	Multiple	2.9	new	0.85
PepsiCo	Tostitos	Savory snack	32.2	+193%	0.82
PepsiCo	Lay's Potato Chips	Savory snack	29.5	+534%	0.81
Link Snacks	Jack Links	Savory snack	6.4	+156%	0.81
ConAgra Foods	Slim Jim	Savory snack	5.2	+305%	0.81
General Mills	Yoplait	Yogurt	26.7	-30%	0.80

Source: Rudd Center analysis of Nielsen data (2015)

Teen-targeted Slim Jim ad with social media network logos

would be expected given their TV viewing. Many of these teen-targeted brands also appeared on the list of child-targeted products, although teen-targeted ratios were lower than child-targeted ratios (see **Table 19**). However, 11 additional snack brands appeared to target teens but not children with their TV advertising. These brands included one fruit (Dole Fruit Bowls) and one yogurt brand (Yoplait). All other teen-targeted brands belonged to the savory and sweet snack categories. Of these brands, PopTarts had the highest teen-targeted ratio: teens saw 1.15 times as many of these ads compared with adults. Four PepsiCo savory snack brands also appeared on this list (Doritos, Cheetos, Tostitos, and Lay's Potato Chips), as well as two brands of beef jerky (Jack Links and Slim Jim). Nutella and Go! (a pre-packaged snack with breadsticks), and Graze boxes also appeared to target teens.

All of these additional teen-targeted brands substantially increased their advertising to teens from 2010 to 2014, with one exception (Yoplait Yogurt). Three products had not advertised on TV in 2010 (Dole Fruit Bowls, Nutella & Go! and Graze Boxes), while six products increased their advertising to teens by at least 2.5 times. Notably, PopTarts, Doritos, and Tostitos advertising tripled, Slim Jim advertising quadrupled, and Lay's Potato Chip ads viewed by teens increased six-fold.

Nutritional quality of top advertised brands

Table 20 presents TV advertising exposure and nutritional quality of brands that ranked in the top-10 snack food brands advertised to children and/or teens in 2014. As noted, six of the 10 snack food brands advertised most to children were approved for advertising to children by the CFBAI. The highly

Table 20. Nutritional quality of top-10 brands advertised to children and/or teens

			Avg # of TV ads viewed in 2014					
Company	**Brand**	**Category**	**Pre-schoolers (2-5 years)**	**Children (6-11 years)**	**Teens (12-17 years)**	**Median NPI score**	**Met Smart Snacks standards**	**CFBAI-approved**
Top-10 advertised brands: Children and teens								
General Mills	Betty Crocker Fruit Snacks	Sweet snack	91.7	97.1	43.9	42		√
General Mills	Yoplait GoGurt	Yogurt	72.4	80.6	44.5	64	√	√
Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	22.7	34.0	18.6	41	2/8 varieties	√
General Mills	Yoplait	Yogurt	26.1	29.7	26.7	66	√	√
General Mills	Nature Valley Snack Bar	Sweet snack	28.0	27.6	32.9	48	3/4 varieties	
The Dannon Company	Dannon Danimals	Yogurt	15.1	21.8	9.5	74	√	√
Kellogg	PopTarts	Sweet snack	15.1	21.4	36.9	36		
PepsiCo	Tostitos	Savory snack	16.4	17.2	42.7	50		
Top-10 advertised brands: Children only								
General Mills	Yoplait Trix	Yogurt	20.5	18.6	8.1	66	√	√
General Mills	Yoplait Greek	Yogurt	18.1	18.1	22.7	72	√	
Top-10 advertised brands: Teens only								
PepsiCo	Lay's Potato Chips	Savory snack	16.7	17.1	29.5	50		
PepsiCo	Cheetos	Savory snack	14.8	14.9	26.1	30		
PepsiCo	Doritos	Savory snack	9.4	10.4	21.9	40		

Source: Rudd Center analysis of Nielsen data (2015)

advertised yogurt brands met Smart Snacks standards and also had median NPI scores of 64 or above, therefore these brands also met nutrition standards for foods than can be advertised to children on TV in the United Kingdom. Three of the four varieties of Nature Valley Snack Bars also met Smart Snacks standards (although General Mills does not include this brand on its CFBAI list of products that may be advertised to children). Similarly, one variety of Pepperidge Farm Goldfish Crackers (Pizza-flavored) met Smart Snacks standards, yet this flavor was not included on the company's CFBAI-approved list (although less nutritious Pizza XPlosion Flavor Blasted Goldfish was indicated as approved for advertising to children). Of note, eight out of nine Pepperidge Farm Goldfish Graham sweet snack products were included on the company's CFBAI-approved products list and met Smart Snacks standards, but this brand received much less advertising support, ranking number 32 in advertising to children.

Notably, none of the top teen-targeted brands were approved for advertising to children by the CFBAI, nor did they meet Smart Snacks standards. Median NPI scores for the 10 sweet and savory snack brands advertised most to teens ranged from 30 (Cheetos) to 48 (Nature Valley Snack Bar), all well below the healthy NPI threshold of 64.

Summary of TV advertising to children and teens

Of the 90 brands with advertising in any media in 2014, 72 brands offered by 29 different companies advertised on TV. On average, preschoolers (2-5 years) viewed 1.6 of these ads every day, while children (6-11 years) and teens (12-17 years) viewed 1.7 ads daily. From 2010 to 2014, exposure to snack food advertising increased across all youth age groups, ranging from an increase of 10% for children to 29% for teens. In 2014, nine out of ten of these ads promoted sweet and savory snacks or yogurt. For preschoolers and children, sweet snacks and yogurt each contributed approximately one-third of ads viewed and savory snacks represented one-quarter. However, savory snacks were the most frequently advertised category to teens (35%), while yogurt contributed one quarter of ads viewed by teens.

For all age groups, fruit and nuts each contributed less than 3% of snack food ads viewed in 2014, although these numbers were substantially higher than in 2010. Notably, youth exposure to nut advertising almost doubled and exposure to fruit advertising increased 3.5 to almost 6-fold. On the other hand, exposure to savory snack advertising also increased for all youth, with preschoolers viewing 33% more of these ads in 2014 than 2010, children viewing 23% more, and teens viewing 60% more. While sweet snack advertising exposure for children did not change from 2010 to 2014, preschoolers and teens saw increases of 13% and 17%, respectively. In contrast, yogurt ad exposure remained flat.

General Mills was responsible for more than one-half of the snack food ads that preschoolers and children saw in 2014 and approximately one-third of the snack food ads viewed by teens. The company's Betty Crocker Fruit Snacks and Yoplait GoGurt dominated snack food ad exposure by youth, representing 29% of snack food ads viewed by children and 14% of ads viewed by teens in 2014. PepsiCo brands followed at 20% of ads viewed by teens and approximately 10% of ads viewed by preschoolers and children. From 2010 to 2014, PepsiCo advertising to teens almost tripled, while advertising to children more than doubled. This growth was largely due to increased advertising for four of its core brands (Doritos, Cheetos, Tostitos, and Lay's Potato Chips).

Six of the ten snack food brands advertised most to children in 2014 were CFBAI-approved for advertising to children – Pepperidge Farm Goldfish, Dannon Danimals, Yoplait, and Yoplait Trix, as well as the top two brands (Betty Crocker Fruit Snacks and Yoplait GoGurt). However, three brands ranked in the top-ten were offered by CFBAI companies but were not approved for advertising to children: Nature Valley Snack Bar (General Mills), PopTarts (Kellogg Company), and Tostitos (PepsiCo). Just two fruit and nut brands ranked in the top-20 brands advertised most to children: Wonderful Halos and Wonderful Nuts ranked 18th and 19th, averaging almost nine ads viewed by children in 2014. Tostitos, PopTarts, Nature Valley Snack Bar, and Yoplait also ranked in the top-10 snack food brands advertised to teens, as well as Yoplait Greek, Lay's Potato Chips, Cheetos, and Doritos. PopTarts, Doritos, Tostitos, and Cheetos also appeared to target teens directly, evidenced by high ratios of ads viewed by teens compared with adults. Notably, none of the top teen-targeted brands met Smart Snack standards for foods that can be sold to children or teens in schools. However, Dole Fruit Bowls also appeared to target its advertising to teens, but the brand ranked 42nd in number of ads viewed by this age group.

Digital media marketing

In this section, we examine two types of marketing used to promote snack foods on the internet: websites sponsored by snack food companies and display advertising on third-party websites.

Snack food company websites

Website exposure	Definitions
Average monthly unique visitors	Average number of different individuals visiting the website each month. Data are reported for the following age groups: youth (2-17 years), children (2-12 years) and teens (13-17 years).
Average visits per month	Average number of times each unique visitor visits the website each month.
Average pages per visit	Average number of pages viewed during each visit by each visitor to the website.
Average minutes per visit	Average number of minutes each visitor spends on the website each time he or she visits.
Targeted index by age	The percent of visitors to the website that are children or teens divided by the percent of child or teen visitors to the internet in total. A targeted index greater than 100 indicates that children or teens are more likely to visit the website compared to other websites.

In 2014, 14 of the companies in our analysis sponsored 30 different websites with enough youth visitors (ages 2-17) to obtain exposure data from comScore (see **Ranking Table 6**). Three companies were responsible for 50% of these websites: Kellogg Company (7 websites), PepsiCo (5 websites), and General Mills (3 websites). Mondelez Global, Campbell Soup Company, J.M. Smucker Company, and The Dannon Company sponsored two websites each, while the remaining seven companies had just one website on the list.

One-half of the websites analyzed (*n*=15) promoted products offered by the companies across multiple categories. All featured snack food marketing, but some also featured products that did not qualify as snack foods. For example, Kellogg's Family Rewards website promoted the company's program to collect points and earn rewards for purchases of all Kellogg Company products. Other multiple-category sites, such as NabiscoWorld.com from Mondelez, promoted both savory and sweet snacks. Websites promoting savory snacks represented another quarter (*n*=8) of the websites in our analysis. In addition, four yogurt websites and three sweet snack websites were analyzed.

The number of youth visitors to these websites varied substantially. Ten sites averaged fewer than 1,000 youth visitors per month, and another ten averaged less than 4,000 monthly youth visitors. The remaining sites averaged 6,000 or more young people visiting monthly. The most-visited website, Campbell Soup Company's GoldfishFun.com averaged 53,100 child visitors and 10,500 teen visitors per month. Among the remaining top-five websites, Kellogg Company's two multi-category websites (KelloggFamilyRewards.com and SpecialK.com) averaged 22,200 teen visitors per month, while PepsiCo's two websites promoting Frito Lay Snacks (DoUsAFlavor.com and FritoLay.com) averaged 20,300 teen visitors per month.

Overall, frequency of visits and amount of time that young people spent visiting snack food websites were low. The sites visited most frequently were Motts.com (averaging 2.1 visits per visitor per month) and GoldfishFun.com (average 1.6 visits per month). Young people spent the most time visiting KelloggsFamilyRewards.com (4.5 min per visit), DoUsAFlavor.com (4.0 min per visit), and Doritos.com (3.6 min per visit). Children and teens also visited the most pages on KelloggsFamilyRewards.com at 13.1 pages per visit, followed by Doritos.com at 7.2 pages.

Child- and teen-targeted websites

Compared with older internet visitors, relatively few children visited the websites in our analysis, with two exceptions. Children were 6.4 times as likely to visit Danimals.com and 3.9 times more likely to visit GoldfishFun.com than were other visitors to the internet (see **Table 21**). Both sites featured brands with products approved for advertising to children by the CFBAI. The yogurt website Danimals.com featured a product list and a "Nutrition for Kids" section where visitors could learn more about the nutritional benefits of yogurt. GoldfishFun.com included a "fun zone" section with links to videos, characters, and games for kids.

In contrast, teens made up a relatively high proportion of visitors to seven of the 30 websites in our analysis (see **Table 22**). Teens were almost three times as likely to visit PopTarts.com and over twice as likely to visit Chobani.com compared with all visitors to the internet. Teens also were slightly more likely to visit PepsiCo's

Table 21. Websites with the highest compositions of child visitors

Rank	Company	Website	Average monthly unique visitors (000): Children (2-12 years)	Child targeted index
1	The Dannon Company	Danimals.com	3.1	641
2	Campbell Soup Company	GoldfishFun.com	53.1	387

Source: comScore Media Metrix Key Measures Report (2-12 years for January-December 2014)

GoldfishFun.com and Danimals.com child-targeted websites

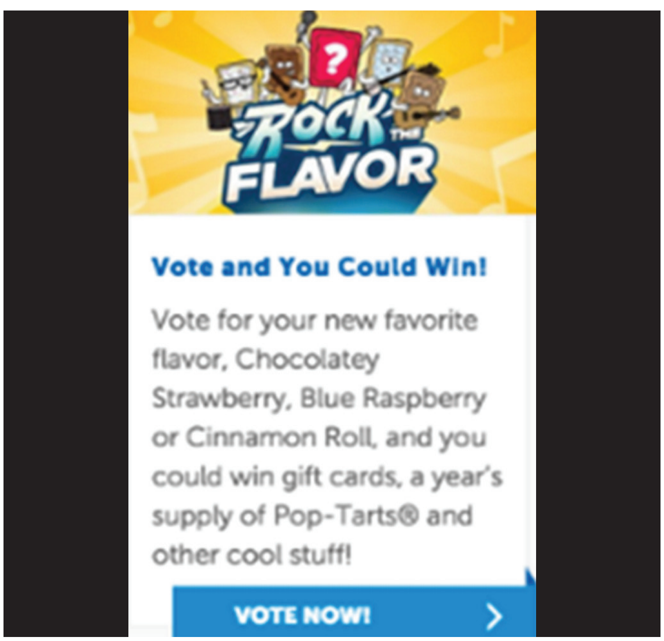
Table 22. Websites with relatively high compositions of teen visitors (13-17 years)

Rank	Company	Website	Average monthly unique visitors (000): Teen (13-17 years)	Teen targeted index
1	Kellogg Company	PopTarts.com	2.8	272
2	Chobani	Chobani.com	1.7	220
3	The Dannon Company	Danimals.com	0.5	150
4	Campbell Soup Company	GoldfishFun.com	10.5	111
5	PepsiCo	DoUsAFlavor.com	26.3	105
6	Mondelez Global	NabiscoWorld.com	8.0	94
7	PepsiCo	FritoLay.com	14.3	92

Source: comScore Media Metrix Key Measures Report (13-17 years for December-January 2014)

DoUsAFlavor.com compared with all internet visitors in our analysis, averaging 26,300 teen visitors per month. Although average teen visitors per month were low, two yogurt sites ranked among the top-five websites with the highest compositions of teen visitors: Chobani.com and Danimals.com.

The content of some of these sites had clear youth appeal. PopTarts.com featured links to social media, promoted musical artists such as Jessie J, Rixton, and Jhené Aiko, featured a "vote for flavor" promotion, and used teen language such as "cool stuff" and "awesome." DoUsAFlavor.com featured a crowd sourcing promotion to engage teens in selecting new flavors of Lay's Potato Chips via social media links.



Crowdsourcing promotion on PopTarts.com

NabiscoWorld.com included youthful promotions, such as submitting favorite race day snack recipes for the opportunity to win VIP access to the NASCAR Championship.

Youth-oriented promotions on DoUsAFlavor.com and NabiscoWorld.com

Display advertising on third-party websites

Display advertising exposure	Definitions
Third-party websites	Websites from other companies where snack food brands place their advertising.
Display advertising	Banner ads that appear on third-party websites as rich media (SWF) files and traditional image-based ads (JPEG and GIF files). They are usually placed in a sidebar or "banner" at the top of a web page. On Facebook, these ads appear on the side of the screen, next to the newsfeed. Text, video, and html-based ads are not included.
Children's websites	Third-party websites defined by comScore as "Family and Youth" sites for kids, as well as sites where over 11.2% of visitors are children (2-12 years) (i.e., the percent of child visitors to the internet overall).
Youth websites	Third-party websites defined by comScore as "Family & Youth" sites for teens, as well as sites where over 18.9% of visitors are youth (2-17 years) (i.e., the percent of youth visitors to the internet overall).
Ads viewed per viewer per month	Average number of display advertisements viewed per unique viewer each month.
Total number of ad views on children's and youth websites, Facebook, and YouTube	Total number of display advertisements viewed on each type of website per year.
Average monthly ad views on children's and youth websites, Facebook, and YouTube	Average number of display advertisements viewed on each type of website per month.

We also obtained data from comScore to measure display ads placed on third-party websites by the companies in our analysis in 2014. **Ranking Table 7** presents average number of display ads placed monthly by brand on youth websites, Facebook, and YouTube, noting the category of snack food displayed in the ads. In total, 12.7 million snack food ads appeared on youth websites per month in 2014. However, just 4% of all snack food ads were placed on these youth sites. Facebook and YouTube accounted for an additional 163 million display ads for snack food brands in 2014, or 35% of snack food ads viewed.

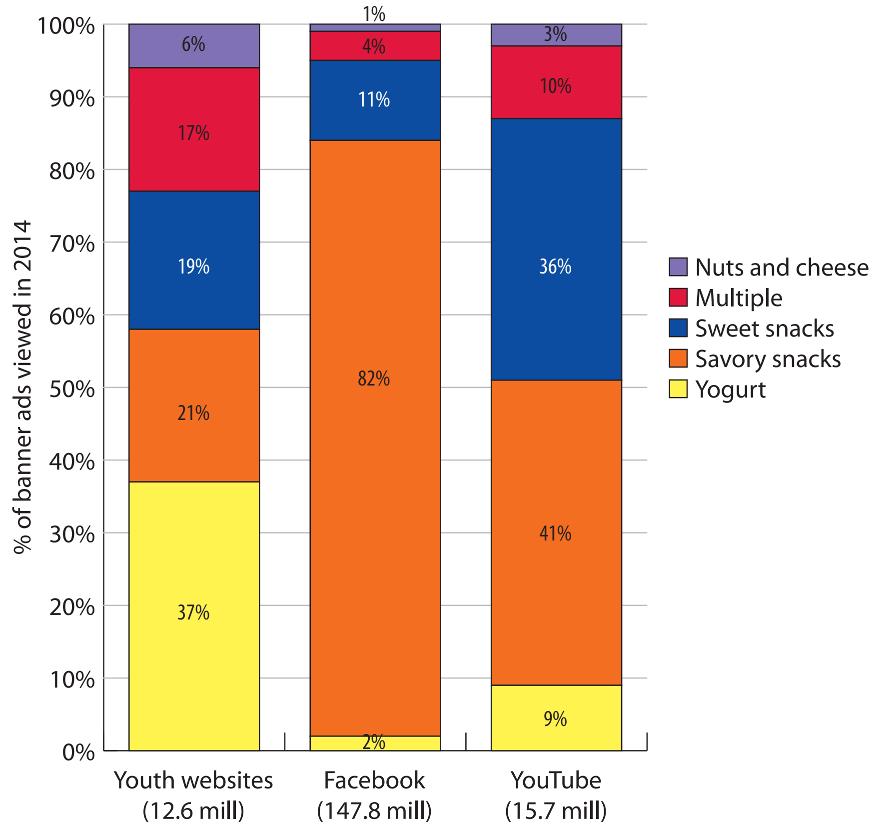
Figure 14 presents the proportion of display ads by snack food category appearing on youth websites, Facebook, and YouTube. On youth websites, yogurt ads made up over one-third of snack food ads viewed, while savory and sweet snacks made up another 21% and 19%, respectively. Approximately 17% of display ads on youth websites promoted more than one snack food: a majority of these ads were for the Mott's brand (1.9 million ads per month), which featured different Mott's products, including its squeezable and snack-size cups of applesauce. In contrast, 82% of snack food ads appearing on Facebook featured savory snacks, followed by sweet snacks at 11%. Three-quarters of ads on YouTube also featured sweet and savory snacks, with savory snack ads slightly outnumbering ads for sweet snacks. Of note, yogurt ads represented just 9% of snack ads on YouTube and less than 2% of snack ads on Facebook.

In comparing companies, General Mills advertising on youth websites in 2014 far outnumbered snack food ads from other companies (see **Figure 15**). The company advertised two yogurt brands and three sweet and savory snacks, totaling over 6.6 million ad views per month and representing more than one-half of all snack ads on youth websites. Both PepsiCo and Dr Pepper Snapple Group placed approximately 1.9 million ads on third-party youth sites, each accounting for 15% of snack ads appearing on these sites. PepsiCo advertised four savory snack brands, while Dr Pepper Snapple promoted just one brand (Mott's). Kraft Foods placed a relatively high number of display ads per month on youth websites (642,900) promoting just one brand (Planters nuts). Mars, Nature Delivered, The Dannon Company, Chobani, McKee Foods, and Kozy Shack Enterprises each placed over 100,000 monthly display ads on third-party youth websites in 2014.

Companies placing ads on social media sites differed from those placing ads on youth websites. PepsiCo was responsible for 80% of all snack food ads viewed on Facebook in 2014, followed by General Mills at 12%. On YouTube, PepsiCo and Kellogg each placed approximately one-quarter of the snack food ads viewed, followed by General Mills at 18%.

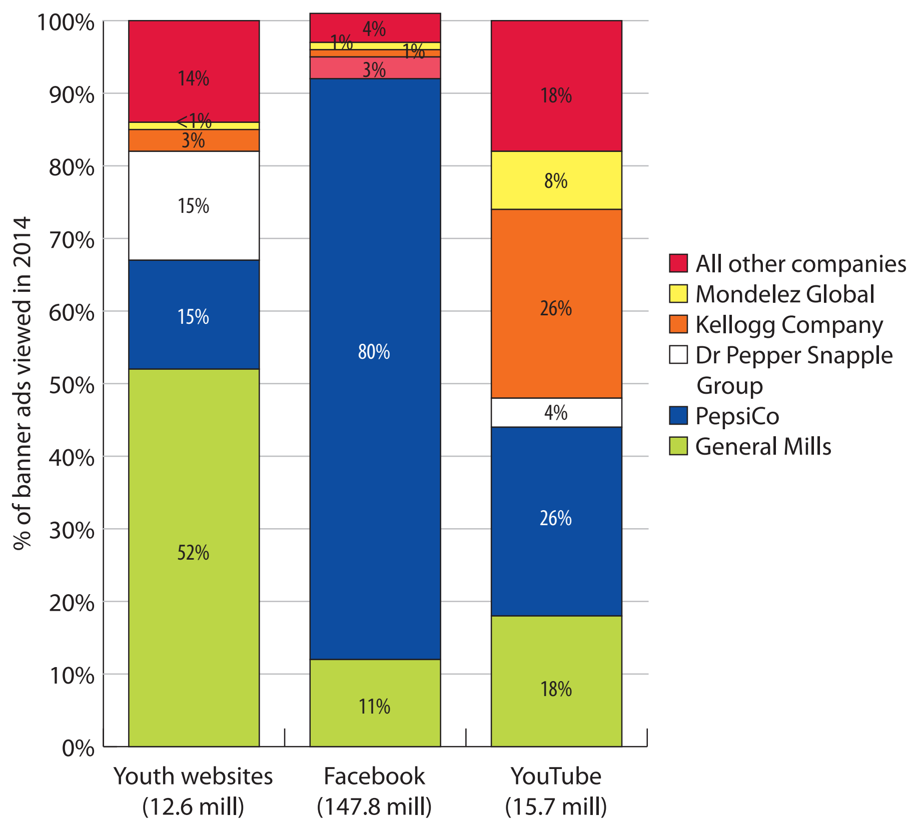
Among brands advertising on third-party youth websites in 2014, Yoplait, Mott's, and Fiber One placed the most ads, averaging 4.2 million, 1.9 million, and 1.3 million ad views per month, respectively. Lay's Potato Chips, Nature Valley, Planters, and Doritos, each placed more than 500,000 ads

Figure 14. Proportion of monthly display ads on youth websites, Facebook, and YouTube by category



Source: comScore Admetrix Advertiser report (January - December 2014)

Figure 15. Proportion of monthly display ads on youth websites, Facebook, and YouTube by company



Source: comScore Admetrix Advertiser report (January - December 2014)

Table 23. Children's websites with the most snack food display ads

Website	Snack ads viewed in 2014 (000)	Proportion of child (2-12 years) visitors	Proportion of youth (2-17 years) visitors
Nickelodeon Kids And Family	18,912.6	34.3%	45.6%
WeeWorld	11,832.3	12.0%	34.4%
Roblox.com	10,766.3	11.6%	30.0%
Disney Online	6,523.0	25.0%	32.8%
Cartoon Network Online	5,756.1	54.6%	64.9%
HoodAMath.com	4,209.0	36.1%	46.1%
IMVU	3,670.3	11.4%	33.2%
CoolMath-Games.com	3,647.0	46.9%	57.1%
MathPlayGround.com	3,029.4	11.5%	19.6%
WoozWorld.com	2,501.0	45.3%	62.2%
PrimaryGames.com	2,319.5	17.0%	28.5%
Spil Games	1,522.3	35.5%	48.7%
Coolmath.com	1,321.7	11.3%	13.6%

Source: Source: comScore AdMetrix & Media Metrix Key Measures for youth & children exposure to websites (January –December 2014).

on youth websites per month. GoGurt placed one-half of its display ads on youth websites in 2014 – by far the highest proportion in our analysis – followed by Yoplait (11%), Mott's (8%), Planters (7%), and Graze snack boxes (6%).

Display advertising on children's and other youth websites

We also identified the children's websites and other youth websites where snack food display ads commonly appeared. **Table 23** presents the children's websites with the most snack food advertising in 2014. Children between the ages of 2 and 12 made up approximately 11% of the total internet audience, compared with on average 27% of the total audience for these websites during the quarters examined. In total, 96 million snack food ads were placed on children's websites in 2014, representing just 2% of the display ads for the brands in our analysis. However, more snack food ads were placed on children's websites compared to other youth websites; snack food ads viewed on other youth websites in 2014 totaled 56 million. Furthermore, these ads were highly concentrated on just a few sites. Just 13 sites were responsible for 80% of snack food ads placed on children's websites; 20% of snack food ads placed on children's websites appeared on Nickelodeon kids and family sites. Four additional sites (WeeWorld, Roblox.com, Disney Online, and Cartoon Network Online) were responsible for more than one-third of snack ads on children's sites.

Table 24 presents the snack food brands that were advertised most on children's websites in 2014. Yoplait averaged over 3.1 million ads on children's sites monthly in 2014 - more than any other snack food, representing 8% of Yoplait's banner ads. These ads typically promoted Yoplait Greek 100 yogurt. Dr Pepper Snapple Group also averaged 1.7 million ads per month on children's websites for its Mott's brand applesauce products, approximately 7% of the brand's banner ads. Other brands averaging 100,000 or more ads per month on children's websites in 2014 included General Mills' Fiber One, Nature Valley, and Chex Mix; PepsiCo's Doritos and Lay's Potato Chips; Planters Nuts from Kraft Foods; and Keebler snacks from Kellogg. Of note, GoGurt was the only CFBAI-approved snack food brand with over 100,000 ads viewed on children's websites in 2014. Although the number of GoGurt

Table 24. Brands with the most display ads on children's websites in 2014

		Children's websites		Other youth websites	
Company	Brand	Average monthly ads viewed (000)	% of total	Average monthly ads viewed (000)	% of total
General Mills	Yoplait	3,137.5	8.2%	1,042.7	2.7%
Dr Pepper Snapple Group	Mott's	1,660.6	7.2%	276.3	1.2%
General Mills	Fiber One	833.9	2.5%	442.7	1.3%
Kraft Foods	Planters	370.8	3.9%	272.1	2.9%
General Mills	Nature Valley	249.7	0.9%	476.1	1.7%
PepsiCo	Doritos	228.4	0.3%	371.0	0.5%
General Mills	Chex Mix	228.0	3.3%	20.6	0.3%
PepsiCo	Lay's Potato Chips	215.8	0.3%	570.8	0.8%
Kellogg	Keebler	118.9	0.4%	41.9	0.1%
General Mills	GoGurt	108.7	26.6%	94.7	23.2%

Source: comScore AdMetrix & Media Metrix Key Measures report (January - December 2014).

