

MEAL SERVICE MODELS THAT INCREASE BREAKFAST PARTICIPATION

SUMMARY OF COMPILED RESEARCH
STUDIES



Revised: 9/2015

MEAL SERVICE MODELS THAT INCREASE BREAKFAST PARTICIPATION

Summary of Compiled Research Studies

GOALS

- Increase the number of students participating in breakfast program meals.
- Increase student access to programs by making breakfast part of the normal school day.
- Improve the health and academic status of Florida's students.

RESEARCH/SUCCESS STORIES

In the 2013-2014 school year, the School Breakfast Program (SBP) provided a healthy morning meal for 11.2 million low-income children on an average day, serving 343,000, or 3.2 percent, additional children per day than in the previous year. Additionally, the average daily participation in the SBP has risen by almost 50 percent, or by more than 3.5 million low-income children over the past 10 years. (*Annual Food Research and Action Center (FRAC) Scorecard 2013-2014*) In Florida, elementary schools with 80 percent or more free and reduced-price certified students are required to offer free breakfast to all students.

"Impressive progress in expanding the reach of the School Breakfast Program has come as the result of hard work, year after year, by school staff, administrators, state nutrition and school officials, the United States Department of Agriculture and children's anti-hunger, health and education advocates. School districts and states achieving significant growth in participation in school breakfast typically have utilized a range of strategies, including the effective and proven strategies described below."

-Annual FRAC Scorecard 2013-2014

One of the most successful strategies for expanding school breakfast participation is to provide the meal for free to all students. One method to implement free school breakfast is for schools to simply not charge for meals, while collecting federal reimbursements under the traditional (free, reduced-price and paid) meals system; this is often referred to as "nonpricing." Another method is to utilize the Provision 2 option, which allows schools to collect and process school meal applications from students every four years. The Provision 2 option can be used to offer free breakfast, lunch or both. (*Annual FRAC Scorecard 2013-2014*)

The Community Eligibility Provision (CEP) is a more recent federal option for high-poverty schools and districts to offer breakfast and lunch at no charge to all students. This provision provides significant administrative savings by eliminating the school meal application process and streamlining operations to facilitate implementation of alternative breakfast models, such as breakfast in the classroom. The CEP

has already begun to demonstrate its potential to increase school breakfast (and lunch); as of December 2014, more than half of the nation's eligible, high-poverty schools were offering free breakfast and lunch through this provision. (*Annual FRAC Scorecard 2013-2014*)

Research in *The Journal of Child Nutrition and Management* examines perceptions and barriers associated with the SBP. "Despite the benefits of school breakfast, state officials who oversee the SBP have reported barriers to implementation (FRAC, 2002). Officials identified 'school buses arrive too late' as the top barrier, selected by 74 percent of respondents. Other strong barriers included student unwillingness or inability to arrive at school early, opposition from teachers and/or administrators to providing breakfast in the classroom, insufficient time provided for students to eat school breakfast, a lack of parent awareness of the academic and behavioral benefits of school breakfast and

a stigma associated with participation.” (Elaine McDonnell, MS, RD, LDN; Claudia Probart, PhD, RD; J. Elaine Weirich, MEd; Terry Hartman, MPH, PhD, RD; and Patricia Birkenshaw, MA, *School Breakfast Programs: Perceptions and Barriers*, Journal of Child Nutrition and Management, Fall 2004)

McDonnell, et al., (2004) also found key differences among stakeholders. “While school administrators expressed concerns about costs and staffing, school food service directors did not identify these issues as barriers. Despite the fact that meals offered through the SBP must meet federal nutrition standards, support for the program waned among parents and school administrators if they perceived that only foods of low nutritional value were being served. Although parents speculated that students would not choose healthy foods for breakfast, students expressed interest in a wide variety of foods with a range of nutritional values. School administrators and school food service directors recognized parents as strong forces for change within schools; however, few parents identified a role for themselves in the initiation of a school breakfast service.”

