



HIGHLIGHTS

- Nutrition-related Behaviors
- Improving Breakfast Participation
- Dietary Behaviors and Academic Success
- Vending in Schools
- Marketing in Schools
- Cafeteria Trends
- Farm to School
- Team Nutrition Programs

Missouri School Nutrition Fact Sheet

“The greatest wealth is health.”

Virgil, ancient Roman poet

This fact sheet is a compilation of the most up-to-date nutrition-related behaviors and trends being observed in Missouri public schools as collected and analyzed from distinct surveys and data sources. The report shares the highlights and informs policy makers and key stakeholders about current methods and resources available for improving the school nutrition environment.

Surveys and Data Sources:

1. 2017 Youth Risk Behavior Survey (CDC) and 2017 Youth Tobacco Survey (MDHSS)
2. 2017 School Breakfast Rates, MO Department of Elementary and Secondary Education, Food Nutrition Services
3. 2015 National Youth Risk Behavior Survey, Centers for Disease Control and Prevention (CDC)
4. 2018 School Health Profiles (CDC)
5. 2017 School Nutrition Trends Report
6. 2015 Farm to School Census, United States Department of Agriculture
7. The Guide to Community Preventive Services, CDC
8. 2016 Missouri Team Nutrition, Marketing Events for Salad Bars Show an Increase in Student Participation

Strategically molding our schools into healthy environments with policies and programs that serve the best interest for students is considered the foundation for good health and, consequently, academic success. With the underlying motto that “healthy students make better learners,” schools continue to fall under the scope of public inquiries and expectations on ways they can partake in the health of children during the school day.

This report highlights 1) key dietary and environmental trends observed in Missouri schools known to impact the health of our students and 2) best practices and resources that may serve as road maps to foster healthy schools.

Nutrition-related Highlights:

The 2017 Health Risk Behaviors among Missouri Middle School and High School Students Report¹ tracks progress of specific health-related behaviors.

- **Fruit and vegetable consumption shows no significant change.** In 2017, 14 percent of high school (HS) students ate fruits and vegetables five or more times per day in the past seven days. **However, middle school (MS) students show a modest increase** from 17 percent (2007) to 20 percent (2017). The data has not changed significantly from 2007-2017.
- **Students have decreased consumption of non-diet soda or pop. Students drank less sweetened beverages** with 20 percent of MS and 21 percent (2015) of HS students drinking non-diet soda or pop one or more times per day during the past seven days. **This trend has been on a significant and continual decrease since 2007.** However, in 2017 the survey question changed to include **consumption of sports drinks, energy drinks, flavored milk and other sweetened beverages.** Results show a significant increase of

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consumption from 20 and 21 percent (2015) for MS and HS students, respectively to 30 percent (2017) for both groups.

- **The number of students who drank three or more glasses of milk per day during the past seven days continues to decline significantly** from 22 percent (2007) to 12 percent (2017) for MS students and 14 percent (2007) to 7 percent (2017) for HS students.
- **Breakfast participation** shows 11 percent of MS and 15 percent of HS students did not have breakfast for the past seven days.
- Additional data shows **the percentage of students K-12 participating in a school breakfast program at a steady and slow rate of increase** from 30 percent (2012-2013) to 32 percent (2016-2017) as reported by DESE, FNS.²

Looking for Ways to Increase Breakfast Participation?

Schools are investing in alternate breakfast venues that offer a second chance for students to start their day ready to learn:

- Grab 'n Go - a good option for smaller-sized districts
- Hallway Kiosks - finding the right location for the kiosk is key
- Breakfast Vending - up-and-coming venue for high schools
- Breakfast in the Classroom – common in elementary and middle schools

RESOURCE:

School Nutrition Association, Growing School Breakfast Participation



Breakfast kiosk at Rockwood South Middle School

Are Dietary Behaviors Linked to Academic Success...?

