

RESEARCH BRIEF: BREAKFAST FOR LEARNING



Skiping Breakfast and Experiencing Hunger Impair Children's Ability to Learn

- Behavioral, emotional, mental health, and academic problems are more prevalent among children and adolescents struggling with hunger.^{1,2,3,4}
- Children and adolescents experiencing hunger have lower math scores and poorer grades.^{5,6}
- Children experiencing hunger are more likely to be hyperactive, absent, and tardy, in addition to having behavioral and attention problems more often than other children.⁷
- Teens experiencing hunger are more likely to have been suspended from school and have difficulty getting along with other children.⁸
- Children with hunger are more likely to have repeated a grade, received special education services, or received mental health counseling, than low-income children who do not experience hunger.⁹
- Students who are undernourished have poorer cognitive functioning when they miss breakfast.¹⁰
- Students who skip breakfast are less able to differentiate among visual images, show increased errors, and have slower memory recall.¹¹

Eating Breakfast, Including at School, Helps Improve Student Academic Performance and Behavior

- Children who eat breakfast at school — closer to class and test-taking time — perform better on standardized tests than those who skip breakfast or eat breakfast at home.¹²
- Students who eat breakfast the morning of a standardized test have significantly higher scores in spelling, reading, and math, compared to those who do not eat breakfast.¹³
- Student academic achievement increases, especially for math, when schools offer the School Breakfast Program.¹⁴
- Students who participate in school breakfast show improved attendance, behavior, and academic performance as well as decreased tardiness.^{15,16,17,18}
- Providing breakfast to students at school improves their concentration, alertness, comprehension, memory, and learning.^{19,20,21}
- Children who eat breakfast show improved cognitive function, attention, and memory.²²
- Consuming breakfast improves children's performance on mathematical tasks, vocabulary tests, demanding mental tasks, and reaction to frustration.^{23,24,25}

Breakfast in the Classroom Programs* and Programs Offering Breakfast at no Cost to all Children† in the Cafeteria Yield Other Positive Results

- Children who increase their school breakfast participation as a result of a school breakfast program offered at no cost to all students show greater improvements in math scores, attendance, punctuality, depression, anxiety, and hyperactivity than children whose participation remains unchanged or decreases.²⁶

*Breakfast in the classroom programs are an increasingly popular alternative to traditional, before-the-bell, cafeteria-based breakfast programs. Breakfast is brought in from the kitchen in containers that keep dishes at the right temperature, or is picked up from carts in the hallways as students enter class. Typically this breakfast is offered at no cost to all students. Such programs boost school breakfast participation and remove the stigma associated with participation.

†Offering breakfast at no cost to all students is sometimes referred to as "universal breakfast" or "universal-free breakfast." The program helps remove the stigma for low-income children of participation in school breakfast and thereby increases participation among students generally, but particularly low-income students.

- Providing students with breakfast in the classroom setting is associated with lower tardy rates, fewer disciplinary office referrals, and improved attendance rates.^{27,28}
- Student math and reading achievement test scores improve when breakfast is moved out of the cafeteria and into the classroom.²⁹
- Schools that offer breakfast at no cost to all students have higher breakfast participation, especially when breakfast is served in the classroom.^{30,31,32,33,34,35}
- Breakfast in the classroom is associated with more students eating breakfast as well as better overall dietary quality.³⁶
- Students attending schools that offer breakfast at no cost to all students are more likely to consume a nutritionally substantive breakfast and to consume significantly more calcium, magnesium, phosphorus, fruit, and dairy products at breakfast, when compared to students from schools with a traditional means-tested school breakfast program.³⁷
- Schools that offer breakfast in the classroom programs at no cost to all students experience an increased sense of community and reduced stigma associated with eating breakfast at school.^{38,39,40}

Beliefs About Breakfast Can Influence Participation in School Breakfast

- Adolescent girls often skip breakfast because they believe it might contribute to weight gain.^{41,42}
- Adolescents who skip breakfast are significantly more likely to have fasted to lose weight.⁴³
- Children report that they believe eating breakfast increases their energy and ability to pay attention in school.⁴⁴