Another study from the University of Wisconsin Madison on SBP participation cites, “Other research on SBP participation examines perceived barriers rather than formal predictors of participation. Common themes from that body of research include a stigma associated with the program, time conflicts associated with eating school breakfast prior to the start of the school day and a belief that parents should be responsible for feeding their own children in the morning. (Kennedy and Davis

“One of the benefits of Universal Free School Breakfast is that it reduces the stigma attached to eating breakfast at school by offering the morning meal free of charge for all students.”

– Judi Bartfeld, et al., *The School Breakfast Program: Participation and Impacts* (2009)

1998; Lent and Emerson 2007; Reddan, Wahlstrom, and Reicks 2002; Rosales and Janowski 2002) This work suggests that both community norms as well as details of how the program is implemented that could reduce stigma and time conflicts should have

beneficial impacts on participation.” (Judi Bartfeld, Myoung Kim, Jeong Hee Ryu, and Hong-Min Ahn, *The School Breakfast Program: Participation and Impacts*, July 2009)

Bartfeld, et al., found that SBP “analyses that focus on availability of the program, rather than participation, have both greater policy relevance and greater statistical merit. [Their] findings suggest that making school breakfast more broadly available would be beneficial in ensuring that more children start their school day with a meal and that fewer families are confronted with uncertain access to sufficient food. To the extent that stigma, negative impressions of school breakfast or logistical barriers are dampening participation among children who would find it beneficial to participate, identifying and taking steps to counter such barriers seems warranted.” (Bartfeld, J., *The School Breakfast Program: Participation and Impacts*, July 2009)



A statewide survey of 413 public school students in grades 6-12 in Maryland cites several factors that impact school breakfast participation among the students surveyed; among them were time and convenience: (*Share Our Strength, Maryland Middle and High School Students' Perspectives on Breakfast and School Breakfast*, February 2011)

- **Time**, and lack of time, plays a large role in students not eating school breakfast or not eating breakfast at all. Three-quarters of students say that they would want to eat breakfast if they had more time.
- **Convenience** is also a big factor for students as they say they would be more likely to eat school breakfast if it were easier to get.

"The [Maryland] survey gives solid and encouraging guidance on what types of new approaches to serving school breakfast can help make breakfast more convenient and better fit into students' routines and priorities. Specifically, middle and high school students respond positively to six different approaches to how breakfast could be served in their schools."

Students are most enthusiastic about:

1. In-class breakfast served after first period (71 percent more likely to eat; 48 percent much more likely);
2. The idea of making breakfast part of the school day (73 percent more likely to eat; 46 percent much more likely);
3. Their school providing more breakfast items they like to eat (74 percent more likely; 44 percent much more likely);
4. Having a second chance to access the grab and go carts between first and second period (69 percent more likely to eat; 44 percent much more likely);
5. Having breakfast items on a cart that allows them to select items and take them to eat in their first period classrooms (73 percent more likely; 43 percent much more likely); and
6. The option to take breakfast foods from the cafeteria and eat it in their first period classrooms (64 percent more likely to eat; 40 percent much more likely).

"When students who say the grab and go carts would make them more likely to eat breakfast are asked what is most appealing about the carts, they cite time, convenience and being able to fit eating breakfast into their social routines as the top reasons. Reduced stigma is less of a factor for students. In terms of why grab and go carts are compelling, students say the following:

- I could do it as part of my routine to class and my locker (48 percent)
- I could socialize with my friends while I do it (39 percent)
- It would only take me a few minutes (38 percent)
- Other students would be doing it with me, so I would not be embarrassed (14 percent)

The benefit of quickness of the grab and go carts is particularly important for high school students." (*Share Our Strength Survey*, February 2011)

"To achieve maximum positive impact on the health and academic success of low-income children, more states, districts and schools need to follow the models of participation growth and quality improvement that so many of their peers have established in recent years."
– Annual FRAC Scorecard 2011-2012