Mott's Applesauce ad on children's websites

Yoplait ad on children and youth websites

ads on children's websites was relatively low, the brand placed more than one-quarter of its ads on children's and other youth websites.

Display advertising on Facebook, YouTube, and other youth websites

Display advertising for snack foods appearing on Facebook and YouTube far outnumbered display ads placed on any other single youth website with almost 2 billion ads in 2014, or 163 million ads monthly (see **Table 25**). Although Facebook and YouTube did not meet our criteria for youth websites according to the proportion of youth visitors, they were very popular with young visitors. Facebook averaged over 11 million monthly visitors ages 2-17, approximately 8% of its audience, in 2014.

Table 25. Third-party social media and youth websites (excluding children's sites) with the most snack food display ads in 2014

Website	Snack ads viewed in 2014 (000)	Proportion of youth (2-17) visitors
Facebook.com	1,771,959.9	8.3%
YouTube.com	180,572.5	13.1%
WikiDot.com	15,069.3	19.9%
BurstMedia.com	8,593.6	12.4%
DailyMotion Gaming	6,945.7	17.8%
Nickelodeon Kids & Teens	6,116.0	52.4%
WattPad.com	5,360.1	30.6%
MediaFire.com	1,894.9	20.8%
NarutoBase.net	1,246.1	22.3%
HotMath.com	1,203.8	20.9%

Source: comScore AdMetrix & Media Metrix Key Measures for youth & children exposure to websites (January –December 2014).

The number of monthly average youth visitors to YouTube was even greater, reaching 15 million, approximately 13% of its audience in 2014. An additional 56 million snack ads were placed on youth websites that did not qualify as children's sites, and 45 million of these ads appeared on the other youth websites listed on **Table 25**.

A small number of brands were responsible for the majority of snack food ads placed on Facebook and YouTube in 2014 (see **Table 26**). Three PepsiCo products (Doritos, Lay's Potato Chips, and Cheetos) each placed over 50% of their internet ads on Facebook, totaling more than 50 million ads per month for Lay's and Doritos, and over 12 million ads per month for Cheetos. In addition, almost one-third of display ads for Fiber One appeared on Facebook, while just 4% of its ads appeared on youth websites. Two Kellogg Company brands, Pringles and PopTarts, were unique in placing more ads on YouTube than on Facebook.

Youth-oriented ads for PepsiCo products

Table 26. Brands with the most display ads on Facebook and YouTube in 2014

		Facebook		YouTube	
Company	Brand	Average monthly ads viewed (000)	% of total	Average monthly ads viewed (000)	% of total
PepsiCo	Doritos	53,096.7	72.8%	155.4	0.2%
PepsiCo	Lay's Potato Chips	51,205.0	70.6%	2,561.0	3.5%
PepsiCo	Cheetos	12,651.3	59.0%	1,111.2	5.2%
General Mills	Fiber One	10,533.1	31.9%	816.4	2.5%
Dr Pepper Snapple Group	Mott's	4,518.2	19.7%	599.7	2.6%
General Mills	Nature Valley	4,502.9	16.0%	916.1	3.3%
General Mills	Yoplait	1,734.0	4.5%	847.4	2.2%
Kellogg	PopTarts	210.6	2.8%	2,078.4	27.5%
Kellogg	Pringles	757.0	2.1%	1,044.1	2.9%
Link Snacks	Jack Links	1,674.1	24.8%	67.7	1.0%
Blue Diamond Growers	Blue Diamond Almonds	1,452.3	21.8%	68.4	1.0%

Source: comScore AdMetrix & Media Metrix Key Measures report (January - December 2014).

Summary of digital media marketing

Snack food marketing on the internet was much less prevalent compared with TV advertising. Just 30 snack food websites had enough data on youth visitors in 2014 to analyze, and one-half of these sites promoted products in multiple categories, including products that did not qualify as snack foods. For example, KelloggsFamilyRewards.com – promoting the company's reward program for all its products – was the snack food site visited most often by teens (30,000 per month). Among all youth, Campbell Soup Company's GoldfishFun.com had the most visitors, averaging 53,000 children and 10,500 teens each month. Of note, this site was the only snack food website with more than 4,000 child visitors per month. Kellogg's SpecialK.com and PepsiCo's DoUsAFlavor.com (a site for selecting new flavors of Lay's Potato Chips) and FritoLay.com also ranked among the top-five sites visited by youth (averaging 16,000 to 27,000 children and teens per month).

The two child-targeted websites identified in this analysis (Danimals.com and GoldfishFun.com) both featured CFBAI-approved products only. Compared with adults, children were six and four times as likely to visit these sites. Teens were more likely than adults to visit three additional snack food websites: PopTarts.com, Chobani.com, and DoUsAFlavor.com. PopTarts.com featured the most clearly youth-targeted content, such as promotions with musical artists Jessie J, Rixton, and Jhené Aiko and a Rock the Flavor promotion to "vote for your new favorite flavor" and win "cool stuff."

In 2014, 12.7 million display ads promoting snack foods also appeared monthly on third-party (i.e., not food company) youth websites visited relatively more often by youth under 18, although these represented just 4% of all snack food display ads. However, an additional 163 million display ads per month were placed on Facebook and YouTube, accounting for 35% of all snack food ads viewed online. Positively, 37% of snack food ads placed on youth websites promoted yogurt, compared with approximately 20% each for sweet and savory snacks. General Mills placed more than one-half of all ads appearing on these sites, primarily for Yoplait yogurt. Mott's applesauce (Dr Pepper Snapple Group) ranked second in advertising on youth websites. Children's websites with the most advertising included Nickelodeon sites, WeeWorld.com, and Roblox.com, which averaged 10 to 19 million snack ads viewed monthly. Advertising for several snack food brands that were not approved for advertising to children by CFBAI companies also appeared on children's websites in 2014, including Fiber One, Nature Valley, and Chex Mix from General Mills; Planters from Kraft Foods; Doritos and Lay's Potato Chips from PepsiCo; and Keebler from Kellogg.

In contrast, ads for yogurt, fruit, and nuts rarely appeared on Facebook or YouTube. Instead, 80% of snack food ads on Facebook promoted PepsiCo's savory snacks, while three-quarters of ads on YouTube promoted various savory and sweet snack brands. Doritos and Lay's Potato Chips each accounted for more than 50 million ads viewed on Facebook per month, followed by Cheetos and Fiber One snack bars with more than 10 million ad views monthly. On YouTube, Lay's Potato Chips placed the most ads followed by PopTarts, each averaging more than 2 million ads viewed per month. Pringles and Cheetos also averaging more than 1 million ads viewed per month on YouTube.

Marketing to Hispanic and black youth

This section documents Hispanic and black youth exposure to snack food advertising. We first examine Hispanic-targeted advertising on Spanish-language TV and then analyze exposure to TV advertising for black children and teens compared with exposure for their white peers. We also examine website exposure for Hispanic and black youth compared with all youth.

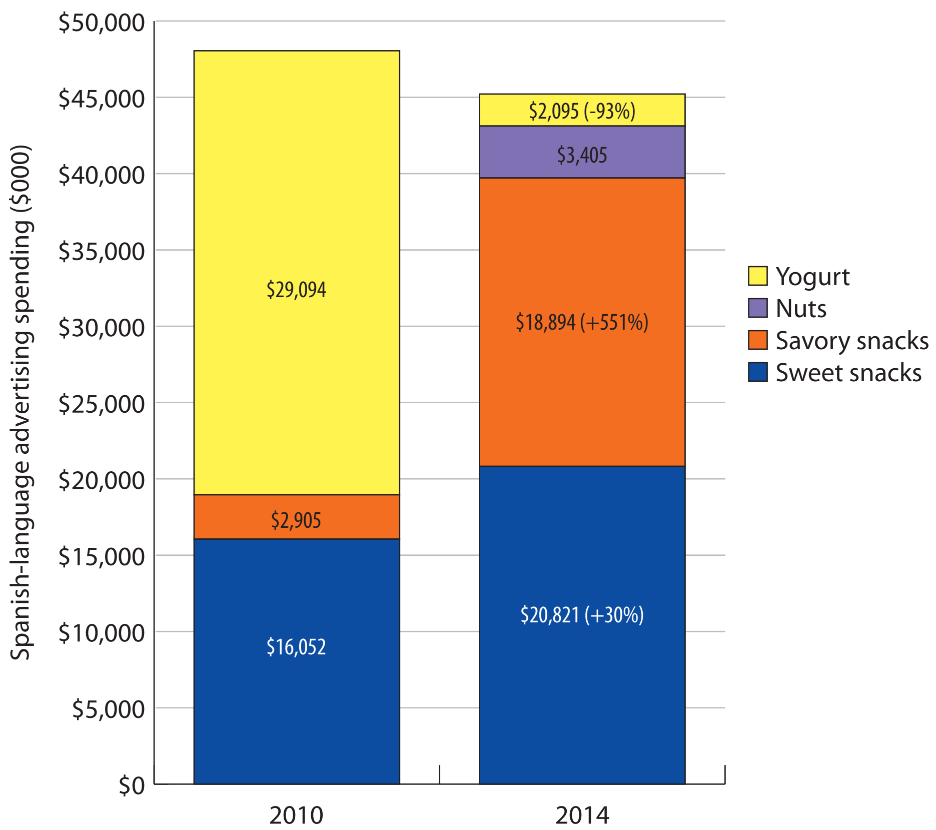
Advertising on Spanish-language TV

TV advertising to Hispanic youth	Definition
Spanish-language TV	TV programming presented on Spanish cable and broadcast networks (e.g., Univision, Telemundo). GRPs for Spanish-language TV advertising are calculated based on the number of persons living in Hispanic households as projected by Nielsen.

More than $45 million was spent to advertise snack foods on Spanish-language TV in 2014, down 6% from $48 million spent in 2010. In 2014, sweet snacks was the highest spending category on Spanish-language TV, followed by savory snacks (see **Figure 16**). These two categories contributed 88% of Spanish-language snack food advertising spending. Nuts ranked a distant third with 8% of spending, while yogurt represented just 5% of Spanish-language advertising. Brands in the other snack food categories, including fruit and cheese, did not advertise on Spanish-language TV in 2014.

From 2010 to 2014, there were major shifts in the categories of snack foods advertised. For example, yogurt contributed 60% of snack food advertising on Spanish-language TV in 2010, but declined 93% by 2014. Conversely, savory snacks represented just 7% of ad spending on Spanish-language TV in 2010, but rose a dramatic 551% to over 40% of Spanish-language advertising by 2014. Sweet snacks, which had represented one-third of Spanish-language ad spending in 2010, also increased by 30% to become the most advertised snack food category in 2014.

Figure 16. Advertising spending on Spanish-language TV by category in 2010 and 2014



Source: Rudd Center analysis of Nielsen data (2015)

Spanish-language advertising spending by company

In 2014, only five companies advertised snack foods on Spanish-language TV (see **Ranking Table 8**). As with total ad spending, General Mills was the number-one advertiser on Spanish-language TV. The company's spending was consistent with 2010 levels, declining by just 2% (see **Figure 17**). Kellogg Company, PepsiCo, Kraft Foods, and Mondelez Global also advertised on Spanish-language TV in 2014. Kellogg overtook PepsiCo as the second-highest advertiser on Spanish-language TV with a 253% increase in spending from 2010 to 2014, compared to PepsiCo's more modest increase of 15%. Kraft Foods doubled its Spanish-language advertising from 2010 to 2014, while Mondelez spending declined by approximately one-half. Notably, Dannon spent $11.8 million in Spanish-language advertising in 2010 (exceeded only by General Mills), but the company did not advertise on Spanish-language TV in 2014.

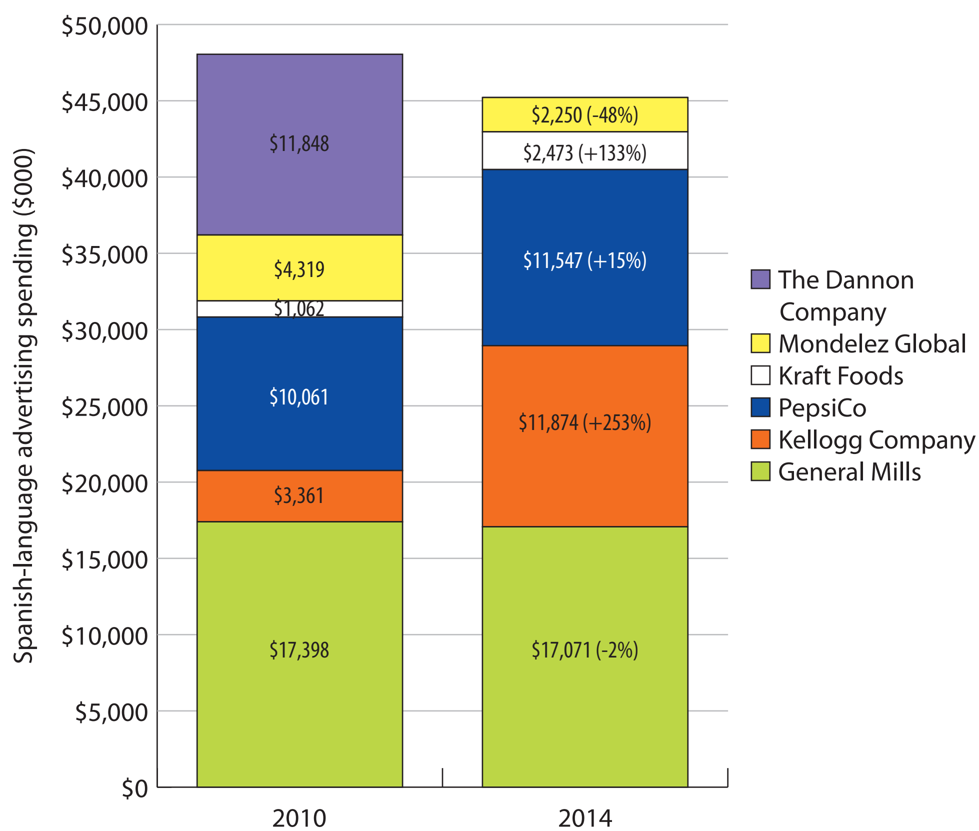
Spanish-language advertising spending by brand

Ranking Table 8 details Spanish-language advertising spending by brand in 2010 and 2014. Just 13 snack food brands advertised on Spanish-language TV in 2014. Two brands each spent more than $8 million and together contributed over one-third of Spanish-language advertising: Cheetos (PepsiCo) and Nature Valley Snack Bar (General Mills). Three Kellogg and one Kraft Foods brand spent between $3 and $5 million and were responsible for another third of spending: PopTarts, Sunshine Cheez-It, and Pringles (Kellogg) and Planters Nuts (Kraft Foods). Yoplait (General Mills) was the only yogurt brand that advertised on Spanish-language TV in 2014, ranking ninth with just over $2 million in ad spending.

From 2010 to 2014, there were major shifts in the brands advertised on Spanish-language TV. Just four of the 13 brands advertised in 2014 had also advertised in 2010: Nature Valley Snack Bar increased its spending by 79% while Fiber One Snack Bar, Yoplait, and Oreo Cookies all reduced spending considerably (ranging from -24% for Fiber One Snack Bar to -78% for Yoplait). In contrast, brands that advertised in 2014 but not in 2010 included three savory snacks (Cheetos, Pringles, and Lay's Potato Chips), four sweet snacks (PopTarts, Fiber One Brownies, Honey Maid Teddy Grahams, and Quaker Snack Bar), and Planters Nuts.

In addition, nine brands spent $100,000 or more in 2010 but did not advertise at all in 2014 (see **Table 27**), including two savory snacks (Doritos and Ritz Crackers), three sweet snacks (Betty Crocker Fruit Snacks, Chips Ahoy, and Jell-O Pudding Cups), and four yogurt brands (Dannon Dan-O-Nino, Dannon Activia, Yoplait GoGurt, and Yoplait Light). Of note, three of these yogurt brands had spent more than $5 million in Spanish-language advertising in 2010.

Figure 17. Advertising spending on Spanish-language TV by company in 2010 and 2014



Source: Rudd Center analysis of Nielsen data (2015)

Cheetos ad featuring Chester Cheetah, broadcast in English and Spanish

Table 27. Brands that advertised on Spanish-language TV in 2010 but not 2014

				Average # of ads viewed in 2010		
Company	**Brand**	**Category**	**2010 Spanish-language TV spending ($000)**	**Hispanic preschoolers (2-5 years)**	**Hispanic children (6-11 years)**	**Hispanic teens (12-17 years)**
The Dannon Company	Dan-O-Nino	Yogurt	$6,421	12.5	6.7	7.6
The Dannon Company	Dannon Activia	Yogurt	$5,427	9.9	6.1	6.4
General Mills	Yoplait Light	Yogurt	$5,026	7.4	5.2	5.3
Mondelez Global	Ritz Cracker	Savory snack	$2,575	6.4	3.9	5.0
General Mills	Yoplait GoGurt	Yogurt	$2,481	6.6	4.0	4.4
Mondelez Global	Chips Ahoy	Sweet snack	$1,740	3.9	2.4	2.8
Kraft Foods	Jell-O Pudding Cups	Sweet snack	$1,062	2.8	1.8	2.2
PepsiCo	Doritos	Savory snack	$324	0.3	0.2	0.5
General Mills	Betty Crocker Fruit Snacks	Sweet snack	$136	0.3	0.1	0.1

Source: Rudd Center analysis of Nielsen data (2015)

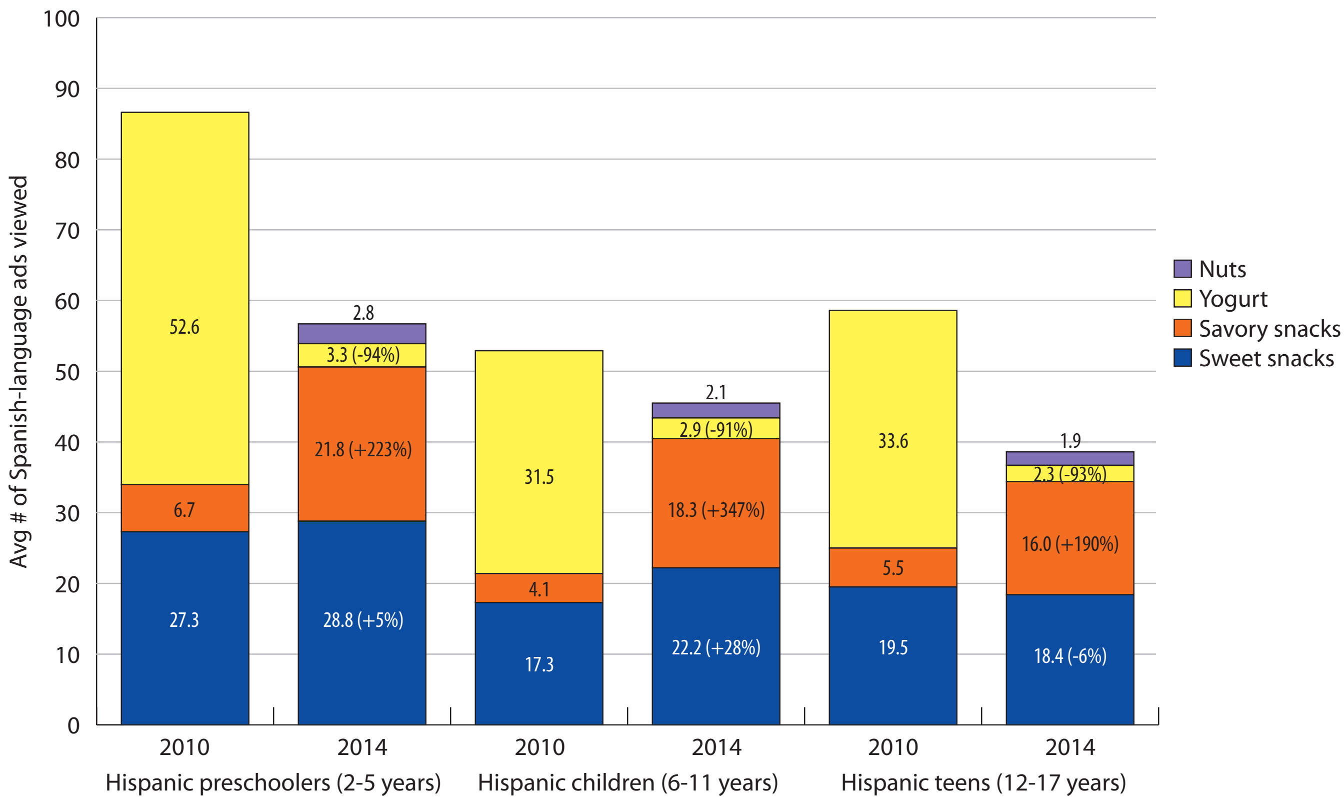
Hispanic youth exposure to Spanish-language TV advertising

In 2014, Hispanic preschoolers viewed on average 86.6 snack food ads on Spanish-language TV, Hispanic children viewed 52.8 ads, and Hispanic teens viewed 58.7 ads. From 2010 to 2014, Spanish-language TV ads viewed by preschoolers and teens declined by approximately one-third, while ads viewed by Hispanic children declined somewhat less (-14%). Of note, these reductions in ads viewed were greater than the 6% reduction in Spanish-language advertising spending on snack foods.

However, declines in Spanish-language ads viewed by Hispanic youth were almost entirely due to reductions in yogurt advertising (see **Figure 18**). In contrast, from 2010 to 2014 Hispanic preschoolers viewed 5% more ads for sweet

PopTarts Crazy Good Summer ad broadcast in English and Spanish

Figure 18. Snack food ads viewed by Hispanic youth on Spanish-language TV in 2010 and 2014 by category



Source: Rudd Center analysis of Nielsen data (2015)

snacks, and their exposure to savory snack ads more than tripled. Hispanic children (6-11 years) experienced the biggest increases in sweet and savory snack ads viewed of 28% and 347%, respectively. For Hispanic teens, sweet snack ads declined slightly (-6%), while savory snack ads viewed almost tripled.

Ranking Table 8 also presents Spanish-language ads viewed by brand in 2010 and 2014. Cheetos and Nature Valley Snack Bar were responsible for approximately 40% of Spanish-language ads viewed by Hispanic youth. Three additional brands (PopTarts, Sunshine Cheez-Its, and Pringles) contributed another 20% to 25% of ads viewed. Of note, the two healthier snack brands advertised on Spanish-language TV (Planters Nuts and Yoplait yogurt) totaled approximately 6 ads viewed by preschoolers and 4 ads viewed by children and teens in 2014.

Hispanic youth exposure to snack food company websites

Internet targeted marketing	Definitions
Hispanic youth targeted index	The percent of Hispanic youth visitors (2-17 years) to the website divided by the percent of all youth visitors. A targeted index over 100 indicates that Hispanic youth visit the website disproportionately more than all youth on the internet. For example, Hispanic youth are twice as likely to visit a website with a targeted index of 200 compared to all youth visitors.

We also quantify Hispanic youth exposure to snack food websites and identify the sites they visited disproportionately more often compared with all youth on the internet. **Table 28** presents exposure data for the twenty websites in our analysis that averaged 1,000 or more unique Hispanic visitors per month in 2014 and the corresponding targeted indices. On average, Hispanic youth were 30% more likely to visit these websites compared to all youth visitors.

Hispanic youth visited six of these sites relatively more often than did non-Hispanic youth as indicated by targeted indices over 100. Kashi.com and Danimals.com had the highest Hispanic targeted indices – Hispanic youth were approximately twice as likely to visit these sites compared to all youth visitors – although these sites did not rank in the top-10 snack food websites visited by all youth. Hispanic youth were also approximately 60% more likely to visit Special K.com and Yoplait.com compared with all youth visitors.

Table 28. Hispanic youth visitors to snack food websites

Company	Website	Average monthly unique visitors (000): Hispanic youth (2-17 years)	Hispanic youth targeted index
Campbell Soup Company	GoldfishFun.com	8.6	88
Kellogg Company	SpecialK.com	4.3	**159**
Kellogg Company	KelloggsFamilyRewards.com	4.1	85
PepsiCo	DoUsAFlavor.com	3.4	82
Mondelez Global	NabiscoWorld.com	1.7	**106**
General Mills	Yoplait.com	1.4	**156**
Nature Delivered	Graze.com	1.2	**102**
Dr Pepper Snapple Group	Motts.com	1.2	90
Kellogg Company	Kashi.com	1.1	**244**
The Dannon Company	Danimals.com	1.0	**186**

Bold = Targeted index >100
Source: comScore Media Metrix Key Measures Report (2-17 years for December-January 2014)

These sites were also popular with all youth, ranking fourth and tenth in total youth visitors to snack food websites.

Summary of marketing to Hispanic youth

In 2014, five companies spent $45 million to advertise snack foods on Spanish-language TV, down 6% from 2010. Sweet and savory snack brands dominated, representing almost 90% of Spanish-language advertising. In contrast to English-language TV, yogurt brands contributed just 5% of Spanish-language advertising, ranking fourth behind nuts. There were no Spanish-language ads for fruit brands in 2014. Furthermore, sweet and savory snack brands increased their Spanish-language advertising in 2014 versus 2010. Savory snacks represented just 7% of snack food spending on Spanish-language TV in 2010 compared with 42% in 2014 due to a 551% increase. Sweet snacks also increased their advertising spending by 30%. Notably, Spanish-language advertising for yogurt declined by 93% from $29 million (the most advertised category in 2010) to approximately $2 million in 2014.

General Mills was the number-one advertiser on Spanish-language TV in both 2010 and 2014, devoting the majority of its 2014 advertising spending to Nature Valley and Fiber One Snack Bars. From 2010 to 2014, the company reduced Spanish-language advertising for Yoplait yogurt by 78%, which had been the most advertised snack food brand on Spanish-language TV in 2010. The company also advertised Yoplait Light and Yoplait GoGurt on Spanish-language TV in 2010 but not in 2014. In 2014, Kellogg Company overtook PepsiCo as the second-highest advertiser on Spanish-language TV with a 253% increase in spending. Kellogg spent $12.9 million to advertise its PopTarts, Sunshine Cheez-It, and Pringles brands to Hispanic consumers. Cheetos from PepsiCo was the most highly advertised brand on Spanish-language TV in 2014, spending $8.7 million. Notably, these Kellogg and PepsiCo brands did not advertise on Spanish-language TV in 2010. PepsiCo also advertised Lay's Potato Chips on Spanish-language TV in 2014. However, Dannon had spent over $10 million on Spanish-language advertising for its Dan-O-Nino and Activia brands in 2010, but did not advertise to Hispanic consumers in 2014.

Among Hispanic youth, preschoolers viewed the most snack food advertising on Spanish-language TV, averaging 87 ads viewed in 2014, compared with 53 and 59 ads viewed by Hispanic children and teens, respectively. Due primarily to reductions of 90% or more in Spanish-language advertisements for yogurt viewed by Hispanic youth, all age groups saw fewer snack food ads on Spanish-language TV in 2014 than in 2010. In contrast, savory snack ads to Hispanic youth increased approximately three-fold and sweet snack ads viewed by children increased by 28%.

On the internet, Hispanic youth were, on average, 30% more likely to visit the most popular snack food company websites compared to all youth visitors. Kashi.com and Danimals.com had the highest Hispanic targeted indices, with Hispanic youth approximately twice as likely to visit these sites compared with all youth. Special K.com and Yoplait.com were popular websites for all youth, while Hispanic youth were 60% more likely than their peers to visit these two websites.