New evidence shows a significant association between **a lack of adequate consumption of specific foods, such as fruits, vegetables or dairy products, with lower grades among students.**³

Percentage of high school students who engaged in dietary behaviors, by type of grades earned (mostly A's, B's, C's, D's/F's) - United States, Youth Risk Behavior Survey, 2015					
Dietary Behaviors	Percentage of students who engaged in each risk behavior, by type of grades mostly earned in school				Significant Association*
	A's	B's	C's	Ds/F's	
Breakfast consumption					
Did not eat breakfast (during the 7 days before the survey)	11	13	17	26	Yes
Fruit and vegetable consumption					
Did not eat fruit (one or more times during the 7 days before the survey)	7	9	12	19	Yes
Did not eat salad (during the 7 days before the survey)	33	39	45	48	Yes
Did not eat vegetables (green salad, potatoes (excluding French fries, fried potatoes, or potato chips), carrots, or other vegetables, during the 7 days before the survey)	4	6	8	13	Yes
Milk consumption					
Did not drink milk (during the 7 days before the survey)	19	22	24	26	Yes
Soda consumption					
Drank a can, bottle, or glass of soda or pop one or more times per day (not including diet soda, or diet pop, during the 7 days before the survey)	13	20	29	39	Yes
Drank a can, bottle, or glass of soda or pop two or more times per day (not including diet soda, or diet pop, during the 7 days before the survey)	7	12	20	30	Yes
Drank a can, bottle, or glass of soda or pop three or more times per day (not including diet soda, or diet pop, during the 7 days before the survey)	3	6	11	19	Yes

† YRBS CDC National Data 2015. Percentage of students who engaged in each risk behavior, by type of grades mostly earned in school (mostly A's, B's, C's, D's/F's) are row proportions from cross-tabulations. *Based on logistic regression analysis controlling for sex, race/ethnicity, and grade in school, p<0.05.

Healthy Food Environment and Policy Trends in Schools

Vending in Schools

“Whatever good things we build, end up building us.” Jim Rohn

The **2018 School Health Profiles**⁴ continue to show significant and healthful trends in the types of snack foods and beverages that students can purchase at secondary schools. Eating better today contributes to healthy behaviors tomorrow. It is important to promote a consistent message about good nutrition and healthy eating beyond the cafeteria and across the school campus. Since school year 2014-15, all foods sold at school during the school day are required to meet nutrition standards. **The Smart Snacks in School** regulation applies to foods sold a la carte, in the school store, vending machines and any other venues where food is sold to students.

Percentage of schools allowing students to purchase:	2008	2010	2012	2014	2016	2018
Chocolate candy	31.3	33.2	38.3	30.8	10.4	11.2*
Other kinds of candy	36.4	37.5	39.9	34.0	16.2	15.0*
Salty snacks not low in fat (e.g., regular potato chips)	38.9	38.7	41.4	36.8	18.7	18.4*
2% or whole milk (plain or flavored)	47.3	37.2	41.4	28.7	17.1	20.5*
Soda pop or fruit drinks that are not 100% juice	54.9	43.8	46.0	36.2	23.1	29.0*
Sports drinks (e.g., Gatorade)	75.6	63.9	65.8	56.0	47.3	47.5*
Foods or beverages containing caffeine	47.9	38.4	39.8	31.9	26.3	25.4*
Fruits (not fruit juice)	33.9	31.0	34.9	26.6	23.6	29.7
Non-fried vegetables (not vegetable juice)	25.0	21.0	23.3	20.0	15.2	23.0 ⁺
Crackers, pastries and other baked goods not low in fat	42.7	41.9	43.3	34.1	16.3	19.5*
Ice cream or frozen yougurt not low in fat	26.3	18.3	20.5	17.4	9.3	11.9*
Water ices or frozen slushes that do not contain juice	19.7	14.7	17.5	11.9	9.1	20.2 ⁺
Low sodium or “no salt added” pretzels, chips, crackers				43.4	43.4	45.9
Nonfat or 1% (low fat) milk (plain)				40.7	31.9	30.5
Energy drinks (e.g., Red Bull, Monster)				3.6	1.4	3.1
Bottled water				64.7	61.1	63.8
100% fruit or vegetable juice				43.5	40.6	45.2

 **27%**

The percentage of secondary schools offering snack foods or beverages from one or more vending machines, school stores, canteens or snack bars significantly declined by 27 percent (from 2004 to 2016).

*Significant downward trend

⁺Significant increase from 2016

RESOURCES:

Tools for Schools: Focusing on Smart Snacks in Schools <https://www.fns.usda.gov/school-meals/tools-schools-focusing-smart-snacks>

Smart Snacks in Schools Calculator is a tool to determine whether a beverage, snack, side or entrée item meets the new USDA Smart Snacks in School Guidelines

https://www.healthiergeneration.org/take_action/schools/snacks_and_beverages/smart_snacks/alliance_product_calculator/

Marketing in Schools

A school setting delivers a captive youth audience to advertisers and implies endorsement by educational network. There was **no significant change in the percentage of secondary schools that prohibit advertisements** for candy, fast food restaurants or soft drinks in buildings, publications and vehicles from 2008 to 2016. Opportunity for progress remains in this area.