Innovative models of serving school breakfast that have proven to be successful in expanding access to school breakfast include:

- **Breakfast in the Classroom**
- **Grab and Go**
- **Second Chance Breakfast/Breakfast After First Period**
- **Vending Machines**

BREAKFAST IN THE CLASSROOM

- Complete meals or meal components are delivered to classrooms for service in about 7-15 minutes.
- Meals are served in the cafeteria with students selecting components before going to the classroom.
- Offering breakfast at no charge to all students, often called “universal,” helps remove the stigma for children of participation in school breakfast and has the highest participation rates.
- This method is effective in elementary schools as students typically stay in the same classroom all day and schools with large numbers of bused students who arrive too late for breakfast in the cafeteria or schools with small cafeterias where it is challenging to feed all students breakfast at the same time.

Meal Service Model	Where is it served?	When is it served?	How is it served?	Who does it work with?	What does the research say?
Breakfast in the Classroom	Classroom or Grab and Go in cafeteria taken to the classroom	After the school day begins, immediately following opening bell	Transported to and from the classroom by school nutrition staff and/or student volunteers	Can work in any school setting. Most commonly used in elementary schools	Success rates can be as high as 98 percent of school enrollment

Classroom items

- Wet wipes (for students to clean their hands after breakfast)
- Spray bottle (fill with water to spray on desks for daily cleaning)
- Paper towels (for wiping off desks)
- Trash container or stand with extra trash bags
- Clipboards with extra pens for teachers to check off accountability rosters

Custodial items

- Large rolling trash bins and trash bin liners
- Extra trash bags

Food service items

- Insulated bags (28 items per 18.5” x 12” x 5” bag) x 2 bags for components x \$42 per bag = \$84 per class x 20 classrooms (4 classes per K-5 grade) = \$1680 per school. Additional cost per bag for paperwork window, supply pouches, logo, larger size, etc.
- Depending on your school’s budget, there are many alternatives to traditional insulated food bags. For example, sealed, shelf-stable items can be transported via donated laundry baskets, cafeteria trays, empty milk crates or cardboard boxes.
- Wheeled cart to deliver food to classrooms; again, if your school’s budget is tight, get creative! Wheeled carts can be anything from a traditional food service cart to a wheeled insulated bag to a red toy wagon or a grocery cart donated by a local grocery store.

Process and logistics of serving breakfast in the classroom

Consider creating a breakfast timeline to walk classroom educators through the daily steps of breakfast service. Steps to outline include:

1. The time breakfast bags will be picked up or delivered to the classroom;
2. The time teachers allow students into the classroom;
3. The time for eating breakfast and completing the accountability roster;
4. The time to dispose of trash, pack up unused food and return insulated bags and accountability rosters to the cafeteria or hallway; and

5. The expected completion time of all breakfast activities.

Remember that the timeline may need to be grade-specific where younger grades (Pre-K and Kindergarten) often require more time for breakfast activities.

GRAB AND GO

- This method is a great way to serve more students in a variety of places and times.
- Meals are served at one or more carts or breakfast stations near the bus loop or car drop-off loading/unloading zone and students are allowed to go to designated areas to eat (cafeteria, outdoor seating area, classroom, etc.).
- Meals are served in the cafeteria with students selecting components before going to the classroom, cafeteria or other designated area to eat.
- Consider a food truck and an outside walk-up service window as service options in secondary settings.

Meal Service Model	Where is it served?	When is it served?	How is it served?	Who does it work with?	What does the research say?
Grab and Go	Cafeteria, hallways common areas (inside and outside of building)	Before the school day begins or after first period as part of a Nutrition Break	Stations can be set up in a variety of locations in the cafeteria and other high traffic areas such as hallways or entryways	Can work in any school setting. Works well for students who come to school too late to eat in the cafeteria and secondary schools	In secondary schools, over 70 percent of schools experienced an increase in school breakfast participation of 15-40 percent

Works great for

- Large schools with different start times, different entrances and small or remote cafeterias
- Middle and high schools where students change classrooms frequently

Suggestions

- Serve bagged food from carts or kiosks stationed near entrances and other places where students usually rush by.
- Students can quickly pay using personal identification numbers, swipe cards or tickets.
- Students can consume the meal in the hallway, at their desks or on a break between classes.