School Breakfast Decreases the Risk of Food Insecurity

- School breakfast offered at no cost to all students may eliminate disparities between food-secure and food-insecure children in terms of eating breakfast at all.⁴⁵
- Students with improved nutrient intake as a result of a program that offers school breakfast at no cost to all students report decreases in symptoms of hunger.⁴⁶
- Access to school breakfast decreases the risk of marginal food insecurity and breakfast skipping, especially for low-income children.^{47,48,49}
- Rates of food insecurity among children are higher in the summer — a time when many do not have access to the good nutrition provided by the school meal programs available during the academic year.^{50,51}

School Breakfast Can Improve Children's Dietary Intake and Protect Against Obesity and Other Negative Health Outcomes[†]

- School breakfast participants are more likely to consume diets that are adequate or exceed standards for important vitamins and minerals (e.g., vitamin C, vitamin A, calcium, phosphorus).^{52,53,54}
- Children and adolescents who skip breakfast tend to have poorer nutrient intakes than those who eat breakfast. Eating breakfast regularly has been linked with greater intake of fiber, calcium, iron, vitamin C, and other vitamins and minerals, and lower intake of fat, cholesterol, and sodium.^{55,56,57}
- School breakfast participation is associated with a lower body mass index (BMI, an indicator of excess body fat), lower probability of being overweight, and lower probability of obesity.^{58,59,60,61}
- Children and adolescents who eat breakfast have more favorable weight-related outcomes (e.g., lower BMI, lower waist circumference, lesser likelihood of being chronically obese, decreased risk of obesity) in the short term and long term than those who skip breakfast.^{62,63,64,65,66,67,68,69,70,71}
- School breakfast, including breakfast offered at no cost to all students, has been linked with fewer visits to the school nurse, particularly in the morning.⁷²

[†]For more information, read FRAC's *Breakfast for Health* brief available at www.frac.org.

This brief was originally prepared in September 2011 and updated in the spring of 2014 by FRAC's Madeleine Levin, MPH, Senior Policy Analyst. This brief was updated again in October 2016 by FRAC's Heather Hartline-Grafton, DrPH, RD, Senior Nutrition Policy and Research Analyst.

Endnotes

- ¹ Kleinman, R. E., Murphy, J. M., Little, M., Pagano, M., Wehler, C. A., Regal, K., & Jellinek, M. S. (1998). Hunger in Children in the United States: Potential Behavioral and Emotional Correlates. *Pediatrics*, 101(1), E3.
- ² Kimbro, R. T., & Denney, J. T. (2015). Transitions into food insecurity associated with behavioral problems and worse overall health among children. *Health Affairs*, 34(11), 1949-1955.
- ³ Poole-Di Salvo, E., Silver, E. J., & Stein, R. E. (2016). Household food insecurity and mental health problems among adolescents: what do parents report? *Academic Pediatrics*, 16(1), 90-96.
- ⁴ Shanafelt, A., Hearst, M. O., Wang, Q., & Nanney, M. S. (2016). Food insecurity and rural adolescent personal health, home, and academic environments. *Journal of School Health*, 86(6), 472-480.
- ⁵ Alaimo, K., Olson, C. M., & Frongillo, E. A., Jr. (2001). Food Insufficiency and American School-Aged Children's Cognitive, Academic and Psychosocial Development. *Pediatrics*, 108(1), 44-53.
- ⁶ Shanafelt, A., Hearst, M. O., Wang, Q., & Nanney, M. S. (2016). Food insecurity and rural adolescent personal health, home, and academic environments. *Journal of School Health*, 86(6), 472-480.
- ⁷ Murphy, J. M., Wehler, C. A., Pagano, M. E., Little, M., Kleinman, R. F., & Jellinek, M. S. (1998). Relationship Between Hunger and Psychosocial Functioning in Low-Income American Children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 37, 163-170.
- ⁸ Alaimo, K., Olson, C. M., & Frongillo, E. A., Jr. (2001). Food Insufficiency and American School-Aged Children's Cognitive, Academic and Psychosocial Development. *Pediatrics*, 108(1), 44-53.
- ⁹ Kleinman, R. E., Murphy, J. M., Little, M., Pagano, M., Wehler, C. A., Regal, K., & Jellinek, M. S. (1998). Hunger in Children in the United States: Potential Behavioral and Emotional Correlates. *Pediatrics*, 101(1), E3.
- ¹⁰ Taras, H. (2005) Nutrition and Student Performance at School. *Journal of School Health*, 75(6), 199-213.
- ¹¹ Pollitt, E., Cueto, S., & Jacoby, E. R. (1998). Fasting and Cognition in Well- and Undernourished Schoolchildren: A Review of Three Experimental Studies. *American Journal of Clinical Nutrition*, 67(4), 779S-784S.
- ¹² Vaisman, N., Voet, H., Akivis, A., & Vakil, E. (1996) Effects of Breakfast Timing on the Cognitive Functions of Elementary School Students. *Archives of Pediatric and Adolescent Medicine*, 150, 1089-1092.
- ¹³ Ptomey, L. T., Steger, F. L., Schubert, M. M., Lee, J., Willis, E. A., Sullivan, D. K., Szabo-Reed, A. N., Washburn, R. A., & Donnelly, J. E. (2016). Breakfast intake and composition is associated with superior academic achievement in elementary schoolchildren. *Journal of the American College of Nutrition*, 35(4), 326-333.
- ¹⁴ Frisvold, D. E. (2015). Nutrition and cognitive achievement: an evaluation of the School Breakfast Program. *Journal of Public Economics*, 124, 91-104.
- ¹⁵ Murphy, J. M. (2007). Breakfast and Learning: An Updated Review. *Journal of Current Nutrition and Food Science*, 3(1), 3-36.
- ¹⁶ Basch, C. E. (2011). Breakfast and the Achievement Gap Among Urban Minority Youth. *Journal of School Health*, 81 (10), 635-640.
- ¹⁷ Murphy, J. M., Pagano, M., Nachmani, J., Sperling, P., Kane, S., & Kleinman, R. (1998). The Relationship of School Breakfast to Psychosocial and Academic Functioning: Cross-sectional and longitudinal observations in an inner-city sample. *Archives of Pediatric and Adolescent Medicine*, 152, 899-907.
- ¹⁸ Powell, C. A., Walker, S. P., Chang, S. M., & Grantham-McGregor, S. M. (1998). Nutrition and education: a randomized trial of the effects of breakfast in rural primary school children. *American Journal of Clinical Nutrition*, 68, 873-9.
- ¹⁹ Grantham-McGregor, S., Chang, S., & Walker, S. (1998). Evaluation of School Feeding Programs: Some Jamaican Examples. *American Journal of Clinical Nutrition*, 67(4) 785S-789S.
- ²⁰ Brown, J. L., Beardslee, W. H., & Prothrow-Stith, D. (2008). Impact of School Breakfast on Children's Health and Learning. Sodexo Foundation.
- ²¹ Morris, C. T., Courtney, A., Bryant, C. A., & McDermott, R. J. (2010). Grab 'N' Go Breakfast at School: Observation from a Pilot Program. *Journal of Nutrition Education and Behavior*, 42(3), 208-209.
- ²² Wesnes, K. A., Pincock, C., Richardson, D., Helm, G., & Hails, S. (2003). Breakfast reduces declines in attention and memory over the morning in schoolchildren. *Appetite*, 41(3), 329-31.
- ²³ Bellisle, F. (2004). Effects of diet on behaviour and cognition in children. *British Journal of Nutrition*, 92 (Supplement 2), S227-S232.
- ²⁴ Pivik, R. T., Tennal, K. B., Chapman, S. D., & Gu, Y. (2012). Eating breakfast enhances the efficiency of neural networks engaged during mental arithmetic in school-aged children. *Physiology & Behavior*, 106, 548-555.
- ²⁵ Pollitt, E., Cueto, S., Jacoby, E. R. (1998). Fasting and Cognition in Well- and Undernourished Schoolchildren: A Review of Three Experimental Studies. *American Journal of Clinical Nutrition*, 67(4), 779S-784S.
- ²⁶ Murphy, J. M., Pagano, M., Nachmani, J., Sperling, P., Kane, S., & Kleinman, R. (1998). The Relationship of School Breakfast to Psychosocial and Academic Functioning: Cross-sectional and longitudinal observations in an inner-city sample. *Archives of Pediatric and Adolescent Medicine*, 152, 899-907.
- ²⁷ Murphy, J. M., Drake, J. E., & Weineke, K. M. (2005). *Academics & Breakfast Connection Pilot: Final Report on New York's Classroom Breakfast Project*. Nutrition Consortium of New York State. Albany, New York.
- ²⁸ Anzman-Frasca, S., Djang, H. C., Halmo, M. M., Dolan, P. R., & Economos, C. D. (2015). Estimating impacts of a breakfast in the classroom program on school outcomes. *JAMA Pediatrics*, 169(1), 71-77.
- ²⁹ Imberman, S. A., & Kugler, A. D. (2014). The Effect of Providing Breakfast in Class on Student Performance. *Journal of Policy Analysis and Management*, 33(3), 669-699.
- ³⁰ McLaughlin, J. E., Bernstein, L. S., Crepinsek, M. K., Daft, L. M., & Murphy, J. M. (2002). *Evaluation of the School Breakfast Program Pilot Project: Findings from the First Year of Implementation*. U.S. Department of Agriculture, Food and Nutrition Service. Report No. CN-02-SBP.
- ³¹ Murphy, J. M., Pagano, M., & Bishop, S. J. (2001). *Impact of a Universally Free, In-Classroom School Breakfast Program on Achievement; Results from the Abell Foundation's Baltimore Breakfast Challenge Program*. Massachusetts General Hospital, Boston, MA.
- ³² Crepinsek, M. K., Singh, A., Bernstein, L. S., & McLaughlin, J. E. (2006). Dietary Effects of Universal-Free School Breakfast: Finding from the Evaluation of the School Breakfast Program Pilot Project. *Journal American Dietetic Association*, 106(11), 1796-1803.
- ³³ Nanny, M. S., Olaleye, T. M., Wang, Q., Motyka, E., & Klund-Schubert, J. (2011). A pilot study to expand the school breakfast program in one middle school. *TBM*, 1, 436-442.
- ³⁴ Corcoran, S. P., Elbel, B., & Schwartz, A. E. (2016). The effect of breakfast in the classroom on obesity and academic performance: evidence from New York City. *Journal of Policy Analysis and Management*, 35(3), 509-532.
- ³⁵ Anzman-Frasca, S., Djang, H. C., Halmo, M. M., Dolan, P. R., & Economos, C. D. (2015). Estimating impacts of a breakfast in the classroom program on school outcomes. *JAMA Pediatrics*, 169(1), 71-77.
- ³⁶ Ritchie, L. D., Rosen, N. J., Fenton, K., Au, L. E., Goldstein, L. H., & Shimada, T. (2015). School breakfast policy is associated with dietary intake of fourth- and fifth-grade students. *Journal of the Academy of Nutrition and Dietetics*, 116(3), 449-457.
- ³⁷ Crepinsek, M. K., Singh, A., Bernstein, L. S., & McLaughlin, J. E. (2006). Dietary Effects of Universal-Free School Breakfast: Finding from the Evaluation of the School Breakfast Program Pilot Project. *Journal American Dietetic Association*, 106(11), 1796-1803.
- ³⁸ Morris, C. T., Courtney, A., Bryant, C. A., & McDermott, R. J. (2010). Grab 'N' Go Breakfast at School: Observation from a Pilot Program. *Journal of Nutrition Education and Behavior*, 42(3), 208-209.

- ³⁹ Haesly, B., Nanney, M. S., Coulter, S., Fong, S., & Pratt, R. J. (2014). Impact on Staff of Improving Access to the School Breakfast Program: A Qualitative Study. *Journal of School Health*, 84(4), 267-274.
- ⁴⁰ Bailey-Davis, L., Virus, A., McCoy, T. A., Wojtanowski, A., & VenderVeur, S. S. (2013). Middle School Student and Parent Perceptions of Government — Sponsored Free School Breakfast and Consumption: A Qualitative Inquiry in an Urban Setting. *Journal of the Academy of Nutrition and Dietetics*, 113(2), 251-257.
- ⁴¹ Reddan, J., Wahlstrom, K., & Reicks, M. (2002). Children's perceived benefits and barriers in relation to eating breakfast in schools with or without Universal School Breakfast. *Journal of Nutrition Education and Behavior*, 34, 47-52.
- ⁴² Cohen, B., Evers, S., Manske, S., Bercovitz, K., & Edward, H. G. (2003). Smoking, physical activity and breakfast consumption among secondary school students in a southwestern Ontario community. *Canadian Journal of Public Health*, 94, 41-44.
- ⁴³ Zullig, K., Ubbes, V. A., Pyle, J., & Valois, R. F. (2006). Self-Reported Weight Perceptions, Dieting Behavior, and Breakfast Eating Among High School Adolescents. *Journal of School Health*, 76(3), 87-92.
- ⁴⁴ Reddan, J., Wahlstrom, K., & Reicks, M. (2002). Children's perceived benefits and barriers in relation to eating breakfast in schools with or without Universal School Breakfast. *Journal of Nutrition Education and Behavior*, 34, 47-52.
- ⁴⁵ Khan, S., Pinckney, R. G., Keeney, D., Frankowski, B., & Carney, J. K. (2009). Prevalence of food insecurity and utilization of food assistance program: an exploratory survey of a Vermont middle school. *Journal of School Health*, 81(1), 15-20.
- ⁴⁶ Kleinman, R. E., Hall, S., Green, H., Korzec-Ramirez, D., Patton, K., Pagano, M. E., & Murphy, J. M. (2002). Diet, breakfast, and academic performance in children. *Annals of Nutrition and Metabolism*, 46(Supplement 1), 24-30.
- ⁴⁷ Bartfeld, J., Kim, M., Ryu, J. H., & Ahn, H. (2009). The School Breakfast Program participation and impacts. *Contractor and Cooperator Report*, 54. Washington, DC: U.S. Department of Agriculture.
- ⁴⁸ Bartfeld, J. S., & Ahn, H. M. (2011). The School Breakfast Program strengthens household food security among low-income households with elementary school children. *Journal of Nutrition*, 141(3), 470-475.
- ⁴⁹ Bartfeld, J. S., & Ryu, J. H. (2011). The School Breakfast Program and breakfast-skipping among Wisconsin elementary school children. *Social Service Review*, 85(4), 619-634.
- ⁵⁰ Nord, M., & Romig, K. (2006). Hunger in the summer: seasonal food insecurity and the National School Lunch and Summer Food Service programs. *Journal of Children and Poverty*, 12(2), 141-158.
- ⁵¹ Nalty, C., Sharkey, J., & Dean, W. (2013). School-based nutrition programs are associated with reduced child food insecurity over time among Mexican-origin mother-child dyads in Texas Border Colonias. *Journal of Nutrition*, 143, 708-713.
- ⁵² Bhattacharya, J., Currie, J., & Haider, S. J. (2006). Breakfast of champions? The School Breakfast Program and the nutrition of children and families. *Journal of Human Resources*, 41(3), 445-466.
- ⁵³ Gleason, P., & Sutor, C. (2001). Children's diets in the mid-1990s: dietary intake and its relationship with school meal participation. *Special Nutrition Programs*, CN-01-CD1. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition and Evaluation.
- ⁵⁴ Clark, M. A., & Fox, M. K. (2009). Nutritional quality of the diets of U.S. public school children and the role of the school meal programs. *Journal of the American Dietetic Association*, 109(2 Supplement 1), S44-S56.
- ⁵⁵ Affenito, S. G., Thompson, D. R., Barton, B. A., Franko, D. L., Daniels, S. R., Obarzanek, E., Schreiber, G. B., & Striegel-Moore, R. H. (2005). Breakfast consumption by African-American and white adolescent girls correlates positively with calcium and fiber intake and negatively with body mass index. *Journal of the American Dietetic Association*, 105(6), 938-945.
- ⁵⁶ Affenito, S. G., Thompson, D., Dorazio, A., Albertson, A. M., Loew, A., & Holschuh, N. M. (2013). Ready-to-eat cereal consumption and the School Breakfast Program: relationship to nutrient intake and weight. *Journal of School Health*, 83(1), 28-35.
- ⁵⁷ Kerver, J. M., Yang, E. J., Obayashi, S., Bianchi, L., & Song, W. O. (2006). Meal and snack patterns are associated with dietary intake of energy and nutrients in US adults. *Journal of the American Dietetic Association*, 106(1), 46-53.
- ⁵⁸ Gleason, P. M., & Dodd, A. H. (2009). School breakfast program but not school lunch program participation is associated with lower body mass index. *Journal of the American Dietetic Association*, 109(2 Supplement 1), S118-S128.
- ⁵⁹ Millimet, D. L., Tchernis, R., & Husain, M. (2009). School nutrition programs and the incidence of childhood obesity. *Journal of Human Resources*, (3), 640-654.
- ⁶⁰ Millimet, D. L., & Tchernis, R. (2013). Estimation of treatment effects without an exclusion restriction: with an application to the analysis of the School Breakfast Program. *Journal of Applied Economics*, 28, 982-1017.
- ⁶¹ Wang, S., Schwartz, M. B., Shebi, F. M., Read, M., Henderson, K. E., & Ickovics, J. R. (2016). School breakfast and body mass index: a longitudinal observational study of middle school students. *Pediatric Obesity*, published online ahead of print.
- ⁶² Alexander, K. E., Ventura, E. E., Spruijt-Metz, D., Weigensberg, M. J., Goran, M. I., & Davis, J. N. (2009). Association of breakfast skipping with visceral fat and insulin indices in overweight Latino youth. *Obesity*, 17(8), 1528-1533.
- ⁶³ Affenito, S. G., Thompson, D. R., Barton, B. A., Franko, D. L., Daniels, S. R., Obarzanek, E., Schreiber, G. B., & Striegel-Moore, R. H. (2005). Breakfast consumption by African-American and white adolescent girls correlates positively with calcium and fiber intake and negatively with body mass index. *Journal of the American Dietetic Association*, 105(6), 938-945.
- ⁶⁴ Barton, B. A., Elderidge, A. L., Thompson, D., Affenito, S. G., Striegel-Moore, R. H., Franko, D. L., Albertson, A. M., & Crockett, S. J. (2005). The relationship of breakfast and cereal consumption to nutrient intake and body mass index: the National Heart, Lung, and Blood Institute Growth and Health Study. *Journal of the American Dietetic Association*, 105(9), 1383-1389.
- ⁶⁵ Deshmukh-Taskar, P. R., Nicklas, T. A., O'Neil, C. E., Keast, D. R., Radcliffe, J. D., & Cho, S. (2010). The relationship of breakfast skipping and type of breakfast consumption with nutrient intake and weight status in children and adolescents: the National Health and Nutrition Examination Survey 1999-2006. *Journal of the American Dietetic Association*, 110(6), 869-878.
- ⁶⁶ Fiore, H., Travis, S., Whalen, A., Auinger, P., & Ryan, S. (2006). Potentially protective factors associated with healthful body mass index in adolescents with obese and nonobese parents: a secondary data analysis of the third national health and nutrition examination survey, 1988-1994. *Journal of the American Dietetic Association*, 106(1), 55-64.
- ⁶⁷ Merten, M. J., Williams, A. L., & Shriver, L. H. (2009). Breakfast consumption in adolescence and young adulthood: parental presence, community context, and obesity. *Journal of the American Dietetic Association*, 109(8), 1384-1391.
- ⁶⁸ Niemeier, H. M., Raynor, H. A., Lloyd-Richardson, E. E., Rogers, M. L., & Wing, R. R. (2006). Fast food consumption and breakfast skipping: predictors of weight gain from adolescence to adulthood in a nationally representative sample. *Journal of Adolescent Health*, 39(6), 842-849.
- ⁶⁹ Timlin, M. T., Pereira, M. A., Story, M., & Neumark-Sztainer, D. (2008). Breakfast eating and weight change in a 5-year prospective analysis of adolescents: Project EAT (Eating Among Teens). *Pediatrics*, 121(3), e638-645.
- ⁷⁰ Wojcicki, J. M., Schwartz, N., Jiménez-Cruz, A., Bacardi-Gascon, M., & Heyman, M. B. (2012). Acculturation, dietary practices and risk for childhood obesity in an ethnically heterogeneous population of Latino school children in the San Francisco bay area. *Journal of Immigrant and Minority Health*, 14(4), 533-539.
- ⁷¹ Blondin, S. A., Anzman-Frasca, S., Djang, H. C., & Economos, C. D. (2016). Breakfast consumption and adiposity among children and adolescents: an updated review of the literature. *Pediatric Obesity*, 11(5), 333-348.
- ⁷² Bernstein, L. S., McLaughlin, J. E., Crepinsek, M. K., Daft, L. M. (2004). Evaluation of the School Breakfast Program Pilot Project: final report. *Nutrition Assistance Program Report Series*, CN-04-SBP. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation. (The findings on school nurse visits were only observed for the 2001-2002 school year in this report.)