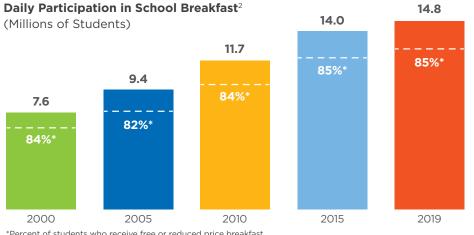
School Breakfast Matters

Reach of School Breakfast

School breakfast participation has doubled in just 20 years. By 2019, nearly 15 million children participated in school breakfast every day and 85% of them qualified for free or reduced price meals. One in seven children in the U.S. is food insecure¹ with much higher rates projected due to COVID-19. School breakfast reaches children who are most at-risk for food insecurity,² providing them vital nutrition to support mood, attention, and cognition.³



*Percent of students who receive free or reduced price breakfast

Looking at the Science

Breakfast is linked with numerous health and educational benefits - including improved academic performance, increased school attendance, more focused classroom behavior, and better dietary intake.4-7

A systematic review of 45 breakfast studies⁸ showed that:

Students who eat breakfast have positive outcomes, such as

- Improved math & memory
- Better satiety, and
- Increased attention in class.

Nutritionally vulnerable children demonstrated the most substantial outcomes on their

- Verbal skills,
- Memorization, and
- Matching tests.





Breakfast & Brain Activation

Significantly higher brain activation is observed in the pre-frontal cortex when a nutritionally balanced breakfast is consumed. This area of the brain is involved in the control of emotion, mood, expectations, behavior, reward, decisionmaking, and cognition.9-10 Thus, a child who is fed a nutritious breakfast is likely to be more calm, focused, organized, thoughtful and ready to learn.

Call to Action: Help create awareness of the numerous health and educational benefits of school breakfast and encourage children to participate in the school breakfast program.





©2021 National Dairy Council®

References:

- ¹ Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2019. <u>Household Food Security in the United States in 2018</u>, ERR-270, U.S. Department of Agriculture, Economic Research Service.
- ² USDA, FNS. School Breakfast Program: Participation and Meals Served. Accessed December 1, 2020.
- ³ Research Brief: Breakfast for Learning. FRAC. October 2016..
- ⁴ Anzman-Frasca S, Djang HC, Halmo MM, et al. Estimating impacts of a breakfast in the classroom program on school outcomes. JAMA Pediatrics. 2015;169(1):71-77.
- ⁵ Au LE, Gurzo K, Gosliner W, et al. <u>Eating school meals daily is associated with healthier dietary intakes: The Healthy Communities Study</u>. Journal of the Academy of Nutrition and Dietetics. 2018;118(8):P1474-P1481.E1.
- ⁶ School meals are a back-to-school essential for students. FRAC ResearchWIRE. Summer 2019:1-4.
- ⁷ Sampasa-Kanyinga H, Hamilton HA. Eating breakfast regularly is related to higher school connectedness and academic performance in Canadian middleand high-school students. Public Health. 2017;145:120-123.
- ⁸ Hoyland A, Dye L, Lawton CL. <u>A systematic review of the effect of breakfast on the cognitive performance of children and adolescents</u>. Nutr Res Rev. 2009 Dec;22(2):220-43.
- ⁹ Akitsuki Y, Nakawaga S, Sugiura M, Kawashima R. <u>Nutritional Quality of Breakfast Affects Cognitive Function: An fMRI Study</u>. Neuroscience & Medicine, 2011; 2: 92-19
- ¹⁰ Tataranni PA, Ois Gauthier J-F, Chen K, Uecker A, Bandy D, Salbe AD, Pratley RE, Lawson M, Reiman EM, Ravussin E. <u>Neuroanatomical correlates of hunger and satiation in humans using positron emission tomography</u>. Proc. Natl. Acad. Sci. 1999; 96: 4569–4574.