Food service items

- Milk cooler or insulated portable cabinet
- Heated food cart or insulated portable cabinets for storing hot foods
- Mobile serving cart
- Portable tables
- Kitchen carts
- Handheld point-of-service scanners
- Disposable breakfast bags for breakfast food items (Tip: Have students hold a design competition to pick the design on the breakfast bag)
- Plastic serving gloves
- Disposable silverware/napkin kits

SECOND CHANCE BREAKFAST/BREAKFAST AFTER FIRST PERIOD

- This method is a meal service model where students eat breakfast during a break in the morning, often after first period or midway between breakfast and lunch usually between 9:00 a.m. and 10:00 a.m.
- Schools can serve breakfast in the same manner as they would with traditional Grab and Go breakfast. This model can be particularly effective for older students who may not be hungry first thing in the morning or may choose to hang out with friends. Also referred to as School Brunch or Mid-Morning Nutrition Break.
- Consider breakfast service before school as first traditional service and second service after first period.

Meal Service Model	Where is it served?	When is it served?	How is it served?	Who does it work with?	What does the research say?
Second Chance Breakfast, Brunch, Nutrition Break	Cafeteria Hallways	After first period	Served in the same manner as traditional Breakfast in the Cafeteria, Classroom or Grab and Go	Can work in any school setting. It is most commonly used in secondary school settings	Increases in participation of 15-40 percent

Works great for

- Schools with large numbers of bused students who do not have time for breakfast in the cafeteria
- Schools with small cafeterias that cannot feed all students breakfast at the same time
- Schools where a milk break or other break already exists

Suggestions

- This method can also be referred to as Nutrition Breaks to encourage administrative support.
- Students can quickly pick up breakfast in the cafeteria or in the hallway between classes.
- Breakfasts may duplicate the meal served earlier in the cafeteria or it may be a grab and go meal.
- The use of student personal identification numbers or swipe cards ensures that each student eats only one breakfast.

VENDING MACHINES

- Breakfast vending allows students access to nutritious breakfast foods through vending machines.
- This method is often implemented in high schools, and vending machines are usually only available prior to the start of the school day.
- Consider this as one additional option for students to use between class periods or as part of Nutrition Break after first period.
- Students eat breakfast from vending machines in a variety of locations including common areas and the cafeteria.
- Machines can be set up to offer free and reduced-price options by linking vending machines to the school's point-of-sale (POS) system. Students can then use their student identification card or personal identification number to pay without cash.
- Students are offered additional service locations and service times and are able to access breakfast independently. They work great in situations where students arrive to school at different times or may be running late and need an easy way to grab a quick breakfast before the school day begins.

Meal Service Model	Where is it served?	When is it served?	How is it served?	Who does it work with?	What does the research say?
Vending Machines	Cafeteria Hallways Common Areas (inside and outside of building) Remote areas	Before the school day begins and between classes	Vending machines allow the self-service of hot and cold items	Usually available in secondary school settings	New approach in use in about 1 percent of schools

Suggestions

- This method can also be used in conjunction with breakfast in the cafeteria or during Nutrition Breaks as part of Breakfast After First Period and expansion of the cafeteria POS locations.
- Students can quickly pick up breakfast in the cafeteria or in the hallway between classes and other remote locations.
- Breakfasts can be selected and served in 17-20 seconds (45-60 meals per 15-minute meal service) with student birth date and personal identification number information and tied into most POS programs.
- Some machines can hold 96 larger meals and up to 144 smaller meals like breakfast Grab and Go meals.
- Machine cost (\$13,000) can be offset with increased participation revenue and reallocating serving staff duties.