Marketing to black youth

TV advertising to black youth	Definitions
Targeted ratio: Black to white children	GRPs for black children (6-11 years) divided by GRPs for white children (6-11 years). Provides a measure of relative exposure to TV advertising for black versus white children.
Targeted ratio: Black to white teens	GRPs for black teens (12-17 years) divided by GRPs for white teens (12-17 years). Provides a measure of relative exposure to TV advertising for black versus white teens.

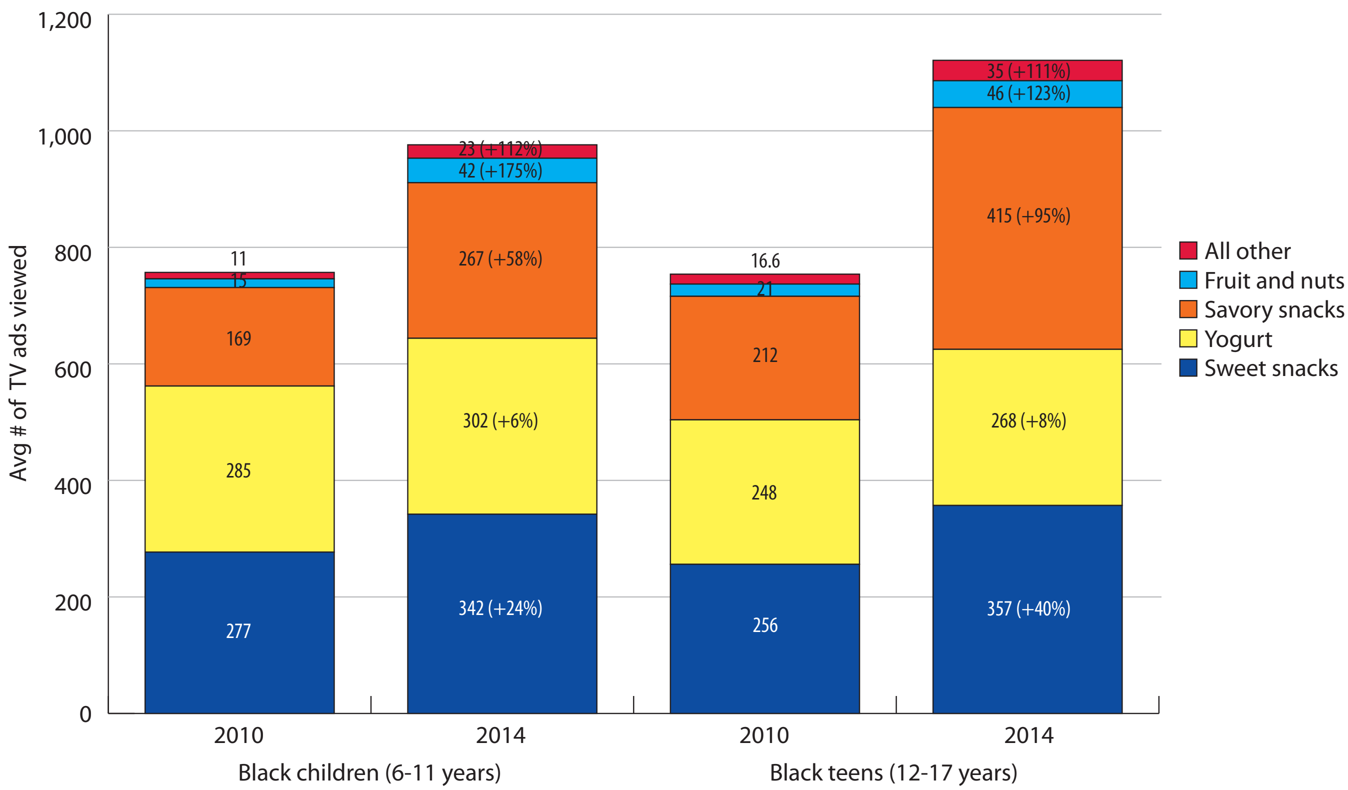
In 2014, black children (6-11 years) viewed on average 976 snack food ads on TV, averaging 2.7 ads per day, and black teens (12-17 years) viewed 1,120, on average 3.1 snack food ads per day. Compared with white children and teens, who viewed 594 and 551 ads respectively in 2014, black children saw 64% more snack food ads and black teens saw twice as many ads. In addition, this disparity in exposure to snack food ads increased dramatically versus 2010. In 2014, black children viewed 29% more snack food advertising than they had in 2010, while white children's exposure increased by just 16%. Similarly, black teens' exposure increased by 49%, compared with a 25% increase for white teens. Notably, black preschoolers (2-5 years) viewed 1,010 snack food ads in 2014, averaging 2.8 ads daily and even more than older black children viewed.

Disparities in snack food ads viewed by black youth can partially be explained by differences in amount of TV viewing. On average, black children watched 42% more TV compared with white children in 2014, while black teens watched 68% more TV than white teens watched.[7] However, differences in exposure to snack food ads were higher than would be expected given differences in TV viewing. Therefore, companies advertised snack foods relatively more during programming that black children and teens were more likely to watch and may have targeted their advertising directly to black youth.

TV advertising exposure by category

As found in TV advertising to all youth, the majority of snack food ads viewed by black children and teens promoted brands in three categories: sweet snacks, yogurt, and savory snacks (see **Figure 19**). These three categories represented more than 90% of ads viewed by black children and teens. However, relative exposure to each category differed by age group. For children, ads for sweet snacks outnumbered yogurt and savory snack ads, while teens viewed more ads for savory snacks than for the other two categories. As with all youth, yogurt ranked second in ads viewed by black children,

Figure 19. Snack food TV ads viewed by black children and teens by category in 2010 and 2014



Source: Rudd Center analysis of Nielsen data (2015)

Table 29. Black targeted ratios by category in 2010 and 2014

	Black:white children (6-11 years)		Black:white teens (12-17 years)	
Category	**2010**	**2014**	**2010**	**2014**
Savory snacks	1.75	1.99	1.71	2.29
Sweet snacks	1.40	1.66	1.70	2.08
Fruit	1.76	1.57	1.67	1.83
Yogurt	1.40	1.50	1.75	1.84
Cheese	1.89	0.82	1.64	1.69
Multiple	--	1.79	--	1.63
Nuts	1.38	1.23	1.29	1.11

Source: Rudd Center analysis of Nielsen data (2015)

but third for teens. All other categories, including healthier fruit and nut brands, accounted for just 65 ads viewed by black children and 81 ads viewed by black teens.

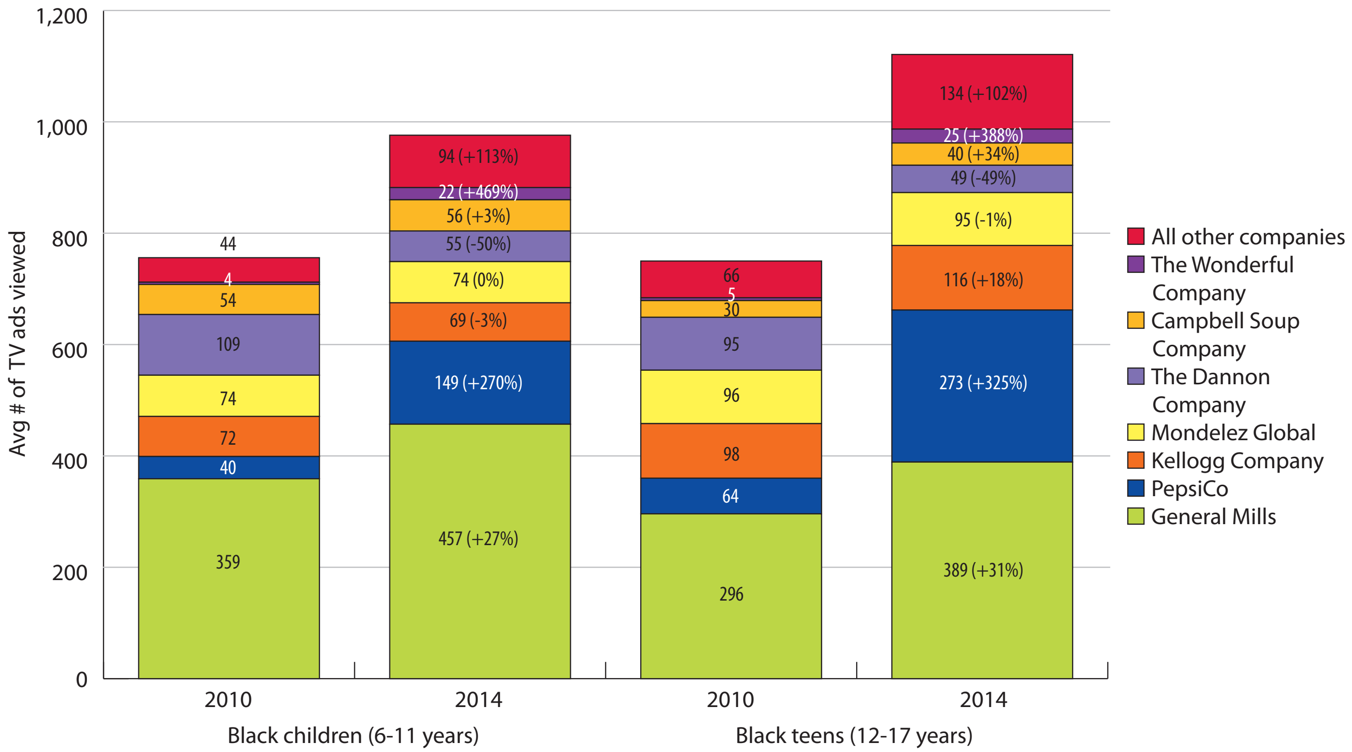
Changes in ads viewed by black youth also varied by category. Ads for savory snacks increased substantially from 2010 to 2014, including a 48% increase for black children and a 95% increase (almost double the ads viewed in 2010) for black teens. Sweet snack ads also increased by 24% and 40% for black children and teens, respectively, while ads for yogurt increased at a modest rate of 6% to 8%. Positively, ads for other healthier snack food categories more than doubled during this time, including ads for fruit and nuts.

Disparities in snack food advertising to black versus white youth increased for most snack food categories from 2010 to 2014 (see **Table 29**). Targeted ratios of ads viewed by black children and teens compared with white children and teens increased for savory snacks and sweet snacks. Notably, black children saw twice as many ads for savory snacks compared with white children, and black teens saw 2.3 times as many compared with white teens. Black teens also saw more than twice as many ads for sweet snacks. In the healthier snack food categories, black children and teens saw relatively more ads for yogurt in 2014 than in 2010. However, the ratio of ads viewed by black versus white youth declined for nuts and for fruit ads viewed by black children (but not teens).

Advertising exposure by company

Relative exposure to snack food ads for black youth versus white youth and increases in exposure to ads from 2010 to 2014 also varied by company. As with TV ads for snack foods overall,

Figure 20. Snack food TV ads viewed by black children and teens by company in 2010 and 2014



Source: Rudd Center analysis of Nielsen data (2015)

General Mills was responsible for the most ads viewed by black children and teens, followed by PepsiCo, and Mondelez Global (for black children), and Kellogg Company (for black teens). From 2010 to 2014, the majority of increases in advertising exposure for black youth can be attributed to PepsiCo brands (see **Figure 20**). The company increased its ads to black children by 270% and to black teens by 325%. Other major advertisers had more modest increases, including approximately one-third more ads from General Mills (for both black children and teens) and from Campbell Soup Company (for black teens only), and an 18% increase for Kellogg ads to black teens. Advertising for the remaining major advertisers stayed relatively stable from 2010 to 2014, although Dannon reduced its advertising by about 50%. As with advertising to all youth, some additional companies had notable increases in advertising to black youth. For example, The Wonderful Company (Wonderful Pistachios, Wonderful Halos) increased its ads to black youth five- to six-fold; Link Snacks (Jack Links) tripled its advertising; and ads from Sargento Foods doubled during this period.

Ranking Table 9 details ads viewed by black children and teens in 2010 and 2014 by company, including targeted ratios of ads viewed versus white youth. Of the 27 companies in this analysis, PepsiCo had the highest targeted ratios. Black teens viewed 2.6 times as many ads for PepsiCo snack foods compared with white teens, and black children viewed 2.4 times as many compared with white children. Black teens also saw more than twice as many ads for Kellogg Company, Mondelez Global, Campbell Soup Company, Link Snacks, and Snyder's of Hanover snack foods compared with white teens. Notably, they also saw more than twice as many ads for fruit brands from Dole Foods and MidOcean Partners. Targeted ratios were lower for black children. However, compared with white children, black children also saw approximately twice as many ads for snack foods from these same companies, with the exception of Campbell Soup Company with a black child targeted ratio of 1.58.

Yet not all companies advertised disproportionately more to black versus white youth. Targeted ratios for snack foods from some of the largest advertisers, including General Mills, Dannon, Kraft Foods, and Chobani, approximated the differences in amount of TV viewing for black versus white youth. Of note, The Wonderful Company had among the lowest targeted ratios of approximately 1.3 for both age groups.

Advertising exposure by brand

Ranking Table 9 also details ads viewed by black children and teens in 2010 and 2014 by brand. As found with TV advertising to teens overall, Betty Crocker Fruit Snacks and Yoplait GoGurt were the top two snack food brands advertised to black children and black teens. PopTarts and four PepsiCo brands – Tostitos, Lay's Potato Chips, Cheetos, and Doritos – ranked third through seventh. Compared with 2010, six of the top-10 brands more than doubled ads viewed by both black children and teens – PopTarts, Tostitos, Lay's Potato Chips, Cheetos, Doritos, and Nature Valley Snack Bar. Yoplait was the only top-10 brand that reduced its advertising to black youth from 2010 to 2014. Additional brands in the top-20 with reductions in ads to black youth included Chex Mix, Oreo Cookies, Dannon Danimals, and Sunshine Cheez-It.

Of the 68 snack food brands advertised to black youth in 2014, 24 (35%) had relatively high black teen targeted ratios of 1.9 or higher, thus appearing to target black youth. **Table 30** lists the targeted brands contributing at least 10 ads viewed by black teens in 2014. Doritos had the highest targeted ratio of any brand in our analysis – black children and teens saw

Table 30. Brands with the highest black targeted ratios in 2014

			Black children (6-11 years)		Black teens (12-17 years)	
Company	**Brand**	**Category**	**Avg # of ads viewed**	**Targeted ratio vs. white children**	**Avg # of ads viewed**	**Targeted ratio vs. white teens**
PepsiCo	Doritos	Savory snack	24.3	2.87	50.9	3.03
Mondelez Global	Oreo Cookies	Sweet snack	12.0	2.69	19.5	2.86
PepsiCo	Tostitos	Savory snack	38.0	2.60	72.9	2.78
PepsiCo	Lay's Potato Chips	Savory snack	36.1	2.38	62.9	2.62
Kellogg Company	PopTarts	Sweet snack	44.2	2.35	79.8	2.61
Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	48.7	1.59	35.9	2.53
PepsiCo	Cheetos	Savory snack	29.1	2.16	54.1	2.47
Mondelez Global	Honey Maid	Sweet snack	23.1	1.66	18.3	2.40
General Mills	Betty Crocker Fruit Snacks	Sweet snack	137.8	1.49	83.7	2.27
The Dannon Company	Dannon Danimals	Yogurt	29.1	1.40	17.4	2.19
PepsiCo	Frito Lay Snacks	Savory snack	11.0	1.86	17.6	2.16
General Mills	Yoplait Trix	Yogurt	26.0	1.45	14.9	2.15
General Mills	Yoplait GoGurt	Yogurt	113.8	1.48	80.9	2.10
Link Snacks	Jack Links	Savory snack	5.6	1.96	11.9	2.08
Mondelez Global	Ritz Crackers	Savory snack	7.9	2.09	10.6	1.90

Source: Rudd Center analysis of Nielsen data (2015)


Dad packs his son's lunch with two Yoplait GoGurts

approximately three times as many of these ads compared with white youth – followed closely by Oreo Cookies, Tostitos, Lay's Potato Chips, and PopTarts. Many of the child-targeted brands, including three yogurts – Dannon Danimals, Yoplait Trix, and Yoplait GoGurt – had relatively high targeted ratios for black teens, but not black children.

In contrast, top brands with relatively low black teen targeted ratios (comparable to differences in TV viewing) included Nature Valley Snack Bar (1.58), Yoplait Greek Yogurt (1.68), Yoplait Light Yogurt (1.57), Chex Mix (1.65), Sunshine Cheez-It (1.65), and Laughing Cow cheese (1.62). Of note, Wonderful Nuts had a very low ratio of 1.12.

Black youth exposure to snack food websites

Internet targeted marketing	Definition
Black youth targeted index	The percent of black youth visitors (2-17 years) to a given website divided by the percent of all youth visitors. A targeted index over 100 indicates that black youth visit a given website disproportionately more than all youth on the internet. For example, a targeted index of 200 shows that black youth are twice as likely to visit the website compared to all youth visitors.

To identify potential targeted marketing on the internet, we also quantify black youth exposure to snack food websites and identify websites they visited disproportionately more often compared with all youth on the internet.

Table 31 presents exposure data for the seven websites in our analysis that averaged 1,000 or more unique black youth visitors (2-17 years) monthly in 2014. On average, black youth were almost twice as likely to visit these snack food sites compared to all youth visitors.

As with all youth, GoldfishFun.com and KelloggsFamilyRewards.com attracted the most black youth visitors in 2014. However, black youth were 2.2 times as likely to visit GoldfishFun.com compared to all youth and 54% more likely to visit KelloggsFamilyRewards.com. Danimals.com and Motts.com had the highest black youth targeted indices; black youth were 3.6 and 2.6 times as likely to visit these sites compared to all youth, respectively.

Summary of marketing to black youth

In 2014, black children (6-11 years) viewed 64% more and black teens viewed twice as many snack food ads on TV compared with white children and teens, averaging 2.7 ads viewed per day for black children and 3.1 ads per day for black teens. More than 90% of these ads promoted savory snack, sweet snack, and yogurt brands. Furthermore, this disparity in exposure increased dramatically from 2010 to 2014. Black children and teens viewed 29% and 49% more snack food ads in 2014 than in 2010, while exposure for white children and teens increased by only 16% and 25%. The disparity in ads viewed was highest for the savory snack category: black teens saw 129% more ads for snack foods in this category compared with white teens, a substantial increase versus 2010 when black teens viewed 71% more of these ads. Of note, black teens also saw approximately 80% more ads for fruit and yogurt compared with white teens, while

Table 31. Black youth exposure to snack food websites

Company	Website	Average monthly unique visitors (000): Black youth (2-17 years)	Black youth targeted index
Campbell Soup Company	GoldfishFun.com	14.1	**218**
Kellogg Company	KelloggsFamilyRewards.com	4.9	**154**
PepsiCo	DoUsAFlavor.com	3.5	**128**
Kellogg Company	SpecialK.com	2.8	**156**
Dr Pepper Snapple Group	Motts.com	2.3	**257**
PepsiCo	FritoLay.com	1.6	98
The Dannon Company	Danimals.com	1.3	**362**

Bold = Targeted index >100
Source: comScore Media Metrix Key Measures Report (2-17 years for December-January 2014)

black children viewed approximately 50% more compared with white children.

We also identified several brands that appeared to target black youth as evidenced by high ratios of ads viewed by black versus white youth. Doritos had the highest targeted ratio for black teens at 3.0, indicating that black teens saw three times as many Doritos ads than white teens saw. Additional brands with targeted ratios of 2.6 or higher for black teens included Oreo Cookies (Mondelez Global); Tostitos and Lay's Potato Chips (PepsiCo); and PopTarts (Kellogg Company). Although black teens watched 68% more TV than their white peers, these differences indicate that these brands may target black teens by purchasing advertising during programming that they are more likely to watch.

On the internet, black youth were, on average, almost 50% more likely to visit the most popular snack food websites compared to all youth visitors. As found for all youth, GoldfishFun.com and KelloggsFamilyRewards.com attracted the most black youth visitors in 2014, while Danimals.com and Motts.com had the highest black youth targeted indices. Black youth were 3.6 and 2.6 times as likely to visit these sites compared with all youth on the internet.

Extensive marketing of snack foods on television, the internet, and in schools likely increases snack consumption by children and teens. The majority of advertising promotes unhealthy sweet and savory snacks that may negatively affect young people's diets and health. Furthermore, unhealthy snack food marketing to black and Hispanic youth has worsened over the past five years. This report identifies some positive developments, but also highlights considerable room for improvement in snack food marketing aimed at children and teens.

Positive developments in snack food marketing to youth

The majority of advertised yogurt products qualified as healthy according to all nutrition standards examined, including Smart Snacks nutrition standards for foods that can be sold to children in schools, NPI scores for foods that can be advertised to children on TV in the United Kingdom, and IWG proposed nutrition standards for foods that should be advertised to children in the United States. More than a quarter of the $1.3 billion spent to advertise snack foods in 2014 was dedicated to yogurt products. Yogurt ads also represented more than one-third of TV ads for snack foods viewed by preschoolers and children and one-quarter of ads viewed by teens, as well as more than one-third of banner ads viewed on youth websites. In addition, 11% of advertising spending on snack foods and approximately 5% of the snack food ads viewed by children and teens on TV promoted fruit and nut brands. The majority of products in these categories also met all nutrition standards.

A few brands with healthy products that met all nutrition standards also appeared to target children and/or teens directly with their advertising. Yogurt accounted for seven of the 12 brands listed by CFBAI participating companies as approved for advertising to children. Notably, GoGurt from General Mills ranked second in amount of TV advertising to children in 2014; children's exposure to GoGurt ads increased by 60% from 2010 to 2014; and children saw almost three times as many of these ads compared to adults. In addition, Yoplait Greek and Dole Fruit Bowls ads appeared to target teens. On the internet, Mott's applesauce ranked second in number of ads viewed on youth websites.

From 2010 to 2014, advertising spending to promote brands in the healthier yogurt, fruit, and nut categories in all media increased by 23%. Growth in these categories was driven by an increase in advertising by smaller companies, including Chobani and FAGE Greek yogurts and The Wonderful Company (advertising nuts and clementines). Notably, children's exposure to TV ads for fruit and nuts more than tripled during this period. In addition, advertising spending on sweet snacks declined by 13%, although children's exposure to TV ads for sweet snacks did not change.

This research also identified minimal traditional intenet advertising of snack foods to young people. Snack food companies sponsored just two child-targeted websites that had enough youth visitors in 2014 to monitor through comScore. Both sites were CFBAI-approved for advertising to children, and only one attracted a large number of child visitors (GoldfishFun.com). Furthermore, just 4% of display ads for snack foods appeared on youth websites that were visited disproportionately more often by young people under age 18 compared to adults.

Finally, the implementation of Smart Snacks nutrition standards for snacks sold to children and teens in schools that are not part of the school lunch program has led to the development of healthier sweet and savory snack products. Out of 15 sweet and savory Smart Snacks brands analyzed, 13 brands offered some products for sale in schools that had significantly higher median NPI scores than the products they advertised on TV. Therefore, it appears that companies have identified more nutritious sweet and savory snacks that they believe will appeal to young people. In addition, as with advertised yogurt brands, the majority of yogurt products sold in schools met all nutrition standards.

Opportunities for improvement

However, these analyses also document troubling developments and considerable cause for continued concern about snack food advertising to youth. Sweet and savory snacks continued to represent almost 60% of TV advertising spending for snack foods, 60% of TV ads viewed by preschoolers and children, and 65% of ads viewed by teens. However, the nutritional quality of advertised sweet and savory snack products was poor. Not one brand met IWG nutrition standards or achieved a healthy median NPI score, and three-quarters of advertised brands did not meet Smart Snacks standards so they could not be sold to children and teens in schools.

Over the past five years, youths' exposure to TV advertising for more nutritious snack food categories and brands as a proportion of total snack food advertising has not improved. Despite a 10% increase in total snack food ads viewed by children on TV in 2014 compared to 2010 and a 29% increase for teens, youths' exposure to healthier yogurt ads did not change. Ads for fruit and nut brands did increase exponentially, but they remained less than 6% of total snack food ads viewed by youth. For children, the increase in total snack food ad exposure was driven by a 32% increase in savory snack ads viewed. For teens, a 62% increase in savory snack ads viewed was accompanied by a 17% increase in sweet snack ads.

It also appears that companies have replaced more traditional forms of internet advertising (i.e., company-sponsored websites and advertising on third-party internet sites) with newer forms of digital marketing (e.g., social media, mobile apps.). Snack food brands placed 163 million internet ads monthly on Facebook and YouTube, representing 35% of snack food ads viewed online. Although these social media sites are widely visited by individuals in all age groups, they contributed the majority of young people's exposure to snack food advertising online – an estimated 147 million ads viewed by youth on Facebook and an additional 24 million on YouTube in 2014. Furthermore, although we did not examine social media advertising viewed on mobile devices—data are not available to measure youth exposure to advertising on mobile websites or mobile apps—an estimated 65% of time spent with social media occurs on mobile devices.[1] Increasingly, companies also have transferred their child-directed advergames to game apps accessed on mobile devices.[2,3,4] As a result, these analyses may greatly understate companies' efforts to reach children and teens through digital media.

A few companies were responsible for most marketing of unhealthy snack foods to children and teens.

Although 43 different companies advertised 90 snack food brands in 2014, just six companies (all participants in the CFBAI) dominated snack food advertising: General Mills, PepsiCo, Mondelez Global, Campbell Soup Company, The Dannon Company, and Kellogg Company were responsible for 87% of snack food ads viewed by children on TV. With the exception of General Mills and Dannon yogurt brands, these companies only advertised sweet and savory snack brands. The majority of these products could not be sold to children or teens in schools and none had healthy NPI scores. Nevertheless, CFBAI participating companies identified one savory snack and four sweet snack brands as appropriate for advertising to children (i.e., the products met CFBAI uniform nutrition standards *and* the companies indicated that the products may be the subject of child-directed advertising[5]). This list included Betty Crocker Fruit Snacks, which led as the snack food brand with the most TV advertising to children, but ranked in the bottom half of snack foods in overall nutritional quality by NPI score.

These analyses identified further limitations to CFBAI company pledges to advertise only "healthy dietary choices" in "child-directed media." In addition to the generally poor nutritional quality of sweet and savory snacks that were CFBAI-approved for advertising to children, companies did not offer a single CFBAI-approved product in the healthier fruit and nut categories. Furthermore, the nutritional quality of products offered by CFBAI-approved brands did not have higher NPI scores (a measure of overall nutritional quality) than non-approved products in the same categories. In addition, four out of 10 of the brands advertised most to children on TV and seven brands advertised on children's websites were offered by CFBAI companies but were not approved for advertising to children. Finally, CFBAI companies pledge that they will not advertise directly to children under age six,[6] yet preschoolers viewed just 8% fewer ads for CFBAI-approved products in total compared with children aged six to 11. Notably, children under age six saw more ads for Yoplait Trix yogurt than older youth saw despite General Mills' pledge that it will not direct advertising for any product to preschoolers.[7]

A relatively small number of companies and brands also were responsible for increases in TV advertising to youth. In the savory snack category, PepsiCo advertising to children doubled and advertising to teens tripled from 2010 to 2014. The company's Tostitos brand ranked in the top-10 brands advertised to children, while Lay's Potato Chips, Cheetos, and Doritos also ranked among the 10 brands advertised most to teens on TV. Furthermore, PepsiCo's savory snack brands were responsible for 80% of snack food ads viewed on Facebook, and its websites promoting Frito Lay Snacks ranked third and fifth in snack food websites visited by teens. Among sweet snack brands, PopTarts from Kellogg Company targeted teens with its TV advertising, and the number of PopTarts ads viewed by children and teens almost doubled from 2010 to 2014. PopTarts also ranked second in snack food ads viewed on YouTube. In addition, General Mills increased TV advertising to preschoolers for Betty Crocker Fruit Snacks by 23% versus 14% for older children, and the brand ranked number one in TV ads viewed by both age groups.

Disparities in unhealthy snack food marketing to Hispanic and black youth continued to grow.

As Hispanic and black youth face higher rates of obesity and other diet-related diseases, marketing for unhealthy food aimed at youth of color likely contributes to health disparities affecting these communities.[8] The findings in this report raise considerable concerns that companies disproportionately target less healthy snack foods to black and Hispanic youth and that disparities in exposure increased from 2010 to 2014.

Relative to advertising on English-language TV, snack foods advertised to Hispanic youth on Spanish-language TV were poorer in nutritional quality. Yogurt brands contributed just 5% of advertising spending on Spanish-language TV compared with 26% of total advertising spending, and not one fruit brand advertised on Spanish-language TV in 2014. Furthermore, from 2010 to 2014 the nutritional quality of snack foods advertised on Spanish-language TV declined. Spending on advertising for yogurt went down by 93%, while sweet snack advertising increased by 30% and savory snack ads went up 551%. Just five companies advertised 13 brands on Spanish-language TV in 2014, led by General Mills, Kellogg Company, and PepsiCo, who dedicated the majority of their Spanish-language TV advertising to the Cheetos, Nature Valley Snack Bar, PopTarts, Sunshine Cheez-It, and Pringles brands. As found in previous studies of TV food advertising to Hispanic youth,[9] Hispanic preschoolers viewed more snack food ads on TV than did older youth. Finally, Hispanic youth were 30% more likely to visit snack food websites on average compared with all youth on the internet.

In 2014, black children saw 64% more snack food ads than white children saw, averaging 2.7 ads viewed per day, while black teens saw more than twice as many ads (averaging 3.1 ads per day) compared to white teens. As with Hispanic preschoolers, black preschoolers (2-5 years) saw even more of these ads than did older black children (6-11 years). Furthermore, disparities in exposure increased dramatically from 2010 to 2014. Black children and teens viewed 29% and 49% more snack food ads in 2014 than in 2010, while exposure for white children and teens increased by just 16% and 25%. The disparity in ads viewed was highest for the savory snack category: black teens saw 129% more ads for savory snacks compared to white teens, substantially higher than in 2010 when black teens viewed 71% more of these ads. Black youth also were 50% more likely to visit snack food websites.

Although black youth watch more television compared to white youth (42% more for children and 68% more for teens[10]), disparities in exposure were also driven by advertising for some brands that appeared to target black youth directly. In total, black teens saw 2.6 times as many ads for PepsiCo snack foods compared to white teens, and more than twice as many ads for Kellogg Company, Mondelez Global, The Dannon Company, and Campbell Soup Company snack foods. Highly targeted brands with targeted ratios of 2.5 or higher for TV ads viewed by black versus white teens included PopTarts, Tostitos, Lay's Potato Chips, Doritos, and Oreo Cookies.

Most nutritionally improved Smart Snacks products were not advertised to young people.

As noted, snack food companies have taken positive steps to develop nutritionally improved sweet and savory snacks that meet Smart Snacks nutrition standards. By selling these products in schools, companies also indicate that they believe these products will appeal to children and teens. However, evaluation of the nutritional quality of Smart Snacks and comparisons with other versions of the same brands that are advertised to children and teens identify further opportunities for improvement in Smart Snacks offered in schools, as well as the products widely advertised to young people.

First, differences in the nutritional quality of Smart Snacks versus TV advertised varieties of the same brands may lead to consumer confusion and potential misperceptions about the nutritional quality of advertised snacks. In the sweet and savory snack categories in particular, brands often did not advertise their nutritionally improved products on TV, even though they offered them for sale to children and teens in schools. For example, Baked Lays and Baked Tostitos brands were available for sale in schools, but PepsiCo only advertised regular Lays Potato Chips and Tostitos on TV and in other media. Only the yogurt brands extensively advertised the same snacks that they offered for sale to children in schools.

Furthermore, many brands offered nutritionally improved Smart Snacks products for sale in schools that were not available outside of schools (i.e., look-alike or "copycat" products). For example, reduced-sugar Fruit Roll-Ups, lower-fat Whole Grain Sunshine Cheez-It, Whole Grain PopTarts with reduced sugar and reduced fat, and reduced-fat Cheetos and Doritos are available for sale in schools, but not generally available in stores.[11] Packaging for these products that looks similar to packaging of the advertised versions also increases the potential for consumer confusion.[12] Sales of these products in schools serves as a marketing tool for companies to increase brand preferences among children and teens, but offering nutritionally improved versions of brands in schools that are not available elsewhere may also mislead students and their parents about the nutritional quality of the snacks they buy outside of schools.

Smart Snacks standards represent minimum nutrition requirements for snack foods sold in schools, and Smart Snacks in the sweet and savory snack categories were of better nutritional quality than advertised snacks offered by the same brands. However, the majority of these products do not meet other nutrition standards for foods that children should be encouraged to consume (e.g., IWG proposed standards and standards for foods advertised to children in the United Kingdom). Many Smart Snacks products, such as Quaker Breakfast Cookies (15 g of sugar and 4.5 g of fat), Sunshine Cheez-It Whole Grain crackers (3.5 g of fat), and Keebler Elf Grahams (8 g of sugar and 4 g of fat), contain relatively high levels of sugar and fat. Furthermore, sweet and savory snacks represented 42% of Smart Snacks products offered by the companies in our analysis; in contrast, just 6% of Smart Snacks offered by these companies belonged to the healthiest fruit category.

Recommendations

The findings in Snack FACTS demonstrate three primary areas of improvement to help reduce the harm associated with marketing of unhealthy snack foods aimed at children and teens.

Improve CFBAI self-regulatory pledges to protect children from continued aggressive marketing of unhealthy snack foods.

- CFBAI companies should implement Smart Snacks nutrition standards for products advertised to children. Foods that cannot be sold to children in schools should not be advertised to them in the media.
- Loopholes in the CFBAI definitions of child-directed advertising should be closed to reduce children's exposure

to advertising for unhealthy snack foods. As recommended by a panel of experts commissioned by Healthy Eating Research, companies should define children as youth up to at least 14 years old (up from the current age of 11); expand the definition of child-directed media to include all media and other places where children are the intended audience; incorporate qualitative measures to identify advertising that appeals specifically to children; and ensure that brands marketed to children include only products that meet nutrition standards.[13]

- Companies should implement meaningful measures to protect children under age 6 from all advertising, as promised.

Stop marketing practices that disproportionately target unhealthy snack foods to young people of color.

- As black and Hispanic children are exposed to more food advertising than white non-Hispanic children, suggested improvements to CFBAI pledges will provide even greater benefits for children of color.
- Snack food brands should stop targeting advertising for high-calorie, nutritionally poor foods to all young people, especially advertising aimed at youth of color.
- Industry commitments to increase sales and marketing of healthier products – such as those made via the Healthy Weight Commitment Foundation,[14] the Partnership for a Healthier America,[15] the American Beverage Association's Balance Calories Initiative,[16] and the National Restaurant Association's Kids LiveWell Program[17] – should also address advertising in black- and Hispanic-targeted media, where healthier snacks are now significantly underrepresented.
- Following the lead of the Walt Disney Company, which established nutrition standards for products advertised in its child-targeted media,[18] other media companies should also set nutrition standards for advertising to young people, particularly during programming with large audiences of Hispanic and/or black youth. Media companies could also provide lower rates for advertising that promotes nutritious foods.

Further improve the nutritional quality of Smart Snacks sold to children and teens in schools.

- Schools should encourage companies to continue to develop and offer Smart Snacks for sale to children and teens in schools that exceed minimum nutrition requirements – including fruit, vegetables, nuts, and yogurt that contribute positively to children's diets.
- Companies should not concentrate their in-school offerings on less unhealthy versions of heavily advertised brands of unhealthy sweet and savory snacks, including cookies, chips, and crackers. In particular, look-alike versions of unhealthy brands that are not available outside of schools should not be sold to children in schools.
- Alternatively, companies could agree to sell and advertise only the healthier versions of their snack food brands outside of schools if they also offer them for sale to students in schools.

Companies have recognized the business opportunity in marketing healthy snacks to young people, as evidenced by extensive marketing of yogurt to children and teens, the development of more nutritious versions of snack foods sold as Smart Snacks to students in schools, and the growth in advertising for fruit and nut snacks, often targeted to children and teens. Now, they must also recognize that aggressive marketing of unhealthy snack foods to children and teens exacerbates the crisis of poor diet and related diseases among young people. Increasing profits at the cost of children's health is not an acceptable trade-off.

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Nutritional content of advertised brands

Ranking by median NPI score, then by median calories

Includes median calories, fat, saturated fat, sugar, and sodium content per serving of all snack foods by brand/variety

Best

Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Calories (kcal) Median	Calories (kcal) Range	Total fat (g)	Sat fat (g)	Sugar (g) Median	Sugar (g) Range	Sodium (mg)	Meets Smart Snacks criteria	CFBAI-approved product
1	Chobani	Chobani Simply 100		Yogurt	10	82	150	100		0	0	7	6- 8	65	✓	
2	The Wonderful Company	Wonderful Halos		Fruit	1	80	100	47		0	0	9		1	✓	
3	Almond Board of California	California Almonds		Nuts	1	80	28	160		14	1	1		0	✓	
4	Materne	GoGo Squeez Applesauce		Fruit	1	78	90	60		0	0	12		0	✓	
5	The Dannon Company	Dannon Activia	Greek Light	Yogurt	4	78	150	80		0	0	6	6- 7	57.5	✓	✓
6	JM Smucker Co	Smucker's Fruit-Fulls Applesauce		Fruit	1	78	113	90		0	0	20		0	✓	
7	California Table Grape Commission	Grapes from California		Fruit	1	76	100	69		0	0	15.5		2	✓	
8	General Mills	Yoplait Greek	Greek 100	Yogurt	17	76	150	100	100-130	0	0	8		80	✓	
9	Dole Food Company	Dole Fruit Bowls in 100% Juice		Fruit	8	74	113	80	60-90	0	0	17.5	14- 18	5	✓	
10	The Dannon Company	Dannon Danimals	Superstars	Yogurt	5	74	113	110		1.5	1	14		40	✓	✓
11	Blue Diamond Growers	Blue Diamond Almonds		Nuts	1	74	28	170		16	1	1		85	✓	
12	Chobani	Chobani Greek Yogurt		Yogurt	15	72	150	130	90-150	0	0	15	4-17	60	11 of 15	
13	FAGE	FAGE Total		Yogurt	26	72	150	140	100-210	2.5	1.5	16	7-29	45	23 of 26	
14	General Mills	Yoplait Greek		Yogurt	15	72	150	150	130-160	1	0.5	16	9- 18	55	12 of 15	
15	The Dannon Company	Dannon Danimals		Yogurt	2	70	113	80		0	0	13		65	✓	✓
15 (tie)	The Dannon Company	Dannon Light & Fit		Yogurt	12	70	170	80		0	0	11	9- 11	75	✓	✓
17	General Mills	Yoplait Light		Yogurt	34	70	170	90	90-100	0	0	10	10- 14	80	✓	
18	The Dannon Company	Dannon Oikos		Yogurt	23	70	150	130	80-170	0	0	19	6- 21	50		12 of 23
19	General Mills	Yoplait		Yogurt	23	68	170	150		2	1	18		95	✓	
20	FAGE	FAGE FruYo		Yogurt	5	68	170	200	190-200	7	5	18	17- 20	50		
21	General Mills	Yoplait	Minion Made	Yogurt	1	66	113	100		0.5	0	13		60	✓	✓
21 (tie)	General Mills	Yoplait Trix		Yogurt	4	66	113	100		0.5	0.5	13	13- 14	50	✓	✓
21 (tie)	The Dannon Company	Dannon Activia		Yogurt	8	66	113	100	100-110	1.5	1	16	15- 18	60	✓	

continued

Nutritional content of advertised brands cont'd

								Calories (kcal)				Sugar (g)				
Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Median	Range	Total fat (g)	Sat fat (g)	Median	Range	Sodium (mg)	Meets Smart Snacks criteria	CFBAI-approved product
24	The Wonderful Company	Wonderful Nuts	Pistachios	Nuts	1	66	30	160		14	1.5	2		180	✓	
25	Kraft	Planters Nuts		Nuts	1	66	28	170		15	2	1		90	✓	
26	General Mills	Yoplait GoGurt		Yogurt	15	64	64	60		0.5	0	9		30	✓	✓
27	General Mills	Yoplait	Whips	Yogurt	11	62	113	140	140-160	2.5	2	21	21- 22	75		
28	Kraft Foods	Planters Nuts	Peanuts	Nuts	18	62	28	160	140-290	14	2	1	1-13	112.5	16 of 18	
29	The Dannon Company	Dannon Creamery		Sweet snacks	8	62	150	200	180-250	5.5	4	25.5	19-31	70		
30	Mondelez Global	Triscuit Crackers		Savory snack	11	58	28	120	110-120	4	0.5	0	0-1	140	✓	
31	Mondelez Global	Belvita Breakfast Biscuit	Soft Baked	Sweet snacks	4	58	50	190	190-200	7	1	9.5	9-10	150	✓	
32	Kellogg Company	Special K Crackers	Cracker Chips	Savory snack	5	54	30	120		4	0	2	1-3	220	✓	
33	Mondelez Global	Triscuit Crackers	Brown Rice/ Sweet Potato	Savory snack	1	54	30	130		4	0.5	2		120	✓	
34	General Mills	Fiber One Snack Bar	Streusel	Sweet snacks	2	54	40	150		5	1.5	8.5	8-9	92.5	✓	
35	Mondelez Global	Belvita Breakfast Biscuits		Sweet snacks	1	54	50	230		8	0.5	11		220		
36	Popchips	Popchips		Savory snack	7	52	28	120	100-120	4	0	1	0-3	160	4 of 7	
37	Mondelez Global	Wheat Thins	Popped	Savory snack	3	52	30	130	120-130	3	0	2	2-3	230	2 of 3	
38	Mondelez Global	Honey Maid Teddy Grahams		Sweet snacks	4	51	30	130		4	0.5	8	7-8	107.5	✓	✓
39	Procter & Gamble	META Health Snack Bar		Sweet snacks	2	51	40	150		3	1	12		95	✓	
40	PepsiCo	Tostitos	Scoops	Savory snack	1	50	28	130		7	1	0		130		
41	Mondelez Global	Wheat Thins		Savory snack	6	50	30.5	135	120-150	5	0.5	4	3-4	230	4 of 6	
42	General Mills	Fiber One Snack Bar		Sweet snacks	1	50	40	140		4	2	10		90		
42 (tie)	PepsiCo	Tostitos		Savory snack	1	50	28	140		7	1	0		120		
44	PepsiCo	Tostitos	Cantina	Savory snack	2	50	28	165	150-180	8	1	0		110		
45	General Mills	Nature Valley Breakfast Biscuits		Sweet snacks	2	49	50	230		9	2	11.5	11-12	175		
46	General Mills	Nature Valley Snack Bar	Oatmeal Squares	Sweet snacks	3	48	35	150	150-160	5	1	9	9-10	130	2 of 3	
47	General Mills	Nature Valley Snack Bar	Crunchy Granola	Sweet snacks	1	48	42	190		6	0.5	12		160	✓	
48	ThinkThin	ThinkThin Snack Bar		Sweet snacks	13	48	60	240	200-250	9	3	0		220		
49	PepsiCo	Quaker Snack Bar	Real Medleys	Sweet snacks	4	47	38	165	160-180	6.5	1	13.5	12-14	82.5		
50	General Mills	Chex Mix	Chex Mix	Savory snack	14	46	29.5	120	110-180	4	1	2.5	2-8	195	12 of 14	

continued

Nutritional content of advertised brands cont'd

Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Calories (kcal) Median	Calories (kcal) Range	Total fat (g)	Sat fat (g)	Sugar (g) Median	Sugar (g) Range	Sodium (mg)	Meets Smart Snacks criteria	CFBAI-approved product
51	Mondelez Global	Honey Maid	Graham Crackers	Sweet snacks	5	46	31	130	130-140	3	0	8		160	✓	✓
52	PepsiCo	Lay's Kettle Cooked Potato Chips		Savory snack	6	45	28	150	150-160	9	1.5	1	0.5- 2	122.5		
53	General Mills	Betty Crocker Fruit Snacks		Sweet snacks	8	44	23	80		0	0	10		25		1 of 8
54	Kellogg Company	Special K Snack Bar	Protein Bar	Sweet snacks	4	44	27	110		3	1.5	7		85		
55	PepsiCo	Stacy's Pita Chips		Savory snack	8	44	28	130	130-140	5	0.5	1	0.5- 6	270	1 of 8	
56	Mondelez Global	Newtons Cookies	Fruit Thins	Sweet snacks	4	44	31	140		5	1	7		95	✓	
56 (tie)	Mondelez Global	Wheat Thins	Spicy Buffalo	Savory snack	1	44	29	140		5	1	4		180	✓	
58	Campbell Soup Company	Pepperidge Farm Goldfish	Puffs	Savory snack	4	43	30	140		6	0.5	2		255		
58 (tie)	PepsiCo	Doritos		Savory snack	6	43	28	140	140-150	7.5	1	0	0-1	200		
60	General Mills	Betty Crocker Fruit Snacks	Fruit Gushers	Sweet snacks	6	42	25	90		1	0	12		45		✓
60 (tie)	General Mills	Fiber One Brownies		Sweet snacks	3	42	25	90		3	1.5	8	7-8	90		
62	Campbell Soup Company	Pepperidge Farm Goldfish	Flavor Blasted	Savory snack	1	42	30	140		5	1	0.5	0.5	270		✓
63	Campbell Soup Company	Pepperidge Farm Goldfish		Savory snack	7	40	30	140	130-150	5	1	0	0-0.5	250	1 of 7	✓
63 (tie)	Campbell Soup Company	Pepperidge Farm Goldfish Grahams		Sweet snacks	7	40	30	140		5	1	8	7-10	125	6 of 7	✓
63 (tie)	PepsiCo	Doritos	Jacked	Savory snack	3	40	28	140	130-150	8	1	0	0-0.5	240		
66	PepsiCo	Lay's Potato Chips		Savory snack	12	40	28	160		10	1.5	0.5	0.5-2	165		
67	General Mills	Nature Valley Snack Bar	Protein	Sweet snacks	4	40	40	190		12	4	6	6-7	175	0	
68	JM Smucker Co	Jif to Go Snack Dippers		Savory snack	2	40	48	250		15	2.5	6.5	3-10	330		
69	Bel Brands USA	Laughing Cow	Light Cheese Wedges	Cheese	1	38	21	35		1.5	1	1		180	✓	
70	Link Snacks	Jack Links	Jerky	Savory snack	1	38	28	80		1	0	5		770		
71	MidOcean Partners	South Beach Snack Bar		Sweet snacks	1	38	28	100		4	2.5	7		115		
72	Mondelez Global	Honey Maid	Grahamfuls	Sweet snacks	1	38	25	120		5	1.5	7		115		✓
73	Kellogg Company	PopTarts		Sweet snacks	18	37	51	200	190-210	5	1.5	17	12-19	190	9 of 18	
74	Bel Brands USA	Laughing Cow	Cheese Wedges	Cheese	7	36	21	35	35-50	1.5	1	1		190		
75	General Mills	Betty Crocker Fruit Snacks	Fruit Roll-Ups	Sweet snacks	6	36	14	50	40-50	1	0	7	5-7	55		✓

continued

Nutritional content of advertised brands cont'd

Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Calories (kcal)		Total fat (g)	Sat fat (g)	Sugar (g)		Sodium (mg)	Meets Smart Snacks criteria	CFBAI-approved product
								Median	Range			Median	Range			
76	Oberto Brands	Oberto Beef Jerky		Savory snack	1	36	28	80		1	0.5	5		410		
77	General Mills	Fiber One Snack Bar	Protein	Sweet snacks	4	36	33	130	130-140	6	3.5	7		127.5		
78	Kellogg Company	Sunshine Cheez-It	Grooves	Savory snack	3	36	29	140	130-140	6	1.5	0.5	0-0.5	240		
79	Kellogg Company	Sunshine Cheez-It		Savory snack	9	36	30	150	140-150	7	1.5	0	0-1	230		
79 (tie)	Kellogg Company	Sunshine Cheez-It	Zingz	Savory snack	2	36	29	150		7	1.5	0.5	0-1	220		
81	General Mills	Fiber One Cookies		Sweet snacks	4	34	31	120	110-120	4.5	2.5	9.5	8-10	122.5	1 of 4	
82	Kellogg Company	Pringles	Tortilla Chips	Savory snack	1	34	28	150		8	2	1		160		
83	Kellogg Company	Pringles	Potato Chips	Savory snack	12	33	28	150		9	2.5	1	0-1	175		
84	General Mills	Nature Valley Snack Bar	Sweet & Salty Granola	Sweet snacks	6	33	35	160	150-170	7	2.5	12.5	8-13	150		
85	Mondelez Global	Oreo Cookies	Mini	Sweet snacks	1	32	28	130		5	1.5	11		115		
86	Mondelez Global	Ritz Crackers	Fresh Stacks	Savory snack	1	30	16	80		4.5	1	1		105		
86 (tie)	Mondelez Global	Ritz Crackers		Savory snack	1	30	16	80		4.5	1	1		105		
88	PepsiCo	Cheetos	Mix-Ups	Savory snack	2	30	28	155	150-160	10	1.5	0.5		255		
89	PepsiCo	Cheetos		Savory snack	7	30	28	160	150-160	10	1.5	0.5	0-1	250		
90	PepsiCo	Cheetos	Bag of Bones	Savory snack	1	28	28	160		10	1.5	0.5		290		
91	Bel Brands USA	Laughing Cow	Mini BabyBel	Cheese	6	27	21	70	50-70	6	4	0		160		
92	Sargento Foods Inc	Sargento	Tastings	Cheese	10	27	28	110	100-140	9.5	5.5	0		200		
93	Sargento Foods Inc	Sargento	Cheese Snacks	Cheese	3	26	21	90	80-90	7	4	0		135		
94	McKee Foods	Sunbelt Bakery Granola Bar		Sweet snacks	1	26	29	130		5	3	9		100		
95	Ferrero	Nutella & Go!		Sweet snacks	1	26	52	270		14	5	23		130		
96	McKee Foods	Little Debbie	Snack Cakes	Sweet snacks	2	23	68	300	270-330	12	6	26		225		
97	Mondelez Global	Oreo Cookies		Sweet snacks	20	22	29	140	100-180	7	2	12	9-18	87.5		
98	McKee Foods	Little Debbie	Mini Doughnuts	Sweet snacks	2	21	56.5	250	220-280	13.5	8	16.5	15-18	225		
99	ConAgra	Slim Jim		Savory snack	8	20	28	140		11	4	0.5		480		
99 (tie)	Snyder's of Hanover	Snyder's of Hanover	Pretzel Pieces	Savory snack	7	20	28	140		7	3	1	0-3	270		
99 (tie)	Snyder's of Hanover	Snyder's of Hanover	Sweet & Salty Pretzel Pieces	Savory snack	3	20	28	140		7	3.5	4	3-4	190		
102	McKee Foods	Little Debbie	Nutty Bar	Sweet snacks	1	20	57	310		18	7	21		115		
103	Mondelez Global	Chips Ahoy		Sweet snacks	3	18	30	140	140-160	6	3.5	12	10-12	95		

Worst

Source: Rudd Center nutrition analysis (August 2015)

Nutritional content of Smart Snacks

Ranking by median NPI score, then median calories

Includes median calories, fat, saturated fat, sugar, and sodium content per serving of all snack foods by brand/variety

Best

Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Calories (kcal) Median	Calories (kcal) Range	Total fat (g)	Sat fat (g)	Sugar (g) Median	Sugar (g) Range	Sodium (mg)
1	Dr Pepper Snapple Group	Mott's Applesauce	Applesauce -- Healthy Harvest	Fruit	5	78	111	50		0	0	11		0
2	Dr Pepper Snapple Group	Mott's Fruit Snack	Mixed Berry Fruit and Vegetable Medley Snack	Fruit	2	78	111	60		0	0	12		15
3	The Dannon Company	Dannon Activia	Greek Light Non-Fat Yogurt	Yogurt	4	78	150	80		0	0	6	6-7	58
4	The Dannon Company	Dannon Light & Fit	Greek Non-Fat Yogurt	Yogurt	17	76	150	80		0	0	7	6-8	50
4 (tie)	Dole Food Company	Dole Fruit Bowls	in 100% Juice	Fruit	5	76	113	80	60-90	0	0	17	14-18	5
6	General Mills	Yoplait Greek	100 Calorie Pack Fat Free Yogurt	Yogurt	18	76	150	100	100-130	0	0	8	6-9	80
7	The Dannon Company	Dannon Light & Fit	Non-Fat Yogurt Sugar Control	Yogurt	2	74	113	45		1.5	1	2		28
8	The Dannon Company	Dannon Activia	Light Cup Non-Fat Yogurt	Yogurt	7	74	113	60		0	0	7	6-7	70
9	Dr Pepper Snapple Group	Mott's Applesauce	Applesauce -- Natural	Fruit	3	74	113	90	50-100	0	0	22	11-24	0
10	The Dannon Company	Dannon Danimals	Superstars Greek	Yogurt	5	74	113	110		1.5	1	14		40
11	The Dannon Company	Dannon	Yogurt Non-Fat Plain	Yogurt	1	72	113	50		0	0	8		75
12	The Dannon Company	Dannon Activia	Greek Non-Fat Yogurt	Yogurt	10	72	150	130	120-140	0	0	19	17-21	53
12 (tie)	The Dannon Company	Dannon Oikos	Greek Non-Fat Yogurt Flavored	Yogurt	12	72	150	130	80-130	0	0	19	6-21	48
14	General Mills	Yoplait Greek	Greek Fat Free Yogurt	Yogurt	4	72	150	140		0	0	18		50
15	General Mills	Yoplait	Parfait Pro Greek Honey Vanilla Fat-Free Yogurt	Yogurt	1	72	225	200		0	0	24		150
16	The Dannon Company	Dannon Danimals		Yogurt	3	70	113	80	80-110	0	0	13	13-14	60
16 (tie)	The Dannon Company	Dannon Light & Fit	Non-Fat Yogurt	Yogurt	12	70	170	80		0	0	11	9-11	75
18	The Dannon Company	Dannon Activia	With Fiber	Yogurt	4	70	113	110	110-120	2	1	16		60
19	Kellogg Company	Kashi Snack Bar	Honey Almond Flax Chewy Granola	Sweet snack	1	70	35	140		5	0	5		105
20	The Dannon Company	Dannon	Dairy Drink	Yogurt	2	68	88	60		0.5	0	10		40
21	The Dannon Company	Dannon	Natural Low-Fat Yogurt Vanilla	Yogurt	1	68	113	70		1.5	1	17		75
22	Dole Food Company	Dole	Fruit in Gel Bowls	Fruit	2	68	123	90		0	0	22		40
23	PepsiCo	Baked Lays	Baked Lays Original	Savory snack	1	68	25	100		1.5	0	2		115
24	PepsiCo	Baked Tostitos	Scoops	Savory snack	1	68	25	110		2.5	0	0		125
25	General Mills	Yoplait	Original Yogurt 6 oz	Yogurt	14	68	170	150		2	1	18		95

continued

Nutritional content of Smart Snacks cont'd

Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Calories (kcal) Median	Calories (kcal) Range	Total fat (g)	Sat fat (g)	Sugar (g) Median	Sugar (g) Range	Sodium (mg)
26	The Dannon Company	Dan-o-nino		Yogurt	1	66	50	60		2	1	7		25
27	General Mills	Yoplait Trix	Low-Fat Yogurt	Yogurt	3	66	113	100		0.5	0.5	13		50
27 (tie)	The Dannon Company	Dannon Activia	Regular Yogurt	Yogurt	8	66	113	100	100-110	1.5	1	16	15-18	60
29	The Dannon Company	Dannon	Fruit on the Bottom Low-Fat Yogurt	Yogurt	8	66	170	150		1.5	1	24		90
30	General Mills	Yoplait	Parfait Pro Low-Fat Yogurt	Yogurt	2	66	227	200		1.5	1	28		105
31	General Mills	Yoplait GoGurt	Simply GoGurt Strawberry Portable Low-Fat Yogurt	Yogurt	1	64	64	60		0.5	0	9		30
32	General Mills	Betty Crocker Fruit Snacks	Fruit Shapes Scooby Doo	Sweet snack	1	60	25	70		0	0	8		30
33	Kellogg Company	Keebler Crackers	Zesta Mini Saltine Crackers with Whole Grain	Savory snack	1	58	11	50		1.5	0	0		60
34	PepsiCo	Quaker Snack Mix	Kids Mix	Savory snack	1	58	25	100		3	0	2		150
35	Kellogg Company	Kashi Snack Bar	Trail Mix Granola Bar	Sweet snack	1	58	35	140		5	0.5	6		95
36	General Mills	General Mills	Cereal Bar	Sweet snack	7	58	40	150		3	0.5	9	8-9	105
37	Mondelez Global	Belvita Breakfast Biscuit	Soft Baked	Sweet snack	3	58	50	190	190-200	7	1	9	5-10	150
38	Kellogg Company	Kashi Crisps	Hummus Crisps	Savory snack	2	56	23	90		3	0	2	0.5-3	150
38 (tie)	Kellogg Company	Keebler Cookies	Honey Grahams	Sweet snack	1	56	23	90		2.5	0	4		100
40	General Mills	Nature Valley Snack Bar	Chewy Granola Bar	Sweet snack	2	56	30	115	90-140	3	0.5	6.5	6-7	60
41	Kellogg Company	Kashi Snack Bar	Cherry Dark Chocolate Chewy Granola Bar	Sweet snack	1	56	35	120		2	0.5	8		65
42	PepsiCo	Tostitos	Reduced-Fat	Savory snack	1	56	41	200		7	1	0		180
43	Kellogg Company	Special K Cracker Chips		Savory snack	4	55	25	100		3	0	2		185
44	General Mills	Betty Crocker Fruit Snacks	Fruit Roll Ups	Sweet snack	3	54	14	45		1	0	4		55
45	Kellogg Company	Keebler Cookies	Honey Grahams with Calcium	Sweet snack	1	54	23	90		2.5	0	5		95
45 (tie)	Kellogg Company	Keebler Cookies	Honey Grahams with Fiber	Sweet snack	1	54	23	90		2.5	0	4		130
45 (tie)	PepsiCo	Quaker Snack Bar	25% Reduced Sugar Chewy Granola Bar Cookies 'n Cream	Sweet snack	1	54	24	90		2.5	0.5	5		80
45 (tie)	PepsiCo	Quaker Snack Bar	90 Calorie Chewy Granola Bar	Sweet snack	1	54	24	90		2.5	0.5	5		80
49	PepsiCo	Doritos	Reduced-Fat	Savory snack	3	54	28	130		5	0.5	0.5	0-1	180
50	Kellogg Company	Rice Crispies Bar	Chewy Granola	Sweet snack	2	54	36	140		3	0.5	9		105

continued

Nutritional content of Smart Snacks cont'd

Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Calories (kcal)		Total fat (g)	Sat fat (g)	Sugar (g)		Sodium (mg)
								Median	Range			Median	Range	
51	PepsiCo	Smartfood	Delight White Cheddar	Savory snack	1	52	14	70		2.5	0	0		110
52	PepsiCo	Rold Gold	Heartzels	Savory snack	1	52	20	80		1.5	0	0		200
53	General Mills	Chex Mix	Simply Chex Snack Mix	Savory snack	3	52	26	110		2.5	0.5	3	2-4	160
53 (tie)	PepsiCo	Baked Lays	BBQ	Savory snack	1	52	25	110		2.5	0	3		170
53 (tie)	PepsiCo	Baked Munchies	Snack Crackers	Savory snack	2	52	26	110		4	1	1	0.5-1	160
56	Popchips	Popchips		Savory snack	7	52	28	120	100-120	4	0	1	0-3	160
57	Mondelez Global	Honey Maid Teddy Grahams	Cinnamon	Sweet snack	1	52	30	130		40	0.5	7		100
58	General Mills	Simply Chex	Snack Mix	Sweet snack	2	51	29	120		3.5	1	6.5	6-7	60
59	PepsiCo	Cheetos	Reduced-Fat	Savory snack	2	50	20	90		3.5	0	0.5		135
60	Campbell Soup Company	Pepperidge Farm Goldfish	100 Calorie Pack with Whole Grains	Savory snack	1	50	21	100		3.5	0.5	0		170
60 (tie)	Kellogg Company	Eagles	Popped Crisps	Savory snack	3	50	22	100	90-100	2.5	0	0	0-2	170
62	PepsiCo	Baked Cheetos		Savory snack	1	50	25	120		4.5	0.5	1		200
63	Mondelez Global	Honey Maid	Lil' Squares Honey Grahams	Sweet snack	1	50	30	130		3	0	8		150
64	PepsiCo	Sunchips	Multigrain	Savory snack	6	50	28	140	110-140	6	1	2	1-2	165
65	General Mills	Betty Crocker	Oatmeal Bars	Sweet snack	3	50	35	150		5	1	8		120
65 (tie)	General Mills	Nature Valley	Cinnamon Crisps	Sweet snack	1	50	34	150		5	0.5	9		140
67	Kellogg Company	Nutri-Grain Snack Bar	Cereal Bar	Sweet snack	4	50	44	160	120-160	4	0.5	14	12-15	132.5
68	Kellogg Company	Special K Snack Bar	Nourish Bar	Sweet snack	1	50	45	170		6	1.5	11		135
69	Kellogg Company	PopTarts	Whole Grain	Sweet snack	3	50	50	180		2.5	1	15	15-16	190
70	Kellogg Company	Keebler Cookies	Gripz	Sweet snack	2	49	26	110	100-120	3	1	5.5	5-6	80
71	Kellogg Company	Sunshine Cheez-it	Whole Grain	Savory snack	1	48	21	100		3.5	1	0		150
71 (tie)	PepsiCo	Quaker Snack Bar	25% Reduced Sugar Chewy Granola Bar Chocolatey Chip	Sweet snack	1	48	24	100		4	1	5		75
73	Campbell Soup Company	Pepperidge Farm Goldfish	Whole Grain	Savory snack	1	48	28	130		4	1	0		220
73 (tie)	Kellogg Company	Nutri-Grain Snack Bar	Greek Yogurt Strawberry Bar	Sweet snack	1	48	37	130		3.5	1	12		115
75	PepsiCo	Cheetos	Fantastix	Savory snack	2	48	28	145	130-160	5	1	0.5		200
76	General Mills	Nature Valley Snack Bar	Crunchy Granola Bar	Sweet snack	2	47	42	185	180-190	6.5	1	12		170
77	PepsiCo	Quaker Snack Bar	90 Calorie Chewy Granola Bar Peanut Butter	Sweet snack	1	46	24	90		2	0	8		120

continued

Nutritional content of Smart Snacks cont'd

								Calories (kcal)				Sugar (g)		
Rank	Company	Brand	Variety	Category	# of products	Median NPI score	Serving size (g)	Median	Range	Total fat (g)	Sat fat (g)	Median	Range	Sodium (mg)
78	Campbell Soup Company	Pepperidge Farm Goldfish	Flavor Blasted	Savory snack	2	46	21	100		3.5	0.5	0.25	0-0.5	192.5
79	PepsiCo	Quaker Snack Bar	90 Calorie Chewy Granola Bar Smores	Sweet snack	1	44	24	90		2	0.5	9		75
80	Campbell Soup Company	Pepperidge Farm Goldfish Grahams	Phys-Edibles Animal Crackers	Sweet snack	1	44	26	120		4	1	6		105
81	Kellogg Company	Keebler Cookies	Animal Crackers	Sweet snack	1	44	29	130		4	1	8		110
81 (tie)	PepsiCo	Baked Lays	Sour Cream and Onion	Savory snack	1	44	25	130		3.5	0.5	3		190
83	PepsiCo	Quaker Snack Bar	Chewy Granola Bar Maple Brown Sugar	Sweet snack	1	44	36	140		2.5	1	11		120
84	PepsiCo	Quaker Breakfast Cookies	Oatmeal Raisin Breakfast Cookies	Sweet snack	1	44	48	170		4.5	1	15		190
85	Kellogg Company	Sunshine Cheez-it	Cheddar Loco	Savory snack	1	42	21	100		3.5	1	0		200
85 (tie)	Kellogg Company	Sunshine Cheez-it	Whole Grain -- Atomic Cheddar	Savory snack	1	42	21	100		3.5	1	0		200
87	Campbell Soup Company	Pepperidge Farm Goldfish Grahams	Giant Chocolate Goldfish Grahams	Sweet snack	1	42	26	110		3.5	1	6		120
88	PepsiCo	Quaker Snack Bar	Oatmeal To Go	Sweet snack	1	42	40	140		2.5	0.5	14		150
89	Kellogg Company	Keebler Cookies	Bug Bites Cinnamon Grahams	Sweet snack	1	40	28	120		3.5	1	8		115
89 (tie)	Kellogg Company	Keebler Cookies	Elf Grahams	Sweet snack	3	40	28	120		4	1	8	7-8	105
89 (tie)	Kellogg Company	Keebler Cookies	Scooby-Doo Bones Cinnamon Grahams	Sweet snack	1	40	28	120		3.5	1	8		115
92	PepsiCo	Quaker Snack Bar	Reduced-Sugar Chewy Granola Bar Peanut Butter Chocolate Chip	Sweet snack	1	36	24	100		3	1	5		100

Worst

Source: Rudd Center nutrition analysis (August 2015)

Advertising spending

Ranking by total advertising spending in 2014*

Includes total spending in all measured media

Most

Rank	Company	Brand	Product category	Total advertising spending*** ($000) 2010	2014	Change	2014 advertising spending by medium ($000) TV	TV % of total	Internet	Magazine and Sunday supplement	FSI coupon
1	General Mills	Yoplait	Yogurt	$33,259	$67,896	104%	$67,128	99%	$58	$0	$478
2	General Mills	Nature Valley Snack Bar	Sweet snack	$41,732	$53,236	28%	$52,638	99%	$8	$216	$373
3	General Mills	Yoplait Greek	Yogurt	$1,793	$45,738	2452%	$45,178	99%	$56	$309	$194
4	General Mills	Fiber One Snack Bar	Sweet snack	$27,016	$43,990	63%	$43,579	99%	$7	$0	$404
5	Chobani	Chobani Greek Yogurt	Yogurt	$35	$39,891	**	$35,922	90%	$68	$3,829	$0
6	PepsiCo	Lay's Potato Chips	Savory snack	$15,661	$35,923	129%	$32,396	90%	$31	$16,521	$342
7	PepsiCo	Tostitos	Savory snack	$34,229	$33,540	-2%	$32,396	97%	$31	$935	$0
8	PepsiCo	Cheetos	Savory snack	$19,286	$33,123	72%	$33,082	100%	$403	$412	$0
9	PepsiCo	Doritos	Savory snack	$22,146	$32,516	47%	$31,128	96%	$36	$0	$0
10	The Wonderful Company	Wonderful Nuts	Nuts	$14,044	$32,390	131%	$28,328	87%	$1	$0	$0
11	Kellogg Company	Pringles	Savory snack	$38,909	$30,982	-20%	$24,751	80%	$4	$3,292	$763
12	General Mills	Yoplait Light	Yogurt	$67,019	$29,510	-56%	$21,196	72%	$92	$5,745	$383
13	Kellogg Company	Sunshine Cheez-It	Savory snack	$33,292	$29,100	-13%	$26,523	91%	$35	$0	$0
14	Mondelez Global	Oreo Cookies	Sweet snack	$39,691	$28,822	-27%	$17,716	61%	$1,231	$1,155	$0
15	Bel Brands USA	Laughing Cow	Cheese	$30,899	$28,683	-7%	$20,971	73%	$0	$665	$0
16	Kraft Foods	Planters Nuts	Nuts	$12,650	$28,370	124%	$25,584	90%	$229	$1,946	$611
17	Kellogg Company	PopTarts	Sweet snack	$55,870	$26,296	-53%	$25,813	98%	$52	$94	$288
18	The Dannon Company	Dannon Activia	Yogurt	$77,145	$22,568	-71%	$20,993	93%	$0	$1,506	$69
19	General Mills	Yoplait GoGurt	Yogurt	$20,389	$21,476	5%	$21,006	98%	$257	$0	$213
20	Chobani	Chobani Simply 100	Yogurt	$0	$21,319	**	$17,962	84%	$0	$3,357	$0
21	PepsiCo	Lay's Kettle Cooked Potato Chips	Savory snack	$5,863	$21,287	263%	$5,254	25%	$0.0	$16,033	$0
22	Kraft Foods	Oscar Mayer P3	Various	$0	$18,574	**	$11,438	62%	$9	$7,052	$74
23	Mondelez Global	Newtons Cookies	Sweet snack	$0	$18,418	**	$2,449	13%	$0	$15,855	$114
24	Kellogg Company	Keebler Crackers	Savory snack	$17,251	$17,642	2%	$0	0%	$2	$17,556	$84
25	The Dannon Company	Dannon Light & Fit	Yogurt	$15,294	$17,538	15%	$17,460	100%	$0	$28	$50
26	Mondelez Global	Ritz Crackers	Savory snack	$35,094	$17,241	-51%	$9,096	53%	$16	$7,999	$128
27	Mondelez Global	Belvita Breakfast Biscuits	Sweet snack	$0	$16,881	**	$12,515	74%	$50	$0	$359
28	Oberto Brands	Oberto Beef Jerky	Savory snack	$198	$16,757	**	$13,874	83%	$43	$2,841	$0
29	The Dannon Company	Dannon Oikos	Yogurt	$0	$16,397	**	$16,243	99%	$0	$0	$135
30	The Wonderful Company	Wonderful Halos	Fruit	$0	$16,352	**	$15,478	95%	$480	$0	$394
31	Mondelez Global	Triscuit Crackers	Savory snack	$10,458	$15,780	51%	$7,021	44%	$28	$8,609	$123
32	FAGE	FAGE FruYo	Yogurt	$0	$15,535	**	$15,508	100%	$28	$0	$0

continued

Advertising spending cont'd

				Total advertising spending*** ($000)			2014 advertising spending by medium ($000)				
Rank	Company	Brand	Product category	2010	2014	Change	TV	TV % of total	Internet	Magazine and Sunday supplement	FSI coupon
33	General Mills	Chex Mix	Savory snack	$11,295	$15,328	36%	$15,065	98%	$18	$0	$246
34	Mondelez Global	Wheat Thins	Savory snack	$19,749	$15,257	-23%	$15,131	99%	$20	$0	$106
35	Almond Board of California	California Almonds	Nuts	$20,252	$14,999	-26%	$2,100	14%	$327	$12,498	$0
36	FAGE International	FAGE Total	Yogurt	$6,754	$14,740	118%	$14,634	99%	$105	$0	$0
37	PepsiCo	Frito Lay Snacks	Savory snack	$1,750	$14,394	722%	$13,983	97%	$72	$0	$122
38	General Mills	Betty Crocker Fruit Snacks	Sweet snack	$11,189	$12,953	16%	$12,883	99%	$0	$0	$115
39	Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	$10,265	$12,839	25%	$5,795	45%	4.484	$7,039	$0
40	Blue Diamond Growers	Blue Diamond Almonds	Nuts	$17,557	$11,108	-37%	$6,343	57%	$0	$4,423	$343
41	PepsiCo	Quaker Snack Bar	Sweet snack	$6,699	$10,776	61%	$2,030	19%	$1	$8,546	$117
42	Sargento Foods	Sargento	Cheese	$4,090	$10,827	165%	$5,729	53%	$0	$3,549	$373
43	Kellogg Company	Special K Snacks	Sweet snack	$0	$10,777	**	$0	0%	$36	$10,741	$0
44	Kellogg Company	Keebler Cookies	Sweet snack	$9,128	$10,760	18%	$0	0%	$70	$10,564	$126
45	ThinkThin Products	ThinkThin Snack Bar	Sweet snack	$0	$10,718	**	$7,431	69%	$2,631	$0	$0
46	Kellogg Company	Special K Crackers	Savory snack	$6,038	$9,837	63%	$2,713	28%	$0.1	$7,056	$69
47	Materne	GoGo Squeez Applesauce	Fruit	$0	$9,471	**	$6,042	64%	$0.1	$3,159	$99
48	Link Snacks	Jack Links	Savory snack	$3,841	$9,438	146%	$9,320	99%	$38	$0	$63
49	General Mills	Fiber One Cookies	Sweet snack	$0	$8,430	**	$8,252	98%	$0	$0	$178
50	Nature Delivered	Graze Boxes	Various	$0	$7,811	**	$3,232	41%	$69	$4,511	$0
51	Snyder's of Hanover	Snyder's of Hanover	Savory snack	$8,201	$7,762	-5%	$7,471	96%	$72	$0	$220
52	Kellogg Company	Nutri-Grain Snack Bar	Sweet snack	$25,091	$7,596	-70%	$118	2%	$40	$7,308	$130
53	Ferrero USA	Nutella & Go!	Sweet snack	$0	$7,285	**	$7,285	100%	$0	$0	$0
54	PepsiCo	Stacy's Pita Chips	Savory snack	$13,259	$7,031	-47%	$7,031	100%	$0	$0	$0
55	General Mills	Nature Valley Breakfast Biscuits	Sweet snack	$0	$6,673	**	$6,360	95%	$0	$0	$313
56	Mondelez Global	Chips Ahoy	Sweet snack	$9,129	$6,338	-31%	$6,335	100%	$0	$0	$0
57	General Mills	Fiber One Brownies	Sweet snack	$0	$6,288	**	$6,288	100%	$0	$0	$0
58	Popchips	Popchips	Savory snack	$530	$5,425	924%	$5,063	93%	$1	$240	$113
59	The Dannon Company	Dannon Danimals	Yogurt	$9,057	$5,188	-43%	$5,135	99%	$0	$0	$53
60	Dr Pepper Snapple Group	Mott's Snack & Go Applesauce	Fruit	$0	$5,043	**	$0	0%	$0	$4,938	$105
61	The Dannon Company	Dannon Creamery	Sweet snack	$0	$4,992	**	$4,992	100%	$0	$0	$0
62	Procter & Gamble	META Health Snack Bar	Sweet snack	$0	$4,897	**	$4,811	98%	$0.3	$0	$86
63	Mondelez Global	Honey Maid	Sweet snack	$2	$4,680	**	$4,493	96%	$20	$0	$166
64	Kellogg Company	Special K Snack Bar	Sweet snack	$6,146	$4,642	-24%	$4,568	98%	$6	$0	$68
65	McKee Foods	Little Debbie	Sweet snack	$5,258	$4,558	-13%	$4,515	99%	$1	$0	$0
66	B&G Foods	Pirates Booty	Savory snack	$2,504	$4,386	75%	$0	0%	$73	$4,313	$0
67	ConAgra Foods	Slim Jim	Savory snack	$1,678	$4,179	149%	$4,102	98%	$4	$0	$73
68	Kellogg Company	Kashi Snack Bar	Sweet snack	$8,226	$3,740	-55%	$0	0%	$0	$3,740	$0

continued

Advertising spending cont'd

Rank	Company	Brand	Product category	Total advertising spending*** ($000) 2010	2014	Change	2014 advertising spending by medium ($000) TV	TV % of total	Internet	Magazine and Sunday supplement	FSI coupon
69	Dole Food Company	Dole Fruit Bowls	Fruit	$1,050	$3,549	238%	$3,527	99%	$0	$0	$22
70	National Peanut Board	Peanuts	Nuts	$1,522	$3,526	132%	$0	0%	$7	$3,411	$0
71	McKee Foods	Sunbelt Bakery Granola Bar	Sweet snack	$1,552	$3,252	110%	$3,243	100%	$9	$0	$0
72	Welch Foods Inc.	Welch's Snacks	Sweet snack	$187	$3,158	1591%	$0	0%	$7	$2,797	$353
73	Campbell Soup Company	Goldfish Grahams	Sweet snack	$4,462	$3,098	-31%	$595	19%	$0	$2,503	$0
74	J.M. Smucker Company	Jif to Go Snack Dippers	Savory snack	$0	$3,074	**	$3,041	99%	$0	$0	$34
75	Weight Watchers	Weight Watchers Brownie Bliss	Sweet snack	$0	$2,989	**	$0	0%	$0	$2,989	$0
76	Mars	Combos	Savory snack	$691	$2,892	318%	$0	0%	$12	$2,654	$68
77	Mondelez Global	Honey Maid Teddy Grahams	Sweet snack	$0	$2,826	**	$2,594	92%	$0	$0	$231
78	MidOcean Partners	South Beach Snack Bar	Sweet snack	$0	$2,824	**	$2,735	97%	$0	$0	$89
79	Bard Valley	Natural Delights Medjool Dates	Fruit	$0	$2,460	**	$0	0%	$0	$2,460	$0
80	Diamond Foods	Emerald Cocoa Roasted Almonds	Nuts	$0	$2,357	**	$0	0%	$1	$2,356	$0
81	Sun Valley Dairy	Voskos Yogurt	Yogurt	$102	$2,341	2191%	$1,917	82%	$1	$397	$26
82	Del Monte Foods	Del Monte Peaches	Fruit	$5,961	$2,298	-61%	$21	1%	$1	$2,276	$0
83	Sheila G Brands	Sheila G's Brownie Brittle	Sweet snack	$0	$2,193	**	$0	0%	$4	$2,189	$0
84	General Mills	Yoplait Trix	Yogurt	$5,085	$1,930	-62%	$1,930	100%	$0	$0	$0
85	Pear Bureau Northwest	USA Pears	Fruit	$0	$1,907	**	$3	0%	$0	$1,904	$0
86	Clif Bar & Company	Clif Mojo	Sweet snack	$0	$1,828	**	$0	0%	$0	$1,764	$64
87	J.M. Smucker Company	Smucker's Fruit-Fulls Applesauce	Fruit	$0	$1,764	**	$1,718	97%	$0	$0	$47
88	Kozy Shack Enterprises	Kozy Shack Pudding	Sweet snack	$911	$1,281	41%	$0	0%	$27	$1,075	$179
89	Kellogg Company	Kashi Crisps	Savory snack	$0	$1,194	**	$0	0%	$0	$1,194	$0
90	California Table Grape Commission	Grapes from California	Fruit	$887	$1,143	29%	$634	55%	$0	$509	$0

Least

continued

Advertising spending cont'd

COMPANY RANKINGS

Most

		Total advertising spending ($000)			2014 advertising spending by medium ($000)				
Rank	Company	2010	2014	Change	TV	TV % of total	Internet	Magazine and Sunday supplement	FSI coupon
1	General Mills	$249,815	$315,239	26%	$309,875	94%	$476	$1,355	$3,199
2	PepsiCo	$161,309	$188,924	17%	$160,116	78%	$576	$25,926	$518
3	Kellogg Company	$231,523	$152,867	-34%	$84,487	47%	$1,549	$65,319	$1,265
4	Mondelez Global	$127,401	$127,485	0%	$77,353	58%	$165	$43,307	$2,330
5	The Dannon Company	$136,240	$67,291	-51%	$64,871	96%	$57	$1,534	$794
6	Chobani	$35	$61,210	**	$53,884	88%	$68	$7,186	$0
7	The Wonderful Company	$14,157	$49,586	250%	$43,806	88%	$486	$3,292	$2,000
8	Kraft Foods	$70,465	$47,163	-33%	$37,118	71%	$239	$8,998	$808
9	FAGE International	$6,754	$30,275	348%	$30,142	100%	$133	$0	$0
10	Bel Brands USA	$30,899	$28,683	-7%	$20,971	73%	$0	$665	$0
11	Oberto Brands	$198	$16,757	8350%	$13,874	83%	$43	$2,841	$0
12	Campbell Soup Company	$32,208	$15,937	-51%	$6,390	40%	$4	$9,542	$0
13	Almond Board of California	$20,252	$14,999	-26%	$2,100	14%	$327	$12,498	$0
14	Blue Diamond Growers	$17,634	$11,188	-37%	$6,343	57%	$0	$4,423	$422
15	Sargento Foods	$4,090	$10,827	165%	$5,729	53%	$0	$3,549	$373
16	ThinkThin Products	$0	$10,718	**	$7,431	69%	$2,631	$0	$0
17	Materne	$0	$9,471	**	$6,042	64%	$0	$3,159	$99
18	Link Snacks	$3,841	$9,438	146%	$9,320	99%	$38	$0	$63
19	Snyder's of Hanover	$12,857	$7,957	-38%	$7,471	94%	$221	$0	$248
20	Nature Delivered	$0	$7,811	**	$3,232	41%	$69	$4,511	$0
21	McKee Foods	$6,810	$7,810	15%	$7,758	99%	$10	$0	$0
22	Ferrero USA	$0	$7,285	**	$7,285	100%	$0	$0	$0
23	Popchips	$530	$5,425	924%	$5,063	93%	$1	$240	$113
24	Dr Pepper Snapple Group	$0	$5,043	**	$0	0%	$0	$4,938	$105
25	Procter & Gamble	$0	$4,897	**	$4,811	98%	$0	$0	$86
26	J.M. Smucker Company	$1	$4,875	**	$4,758	98%	$37	$0	$80
27	Dole Food Company	$6,373	$4,667	-27%	$3,527	76%	$0	$110	$1,029
28	B&G Foods	$2,656	$4,452	68%	$0	0%	$79	$4,313	$54
29	ConAgra Foods	$2,972	$4,312	45%	$4,102	95%	$4	$0	$206
30	National Peanut Board	$1,522	$3,526	132%	$0	0%	$7	$3,411	$0
31	Welch Foods Inc.	$187	$3,158	1591%	$0	0%	$7	$2,797	$353
32	Mars	$1,650	$3,034	84%	$0	0%	$93	$2,654	$68
33	Weight Watchers	$0	$2,989	**	$0	0%	$0	$2,989	$0
34	MidOcean Partners	$0	$2,824	**	$2,735	97%	$0	$0	$89

continued

Ranking Table 3

Advertising spending cont'd

Rank	Company	Total advertising spending ($000) 2010	2014	Change	2014 advertising spending by medium ($000) TV	TV % of total	Internet	Magazine and Sunday supplement	FSI coupon
35	Diamond Foods	$4,861	$2,526	-48%	$0	0%	$1	$2,489	$36
36	Bard Valley	$0	$2,460	**	$0	0%	$0	$2,460	$0
37	Sun Valley Dairy	$102	$2,341	2191%	$1,917	82%	$1	$397	$26
38	Del Monte Foods	$13,684	$2,298	-83%	$21	1%	$1	$2,276	$0
39	Sheila G Brands	$0	$2,193	**	$0	0%	$4	$2,189	$0
40	Pear Bureau Northwest	$0	$1,907	**	$3	0%	$0	$1,904	$0
41	Clif Bar & Company	$19	$1,881	**	$0	0%	$1	$1,764	$117
42	Kozy Shack Enterprises	$973	$1,281	32%	$0	0%	$27	$1,075	$179
43	California Table Grape Commission	$887	$1,143	29%	$634	55%	$0	$509	$0

Least

*Includes all brands with $1 million or more in total advertising spending in 2014

**Brand was not advertised in 2010

***Includes spending in 18 different media including television, magazine, internet, radio, newspaper, freestanding insert coupons, and outdoor advertising

Source: Rudd Center analysis of Nielsen data (2015)

Television advertising exposure for children

Ranking by ads viewed by children (6-11 years) in 2014

Includes average number of ads viewed by children on national (network, cable, and syndicated) and spot TV

				Average # of ads viewed						2014 targeted ratios*	
				Preschoolers (2-5 years)			Children (6-11 years)				
Rank	Company	Brand	Category	2010	2014	Change	2010	2014	Change	Preschooler: adult	Children: adult
1	General Mills	Betty Crocker Fruit Snacks	Sweet snack	74.8	91.7	23%	84.9	97.1	14%	**5.93**	**6.28**
2	General Mills	Yoplait GoGurt	Yogurt	44.7	72.4	62%	50.6	80.6	59%	**2.47**	**2.74**
3	Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	26.1	22.7	-13%	30.5	34.0	11%	**3.97**	**5.93**
4	General Mills	Yoplait	Yogurt	31.1	26.1	-16%	37.5	29.7	-21%	0.79	0.89
5	General Mills	Nature Valley Snack Bar	Sweet snack	9.1	28.0	208%	10.7	27.6	159%	0.55	0.50
6	The Dannon Company	Dannon Danimals	Yogurt	46.4	15.1	-68%	50.8	21.8	-57%	**4.85**	**7.03**
7	Kellogg Company	PopTarts	Sweet snack	6.9	17.9	161%	7.6	21.4	182%	0.56	0.67
8	General Mills	Yoplait Trix	Yogurt	31.8	20.5	-35%	36.3	18.6	-49%	**6.68**	**6.04**
9	General Mills	Yoplait Greek	Yogurt	0.0	18.1	**	0.0	18.1	**	0.53	0.53
10	PepsiCo	Tostitos	Savory snack	5.1	16.4	222%	6.0	17.2	187%	0.41	0.43
11	PepsiCo	Lay's Potato Chips	Savory snack	2.2	16.7	654%	3.1	17.1	455%	0.46	0.47
12	Mondelez Global	Honey Maid	Sweet snack	0.0	11.9	**	0.0	16.0	**	**1.75**	**2.35**
13	PepsiCo	Cheetos	Savory snack	8.1	14.8	83%	10.6	14.9	41%	0.51	0.51
14	General Mills	Yoplait Light	Yogurt	13.3	12.6	-5%	16.0	14.3	-10%	0.52	0.59
15	General Mills	Fiber One Snack Bar	Sweet snack	7.3	12.5	71%	9.3	12.9	38%	0.45	0.46
16	PepsiCo	Doritos	Savory snack	2.8	9.4	235%	3.5	10.7	202%	0.41	0.47
17	General Mills	Chex Mix	Savory snack	8.5	10.0	18%	11.0	10.4	-5%	0.52	0.54
18	The Wonderful Company	Wonderful Halos	Fruit	0.0	8.7	**	0.0	8.7	**	0.96	0.96
19	The Wonderful Company	Wonderful Nuts	Nuts	3.1	8.2	165%	3.3	8.7	163%	0.08	0.36
20	Bel Brands USA	Laughing Cow	Cheese	6.9	7.8	14%	6.8	7.5	10%	0.42	0.40
21	Kellogg Company	Sunshine Cheez-It	Savory snack	7.7	6.6	-15%	8.9	7.1	-19%	0.39	0.42
22	Ferrero USA	Nutella & Go!	Sweet snack	0.0	6.0	**	0.0	7.0	**	0.60	0.70
23	Materne	GOGO Squeez Applesauce	Fruit	0.0	7.7	**	0.0	6.1	**	**1.66**	**1.30**
24	PepsiCo	Frito Lay Snacks	Savory snack	0.0	6.4	**	0.0	6.0	**	0.45	0.42
25	The Dannon Company	Dannon Activia	Yogurt	20.7	6.1	-70%	19.9	5.9	-70%	0.39	0.38
26	Mondelez Global	Oreo Cookies	Sweet snack	10.2	5.8	-43%	16.2	5.7	-65%	0.43	0.42
27	Mondelez Global	Wheat Thins	Savory snack	9.3	5.6	-40%	9.8	5.7	-42%	0.33	0.34
28	General Mills	Nature Valley Breakfast Biscuits	Sweet snack	0.0	5.3	**	0.0	5.3	**	0.56	0.56
29	The Dannon Company	Dannon Light & Fit	Yogurt	8.8	5.3	-40%	8.7	5.2	-40%	0.45	0.44
30	Kellogg Company	Pringles	Savory snack	5.5	4.9	-10%	6.0	5.2	-13%	0.39	0.41
31	Mondelez Global	Belvita Breakfast Biscuits	Sweet snack	0.0	5.0	**	0.0	5.0	**	0.36	0.35

Most

continued

Television advertising exposure for children cont'd

				Average # of ads viewed						2014 targeted ratios*	
				Preschoolers (2-5 years)			Children (6-11 years)				
Rank	Company	Brand	Category	2010	2014	Change	2010	2014	Change	Preschooler: adult	Children: adult
32	Campbell Soup Company	Pepperidge Farm Goldfish Grahams	Sweet snack	14.5	3.4	-76%	17.4	4.6	-74%	**4.42**	**5.93**
33	Chobani	Chobani Simply 100	Yogurt	0.0	4.0	**	0.0	4.5	**	0.46	0.52
34	Mondelez Global	Ritz Cracker	Savory snack	9.3	4.8	-49%	12.4	4.2	-66%	0.39	0.34
35	The Dannon Company	Dannon Oikos	Yogurt	0.0	3.9	**	0.0	3.8	**	0.38	0.38
36	Kraft Foods	Planters Nuts	Nuts	2.3	3.5	51%	2.7	3.6	32%	0.29	0.30
37	Dole Food Company	Dole Fruit Bowls	Fruit	0.0	2.7	**	0.0	3.5	**	0.69	0.91
38	FAGE International	FAGE FruYo	Yogurt	0.0	3.6	**	0.0	3.4	**	0.33	0.31
39	Links Snacks	Jack Links	Savory snack	1.2	2.9	135%	1.1	3.1	182%	0.36	0.40
40	FAGE International	FAGE Total	Yogurt	0.0	3.5	**	0.0	3.1	**	0.34	0.30
41	Kraft Foods	Oscar Mayer P3	Multiple	0.0	2.9	**	0.0	3.1	**	0.34	0.37
42	PepsiCo	Stacy's Pita Chips	Savory snack	1.4	2.9	110%	1.6	3.0	93%	0.41	0.43
43	ConAgra Foods	Slim Jim	Savory snack	0.7	2.6	291%	1.3	2.9	118%	0.40	0.45
44	Chobani	Chobani Greek Yogurt	Yogurt	0.0	1.9	**	0.0	2.3	**	0.43	0.53
45	Mondelez Global	Triscuit Crackers	Savory snack	3.3	2.7	-19%	4.1	2.2	-45%	0.37	0.30
46	Sargento Foods	Sargento	Cheese	0.9	2.2	139%	1.0	2.2	128%	0.40	0.39
47	Mondelez Global	Chips Ahoy	Sweet snack	3.7	2.1	-43%	5.6	2.2	-61%	0.38	0.39
48	Kellogg Company	Special K Snack Bar	Sweet snack	1.7	2.0	24%	1.9	1.9	2%	0.40	0.38
49	MidOcean Partners	South Beach Snack Bar	Sweet snack	0.0	1.7	**	0.0	1.9	**	0.45	0.52
50	Mondelez Global	Honey Maid Teddy Grahams	Sweet snack	0.0	1.4	**	0.0	1.9	**	0.69	0.94
51	Oberto Brands	Oberto Beef Jerky	Savory snack	0.0	1.9	**	0.0	1.8	**	0.35	0.34
52	General Mills	Fiber One Cookies	Sweet snack	0.0	2.1	**	0.0	1.8	**	0.41	0.34
53	General Mills	Fiber One Brownies	Sweet snack	0.0	1.5	**	0.0	1.8	**	0.50	0.60
54	PepsiCo	Lay's Kettle Cooked Potato Chips	Savory snack	0.0	1.7	**	0.0	1.8	**	0.36	0.38
55	Procter & Gamble	META Health Snack Bar	Sweet snack	0.0	1.7	**	0.0	1.6	**	0.39	0.38
56	Nature Delivered	Graze Boxes	Multiple	0.0	1.8	**	0.0	1.3	**	0.52	0.38
57	Kellogg Company	Special K Crackers	Savory snack	0.0	1.4	**	0.0	1.3	**	0.38	0.37
58	Mondelez Global	Newtons Cookies	Sweet snack	0.0	1.3	**	0.0	1.2	**	0.36	0.34
59	The Dannon Company	Dannon Creamery	Sweet snack	0.0	1.1	**	0.0	1.1	**	0.37	0.39
60	Snyder's of Hanover	Snyders of Hanover	Savory snack	1.1	1.0	-12%	1.2	0.9	-25%	0.29	0.28
61	ThinkThin Products	Think Thin Snack Bar	Sweet snack	0.0	0.8	**	0.0	0.9	**	0.32	0.32
62	PepsiCo	Quaker Snack Bar	Sweet snack	5.1	1.0	-81%	6.9	0.8	-89%	0.59	0.47
63	J.M. Smucker Company	Jif to Go Snack Dippers	Savory snack	0.0	0.7	**	0.0	0.8	**	0.36	0.38
64	McKee Foods	Little Debbie	Sweet snack	2.5	0.7	-73%	4.5	0.7	-85%	0.27	0.27
65	Blue Diamond Growers	Blue Diamond Almonds	Nuts	0.8	0.5	-46%	0.6	0.5	-11%	0.32	0.36

continued

Television advertising exposure for children cont'd

				Average # of ads viewed						2014 targeted ratios*	
				Preschoolers (2-5 years)			Children (6-11 years)				
Rank	Company	Brand	Category	2010	2014	Change	2010	2014	Change	Preschooler: adult	Children: adult
66	Almond Board of California	California Almonds	Nuts	0.3	0.5	90%	0.3	0.5	50%	0.30	0.27
67	Popchips	Popchips	Savory snack	0.0	0.4	**	0.0	0.4	**	0.24	0.19
68	McKee Foods	Sunbelt Bakery Granola Bar	Sweet snack	0.1	0.2	19%	0.1	0.2	39%	0.24	0.28
69	California Table Grape Commission	California Grapes	Fruit	0.2	0.1	-20%	0.2	0.1	-31%	0.39	0.36
70	J.M. Smucker Company	Smucker's Fruit-Fulls Applesauce	Fruit	0.0	0.1	**	0.0	0.1	**	0.33	0.37
71	Sun Valley Dairy	Voskos Yogurt	Yogurt	0.0	0.1	**	0.0	0.1	**	0.22	0.20

Least

continued

Television advertising exposure for children cont'd

COMPANY RANKINGS

	Rank	Company	Average # of ads viewed: Preschoolers (2-5 years) 2010	Preschoolers 2014	Preschoolers Change	Children (6-11 years) 2010	Children 2014	Children Change	2014 targeted ratios*: Preschooler: adult	2014 targeted ratios*: Children: adult
Most	1	General Mills	250.4	301.1	20%	290.5	318.2	10%	**1.18**	**1.24**
	2	PepsiCo	24.7	69.1	180%	31.7	71.4	125%	0.44	0.46
	3	Mondelez	36.1	40.6	12%	48.3	44.0	-9%	0.49	0.54
	4	Campbell Soup Company	40.6	26.2	-36%	47.9	38.6	-20%	**4.02**	**5.93**
	5	The Dannon Company	76.8	31.4	-59%	80.3	37.9	-53%	0.72	0.87
	6	Kellogg Company	35.2	32.9	-7%	40.1	37.0	-8%	0.47	0.52
	7	The Wonderful Company	3.1	16.9	446%	3.3	17.4	428%	0.32	0.53
	8	Bel Brands USA	6.9	7.8	14%	6.8	7.5	10%	0.42	0.40
	9	Ferrero USA	0.0	6.0	**	0.0	7.0	**	0.60	0.70
	10	Chobani	0.0	5.9	**	0.0	6.8	**	0.45	0.52
	11	Kraft Foods	6.8	6.4	-6%	8.5	6.7	-21%	0.31	0.33
	12	FAGE International	0.0	7.1	**	0.0	6.4	**	0.33	0.30
	13	Materne	0.0	7.7	**	0.0	6.1	**	**1.66**	**1.30**
	14	Dole Food Company	0.0	2.7	**	0.0	3.5	**	0.69	0.91
	15	Links Snacks	1.2	2.9	135%	1.1	3.1	182%	0.36	0.40
	16	ConAgra Foods	0.7	2.6	291%	1.3	2.9	118%	0.40	0.45
	17	Sargento Foods	0.9	2.2	139%	1.0	2.2	128%	0.40	0.39
	18	MidOcean Partners	0.0	1.7	**	0.0	1.9	**	0.45	0.52
	19	Oberto Brands	0.0	1.9	**	0.0	1.8	**	0.35	0.34
	20	Procter & Gamble	0.0	1.7	**	0.0	1.6	**	0.39	0.38
	21	Nature Delivered	0.0	1.8	**	0.0	1.3	**	0.52	0.38
	22	Snyder's of Hanover	1.8	1.0	-46%	2.0	0.9	-52%	0.29	0.28
	23	J.M. Smucker Company	0.0	0.8	**	0.0	0.9	**	0.36	0.38
	24	ThinkThin Products	0.0	0.8	**	0.0	0.9	**	0.32	0.32
	25	McKee Foods	2.6	0.8	-68%	4.6	0.9	-81%	0.27	0.27
	26	Blue Diamond Growers	0.8	0.5	-46%	0.6	0.5	-11%	0.32	0.36
	27	Almond Board of California	0.3	0.5	90%	0.3	0.5	50%	0.30	0.27
	28	Popchips	0.0	0.4	**	0.0	0.4	**	0.24	0.19
	29	California Table Grape Commission	0.2	0.1	-20%	0.2	0.1	-31%	0.39	0.36
Least	30	Sun Valley Dairy	0.0	0.1	**	0.0	0.1	**	0.22	0.20

Highlighting indicates CFBAI-approved brand that may be advertised to children

*Ratio of 1.0 or higher (bolded) indicates more ads viewed than expected given the viewing habits of children

**Brand was not advertised in 2010

Source: Rudd Center analysis of Nielsen data (2015)

Television advertising exposure for teens

Ranking by ads viewed by teens (12-17 years)

Includes average number of ads viewed by teens on national (Network, cable, and syndicated) and spot TV

Most

				Average # ads viewed			2014 targeted ratio*
				Teens (12-17 years)			
Rank	Company	Brand	Category	2010	2014	Change	Teen:adult
1	General Mills	Yoplait GoGurt	Yogurt	28.3	44.5	57%	**1.51**
2	General Mills	Betty Crocker Fruit Snacks	Sweet snack	37.6	43.9	17%	**2.84**
3	PepsiCo	Tostitos	Savory snack	11.0	42.7	193%	**0.94**
4	Kellogg Company	PopTarts	Sweet snack	12.0	36.9	208%	**1.15**
5	General Mills	Nature Valley Snack Bar	Sweet snack	17.0	32.9	93%	0.64
6	PepsiCo	Lay's Potato Chips	Savory snack	4.6	29.5	534%	0.81
7	General Mills	Yoplait	Yogurt	38.1	26.7	-30%	0.80
8	PepsiCo	Cheetos	Savory snack	17.1	26.1	53%	**0.90**
9	General Mills	Yoplait Greek	Yogurt	0.0	22.7	**	0.67
10	PepsiCo	Doritos	Savory snack	7.6	21.9	188%	**0.96**
11	Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	12.0	18.6	55%	**3.25**
12	General Mills	Yoplait Light	Yogurt	23.6	16.7	-29%	0.69
13	General Mills	Fiber One Snack Bar	Sweet snack	12.7	15.9	25%	0.57
14	The Wonderful Company	Wonderful Nuts	Nuts	4.8	13.7	188%	0.57
15	General Mills	Chex Mix	Savory snack	15.8	13.1	-17%	0.68
16	Kellogg Company	Sunshine Cheez-It	Savory snack	13.7	10.5	-23%	0.62
17	Mondelez Global	Honey Maid	Sweet snack	0.0	9.9	**	**1.46**
18	Mondelez Global	Wheat Thins	Savory snack	13.6	9.8	-27%	0.59
19	Bel Brands USA	Laughing Cow	Cheese	11.0	9.8	-11%	0.52
20	The Dannon Company	Dannon Danimals	Yogurt	21.1	9.5	-55%	**3.07**
21	PepsiCo	Frito Lay Snacks	Savory snack	0.0	9.2	**	0.64
22	Mondelez Global	Oreo Cookies	Sweet snack	20.0	9.1	-55%	0.67
23	Mondelez Global	Belvita Breakfast Biscuits	Sweet snack	0.0	8.7	**	0.62
24	Ferrero USA	Nutella & Go!	Sweet snack	0.0	8.7	**	0.87
25	General Mills	Yoplait Trix	Yogurt	15.1	8.1	-46%	**2.64**
26	Kellogg Company	Pringles	Savory snack	8.2	7.7	-6%	0.61
27	The Dannon Company	Dannon Activia	Yogurt	24.7	6.9	-72%	0.45
28	The Wonderful Company	Wonderful Halos	Fruit	0.0	6.9	**	0.76
29	General Mills	Nature Valley Breakfast Biscuits	Sweet snack	0.0	6.5	**	0.68
30	Links Snacks	Jack Links	Savory snack	2.5	6.4	156%	0.81
31	Mondelez Global	Ritz Cracker	Savory snack	12.0	6.3	-48%	0.51
32	Chobani	Chobani Simply 100	Yogurt	0.0	5.9	**	0.68

continued

Television advertising exposure for teens cont'd

Rank	Company	Brand	Category	Average # ads viewed Teens (12-17 years) 2010	2014	Change	2014 targeted ratio* Teen:adult
33	Kraft Foods	Oscar Mayer P3	Multiple	0.0	5.8	**	0.69
34	Kraft Foods	Planters Nuts	Nuts	4.1	5.7	41%	0.48
35	The Dannon Company	Dannon Light &Fit	Yogurt	10.9	5.6	-49%	0.48
36	ConAgra Foods	Slim Jim	Savory snack	1.3	5.2	305%	0.81
37	The Dannon Company	Dannon Oikos	Yogurt	0.0	4.8	**	0.48
38	FAGE International	FAGE FruYo	Yogurt	0.0	4.7	**	0.43
39	FAGE International	FAGE Total	Yogurt	0.0	4.5	**	0.43
40	PepsiCo	Stacy's Pita Chips	Savory snack	2.3	4.4	95%	0.64
41	Materne	GOGO Squeez Applesauce	Fruit	0.0	4.0	**	0.87
42	Dole Food Company	Dole Fruit Bowls	Fruit	0.0	3.9	**	**0.99**
43	Mondelez Global	Triscuit Crackers	Savory snack	5.7	3.8	-33%	0.51
44	Mondelez Global	Chips Ahoy	Sweet snack	7.3	3.1	-57%	0.57
45	Sargento Foods	Sargento	Cheese	1.4	3.1	113%	0.55
46	Nature Delivered	Graze Boxes	Multiple	0.0	2.9	**	0.85
47	Oberto Brands	Oberto Beef Jerky	Savory snack	0.0	2.9	**	0.53
48	Chobani	Chobani Greek Yogurt	Yogurt	0.0	2.8	**	0.62
49	Kellogg Company	Special K Snack Bar	Sweet snack	2.8	2.7	-1%	0.53
50	PepsiCo	Lay's Kettle Cooked Potato Chips	Savory snack	0.0	2.7	**	0.58
51	MidOcean Partners	South Beach Snack Bar	Sweet snack	0.0	2.6	**	0.70
52	General Mills	Fiber One Cookies	Sweet snack	0.0	2.4	**	0.46
53	General Mills	Fiber One Brownies	Sweet snack	0.0	2.2	**	0.72
54	Campbell Soup Company	Pepperidge Farm Goldfish Grahams	Sweet snack	7.0	2.1	-70%	**2.67**
55	Kellogg Company	Special K Crackers	Savory snack	0.0	2.0	**	0.55
56	Procter & Gamble	META Health Snack Bar	Sweet snack	0.0	1.9	**	0.45
57	Mondelez Global	Newtons Cookies	Sweet snack	0.0	1.7	**	0.47
58	Mondelez Global	Honey Maid Teddy Grahams	Sweet snack	0.0	1.6	**	0.77
59	The Dannon Company	Dannon Creamery	Sweet snack	0.0	1.4	**	0.47
60	Snyder's of Hanover	Snyders of Hanover	Savory snack	1.9	1.4	-30%	0.40
61	ThinkThin Products	Think Thin Snack Bar	Sweet snack	0.0	1.3	**	0.50
62	McKee Foods	Little Debbie	Sweet snack	4.1	1.3	-69%	0.51
63	PepsiCo	Quaker Snack Bar	Sweet snack	1.6	0.9	-42%	0.57
64	J.M. Smucker Company	Jif to Go Snack Dippers	Savory snack	0.0	0.8	**	0.43
65	Almond Board of California	California Almonds	Nuts	0.9	0.8	-3%	0.46
66	Blue Diamond Growers	Blue Diamond Almonds	Nuts	0.8	0.5	-34%	0.36
67	Popchips	Popchips	Savory snack	0.0	0.5	**	0.28
68	McKee Foods	Sunbelt Bakery Granola Bar	Sweet snack	0.2	0.3	26%	0.40

continued

Television advertising exposure for teens cont'd

Rank	Company	Brand	Category	Average # ads viewed Teens (12-17 years) 2010	2014	Change	2014 targeted ratio* Teen:adult
69	California Table Grape Commission	California Grapes	Fruit	0.3	0.2	-28%	0.47
70	J.M. Smucker Company	Smucker's Fruit-Fulls Applesauce	Fruit	0.0	0.2	**	0.46
71	Sun Valley Dairy	Voskos Yogurt	Yogurt	0.0	0.1	**	0.31
72	Kellogg Company	Nutri-Grain Snack Bar	Sweet snack	9.2	0.1	-99%	0.54

Least

continued

Television advertising exposure for teens cont'd

COMPANY RANKINGS

		Average # ads viewed			
		Teens (12-17 years)			2014 targeted ratio*
Rank	Company	2010	2014	Change	Teen:adult
1	General Mills	203.5	235.5	16%	**0.92**
2	PepsiCo	44.1	127.4	189%	0.82
3	Kellogg Company	60.1	60.0	0%	0.85
4	Mondelez	59.0	54.0	-9%	0.66
5	The Dannon Company	57.9	28.3	-51%	0.65
6	Campbell Soup Company	19.0	20.7	9%	**3.18**
7	The Wonderful Company	4.8	20.6	333%	0.62
8	Kraft Foods	14.8	11.7	-21%	0.57
9	Bel Brands USA	11.0	9.8	-11%	0.52
10	FAGE International	0.0	9.2	**	0.43
11	Ferrero USA	0.0	8.7	**	0.87
12	Chobani	0.0	8.6	**	0.66
13	Links Snacks	2.5	6.4	156%	0.81
14	ConAgra Foods	1.3	5.2	305%	0.81
15	Materne	0.0	4.0	**	0.87
16	Dole Food Company	0.0	3.9	**	**0.99**
17	Sargento Foods	1.4	3.1	113%	0.55
18	Nature Delivered	0.0	2.9	**	0.85
19	Oberto Brands	0.0	2.9	**	0.53
20	MidOcean Partners	0.0	2.6	**	0.70
21	Procter & Gamble	0.0	1.9	**	0.45
22	McKee Foods	4.3	1.5	-64%	0.49
23	Snyder's of Hanover	2.9	1.4	-53%	0.40
24	ThinkThin Products	0.0	1.3	**	0.50
25	J.M. Smucker Company	0.0	1.0	**	0.43
26	Almond Board of California	0.9	0.8	-3%	0.46
27	Blue Diamond Growers	0.8	0.5	-34%	0.36
28	Popchips	0.0	0.5	**	0.28
29	California Table Grape Commission	0.3	0.2	-28%	0.47
30	Sun Valley Dairy	0.0	0.1	**	0.31

Most

Least

Highlighting indicates CFBAI-approved brand that may be advertised to children

*Ratio of 0.9 or higher (bolded) indicates more ads viewed than expected given teens' viewing habits

**Brand was not advertised in 2010

Source: Rudd Center analysis of Nielsen data (2015)

Snack food website exposure

Ranking by average unique youth visitors (2-17 years) per month in 2014

Includes data for websites featuring snack foods in 2014*

Most → Least

Rank	Company	Brand	Category	Websites	Average unique visitors per month (000): Children (2-12 years)	Average unique visitors per month (000): Teens (13-17 years)	2014 average for all youth visitors (2-17 years): Avg visits per month	Avg time spent (min)	Avg pages per visit	Quarters with data available
1	Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	GoldfishFun.com	53.1	10.5	1.6	2.0	5.1	4
2	Kellogg Company	Kelloggs Family Rewards	Multiple	KelloggsFamilyRewards.com	1.1	30.1	1.3	4.5	13.1	4
3	PepsiCo	Frito Lay Snacks	Savory snack	DoUsaFlavor.com	0.5	26.3	1.4	4.0	5.5	4
4	Kellogg Company	Special K	Multiple	SpecialK.com	3.6	14.2	1.2	1.4	1.7	4
5	PepsiCo	Frito Lay Snacks	Savory snack	FritoLay.com	1.3	14.3	1.2	0.6	2.0	4
6	Mondelez Global	Nabisco	Multiple	NabiscoWorld.com	2.4	8.0	**	**	**	4
7	Dr Pepper Snapple Group	Mott's	Multiple	Motts.com	3.0	5.8	2.1	1.3	2.9	4
8	Nature Delivered	Graze Boxes	Multiple	Graze.com	**	7.9	**	**	**	4
9	PepsiCo	Doritos	Savory snack	Doritos.com	0.5	7.4	1.2	3.6	7.2	3
10	General Mills	Yoplait	Yogurt	Yoplait.com	1.0	5.0	**	**	**	4
11	The Dannon Company	Dannon	Yogurt	Danimals.com	3.1	0.5	1.1	1.0	1.1	1
12	Kellogg Company	PopTarts	Sweet snack	PopTarts.com	0.3	2.8	1.0	0.9	2.7	1
13	PepsiCo	Quaker	Multiple	QuakerOats.com	0.1	3.0	**	**	**	4
14	Kellogg Company	Kashi	Multiple	Kashi.com	0.6	2.3	**	**	**	3
15	MidOcean Partners	South Beach Diet	Multiple	SouthBeachDiet.com	**	2.3	**	**	**	3
16	Mondelez Global	Nabisco	Multiple	SnackWorks.com	**	2.3	**	**	**	2
17	Dole Food Company	Dole	Multiple	Dole.com	0.4	1.6	**	**	**	4
18	Chobani	Chobani	Yogurt	Chobani.com	0.1	1.7	**	**	**	1
19	J.M. Smucker Company	Jif	Multiple	Jif.com	0.2	1.5	**	**	**	2
20	General Mills	Chex Mix	Savory snack	Chex.com	**	1.2	**	**	**	1
21	Sargento Foods	Sargento	Multiple	Sargento.com	**	0.9	**	**	**	2
22	General Mills	Fiber One	Multiple	FiberOne.com	0.1	0.6	**	**	**	1
23	PepsiCo	Stacy's Pita Chips	Savory snack	StacysSnacks.com	**	0.7	**	**	**	1
24	Kellogg Company	Pringles	Savory snack	Pringles.com	**	0.6	**	**	**	1
25	Kellogg Company	Keebler	Sweet snack	Keebler.com	**	0.6	**	**	**	1
26	Campbell Soup Company	Pepperidge Farm	Multiple	PepperidgeFarm.com	0.1	0.2	**	**	**	1
27	Kellogg Company	Sunshine Cheez-It	Savory snack	CheezIt.com	**	0.2	**	**	**	1
28	McKee Foods	Little Debbie	Sweet snack	LittleDebbie.com	**	0.1	**	**	**	2
29	JM Smucker Company	Smuckers	Multiple	Smuckers.com	**	0.1	**	**	**	1
30	The Dannon Company	Oikos	Yogurt	OikosYogurt.com	**	0.1	**	**	**	1

*Includes websites with enough youth visitors (2-17 years) for comScore to measure

**Data not available due to low numbers of youth visitors

Source: comScore Media Metrix Key Measures report (January - December 2014)

Display advertising on youth websites

Ranking by average ads viewed on youth websites per month

Includes proportion of ads viewed on youth websites and average number of ads viewed by viewer

				Ads viewed on youth websites			Ads viewed on Facebook		Ads viewed on YouTube	
Rank	Company	Brand	Category	Avg # of monthly ads viewed (000)	Proportion of all ads viewed	ads viewed per viewer (2+ years) per month	Avg # of monthly ads viewed (000)	Proportion of all ads viewed	Avg # of monthly ads viewed (000)	Proportion of all ads viewed
Most 1	General Mills	Yoplait*	Yogurt	4,180.2	10.9%	1.2	1,734.0	4.5%	847.4	2.2%
2	Dr Pepper Snapple Group	Mott's	Multiple	1,936.9	8.4%	2.7	4,518.2	19.7%	599.7	2.6%
3	General Mills	Fiber One	Sweet snack	1,276.6	3.9%	2.7	10,533.1	31.9%	816.4	2.5%
4	PepsiCo	Lay's Potato Chips	Savory snack	786.3	1.1%	3.6	51,205.0	70.6%	2,561.0	3.5%
5	General Mills	Nature Valley	Sweet snack	725.8	2.6%	2.5	4,502.9	16.0%	916.1	3.3%
6	Kraft Foods	Planters	Nuts	642.9	6.8%	1.8	715.7	7.6%	464.3	4.9%
7	PepsiCo	Doritos	Savory snack	599.4	0.8%	4.1	53,096.7	72.8%	155.4	0.2%
8	PepsiCo	Tostitos	Savory snack	319.6	1.8%	3.1	841.5	4.8%	312.1	1.8%
9	General Mills	Chex Mix	Savory snack	248.7	3.6%	2.2	209.6	3.1%	157.1	2.3%
10	PepsiCo	Cheetos	Savory snack	225.5	1.1%	3.0	12,651.3	59.0%	1,111.2	5.2%
11	Mars	Combos	Savory snack	205.3	2.2%	2.9	395.8	4.1%	824.7	8.6%
12	General Mills	GoGurt	Yogurt	203.4	49.8%	2.0	11.4	2.8%	19.8	4.8%
13	Kellogg Company	Pringles	Savory snack	172.8	0.5%	2.6	757.0	2.1%	1,044.1	2.9%
14	Nature Delivered	Graze	Multiple	165.5	5.6%	2.7	252.3	8.6%	280.8	9.6%
15	Kellogg Company	Keebler	Sweet snack	160.8	0.5%	2.7	653.9	2.1%	902.0	2.9%
16	The Dannon Company	Dannon	Yogurt	160.7	2.7%	2.4	245.4	4.2%	286.9	4.9%
17	Chobani	Chobani Greek	Yogurt	147.6	1.7%	4.4	289.9	3.3%	318.4	3.7%
18	McKee Foods	McKee Foods**	Sweet snack	136.5	1.5%	4.8	477.3	5.4%	390.5	4.4%
19	Kozy Shack Enterprises	Kozy Shack Pudding	Sweet snack	100.2	3.2%	2.0	128.8	4.1%	44.2	1.4%
20	Link Snacks	Jack Links	Savory snack	82.1	1.2%	2.7	1,674.1	24.8%	67.7	1.0%
21	Kellogg Company	PopTarts	Sweet snack	54.2	0.7%	2.7	210.6	2.8%	2,078.4	27.5%
22	Blue Diamond Almonds	Blue Diamond Almonds	Nuts	48.5	0.7%	4.1	1,452.3	21.8%	68.4	1.0%
23	ConAgra Foods	Slim Jim	Savory snack	31.1	0.7%	2.8	257.0	6.1%	95.4	2.3%
24	FAGE	FAGE Greek	Yogurt	19.3	0.6%	2.2	57.9	1.9%	4.7	0.2%
25	Mondelez Global	Nabisco***	Multiple	14.9	0.3%	2.6	753.0	8.5%	674.6	7.6%
26	Bel Brands USA	Laughing Cow	Cheese	11.9	1.0%	2.5	38.7	3.4%	6.5	0.6%
27	Mondelez Global	Oreo Cookies	Sweet snack	6.7	0.3%	2.0	115.6	4.7%	523.6	21.1%
Least 28	Mondelez Global	Wheat Thins	Savory snack	4.9	0.3%	2.3	63.0	3.6%	80.0	4.5%

* Excluding GoGurt

**Including Little Debbie products: Nutty Bars, Swiss Rolls, Honey Buns, Zebra Cakes"

***Excluding Oreo Cookies and Wheat Thins

Source: comScore Ad Metrix Advertiser report (January - December 2014)

Advertising on Spanish-language TV

Ranking by advertising spending

Includes Spanish-language advertising spending and average number of ads viewed on Spanish-language TV by Hispanic youth

				Ad spending ($000)			Average # of ads viewed: Hispanic preschoolers (2-5 years)			Hispanic children (6-11 years)			Hispanic teens (12-17 years)		
Rank	Company	Brand	Category	2010	2014	Change	2010	2014	Change	2010	2014	Change	2010	2014	Change
Most 1	PepsiCo	Cheetos	Savory snack	$0	$8,657	**	0.0	10.9	**	0.0	10.4	**	0.0	9.2	**
2	General Mills	Nature Valley Snack Bar	Sweet snack	$4,624	$8,268	79%	6.0	11.0	84%	3.6	9.5	162%	4.0	7.6	90%
3	Kellogg	PopTarts	Sweet snack	$0	$5,125	**	0.0	5.5	**	0.0	4.8	**	0.0	4.4	**
4	Kellogg	Sunshine Cheez-It	Savory snack	$2	$4,209	**	0.0	4.1	**	0.0	3.0	**	0.0	2.5	**
5	Kellogg	Pringles	Savory snack	$0	$3,554	**	0.0	4.7	**	0.0	3.2	**	0.0	2.7	**
6	Kraft	Planters Nuts	Nuts	$0	$3,405	**	0.0	2.8	**	0.0	2.1	**	0.0	1.9	**
7	General Mills	Fiber One Snack Bar	Sweet snack	$3,359	$2,540	-24%	5.3	3.3	-55%	3.3	2.4	-37%	3.5	1.7	-51%
8	PepsiCo	Lay's Potato Chips	Savory snack	$0	$2,473	**	0.0	2.1	**	0.0	1.7	**	0.0	1.6	**
9	General Mills	Yoplait	Yogurt	$9,738	$2,095	-78%	16.3	3.3	-80%	9.4	2.9	-69%	9.9	2.3	-77%
10	Mondelez Global	Oreo Cookies	Sweet snack	$5,131	$1,844	-64%	9.1	3.3	-64%	6.0	1.9	-68%	6.9	1.6	-77%
11	General Mills	Fiber One Brownies	Sweet snack	$0	$1,173	**	0.0	1.8	**	0.0	1.2	**	0.0	1.0	**
12	Mondelez Global	Honey Maid Teddy Grahams	Sweet snack	$0	$1,077	**	0.0	2.7	**	0.0	1.3	**	0.0	1.0	**
Least 13	PepsiCo	Quaker Snack Bar	Sweet snack	$0	$794	**	0.0	2.1	**	0.0	1.4	**	0.0	1.1	**

COMPANY RANKINGS

		Ad spending ($000)			Average # of ads viewed: Hispanic preschoolers (2-5 years)			Hispanic children (6-11 years)			Hispanic teens (12-17 years)		
Rank	Company	2010	2014	Change	2010	2014	Change	2010	2014	Change	2010	2014	Change
Most 1	General Mills	$17,398	$17,071	-2%	29.3	21.8	-26%	19.0	16.8	-12%	20.8	13.7	-34%
2	Kellogg Company	$3,361	$11,874	253%	5.3	12.0	126%	3.3	9.9	197%	3.5	8.6	146%
3	PepsiCo	$10,061	$11,547	15%	16.6	16.4	-1%	9.6	14.6	52%	10.4	12.7	22%
4	Kraft Foods	$1,062	$2,473	133%	2.8	2.1	-25%	1.8	1.7	-5%	2.2	1.6	-29%
Least 5	Mondelez Global	$4,319	$2,250	-48%	10.3	4.5	-56%	6.3	2.5	-61%	7.8	2.0	-75%

** Brand did not advertise in 2010

Source: Rudd Center analysis of Nielsen data (2015)

Television advertising exposure for black youth

Ranking by ads viewed by black teens (12-17 years) in 2014

Includes average number of ads viewed by black youth on national (Network, cable, and syndicated) TV

Most

				Black children (6-11 years)					Black teens (12-17 years)				
				Average # ads viewed			Black:white ratio*		Average # ads viewed			Black:white ratio*	
Rank	Company	Brand	Category	2010	2014	Change	2010	2014	2010	2014	Change	2010	2014
1	General Mills	Betty Crocker Fruit Snacks	Sweet snack	97.5	137.8	41%	1.17	1.49	58.0	83.7	44%	1.72	**2.27**
2	General Mills	Yoplait GoGurt	Yogurt	61.0	113.8	87%	1.25	1.48	43.5	80.9	86%	1.73	**2.10**
3	Kellogg Company	PopTarts	Sweet snack	14.8	44.2	199%	**2.10**	**2.35**	20.8	79.8	284%	1.87	**2.61**
4	PepsiCo	Tostitos	Savory snack	9.9	38.0	282%	1.87	**2.60**	16.0	72.9	355%	1.47	**2.78**
5	PepsiCo	Lay's Potato Chips	Savory snack	5.6	36.1	545%	**2.30**	**2.38**	7.9	62.9	698%	**2.00**	**2.62**
6	PepsiCo	Cheetos	Savory snack	13.4	29.1	117%	**2.44**	**2.16**	22.9	54.1	136%	1.49	**2.47**
7	PepsiCo	Doritos	Savory snack	6.2	24.3	294%	**1.94**	**2.87**	11.2	50.9	355%	1.65	**3.03**
8	General Mills	Nature Valley Snack Bar	Sweet snack	13.0	40.7	214%	1.43	1.56	17.7	47.9	170%	1.19	1.58
9	General Mills	Yoplait	Yogurt	50.3	41.2	-18%	1.57	1.47	53.2	40.4	-24%	1.73	1.77
10	Campbell Soup Company	Pepperidge Farm Goldfish	Savory snack	34.4	48.7	42%	1.23	1.59	19.0	35.9	89%	1.89	**2.53**
11	General Mills	Yoplait Greek	Yogurt	0.0	27.9	**		1.61	0.0	35.1	**		1.68
12	General Mills	Yoplait Light	Yogurt	22.8	20.8	-9%	1.84	1.51	32.2	24.5	-24%	1.77	1.57
13	General Mills	Fiber One Snack Bar	Sweet snack	14.0	18.7	33%	1.80	1.61	18.4	23.9	30%	1.66	1.77
14	General Mills	Chex Mix	Savory snack	20.0	16.0	-20%	**2.00**	1.61	26.7	20.3	-24%	1.86	1.65
15	Mondelez Global	Oreo Cookies	Sweet snack	24.4	12.0	-51%	1.82	**2.69**	29.7	19.5	-34%	1.67	**2.86**
16	Mondelez Global	Honey Maid	Sweet snack	0.0	23.1	**		1.66	0.0	18.3	**		**2.40**
17	PepsiCo	Frito Lay Snacks	Savory snack	0.0	11.0	**		1.86	0.0	17.6	**		**2.16**
18	The Dannon Company	Dannon Danimals	Sweet snack	58.2	29.1	-50%	1.20	1.40	33.8	17.4	-48%	1.83	**2.19**
19	Kellogg Company	Sunshine Cheez-It	Savory snack	16.9	11.4	-32%	**2.17**	1.62	23.3	16.7	-28%	1.82	1.65
20	Ferrero USA	Nutella & Go!	Sweet snack	0.0	10.3	**		1.53	0.0	15.4	**		1.86
21	Bel Brands USA	Laughing Cow	Cheese	9.1	11.7	29%	1.80	1.54	14.2	15.4	9%	1.62	1.62
22	General Mills	Yoplait Trix	Yogurt	41.3	26.0	-37%	1.18	1.45	23.7	14.9	-37%	1.66	**2.15**
23	The Wonderful Company	Wonderful Nuts	Nuts	3.8	10.0	162%	1.14	1.24	5.1	14.6	189%	1.06	1.12
24	Mondelez Global	Belvita Breakfast Biscuits	Sweet snack	0.0	8.6	**		**1.93**	0.0	14.2	**		1.79
25	Mondelez Global	Wheat Thins	Savory snack	15.1	8.4	-45%	1.72	1.63	21.2	13.8	-35%	1.71	1.53
26	Kellogg Company	Pringles	Savory snack	8.7	8.4	-3%	1.54	1.61	11.1	12.2	10%	1.38	1.58
27	The Dannon Company	Dannon Activia	Yogurt	33.6	9.4	-72%	1.86	1.71	40.8	11.9	-71%	1.77	1.88
28	Link Snacks	Jack Links	Savory snack	1.9	5.6	190%	**1.94**	**1.96**	4.1	11.9	187%	1.74	**2.08**
29	General Mills	Nature Valley Breakfast Biscuits	Sweet snack	0.0	8.9	**		1.75	0.0	10.9	**		1.81
30	Mondelez Global	Ritz Cracker	Savory snack	19.1	7.9	-59%	1.82	**2.09**	24.6	10.6	-57%	1.67	**1.90**
31	The Wonderful Company	Wonderful Halos	Fruit	0.0	11.7	**		1.44	0.0	10.0	**		1.58
32	Chobani	Chobani Simply 100	Yogurt	0.0	6.9	**		1.64	0.0	9.7	**		1.77

continued

Television advertising exposure for black youth cont'd

Rank	Company	Brand	Category	Black children (6-11 years) Average # ads viewed 2010	2014	Change	Black:white ratio* 2010	2014	Black teens (12-17 years) Average # ads viewed 2010	2014	Change	Black:white ratio* 2010	2014
33	The Dannon Company	Dannon Light & Fit	Yogurt	15.7	8.1	-48%	**1.94**	1.61	18.7	9.1	-51%	1.79	1.76
34	PepsiCo	Stacy's Pita Chips	Savory snack	3.2	5.7	81%	**2.43**	1.95	3.9	8.5	117%	**1.90**	**2.23**
35	Kraft Foods	Oscar Mayer P3	Mixed	0.0	4.6	**		1.55	0.0	8.2	**		1.48
36	ConAgra Foods	Slim Jim	Savory snack	3.2	3.8	22%	**3.57**	1.50	2.4	7.8	217%	**2.34**	1.73
37	The Dannon Company	Dannon Oikos	Yogurt	0.0	6.2	**		1.72	0.0	7.5	**		1.69
38	Dole Food Company	Dole Fruit Bowls	Fruit	0.0	6.0	**		**1.94**	0.0	7.4	**		**2.33**
39	FAGE	FAGE FruYo	Yogurt	0.0	5.4	**		1.84	0.0	7.2	**		1.75
40	Materne	GOGO Squeez Applesauce	Fruit	0.0	9.2	**		1.56	0.0	6.8	**		1.83
41	Mondelez Global	Chips Ahoy	Sweet snack	8.4	4.7	-44%	1.88	**2.52**	11.2	6.6	-41%	1.81	**2.61**
42	Mondelez Global	Triscuit Crackers	Savory snack	6.5	4.5	-32%	1.87	**2.50**	9.1	6.4	-29%	1.74	**2.21**
43	FAGE International	FAGE Total	Yogurt	0.0	4.5	**		1.70	0.0	6.2	**		1.62
44	Kraft Foods	Planters Nuts	Nuts	3.8	4.4	16%	1.64	1.22	5.2	6.1	17%	1.38	1.05
45	Nature Delivered	Graze Boxes	Mixed	0.0	3.1	**		**2.32**	0.0	5.9	**		1.89
46	Sargento Foods	Sargento	Cheese	1.9	3.9	100%	**2.47**	1.75	2.4	5.6	133%	1.77	1.88
47	PepsiCo	Lay's Kettle Cooked Potato Chips	Savory snack	0.0	3.2	**		1.79	0.0	4.7	**		1.87
48	MidOcean Partners	South Beach Snack Bar	Sweet snack	0.0	3.5	**		**1.97**	0.0	4.6	**		**2.11**
49	Campbell Soup Company	Pepperidge Farm Goldfish Grahams	Sweet snack	19.5	6.9	-65%	1.18	1.49	11.0	4.4	-60%	1.78	**2.45**
50	Kellogg Company	Special K Snack Bar	Sweet snack	4.0	3.2	-19%	**2.55**	1.67	4.6	4.2	-8%	**1.91**	1.57
51	General Mills	Fiber One Cookies	Sweet snack	0.0	2.9	**		1.75	0.0	3.7	**		1.76
52	Oberto Brands	Oberto Beef Jerky	Savory snack	0.0	2.3	**		1.38	0.0	3.6	**		1.31
53	Mondelez Global	Honey Maid Teddy Grahams	Sweet snack	0.0	3.2	**		1.87	0.0	3.2	**		**2.48**
54	Procter & Gamble	META Health Snack Bar	Sweet snack	0.0	2.6	**		1.64	0.0	3.0	**		1.57
55	The Dannon Company	Dannon Creamery	Sweet snack	0.0	2.2	**		**1.93**	0.0	2.8	**		**2.25**
56	Kellogg Company	Special K Crackers	Savory snack	0.0	2.2	**		1.72	0.0	2.7	**		1.38
57	Chobani	Chobani Greek Yogurt	Yogurt	0.0	2.2	**		0.91	0.0	2.6	**		0.87
58	General Mills	Fiber One Brownies	Sweet snack	0.0	2.3	**		1.44	0.0	2.5	**		1.30
59	Mondelez Global	Newtons Cookies	Sweet snack	0.0	1.7	**		1.58	0.0	2.3	**		1.50
60	ThinkThin Products	Think Thin Snack Bar	Sweet snack	0.0	1.5	**		1.79	0.0	2.1	**		1.70
61	PepsiCo	Quaker Snack Bar	Sweet snack	2.0	1.2	-40%	1.66	1.60	2.3	1.5	-36%	1.41	1.75
62	Almond Board of California	California Almonds	Nuts	0.6	0.6	4%	**1.96**	1.13	1.8	1.2	-32%	**2.21**	1.37
63	Snyder's of Hanover	Snyders of Hanover	Savory snack	1.9	0.3	-86%	1.88	**1.98**	3.8	1.1	-72%	**2.37**	**2.28**
64	J.M. Smucker Company	Jif to Go Snack Dippers	Savory snack	0.0	0.7	**		0.90	0.0	0.9	**		1.13
65	McKee Foods	Little Debbie	Sweet snack	4.3	0.4	-90%	**2.76**	0.66	5.4	0.7	-88%	**2.73**	0.82
66	Popchips	Popchips	Savory snack	0.0	0.2	**		1.61	0.0	0.4	**		1.78
67	California Table Grape Commission	California Grapes	Fruit	0.2	0.1	-31%	1.17	1.07	0.3	0.3	2%	1.09	1.56
68	Kellogg Company	Nutri-Grain Snack Bar	Sweet snack	11.3	0.1	-99%	**2.10**	**2.07**	16.0	0.1	-99%	**1.93**	1.25

Least

Television advertising exposure for black youth cont'd

COMPANY RANKINGS

				Black children (6-11 years)					Black teens (12-17 years)				
				Average # ads viewed			Black:white ratio*		Average # ads viewed			Black:white ratio*	
Rank	Company	Brand	Category	2010	2014	Change	2010	2014	2010	2014	Change	2010	2014
1	General Mills			358.8	456.9	27%	1.32	1.51	296.3	388.7	31%	1.68	1.87
2	PepsiCo			40.2	148.6	270%	**2.13**	**2.35**	64.2	273.0	325%	1.58	**2.62**
3	Kellogg Company			71.7	69.4	-3%	**1.99**	**2.02**	98.4	115.8	18%	1.76	**2.18**
4	Mondelez Global			74.1	74.1	0%	1.81	**1.94**	96.3	95.0	-1%	1.69	**2.10**
5	The Dannon Company			109.3	55.1	-50%	1.45	1.53	95.3	48.8	-49%	1.80	**1.94**
6	Campbell Soup Company			53.9	55.6	3%	1.21	1.58	30.0	40.3	34%	1.85	**2.52**
7	Ferrero USA			0.0	10.3	**		1.53	0.0	15.4	**		1.86
8	Bel Brands USA			9.1	11.7	29%	1.80	1.54	14.2	15.4	9%	1.62	1.62
9	The Wonderful Company			3.8	21.7	469%	1.14	1.34	5.1	24.7	384%	1.06	1.27
10	Kraft Foods			14.1	9.1	-35%	**2.11**	1.38	23.1	14.5	-37%	1.82	1.27
11	FAGE			0.0	9.9	**		1.78	0.0	13.4	**		1.69
12	Chobani			0.0	9.1	**		1.37	0.0	12.3	**		1.45
13	Link Snacks			1.9	5.6	190%	1.94	**1.96**	4.1	11.9	187%	1.74	**2.08**
14	ConAgra Foods			3.2	3.8	22%	**3.57**	1.50	2.4	7.8	217%	**2.34**	1.73
15	Dole Food Company			0.0	6.0	**		**1.94**	0.0	7.4	**		**2.33**
16	Materne			0.0	9.2	**		1.56	0.0	6.8	**		1.83
17	Nature Delivered			0.0	3.1	**		**2.32**	0.0	5.9	**		1.89
18	Sargento Foods			1.9	3.9	100%	**2.47**	1.75	2.4	5.6	133%	1.77	1.88
19	MidOcean Partners			0.0	3.5	**		**1.97**	0.0	4.6	**		**2.11**
20	Oberto Brands			0.0	2.3	**		1.38	0.0	3.6	**		1.31
21	Procter & Gamble			0.0	2.6	**		1.64	0.0	3.0	**		1.57
22	ThinkThin Products			0.0	1.5	**		1.79	0.0	2.1	**		1.70
23	Almond Board of California			0.6	0.6	4%	**1.96**	1.13	1.8	1.2	-32%	**2.21**	1.37
24	Snyder's of Hanover			3.0	0.3	-91%	1.76	**1.98**	5.3	1.1	-80%	**2.10**	**2.28**
25	J.M. Smucker Company			0.0	0.7	**		0.90	0.0	0.9	**		1.13
26	McKee Foods			4.3	0.4	-90%	**2.76**	0.66	5.4	0.7	-88%	**2.73**	0.82
27	Popchips			0.0	0.2	**		1.61	0.0	0.4	**		1.78

Most
Least

*Ads viewed by black children or teens compared with white children or teens

Bolded ratio of 1.9 or higher indicates more ads viewed than expected given differences in amount of TV viewing by back versus white youth

Source: Rudd Center analysis of Nielsen data (2015)

We used a variety of data sources and methods to provide a comprehensive analysis of the snack food market in the United States. Through publicly available data, we document and evaluate the nutritional quality of snack foods and marketing practices of the nation's largest snack food brands and companies in 2014. Whenever possible, we also document changes in advertising compared with 2010.

Our analyses include evaluation of the nutritional quality of advertised snack foods as well as those available as Smart Snacks in schools. We also examined syndicated data from Nielsen to document advertising spending in all media and TV advertising exposure, and comScore data provided information about youth exposure to marketing on company websites and internet display advertising. These methods are described in detail in the following sections.

We did not have access to food industry proprietary documents, including privately commissioned market research, media, and marketing plans or other strategic documents. Therefore, we do not attempt to interpret companies' goals or objectives for their marketing practices. Rather, we provide transparent documentation of: 1) the nutritional quality of snack food marketing to young people; 2) the extent of children's and teens' exposure to common forms of snack food marketing, including exposure by black and Hispanic youth; and 3) changes in advertising that occurred from 2010 to 2014.

Scope of the analysis

There is no consistent definition of snack foods,[1] but for the purpose of our analyses, we define snack food as any easily portable food that is customarily consumed on its own outside of main meals and requires minimal preparation. We excluded chocolate, other candy, and cereal as they have been evaluated previously.[2,3] We also excluded ice cream, frozen novelties, and other frozen desserts. We focused on snack foods advertised to children and teens in the media, as well as snacks marketed to young people through sales in schools (i.e., Smart Snacks).

To obtain the list of brands and products for evaluation, we used Nielsen data from 2014 to identify advertised brands in any Nielsen product category that might include products meeting our definition of snack foods: applesauce, brownies, cakes, cheese, cookies, corn chips, cottage cheese, crackers, cupcakes, doughnuts, fruit, prepared gelatin, muffins, nuts, olives, popcorn, popcorn cakes, potato chips, pretzels, produce, prepared pudding, raisins, snack cakes, rice cakes, snack bars, snacks, tortilla chips, fresh vegetables, and yogurt. If the specific product was not clear from the Nielsen brand name, we then examined Nielsen brand variant information. For example, the Yoplait brand included many variants, such as Original Style and Yoplait Minion Made. If the advertised product was still unclear, we used Nielsen Ad Intel to identify the advertised product by viewing the actual advertisement.

From this preliminary list of brands, we excluded types of products that did not meet our definition of snack food. For example, snack foods that required heat preparation, such as microwave popcorn or frozen snacks, were excluded. Shredded cheese was excluded as it is not customarily consumed on its own, but small wrapped cheese portions (e.g., Mini Babybel and Sargento cheese snacks) were included. Fresh fruits and vegetables, such as potatoes or avocados, that require preparation before consuming also were excluded, while grapes, clementines, whole nuts, and other fruits and vegetables that are easily portable and can be consumed without preparation were included. We included products that were packaged to be easily portable, such as applesauce in pouches, peanut butter in individual serving sized packages, and individually wrapped cakes, but excluded these products when sold in larger non-portable packages, such as jars of applesauce or peanut butter or whole cakes. We also excluded snack bars marketed as meal replacements (e.g., South Beach Diet and Slim-Fast snack bars).

The Nielsen data identified all companies and brands with any amount of advertising in any form of measured media in 2014 and included more than 496 brands from 271 companies. To narrow the list of brands for the analysis, we identified a subset of brands with $1 million or more in total advertising spending in 2014. These **advertised brands** and their parent companies were analyzed in more detail throughout the report.

We also compiled a list of **Smart Snacks**, or snack foods that meet USDA nutrition criteria and are marketed for sale as competitive foods in schools (i.e., foods sold outside the school meal program) during specific hours.[4] We analyzed Smart Snacks offered by companies that also had at least one brand with $1 million or more in advertising spending in 2014. To determine the list of Smart Snacks for analysis, we first generated a list of all Smart Snacks on the Clinton Foundation's Alliance for A Healthier Generation Product Navigator website[5] in May of 2015. The Alliance for a Healthier Generation's Healthy Schools Program (including its Product Navigator) serves over 29,000 schools and 17 million school children.[6] From that list, we excluded any product that did not meet our criteria for a snack food (e.g., cereals, muffins, frozen dessert products) and any product offered by a company that was not included in the list of companies selected for analysis (as described above).

We also accessed websites for the included companies and expanded the Smart Snacks product list to include any other product that the company website identified as produced and marketed in schools. The following company websites were used to identify Smart Snack products not included on the Alliance for a Healthier Generation website: General Mills Food for Schools,[7] Kellogg Company's Foods Away from Home,[8] PepsiCo's School Source,[9] Mondelez International Food Service's K-12 Brochure,[10] and Dannon's K-12 Foodservice.[11]

Defining the snack food market

We assigned a company, brand, and snack category designation to all products offered by advertised brands and Smart Snacks identified above.

The following **categories** are used to describe the type of snack:

- **Cheeses** include individually portioned cheese products (containing milk and pasteurized cultures as the main ingredients) such as string cheese and cheese sticks. Cheese products packaged for other uses (e.g., shredded cheese for cooking, cheese slices for sandwiches) are not included.
- **Fruits and vegetables** include products whose primary ingredients are whole, unprocessed fruits or vegetables, such as fresh fruits and vegetables and dried fruit, as well as prepared fruit cups, applesauce packaged in cups or pouches, and other products comprised primarily of whole fruits and vegetables.
- **Nuts** include products with whole nuts as the first ingredient, including almonds, peanuts, pecans, and pistachios. This category excludes nuts that are packaged for other purposes (e.g., crushed walnuts for cooking).
- **Savory snacks** include other non-sweet snack products such as crackers, potato chips, tortilla chips, and meat jerkies.
- **Sweet snacks** include products such as brownies, cookies, prepared puddings, prepared gelatin desserts, snack bars, fruit snacks, snack cakes, and other sweet products that contain added sugar and/or non-nutritive sweeteners.
- **Yogurt** includes all products that are designated by the manufacturer as yogurt and that contain cultured milk as the first ingredient, including regular yogurts, Greek yogurts, reduced-calorie yogurts, and squeezable yogurts. Yogurt smoothies are not included in this analysis of snack foods.
- **Multiple** describe brands or products that include foods in more than one of the above categories, such as snack boxes with multiple components.

Company refers to the company that owns the brand, as listed on the product package or the official website for the product. In some cases, products might be distributed by a company that does not manufacture the product (e.g., Promotion in Motion distributes Welch's Fruit Snacks in schools). For those products, the product manufacturer is listed as the company (i.e., National Grape Cooperative Association).

Brand refers to the main marketing unit for each product. In most cases, we used the brand names designated by Nielsen. However, we divided some brands into smaller brands for separate analyses as follows:

- If a brand contains products in multiple categories (e.g., Special K Snack Bars and Crackers; Keebler Cookies and Keebler Crackers; Pepperidge Farm Goldfish and Pepperidge Farm Goldfish Grahams), they are designated as separate brands.
- If a brand includes a subset of products with advertising targeted specifically to children, we designated them as separate brands. For example, Honey Maid Teddy Grahams are a separate brand from Honey Maid.
- In a few cases, we also separated very large brands. For example, Yoplait includes separate brands for Yoplait, Yoplait Greek, and Yoplait Light (as well as its Trix and Go-Gurt child-targeted brands).

In some cases, we also designated **varieties** within brands if the brand contains products that differ substantially in nutrition quality, marketing practices, or other features:

- For example, the Dannon Activia brand includes regular, Greek, and Greek Light varieties, and Fiber One Snack Bars includes Protein and Streusel varieties due to their varying nutrition content.
- Brands advertised with child-targeted or other promotions are also listed as separate varieties, such as Yoplait Go-Gurt's How to Train Your Dragon 2 and Muppets Most Wanted promotions, and Cheetos' Bag of Bones Halloween-themed product.
- Other products listed as separate varieties under a broader brand, including Oreo Minis (smaller-sized Oreos), Fruit Gushers and Fruit Roll-ups (varieties of Betty Crocker Fruit Snacks), and Flavor Blasted and Colors varieties of Pepperidge Farm Goldfish.

Products include all flavors or other versions of a brand or variety.

CFBAI-approved products

In addition, we identified advertised products that were included on the Children's Food and Beverage Advertising Initiative (CFBAI) approved product list. The CFBAI is a group of 18 of the largest food and beverage companies who voluntarily participate in a Better Business Bureau-sponsored self-regulatory program for food and beverage advertising to children under 12 years old. Companies agree to follow category-specific uniform nutrition standards for products that can be advertised in "child-directed media."[12] We identified all products offered by advertised brands that appeared on companies' lists of "foods that participants have indicated may be the subject of child-directed advertising."[13] Therefore, participating companies have designated these **CFBAI-approved** products as products that can be advertised directly to children in child-directed media.[14] Of note, not all products that meet CFBAI nutrition standards are included on companies' lists of products that they may advertise to children.

Snack food nutrition

From the list of snack food brands that were advertised in 2014, researchers collected nutrition information for products offered by brands that spent at least $200,000 in TV advertising. Nutrition information was also obtained for the Smart Snack products offered by the companies in our analysis. This information was collected from company or brand websites between May and July 2015 for all products offered by the brands and varieties included in our analysis. When information was not available on company websites, researchers visited grocery and convenience stores in the Hartford, Connecticut area. If the product was available, researchers took photographs of the nutrition facts panel and ingredients list. If products were not available at local stores, researchers called the companies to obtain nutrition and ingredient information. Based on these calls, we identified three advertised products that had been discontinued (two flavors of Newtons Fruit Thins and Snyder's Korn Krunchers). Therefore, these products are not included in the nutrition analysis.

Nutrition content

The following measures for nutrition content are reported:

- **Nutrition information** includes serving size and calories, fat, saturated fat, sugar, sodium, fiber, and protein per serving provided on the nutrition facts panel. Medians and ranges are reported for snack brands and varieties with multiple products.
- **Ingredient information** indicates presence or absence of artificial colors, non-nutritive sweeteners, partially hydrogenated oils, and added sugars as indicated on the ingredients list of the nutrition facts panel.
- **Added sugars** and **non-nutritive sweeteners** are identified according to the classifications of these ingredients in the position paper of the Academy of Nutrition and Dietetics on the use of nutritive and non-nutritive sweeteners.[15] Added sugars include sugar, corn syrup, corn syrup solids, dextrose, invert sugar, and fruit nectar, which are added to products during processing. Non-nutritive sweeteners include natural and artificial sweeteners that do not have any significant energy content, including acesulfame potassium (Ace-K), aspartame, stevia, and sucralose.

Nutritional quality

In addition to reporting the nutrition content of advertised snack products, we also evaluated the nutritional quality of these products using various established nutrition models. The United States Department of Agriculture (USDA) Smart Snacks standards identify products that meet nutrition standards for competitive foods that can be sold in schools. The Nutrition Profiling Index (NPI) score provides an evaluation of the overall nutritional composition of snack items. In addition, the Interagency Working Group (IWG) on Food Marketed to Children Preliminary Proposed Nutrition Principles to Guide Industry Self-Regulatory Efforts were used to identify healthy foods that should be marketed to children.

USDA Smart Snacks Standards

As part of the Healthy, Hunger-Free Kids Act passed by Congress in 2010, the USDA was directed to update nutrition standards for competitive foods – foods and beverages sold outside of the school meals program. The final regulations, often referred to as "Smart Snacks" went into effect in the 2014-15 school year. Competitive foods are defined by the Centers for Disease Control and Prevention (CDC) as "foods sold or available in schools outside of federally reimbursable school meals programs."[16] The Smart Snacks standards apply to foods sold at school during the school day, including foods sold a la carte (in a cafeteria or dining hall), in a school store, and in vending machines.[17]

Existing Smart Snacks standards specify six nutrients to limit: calories, sodium, total fat, saturated fat, trans fat, and total sugar. The standards set limits for total calories and sodium in a serving as packaged for sale, while limits on total fat and saturated fat are set as a maximum percentage of total calories, and sugar is set as a maximum percentage by weight. Smart Snacks must contain 0 grams of trans fat (i.e., < 0.5 g per serving). Smart Snacks must also meet at least one of four criteria for nutrients to promote: they must be "whole grain-rich;" the first ingredient must be a fruit or vegetable; they must contain at least ¼ cup of fruit or vegetable; and/or they must contain at least 10% of the daily value of either calcium, potassium, vitamin D, or fiber.[18] The USDA standards also grant exceptions for canned and frozen fruits with no added ingredients and canned and frozen fruits that are packed in 100% juice, light syrup, or extra light syrup.[19] Exceptions to saturated fat and fat limits are also granted for nuts and low-fat cheese products.

In determining advertised products that meet the Smart Snacks standards, researchers examined only the nutrients-to-limit criteria for calories, sodium, total fat, saturated fat, and total sugar. The information required for the nutrients-to-promote criteria cannot be determined from information listed on the nutrition facts panel; therefore, this standard was not applied to the products in our analysis. Products granted exemptions to the nutrients-to-limit criteria (e.g., reduced fat cheese, nuts and some fruit) were also granted exemptions in this report.

NPI score

The NPI score is based on the nutrition rating system established by University of Oxford researchers for the Food Standards Agency in the United Kingdom.[20] Their Nutrient Profiling model (NPM) is currently used by the U.K. Office of Communications (OFCOM) to identify nutritious foods that can be advertised to children on TV.[21] The model also has been approved by Food Standards Australia New Zealand to identify products that are permitted to use health claims in their marketing.[22] The NPM provides one score for a product based on total calories and composition of both nutrients to limit (i.e., saturated fat, sugar, and sodium) and nutrients and food groups to encourage (i.e., fiber, protein, and unprocessed fruit, nut, and vegetable content).

The NPM has several advantages over other nutrient profiling systems. Researchers developed the model independently of food industry funding; its development and scoring method is publicly documented and transparent; and it has been validated to reflect the judgment of professional nutritionists.[23] The model also produces a continuous score that provides a relative evaluation of products, in contrast to threshold models that simply classify foods as "healthy" or "unhealthy." In addition, the model includes only nutrients that are reasonable and well-justified based on existing nutrition science. In particular, the model does not award points for micronutrient fortification, thereby not rewarding vitamins and minerals added to otherwise unhealthy products.

However, it is difficult to interpret the original scores produced by the NPM, as it is reverse scored (i.e., a higher score indicates a product of worse nutritional quality). Scores range from +34 (worst) to –15 (best), with a score of 3 points or lower identifying healthy foods that can be advertised on children's TV programs or during programs with a disproportionate number of viewers under 16 years old in the United Kingdom. Therefore, we created a Nutrient Profiling Index (NPI) score using the following formula: NPI score = (–2) * NPM score + 70. For example, a relatively nutritious food with an NPM score of -3 would receive an NPI score of 76 (-2 * -3 + 70). This recalculation produces a score from 0 (poorest nutritional quality) to 100 (highest nutritional quality) that is easier to interpret and compare.

We calculated the NPI score for all advertised products. To identify snack foods with a healthy nutrient composition, we used the cut-offs established by the U.K. OFCOM to identify healthy products that can be advertised to children.[24] An NPM score of 3 or lower translates to a revised NPI score of 64 or higher to qualify as a healthy food product that can be advertised to children on TV.

IWG Proposed Nutrition Principles to Guide Industry Self-regulatory Efforts

The Interagency Working Group on Food Marketed to Children included representatives from the Centers for Disease Control (CDC), Federal Trade Commission (FTC), Food and Drug Administration (FDA), and the United States Department of Agriculture (USDA); this group was authorized by the U.S. Congress in 2009 to create a set of voluntary nutrition guidelines for companies that market foods to children.[25] Although voluntary, these nutrition guidelines were intended to provide uniform standards for companies to identify products that contribute to children's health and therefore should be marketed to children under 18 years old. The IWG guidelines identify four nutrients to limit – saturated fat, trans fat, added sugars, and sodium – and establish limits for the maximum amount in the Reference Amount Customarily Consumed (RACC) for the food type.[26] The RACC is set by the FDA and prescribes the amount of food for each specific product category that should be designated as one serving on nutrition facts panels. The model applies these limits to 50 grams of product for foods with a small RACC (30 grams or less). The guidelines also require that products include at least one food to encourage (i.e., foods that make meaningful contributions to a healthy diet), including fruits, vegetables, whole grains, fat-free or low-fat milk products, eggs, nuts, seeds, and beans.

Researchers first evaluated the nutrients-to-limit criteria for saturated fat, trans fat, and sodium.[27] For products with over

Table A1. Criteria used in models to evaluate the nutritional quality of snack food products

		Maximum for nutrients to limit					
Standard	**Referent amount**	**Fat (g)**	**Sat fat (g)**	**Sugars (g)**	**Sodium (mg)**	**Calories (kcal)**	**Requirement for foods to encourage**
USDA Smart Snacks	Listed serving size	≤35% of total kcal	≤10% of total kcal	≤35% of gram weight (total sugar)	≤230	≤200	Must meet one of the following: "whole grain rich;" first ingredient is a fruit, vegetable, dairy product or protein food; combination food that contains at least 1/4 c. of fruit and/or vegetable; contain 10% of the daily value of calcium, potassium, vitamin D, and/or dietary fiber.
NPI score	100 grams	--	Points subtracted	Points subtracted	Points subtracted	Points subtracted for energy density	Points added for fiber, protein, and unprocessed fruit/nut/vegetable content
IWG proposed nutrition principles	RACC or 50 grams for products with a small RACC (<30 g)	--	≤1	≤13 g of added sugar	≤210	--	50% by weight of one of the following: fruit, vegetable, whole-grain, fat-free or 1% milk, extra lean meat, fish, nuts, and seeds

13 grams of total sugar per RACC or 50 grams (the maximum amount of added sugar allowed by IWG standards), we used the assumption outlined above to identify added sugar content. For products that met all nutrients-to-limit criteria, we then examined ingredient panels to determine if the product contained 50% of the required foods to encourage. If the first ingredient was a fruit, vegetable, whole grain, fat-free or low-fat (1%) milk, nut or seed, or bean, we conservatively assumed that the product was composed of at least 50% of that whole food.

Table A1 summarizes the nutrition criteria used to identify healthy foods according to each of these nutritional quality models.

Marketing practices

Our analysis of snack food marketing practices documents advertising spending in measured media, TV advertising, and marketing in digital media including company websites and display advertising on third-party websites. We also identify marketing that appear to target children, teens, and black and Hispanic youth.

Traditional media

To analyze advertising spending and TV advertising exposure, we licensed data from Nielsen for 2010 and 2014 in the categories identified above for all companies that had at least one brand with $1 million or more in advertising in 2014. All advertised brand variants (as identified by Nielsen) were categorized by product category, company, brand, and variety as previously described. We report these results at the category, company, and brand levels. Company results include all products that met our definition of snack food, even if the brand did not meet the minimum spending threshold to be included in the individual brand analyses.

Advertising spending

Nielsen tracks total advertising spending in 18 different media including national (Network, cable, and syndicated) and local (spot) TV, Spanish-language TV, internet, radio, magazines, newspapers, free standing insert coupons (FSIs), and outdoor advertising. Our measure of **total advertising spending** includes advertising expenditures in all 18 measured media provided by Nielsen. **TV spending** includes spending just on TV, including all national (Network, cable, and syndicated) and spot TV.

TV advertising exposure

To measure exposure to TV advertising, we also licensed gross rating points (GRP) data from Nielsen for the same periods and categories. GRPs measure the total audience delivered by a brand's media schedule. It is expressed as a percentage of the population that was exposed to each commercial over a specified period of time across all types of TV programming. GRPs are the advertising industry's standard measure to assess audience exposure to advertising campaigns, and Nielsen is the most widely used source for these data.[28] GRPs, therefore, provide an objective assessment of advertising exposure. In addition, GRPs can be used to measure advertisements delivered to a specific audience, targeting a specific age group or other demographic trait (also known as target rating points or TRPs), and provide a per capita measure to examine relative exposure between groups. For example, if a snack food brand had 2,000 GRPs in 2014 for 6- to 11-year-olds and 1,000 GRPs for 18- to 49-year-olds, then we can conclude that children saw twice as many ads for that brand in 2014 compared with adults.

It is important to note that the GRP measure differs from the measure used by the Children's Food and Beverage Advertising Initiative (CFBAI) to evaluate participating companies' compliance with their pledges. CFBAI pledges apply only to advertising in children's TV programming as defined by audience composition (e.g., programs in which at least 35% of the audience are younger than age 12). One limitation of the CFBAI measure is that less than one-half of all advertisements viewed by children younger than age 12 occur during children's programming.[29] In contrast, GRPs measure children's total exposure to advertising during all types of TV programming. Therefore, evaluating GRPs indicates whether participating companies reduced total TV advertising to this age group.

In the TV advertising analyses, we obtained 2010 and 2014 GRP data by age group and race. We first obtained total GRPs for the following age groups: preschoolers (2-5 years), children (6-11 years), teens (12-17 years), and adults (18-49 years). These data provide total exposure to national (Network, cable, and syndicated) and local (spot market) TV combined. We also obtained GRPs for advertising viewed by black and white youth in the same age groups on national TV only, as Nielsen does not provide spot market GRPs by race at the individual level. Spot TV advertising accounted for approximately 4% of all advertising viewed by children and teens during 2014.[30] Therefore, these data reflect an estimated 96% of black youth exposure to all advertising on TV. To assess exposure by Hispanic youth to Spanish-language advertising, we provide GRP data for advertising that occurred on Spanish-language TV.

Nielsen calculates GRPs as the sum of all advertising exposures for all individuals within a demographic group, including multiple exposures for individuals (i.e., gross impressions), divided by the size of the population, and multiplied by 100. GRPs can be difficult to interpret, so we also use GRP data to calculate the following TV advertising measures:

- **Average advertising exposure.** This measure is calculated by dividing total GRPs for a demographic group during a specific time period by 100. It provides a measure of ads viewed by individuals in that demographic group during the time period measured. For example, if Nielsen reports 2,000 GRPs for 2- to 5-year-olds for a brand in 2014, we can conclude that on average all 2- to 5-year-olds viewed 20 ads for that brand in 2014.

- **Targeted GRP ratios.** As GRPs provide a per capita measure of advertising exposure for specific demographic groups, we also used GRPs to measure relative exposure to advertising between demographic groups. We report the following targeted GRP ratios:
  - **Preschooler:adult targeted ratio** = GRPs for 2-5 years/ GRPs for 18-49 years
  - **Child:adult targeted ratio** = GRPs for 6-11 years/GRPs for 18-49 years
  - **Teen:adult targeted ratio** = GRPs for 12-17 years/GRPs for 18-49 years
  - **Black:white child targeted ratio** = GRPs for black children 6-11 years/GRPs for white children 6-11 years. This measure uses only national GRPs.
  - **Black:white teen targeted ratio** = GRPs for black teens 12-17 years/GRPs for white teens 12-17 years. This measure only uses national GRPs.

A targeted ratio greater than 1.0 indicates that on average persons in the group of interest (e.g., children in the child-to-adult ratio) viewed more advertisements than persons in the comparison group (i.e., adults). A targeted ratio of less than 1.0 indicates that the person in the group of interest viewed fewer ads. For example, a child-to-adult targeted ratio of 2.0 indicates that children viewed twice as many ads as adults viewed. If this ratio is greater than the relative difference in the amount of TV viewed by each group, we can conclude that the advertiser likely designed a media plan to reach this specific demographic group more often than would occur naturally. The average weekly amount of time spent viewing TV was obtained from Nielsen Market Breaks for each age and demographic group in the analysis.

Digital media marketing

We document two types of marketing to youth on the internet: visitors to snack company websites and snack food display advertising on other (i.e., third-party) websites.

Digital marketing often includes brand-level marketing messages that feature multiple products in different snack categories or ads that show a brand logo without specifying a product. To determine the accurate snack categories, researchers examined copies of the advertisements or marketing messages on company websites and display ads. If the marketing promoted just one snack category within a brand, that marketing was assigned to the specific brand and category promoted (e.g., Oreo, Chex Mix, or Pringles). However, if the marketing promoted an overall brand (and did not specify a snack) or multiple brands from the same company, it was categorized as **multiple** category advertising.

Snack food company website exposure

To identify snack company websites, we obtained a list of websites from comScore Media Metrix for the companies in our analysis with data available during January through December 2014. For the purposes of this analysis, a website is defined as all pages containing the same stem URL. For example, yoplait.com is the website of interest, and www.yoplait.com/products/yoplaitgreekyogurt is an example of a secondary page contained within the site. Websites were excluded if snack foods were not featured on the home page, either depicted visually or included in a product list.

We obtained data on exposure to these websites from comScore Media Metrix Key Measures Report.[31] The company captures the internet behavior of a representative panel of about 350,000 users in the United States.[32] It is the nation's largest existing internet audience measurement panel. The firm collects data at both the household and individual level using Session Assignment Technology, which can identify computer users without requiring them to log into an account. The company uses these panel data to extrapolate its findings to the total U.S. population. Companies participating with comScore can also have census tags placed on their web content and advertisements to further refine audience estimates. Using the comScore panel, we identified individuals' exposure to snack food company websites, including exposure for both children and adults in the same household. The Media Metrix database provides internet exposure data for all websites visited by at least 30 of their panel members in a given quarter.[33] Media Metrix also provides exposure information by visitor age, ethnicity, and race for higher volume websites.

For each quarter during the January through December 2014 period, we used the Media Metrix Key Measures Report to collect the following data for available snack foods websites: total unique visitors, total visits, average minutes per visit, and average visits per unique visitor. When enough website traffic was recorded in a given quarter, we also collected these measures separately for children, teens, and all youth, and for black and Hispanic visitors.

For each website in our analysis, we report the following website exposure measures:

- **Average unique visitors per month** for children (2-12 years), teens (13-17 years), all youth (2-17 years), and black and Hispanic youth (2-17 years). This measure was calculated by adding average total unique visitors per month (reported quarterly by comScore, from January through December 2014) for each demographic group, and dividing by four (to reflect four quarters).
- **Average visits per month**,[34] **average pages per visit**, and **average time spent (min) per visit** for each unique

visitor. Average monthly numbers (reported quarterly by comScore, from January through December 2014) were divided by the number of quarters for which data were available for each website.

For each of the demographic groups with data, we also report a **targeted index**, which measures the extent to which visitors in that demographic group were over- or underrepresented among all visitors to a website compared to total internet visitors. Targeted indices greater than 100 signify that the demographic group was overrepresented on a website in relation to the comparison group; and targeted indices less than 100 signify that it was underrepresented. For example, if 40% of black youth visited GoldfishFun.com, but 20% of all other youth visited the site, the black youth targeted index for GoldfishFun.com would be 200.

- **Child** and **teen targeted indices** were calculated by dividing the percent of visitors to the website who were children (2-12 years) or teens (13-17 years) by the percent of child and teen visitors to the total internet. First, the percent of visitors to the website from each age group (2-12 years or 13-17 years) was obtained by averaging the number of monthly unique visitors to the website for that age group for the four quarters of 2014, and then dividing that number by total average monthly unique visitors in that same age group. This calculation was repeated for visitors to the total internet during the four quarters of 2014 for the same age group. The percent of child or teen visitors to the website was then divided by the percent of child or teen visitors to the total internet and multiplied by 100 to get the targeted index.
- **Black youth** and **Hispanic youth targeted indices** were calculated by dividing the proportion of youth (2-17 years) visitors to the website who were black or Hispanic youth by the proportion of youth visitors to the total internet who were black or Hispanic youth. First, the percent of black or Hispanic youth who visited the website was obtained by averaging the number of monthly unique visitors to the website for that group for the four quarters of 2014 and dividing that number by all youth visitors to the website. The same calculations were repeated for all youth visitors to the internet during the four quarters of 2014. The percent of black or Hispanic youth visitors to the website was then divided by the percent of black or Hispanic youth visitors to the internet and multiplied by 100 to get the targeted index.

Display advertising on third-party websites

Data for exposure to snack food advertising on third-party websites (i.e., websites sponsored by other companies) were extracted from the comScore Ad Metrix Advertiser Report.[35] comScore Ad Metrix monitors the same panel of users as comScore Media Metrix, but tracks advertisements that are completely downloaded and viewable on a user's web browser. Ad Metrix, therefore, measures individual exposure to display ads presented in rich media (SWF files) and traditional image-based ads (JPEG and GIF files). It does not capture text, video, or html-based ads. Ad Metrix also identifies the unique user viewing the advertisement, the third-party website on which the advertisement was viewed, and the company sponsoring the advertisement.

Third-party website data were collected for January through December 2014. During the time period of our analysis, Ad Metrix did not report demographic information about the individuals who were exposed to these advertisements. Consequently, we cannot differentiate between exposure by any specific group, including children, teens, Hispanic youth, or black youth.

The Product Dictionary from comScore was used to determine the display advertisements for the companies in our analysis. comScore's dictionary provides display ad data for brands, websites, and promotions (e.g., Kellogg Family Rewards) with ads that were viewed at least ten times by comScore panel members on the internet or on a specific publisher site. Ad Metrix captures copies of the actual display ads (i.e., creatives) that appeared on third-party websites. Researchers reviewed the creatives to identify the appropriate snack category to assign brands with products in multiple product categories. Display ads were excluded if less than one-half of ads were for snack foods or if no creatives were available in comScore.

Measures available from comScore for each month include **total display ads viewed** (i.e., the number of advertisements fully downloaded and viewed on publisher websites), **advertising exposed unique visitors** (i.e., the number of different individuals exposed to advertisements on a publisher website), and **average frequency of ads viewed** per unique visitor by snack company advertiser. This information is available for the total internet and for individual publisher websites.

As we could not separate ads viewed by age group, we identified third-party websites on which the advertisements appeared that were disproportionately visited by youth (i.e., youth websites) and children (i.e., children's websites). comScore Media Metrix Key Measures Report[36] was used to extract the average number of unique visitors to third-party websites. For each brand, we calculated the **proportion of total ad impressions** viewed on child and youth websites by dividing the average number of ad impressions on youth websites and children's websites[37] by total ad impressions of the same brand.[38]

We defined a **youth website** as a website that met one of two conditions: 1) It was identified by comScore as Family & Youth – Kids and/or Teens; or 2) the percent of visitors ages 2-17 to the website exceeded the total percentage of visitors to the internet ages 2-17 during the time period examined. From this list of youth websites, we also identified websites that were targeted to children. We defined a **children's website** as a youth website that met two conditions: 1) It was identified by comScore as Family & Youth – Kids; or 2) the percentage of visitors ages 2-12 to the website exceeded the total percentage of visitors to the internet ages 2-12 during the time period examined. Because we are unable to differentiate between ads viewed by youth under 18 years or by children versus adults, we instead assumed that advertising on youth and children's websites will be viewed disproportionately more by young people. Although Facebook.com and YouTube.com were not classified as youth websites according to the proportion of youth visitors, they are included in the analysis because of their popularity among this age group.

From the comScore data, we calculated the following measures for each brand (including websites and promotions) for which display advertising was found:

- **Average unique viewers per month**[39] was calculated by adding the number of unique visitors exposed to advertising for a brand or promotion reported monthly from January through December 2014 and dividing by 12.
- **Average number of ads viewed per viewer per month** was calculated by averaging the number of ads viewed per viewer for the brand or promotion for each month from January through December 2014.
- **Percentage of ads viewed on youth websites**, **children's websites**, **Facebook.com** and **YouTube.com** were calculated by dividing the total display ad impressions for the brand or promotion on each type of website by the total display ad impressions that appeared on all websites from January 2014 through December 2014.
- **Average ads viewed on youth websites**, **children's websites**, **Facebook.com** and **YouTube.com per month** were calculated by adding display ad impressions for the brand or promotion appearing on each type of website reported monthly from January through December 2014 and dividing by 12.

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