Percentage of schools prohibiting advertising:	2008	2018
In school building	54.5	58.7
On school grounds	46.6	50.5
In school publications	55.7	53.4
On school buses or other vehicles	64.5	63.5



Grab n Go Kiosk at Park Hill High School, Platte County

RESOURCES:

The Center for Commercial-Free Public Education <http://ibiblio.org/commercialfree>
Campaign for a Commercial Free Childhood <http://commercialfreechildhood.org/>



Food demonstrations from Culinary Skills Institute graduates such as taco soup (left) and chicken curry (right)



Cafeteria Trends!

The **2017 School Nutrition Trends Survey⁵** monitors the school food service arena to report working trends, issues and factors impacting school cafeterias. The national survey found the following key trends:

- **International flavors:** Nearly 60 percent of districts report offering a new menu item that features international flavors, with 26 percent of districts considering pilot testing new menu items
- **Customizable menu options:** Offering menu options in which students select ingredients is the norm with districts providing such options as:
 - o **Salad/produce bars or made-to-order salads** - 69 percent
 - o **Entrée bars/stations or made-to-order options** - 51 percent
 - o **Flavor stations that allow students to add seasoning (spices or sauces)** - 46 percent

- **Cleaner labels (products or ingredients with no artificial flavors, colors or preservatives):** Over half (56 percent) of districts report serving cleaner label menu options. This practice is most common in the largest districts.
- **Other innovative changes:** Food service directors or managers shared innovative changes relating to customization, new menu items and approaches to meet sodium and whole grain rich meal pattern requirements. Innovative changes that were shared were related to:
 - o **Increasing the amount of scratch cooking**
 - o **Increasing fruit and vegetable options**
 - o **Expanding breakfast venues**
 - o **Increasing grab & go options for lunch**
 - o **Student engagement initiatives**
 - o **Expanding local purchasing or farm to school programs**

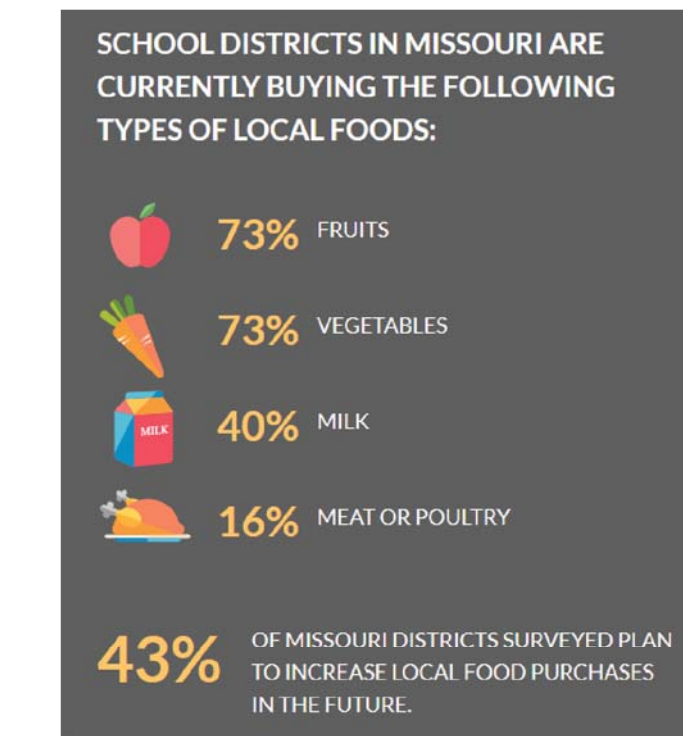
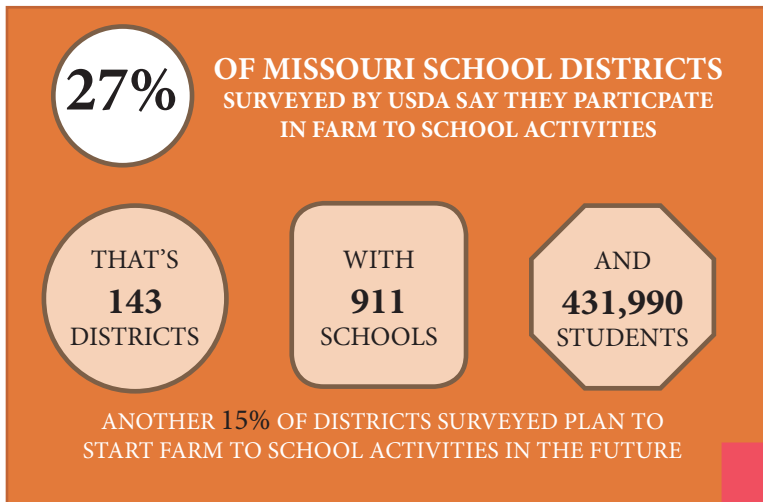
RESOURCES:

- Culinary Skills Institute sponsors hands-on culinary lab experiences, practicing healthy cooking methods and preparing healthy kid-tested recipes <http://health.mo.gov/living/wellness/nutrition/culinaryskills/>
- Salad Bars to Schools provides donation of salad bars to school cafeterias www.saladbars2schools.org
- The Institute of Child Nutrition provides ongoing training to child nutrition programs www.theicn.org



Farm to School Takes Root

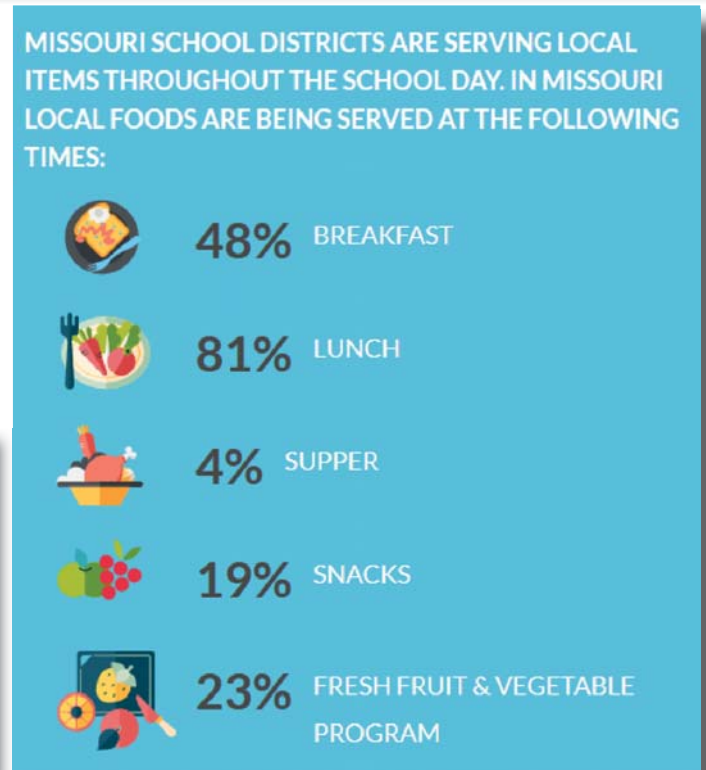
The 2015 USDA Farm to School Census⁶ is used to determine the prevalence of farm to school programs in the United States.



School gardens in Missouri schools continue to expand in number as active learning settings from 89 (2012) to at least 116 (2015). Gardening interventions have been shown to increase children's preferences for, and willingness to try new fruits and vegetables: **The Guide to Community Preventive Services, CDC⁷**

Missouri Farm to School <https://extension2.missouri.edu/programs/missouri-farm-to-school>

USDA Farm to School <https://www.fns.usda.gov/farmtoschool/farm-school>





Salad Bar at Wyland Elementary, Ritenour School District, St. Louis, MO

Missouri Nutrition Programs



Growing with MO, Harvest of the Season is a Farm 2 Preschool Program
<http://health.mo.gov/living/wellness/nutrition/farmtopreschool/index.php>



School wellness campaign that provides resources and programs for parents and schools
<https://health.mo.gov/living/wellness/nutrition/schoolwellness/parents.php>

Culinary Skills Institute



Culinary Skills Institute sponsors hands-on culinary lab experiences, practicing healthy cooking methods and preparing healthy kid-tested recipes

[health.mo.gov/team nutrition](http://health.mo.gov/teamnutrition)

Additional Information

Missouri Department of Health and Senior Services
Bureau of Community Health and Wellness
573-522-2820
pat.simmons@health.mo.gov

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Services provided on a nondiscriminatory basis. Hearing- and speech-impaired citizens can dial 711.