Assessing Barriers to School Breakfast Expansion

Use this sheet to examine barriers to your current or proposed School Breakfast Program. The following chart can serve as a starting point for identifying barriers, discussing solutions and determining which stakeholders you may need to consult in order to overcome any obstacles. It may be useful to complete a chart for each specific building in the district as barriers may differ in high schools, elementary schools, etc. Also, please consider additional barriers and strengths specific to your community that might not be listed here.

Using a five-point scale, assess the strength of each possible barrier from 1 to 5 where 1 indicates that the issue is: **Not a barrier in my school** and 5 indicates that it is: **A very strong barrier in my school**.

Barriers that affect SBP participation	Strength: 1 to 5	Stakeholders to consult/Ideas to overcome barrier
Administrative Support		
Insufficient time allowed for eating breakfast, either before school or in class, or insufficient time between breakfast and lunch.		
Tight bus schedules limit time to eat breakfast when students arrive.		
Lack of personnel and/or funding for security to supervise students during breakfast.		
Lack of administrative support for implementing alternative breakfast methods. Is school breakfast offered only during exam week?		
Custodial issues, such as arrangements for trash removal if students eat in classrooms.		
Nutrition Environment		
The cafeteria is not viewed as a welcoming place for students to eat.		
Students prefer to socialize with friends outside the school building before school starts.		
Stigma felt by students, especially when breakfast is offered only in the cafeteria.		
Nutrition Quality for School Meals		
The school sells other foods and beverages that compete with the breakfast program.		
Breakfast offers limited, less healthy choices.		

Assessment Plan for School Breakfast Expansion Project

Use this sheet to assess the schools where your district is planning to begin or to improve School Breakfast Program participation rates. Complete the following chart to assess the number of schools for each service approach and equipment needs.

School Food Authority Name: _____ Agreement Number: 01-_____	Number of Elementary Schools (if any)	Number of Middle Schools (if any)	Number of High Schools (if any)	Total, as applicable
Breakfast in the Classroom, if planned				
Insulated Bag (Cold holding) and/or Coolers with or without wheels (one per classroom)				
Insulated Bag (Hot holding) (one per classroom)				
Travel Carts for non-wheeled insulated bag delivery, if any				
Delivery Carts for non-wheeled cooler delivery, if any				
Kitchen Carts, if any				
Trash Containers, if any				
Point of Service (POS) hardware materials such as laptop, tablet, wireless routers, etc., if any				
Software, if any				
Other (specify):				
Other (specify):				
Other (specify):				
Grab and Go (to the cafeteria, classroom, etc.), if planned				
Kiosk POS workstation cart, if any				
Kiosk service bar/cart, if any				
POS hardware such as laptop, tablet, desktop computer, monitor, wireless routers, etc., if any				
Software, if any				
Delivery Carts, if any				
Kitchen Carts, if any				
Trash Containers, if any				
Menu Boards/Signage, if any				
Other (specify):				
Other (specify):				
Other (specify):				

Assessment Plan for School Breakfast Expansion Project

Breakfast After First Period/Second Chance served in cafeteria as Grab and Go and/or full service and/or at stations/kiosks in hall as Grab and Go				
Kiosk POS workstation cart, if any				
Kiosk service bar/cart, if any				
POS hardware such as laptop, tablet, desktop computer, monitor, wireless routers, etc., if any				
Software, if any				
Delivery Carts, if any				
Kitchen Carts, if any				
Trash Containers, if any				
Menu Boards/Signage, if any				
Other (specify):				
Other (specify):				
Other (specify):				
Vending Machines				
Vending Machine capable of dispensing complete, reimbursable meals				
Hardware such as desktop computer, monitor, wireless routers, etc., if any				
Delivery Carts, if any				
Software, if any				
Kitchen Carts, if any				
Trash Containers, if any				
Menu Boards/Signage, if any				
Other (specify):				
Other (specify):				
Other (specify):				

Notes/comments: