



**Impacts of the Denver Public Schools
Breakfast in the Classroom Program:
Survey of Nurses, Counselors, Psychologists
and Social Workers**

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BACKGROUND

Researchers have shown that breakfast in the classroom programs can significantly improve student attentiveness, attendance, tardiness, suspensions and test scores. Breakfast programs have also been shown to improve the eating habits of students, while enhancing their nutritional intake. More broadly, offering breakfast in the classroom increases participation in school-based meal programs and provides food to those students who face shortages at home.¹

The Breakfast in the Classroom within Denver Public Schools

Within the Denver Public School system, the *Breakfast in the Classroom* Program (DPS-BIC) has been in place since 2007, growing from eight initial schools to a current total of 83 schools.

Passage of the *Breakfast after the Bell Nutrition Program* by the Colorado Legislature in May 2013 has led to further program growth. Starting in the 2014-15 school year, Colorado schools where 80 percent or more of students are eligible for the Federal free and reduced lunch (FRL) program must provide universal free after-the-bell breakfast programs. In the upcoming year (2015-16), this requirement will expand to include schools where 70 percent or more of students are FRL eligible.

Methods

As part of a broader evaluation of the DPS-BIC program,² the Center for Research Strategies (CRS) sent out a survey to nurses, counselors, psychologists and social workers throughout the DPS school system to determine their perspectives on hunger-related issues and the extent to which current DPS food programs address these concerns. Staff members working within schools where the *Breakfast in the Classroom* program is operational were asked additional questions about this program. In addition, we completed one-on-one interviews with 18 nurses to gain their perspectives on how hunger influences the manner in which students access the school health offices.

¹ American Association of School Administrators. (2013) Improving attendance, health and governance: moving breakfast out of the cafeteria. **School Governance and Leadership**. Vol. 8: Number 1.

² Two similar surveys were sent out in 2014 to determine the experience of teachers in whose classrooms the DPS-BIC program has been implemented. The first survey was conducted within schools where the BIC program was implemented in the fall of 2013. The second was distributed in the spring of 2014 to all teachers in schools with a BIC program.

The electronic survey sent out in December 2014-January 2015 focused on the following questions:

- Estimates of the proportion of students who eat breakfast on a regular basis
- Estimates of the extent to which students have enough food to eat
- Estimates as to the proportion of visits to the school health office that are connected to hunger and
- Perceptions regarding the impacts of the *Breakfast in the Classroom* program and suggested program improvements.

Overall Response

Staff members from the DPS Office of Student Health helped to distribute the electronic surveys to all nurses, social workers, counselors and psychologists who work in DPS schools. A total of 138 responses were returned. Table I below provides a breakdown of the staff members who answered the survey by staff category.

Table I: Responding DPS Staff Members by Job Category (N=138)

DPS STAFF JOB CATEGORY	NUMBER	PERCENT
School Nurse	51	37.0%
Counselor	28	20.3%
Social Worker	25	18.1%
School Psychologist	32	23.2%
Front Office Staff	1	0.7%
Other	1	0.7%

Of the 185 schools within the Denver Public School system, survey responses were received from staff who work at 156 locations or 84% of all school sites. A full listing of responding schools where survey respondents work is provided in Appendix A.

BREAKFAST EATING PATTERNS

Survey respondents were asked how many DPS students typically eat breakfast before coming to school. One in five said they didn't know or couldn't provide an answer. Among those that answered the question, most reported breakfast eating to be uncommon. More than half (or 56 percent) estimate that fewer than half of students typically consume a breakfast.

- A third of DPS staff (or 37 percent) observe that only a quarter (0-25 percent) of students fit breakfast in before coming to school.

- An additional 22 percent of survey respondents estimated that fewer than half of students (26-50 percent) start school, having eaten breakfast.

What Proportion of Students Would You Estimate Typically Eat Breakfast Before Coming to School?

N=138		
Estimate Range	Number	Percent
76-100%	16	11.6%
51-75%	12	8.7%
26-50%	31	22.5%
0-25%	51	37.0%
<i>Don't Know or Left the Question Blank</i>	28	20.3%

Having Enough Food to Eat

While breakfast eating is less than a common practice for most DPS students, survey respondents believe that more than half of all students have enough food to eat at home. This is not universally true, however, at all DPS school locations.

- A quarter of DPS staff (or 27 percent) responded that between 51 to 75 percent of students have enough food at home.
- An additional 21 percent place this estimate higher, believe that 75 to 100 percent of students have ample food access.
- Food shortages were identified for roughly a quarter of the remaining locations (or 30 percent), with 23 percent reporting that fewer than half of their students have enough to eat. In nine schools, only a quarter of their students are estimated to have sufficient access to food at home.

From your Perspective, Approximately How Many Students in the Schools Where you Work have enough Food to Eat at Home?

N=138		
Estimate Range	Number	Percent
76-100%	29	21.0%
51-75%	37	26.8%
26-50%	31	22.5%
0-25%	9	6.5%
<i>Don't Know or Left the Question Blank</i>	32	23.2%

According to one staff member,

I am not sure of the number of students, BUT we hear about kids who ate very little over the weekend when there is no school.

Value of the Traditional DPS Breakfast Program

Only half of the DPS staff responding to the survey (or 55 percent) work in schools with a *Breakfast in the Classroom* program. In the other locations, breakfast is served in the school cafeteria and is available for all students. When asked to what extent the traditional breakfast program helps students to access the food they need, almost half of DPS staff (or 44 percent) responded “to a great extent” while an additional quarter (or 28 percent) answered “somewhat.”

To What Extent Does the DPS Traditional Breakfast Program in the Cafeteria Help Student to Access the Amount of Food They Need in Any Given Day?

N=138	Number	Percent
To a Great Extent	60	43.5%
Somewhat	38	27.5%
To a Limited Degree	12	8.7%
Not at All	1	0.7%
Don't Know or Left the Question Blank	27	19.6%

Staff comments affirmed the importance of the traditional breakfast program, as well as the reasons why some students do not avail themselves of the food that is offered (e.g., being late or being picky eaters):

- *For our kids who do need food, this is a very important service.*
- *I know I have students that rely on the program to be able to then take their daily medications.*
- *For those students who chose to eat (the program is valuable). It seems that the students are extremely picky and don't always take advantage of the breakfast plan.*
- *Students are often late to school, missing the free breakfast offered in the cafeteria. Sometimes they are also wanting to be social and don't come to the cafeteria for breakfast.*
- *We struggle with tardies and if students were required to come early to eat I don't believe many of them would*

Impact of Hunger on Use of the School Health Office

In most DPS locations, staff report that on average 25 percent or fewer of the visits to the school health office can be attributed to hunger. A third of the survey respondents responded that they didn't have enough information to answer this question. For some staff, however, the proportion of hungry students visiting the health office is much higher. At five locations (or four percent), more than half of the visits to the school health office are attributed to students not having enough to eat.

Students suffering from hunger most often report stomach aches (81 percent), head aches (74 percent) and dizziness (41 percent).

On an Average Day, What would you Estimate to be the Proportion of Student Visits to your School Health Office That Can be Attributed to Students being Hungry or Not Having Had Enough Food to Eat?

N=138		
Estimate Range	Number	Percent
76-100%	0	0.0%
51-75%	5	3.6%
26-50%	19	13.8%
0-25%	72	52.2%
<i>Don't Know or Left the Question Blank</i>	42	30.4%

Staff comments provide more information on the ways in which hunger contributes to visits to the school health office:

- *Seems to be the same kids.*
- *BIC has decreased the number of visits to the nurse's office for "hunger" complaints*
- *I don't know, but prior to the breakfast program, my counselor and I had students coming to our office daily to ask for health snacks.*

DPS Staff Response to Hunger Related Problems

More than half of DPS staff members (or 57 percent) report that when a student comes to the school health office and hunger is suspected, they provide the student with food that is stocked in the health office. One in four staff members (or 28 percent) escort the student to the cafeteria while 20 percent work to assure that the students’ parents have enrolled the student in the Free and Reduced Lunch program.

Community-based food programs that assist students and their families include weekend Backpack programs (28 percent), food banks (43 percent) and summer lunch programs (25 percent).

When a Student comes to the School Health Office and You Suspect They have Hunger-related Problems, Which of the Following Do You Typically Do?

N=138		
Response Options	Number	Percent
Provide food that is stocked in the health office	80	57.6%
Escort the student to the cafeteria	39	28.1%
Provide a FRL program application	29	20.9%
Provide student with meals	23	16.5%
Provide resources to allow the student to have food over the weekend	24	17.3%

- Percentages do not add to 100% because staff respondents could provide more than one response.

Additional analyses were completed to determine if these responses vary depending on whether the DPS staff are located in a BIC versus a non-BIC school. The results show that even in schools where the BIC program is offered, DPS staff are still providing food stocked in the health office although they are less likely to escort the student to the cafeteria.

When a Student comes to the School Health Office and You Suspect They have Hunger-related Problems, Which of the Following Do You Typically Do?

N=138			
Response Options	All Responses	BIC Schools	Non –BIC Schools
Provide food that is stocked in the health office	80 57.6%	63.2%	68.6%
Escort the student to the cafeteria	39 28.1%	28.9%	40.0%
Provide a FRL program application	29 20.9%	23.7%	25.7%
Provide student with meals	23 16.5%	18.4%	17.1%
Provide resources to allow the student to have food over the weekend	24 17.3%	19.7%	14.3%

- Percentages do not add to 100% because staff respondents could provide more than one response.

While many staff members do stock food for students, they report that this most typically entails a personal expense, as schools do not always cover the cost of food provided in the school health office:

- Food stocks are not budgeted, and for me and many other professionals comes out of pocket. As the year extends my resources are depleted.
- Provide personal food that is not provided by school.

- Sometimes students will come to my office (school psychologist) for behavioral reasons and I often check-in with them to determine if they are hungry or if they need water. Often times the food settles them. I usually bring healthy fruits from home.
- Students know rooms or teachers that have food. There are only crackers, mainly for nausea, in the health office.
- I give students a snack if I have brought one from home, when escorted to the cafeteria typically the cafeteria workers won't give students anything because breakfast is over and students don't have money
- Providing snacks in the health office has become a problem. it is very expensive for our school and we have several students missing class just to get a snack - even if they had lunch already.
- I don't typically support in this way but do have some food in my office if students are hungry.

Overall Impacts of the Breakfast in the Classroom Program

Most nurses, counselors, psychologists and social workers have either a very positive (58 percent) or somewhat positive (25 percent) opinion of the *Breakfast in the Classroom* program. Five staff members (or 4 percent) are neutral at this point in time, while eight (or 10 percent) have a somewhat negative opinion regarding the program.

Those with less than fully positive opinions regarding the program commented either on the nutritional quality of the food or the mess that is created when students eat in the classroom.

- My opinion was better last school year. This year, the teachers tell me that "BIC is only carbs....few proteins..."
- This program created such a mess that we had mice in our classrooms and the facility manager could not keep up with the mess.

Opinion Regarding the Breakfast in the Classroom Program (N=81)

What is your opinion of the <i>Breakfast in the Classroom</i> program?		
	Response Count	Response Count
Very Positive	47	58.2%
Somewhat Positive	20	24.7%
Neutral	5	6.2%
Somewhat Negative	8	9.9%
Very Negative	1	1.2%

In addition to having a positive view of the *Breakfast in the Classroom* program, DPS staff also believe that the program helps students to access the food they need during the day. Whereas 72 percent of survey respondents view the traditional cafeteria program as helping students to access breakfast, the BIC program is rated as improving access to breakfast by 86 percent of DPS staff responding to the survey.

To What Extent Does the DPS Breakfast in the Classroom Program in the Cafeteria Help Student to Access the Amount of Food They Need in Any Given Day?

N=82		
	Number	Percent
To a Great Extent	44	54.3%
Somewhat	26	32.1%
Neutral/Don't Know	8	9.9%
To a Limited Extent	3	3.7%

BIC Program Impacts on Student Behavior

DPS nurses, counselors, psychologists and social workers were asked to identify how the *Breakfast of the Classroom* program impacts specific aspects of student health and behavior. The results demonstrate that DPS staff view the *Breakfast in the Classroom* program as having an overall beneficial contribution on students in the following areas:

- Almost all of the DPS staff (or 90%) report that the *Breakfast in the Classroom* program as providing a positive contribution to **student attention and student concentration**.
- Eight out of ten DPS staff report that the *Breakfast in the Classroom* program is having a positive contribution on **overall student behavior (84%)** and on **student academic outcomes (or 82%)**.
- Two out of three of DPS staff report that the *Breakfast in the Classroom* program is positively contributing to **seat time in the classroom (73%)** and **student attendance/tardies (68%)**.
- In terms of student health, almost all of DPS staff (or 95%) report that the *Breakfast in the Classroom* program is teaching students about the **importance of breakfast**.
- The *Breakfast in the Classroom* program is seen as making a positive contribution on the **physical health** of students (74%), as well as their **mental health (77%)**. Three out of four DPS staff believe the program is improving students' access to nutritious food (76%).
- Two out of three DPS staff (or 65%) report that the *Breakfast in the Classroom* program is **reducing the need for nurse visits**.
- More than half of DPS staff that *Breakfast in the Classroom* program is creating more awareness of **healthy eating (60%)** while only 41 percent see a connection between the program and a **lower risk of obesity**.

Table 8: Perceived Impacts of the Breakfast in the Classroom Program (N=77-81)

To what extent do you think the <i>Breakfast in the Classroom</i> program impacts the following aspects of student learning and behavior?	
	Positive Contribution
Classroom Benefits	
Student attention	90.1%
Student concentration	90.0%
Overall student behavior	83.8%
Student academic outcomes	81.5%
Seat time in the classroom	72.8%
Student attendance/tardies	67.9%
Student Health	
Importance of breakfast	94.8%
Access to nutritious food	75.6%
The physical health of students	74.4%
The mental health of students	76.9%
A need for fewer nurse visits	65.4%
Awareness of healthy eating	59.7%
Lower risk of obesity	41.0%

- Teachers responding “strong contribution” or “some contribution.”

When asked if the DPS staff had observed any additional impacts, the following groups of comments were offered.

Positive Impacts

- *Students are now accustomed to having breakfast at school.*
- *It gives everyone in all classrooms a good sense of purpose for the start to the day. It gives people a routine. The parents seem to like it as well.*
- *The program gives us a chance to teach younger students about manners - please, thank you, wiping our mouth, staying seated while eating, etc.*
- *Students tend to eat it because it's present in their classroom and available to everyone. At the cafeteria, students had to go there, wait in line and then have time to eat it, but it took their recess time, so many wouldn't.*
- *Kids are very willing to get their breakfast and appreciate the beginning of day routine. Helps them also with taking responsibility of tasks assigned during breakfast time, such as clean up.*
- *Less a.m. nurse visits for stomachaches, headaches, dizziness.....*
- *Parents sometimes come by and grab a breakfast also if there are extras.*
- *It creates the need for strong morning rituals and expectations around eating breakfast and cleaning up.*

Negative Impacts

Provide Healthier Food

- BIC foods could be healthier
- *I think the Breakfast in the Classroom is a positive thing for classrooms however because the food the children are served is often high in sugar (sugar covered raisins or sugary juices) or has little nutritious value (pizza), it does not contribute effectively to student achievement outcomes or positive behaviors. In fact, for many students, it may do the opposite.*
- *Some of the food seems to be of little nutritional benefit or may not be enough. Most times, it is ok from what I have seen. The students do not like the breakfast pizzas. I see more kids in the office because of hunger on the days this is served.*
- *The food served is not always healthy and students who are hungry opt not to eat it because it is not appetizing. Today was breakfast pizza - very little nutrition and does not encourage healthy eating habits.*
- *The food is very sugary and not nutritious AT ALL. I am disgusted by what the children are given to eat each morning. Many of our students are already overweight and eat more than one breakfast and they are full of sugar all morning. I think if we are going to spend money to provide breakfast to our kids each morning we should invest in giving them HEALTHY food not pure junk food! I think the current breakfast served contributes to, not reduces the obesity problem.*
- *A negative - overweight students are eating two breakfasts. I've had to re-vamp my teaching to my diabetic students to avoid high blood sugars at lunch. Too many carbs offered.*
- *Many students do not eat the food because it is gross. Breakfast pizza?? Is that really supposed to be healthy??*
- *Sometimes meals are not appealing to students and they will only drink beverages offered instead of eating food.*

Address Food Waste and Clean-up Issues

- *I am concerned that students eat breakfast but don't have a chance to brush their teeth afterward. I don't notice any changes in behavior, academics, or attendance with Breakfast in the Classroom vs. cafeteria breakfast. Breakfast in the classroom generates a lot more packaging and trash, which is a concern.*
- *Large amounts of milk and food are thrown away every day. Breakfast items are high carb/high sugar, although there is frequently fruit included, but again frequently thrown away*
- *As stated previously, this program created a mess in the classroom which caused a distraction, created more work for the facility maintenance workers, attracted mice because of the mess, and took away time from learning due to the focus on food. Usually eating is a social activity for students, so it is difficult for them to eat and learn in the classroom.*
- *More trash; more unopened food thrown away; increased food waste*
- *As noted earlier. It seems that most students who truly need breakfast eat it in the cafeteria before school. Teachers have not reported positive outcomes for the students who are eating in the classrooms.*

Recommended Changes

More than half of the DPS staff members who answered questions about additional DPS support for the *Breakfast in the Classroom* program agreed with the strategy of providing additional information to students about the importance of breakfast (53 percent) as well as offering parents similar information (57%). Most (57 percent) believe as well that the program

should be expanded to more schools. One in three DPS staff members (or 33 percent) believe that best practices information should be made available to teachers.

Recommendations for Additional Support (N=88-90)

In the next few years, what support should Denver Public Schools provide to the *Breakfast in the Classroom* program? (Check all that apply.)

		Response Percent
Continue the program as it is	30	27.8%
Provide best practices information to teachers	34	32.7%
Expand the program to more schools	50	56.8%
Offer students more information about the importance of breakfast	48	53.3%
Offer parents more information about the importance of breakfast	50	56.8%

- Percentages are calculated based on the number of DPS staff who answered this question. Staff members were able to check more than one answer.

Open-ended suggestions included the following:

- Offer classes to parents and students regarding overall nutrition.
- Provide healthy snacks in the main office for students who are hungry.
- Continue orientation to parents about meals at school, benefic, cost and free meals if applicable

When asked for additional comments, DPS staff recommended improved communication with nurses, more flexible access to food and improvements in the nutritional content of food being served.

Positive Comments

- It's nice to see students start their day with a nutritious breakfast.*
- Please keep it going!*
- Thank you - I appreciate the positive benefits the program has on our community.*
- I am so happy we have this program!*
- Thank you for providing Breakfast in the Classroom to our students!*
- I think it's great!*
- Thanks for such a great program for our students.*
- It is a beginning to solve the problem.*

Recommendations

- Better communication with RN about what is being offered to cross reference food allergies. Also, some students eat breakfast twice, which can be an issue for students with diabetes.

- *The health office should be permitted to keep a few extra breakfast items for those students who arrive late to school, or don't eat breakfast and later regret not eating.*
- *Add a snack in the afternoon, it is a great program. Thank You!*
- *Middle schoolers should have to sign that they don't want the lunch instead of signing that they got breakfast. Or somehow make it less of a "big deal" for kids to be getting breakfast.*
- *Have additional food available in classroom for tardy students.*
- *Would like to see all students have breakfast in the classroom as well as alternatives for those students that are tardy and miss the breakfast time. Would also like to see healthier choices for breakfast offered that are lower in sugar.*
- *Try offering healthy nutritious meals...the food I see being offered is garbage. Pizza for breakfast????!!*

Negative Comments

- *Even though many of the students at my schools have food at home, several students still take a breakfast because they either did not eat one at home or they eat it as a "snack."*
- *Increases exposure to processed foods; increases trash and food waste*
- *I'm still concerned about the amount of sugar our kids are getting.*
- *There are really no fruits or vegetables offered for breakfast. Multiple times student arrived with upset stomachs because they had pizza. Need more fiber options.*
- *There should be more balance in protein intake, and no, milk is not enough as there are children that will not drink the milk. This also is true to a cheese stick! We have too many students peaking too fast and then crashing!*
- *I am VERY concerned about the overall amount of wasted food during breakfast and lunch served in schools. Portions are often too large for young children; children take more fruit/vegetables from the fruit/ veg bar than they eat, and then just throw it away. It's a terrible waste of food and money!*

Conclusion

During the 2014-15 school year, a survey was sent all nurses, counselors, psychologists and social workers in DPS schools. Responses were obtained from 138 DPS staff who work within 156 schools, including 55 schools where the *Breakfast in the Classroom* program is in place. Highlights of the survey results are detailed below:

- *More than half (or 56 percent) of the DPS staff responding to the survey estimate that fewer than half of students typically consume a breakfast. While breakfast eating is less than a common practice for most DPS students, survey respondents believe that more than half of all students have enough food to eat at home. This is not universally true, however, at all DPS school locations.*
- *In most DPS locations, staff report that on average 25 percent or fewer of the visits to the school health office can be attributed to hunger. For some staff, however, the proportion of hungry students visiting the health office is much higher. At five locations (or four percent), more than half of the visits to the school health office are attributed to students not having enough to eat.*

- More than half of DPS staff members (or 57 percent) report that when a student comes to the school health office and hunger is suspected, they provide the student with food that is stocked in the health office, often purchased at personal expense. One in four staff members (or 28 percent) escort the student to the cafeteria while 20 percent work to assure that the students' parents have enrolled the student in the Free and Reduced Lunch program.
- Whereas 72 percent of survey respondents view the traditional cafeteria program as helping students to access breakfast, the BIC program is rated as improving access to breakfast by 86 percent of DPS staff responding to the survey.
- Most nurses, counselors, psychologists and social workers have either a very positive (58 percent) or somewhat positive (25 percent) opinion of the *Breakfast in the Classroom* program.
 - ✓ Almost all of the DPS staff (or 90%) report that the *Breakfast in the Classroom* program as providing a positive contribution to **student attention and student concentration**.
 - ✓ Eight out of ten DPS staff report that the *Breakfast in the Classroom* program is having a positive contribution on **overall student behavior** (84%) and on **student academic outcomes** (or 82%).
 - ✓ Two out of three of DPS staff report that the *Breakfast in the Classroom* program is positively contributing to **seat time in the classroom** (73%) and **student attendance/tardies** (68%).
 - ✓ In terms of student health, almost all of DPS staff (or 95%) report that the *Breakfast in the Classroom* program is teaching students about the **importance of breakfast**.
 - ✓ The *Breakfast in the Classroom* program is seen as making a positive contribution on the **physical health** of students (74%), as well as their **mental health** (77%). Three out of four DPS staff believe the program is improving students' access to nutritious food (76%).
 - ✓ Two out of three DPS staff (or 65%) report that the *Breakfast in the Classroom* program is **reducing the need for nurse visits**.
 - ✓ More than half of DPS staff that *Breakfast in the Classroom* program is creating more awareness of **healthy eating** (60%) while only 41 percent see a connection between the program and a **lower risk of obesity**.

Relative to program improvements, DPS staff recommended improved communication with nurses, more flexible access to food and improvements in the nutritional content of food being served.

APPENDIX A: LISTING OF DPS SCHOOLS FROM WHICH SURVEY RESPONSES WERE OBTAINED

ACE Community Challenge School	Denver Center for International Studies	Gust Elementary
Academy 360	Denver Discovery School	George Washington High School
Academy of Urban Learning	Denver Language School	Hallett Fundamental Academy
Abraham Lincoln High School	Denver School of the Arts	Hamilton
Amesse	Denver School of the Arts Middle School	Harrington
Ashley Elementary	Denver West	Henry World School
Barnum	Dora Moore K-8	High Tech Early College
Barrett ES	Doull	Hill Campus of Arts & Sciences
Beach Court	Downtown Denver Exploratory School	Holm Elementary
Bromwell Elementary	DSST Byers Middle School	Johnson E.S.
Brown International Academy	DSST-Conservatory Green	Justice High School
Bruce Randolph	DSST HS @ GVR	Kaiser
Bryant Webster ECE-8	DSST MS @ GVR	KIPP Denver Collegiate High School
Dual Language School	DSST Stapleton Middle School	Kipp Montbello College Prep
CEC Middle College	Eagleton	KIPP Sunshine Peak Academy
Centennial	East High School	Kepner Middle School
Cesar Chavez	Ellis Elementary	Kunsmiller Creative Arts Academy K-12
Cheltenham	Emily Griffith High School	Lake International Middle School
CMS Community School	Escuela Tlatelolco	Lincoln Elementary School
Colorado High School Charter	Excel Academy	Manual High School
Colfax elementary	Fairview	Marrama
College View Elementary	Farrell B. Howell	martin luther king jr early college
Collegiate Prep Academy	Florence Crittenton	Math Science Leadership Academy
Columbian Elementary	Florida Pitt Waller ECE-8 School	Maxwell ES
Columbine Elementary	Force Elementary	McAuliffe
Compassion Road Academy	Garden Place	McMeen Elementary
Contemporary Learning Academy	Gilpin Montessori	Merrill
Cory Elementary	Girls Athletic Leadership School	Monarch Montessori
Cowell	Godsman	Montclair Elementary School
DCIS @ Fairmont	Goldrick	Morey
DCIS at Ford Elementary	Grant Beacon Middle School	Munroe Elementary
DCIS Baker MS and HS	Grant Ranch	
DCIS Montbello MS	Greenlee	
DCIS Montbello HS	Greenwood Academy	

Noel Community Arts
School MS
Noel Community Arts
School HS
Newlon Elementary
School
North High School
Odyssey Charter
Pascual LeDoux
Place Bridge Academy
Pioneer Charter
Polaris
PREP Academy Middle
School
PREP Academy High
School
Rocky Mountain Prep
Sabin World Elementary
School
Samuels Elementary
Schmitt

Sims Fayola
Skinner
Slavens
Smith Elementary
SOAR at GVR
Southmoor Elementary
Southwest early college
Stedman Elementary
Steele Elementary
Stephen Knight Center for
Early Ed
STRIVE Prep - Green Valley
Ranch
Strive Prep- Lake
Strive Prep Montbello
Strive SMART Prep
Summit Academy
Swansea
Teller Elem
Thomas Jefferson High

School
Traylor Fundamental
Academy
Trevista at Horace Mann
University Park
Elementary
University Prep
Valdez
Valverde
Vista Academy
west campus
West Career
West Generations MS &
HS
West Leadership MS & HS
Westerly Creek
Elementary
Whittier ECE-8
William Roberts

APPENDIX B: RESULTS FROM INTERVIEWS WITH NURSES FROM DENVER PUBLIC SCHOOLS

To supplement the electronic survey sent to all nurses working in DPS schools, CRS staff conducted one-on-one interviews with 18 nurses who were attending a professional development event on January 5, 2015. Among the nurses interviewed, 12 (67%) work in at least one school that currently has a *Breakfast in the Classroom* program.

Food Insecurity Estimates

Similar to those who answered the electronic survey, the nurses interviewed vary in their estimates as to how many of their students have enough food at home. Estimates ranged from less than 10 percent to over 75 percent, with the food shortages most prevalent at a Charter School for homeless and transient students. Nearly half of the nurses (or 44 percent) indicated that they do not have enough information to know the degree to which their students had limited access to food in their homes.

Food Insecurity as a Reason for Health Office Visits

Nurses also vary in the extent to which they perceive hunger as a reason why students visit the school health office. The volume of student health visits attributed to hunger is higher in schools where greater numbers of students are eligible for the Free and Reduced Lunch (FRL) program as well as within schools located near public housing projects and in neighborhoods with higher rates of poverty.

On average the 10 nurses who provided an estimate said that one in five students (or 22 percent) typically come to the school health office because of hunger. One out of three of these nurses have noticed that more students come in with hunger complaints on Monday than on other days. Comments by the nurses listed below show the differences in their experiences:

- *I'd say a minimum of five students a day come in for hunger issues out of 40-50 total visits to the school health office.*
- *I would say half have hunger related problems.*
- *They come in all the time. They're frequent flyers. It's the same kids every day. These programs aren't enough. There's not enough food and the portions are not enough.*

School Nurse Response to Student Hunger

When nurses recognize that students are hungry, almost all (94 percent) have food in the school health office that they provide to the students. Three nurses contact the students' parents. A third of nurses explicitly partner with nearby community agencies to address food shortage problems. These include the local food bank, family service agencies and local volunteer groups who prepare food baskets for needy families.

More broadly, nurses see the roles they can play in addressing hunger in three broad categories: 1) education 2) providing access to food assistance and 3) organizing healthy living interventions. Relevant comments from nurses related to each of these categories are provided below.

ROLES OF DPS NURSES TO ADDRESS HUNGER AND NUTRITION ISSUES

RN ROLES	DPS NURSE QUOTES
Education	<ul style="list-style-type: none"> - <i>There's a need for education and helping to implement programs that would help out with these students. There's no education in the classroom telling them about the importance of breakfast.</i> - <i>I see my role as promoting good health and nurturing that in children. Helping them understand that what they're eating has an impact on how they feel.</i> - <i>I have been teaching nutrition classes in break out groups from the classroom. I also teach students individually. I ask about when they last ate and we talk about nutrition.</i>
Providing Access to Food Assistance	<ul style="list-style-type: none"> - <i>During registration I make sure students sign up for the Free and Reduced Lunch program. It's the students in between who don't qualify who have the problem. That's a big gap. They don't qualify but don't have the money to buy meals.</i> - <i>I think the gatekeeping I do, I think that needs to happen. Nurse can read what's happening. I know many of the families and have a relationship with them.</i>
Healthy Living Interventions	<ul style="list-style-type: none"> - <i>I can be effective because I'm there all day. I do nutrition education a lot. I started an exercise program for the obese kids. When we have these challenges, I'm going to feed these kids if they're hungry... I buy fruit, vegetables and cups of noodles. The cups of noodles will keep them until lunch. I'm calling parents and asking them to help. I'm a case worker. I know so many families. I also buy big bottles of water and give them to kids so they can stay in school.</i> - <i>I've talked to students extensively by the time I think food is really an issue. I always try to call the parent... I just let them know the child is hungry or just isn't eating the food for some reason.</i> - <i>I see a lot of the teens, especially when they get a small granola bar and a juice. ...One school has a culinary arts school, but the food isn't healthy. Fries, burgers. Kids more apt to go to the school selling this stuff: coffee, tea, sugary stuff. But this isn't helpful. A lot of kids are obese. They're continually getting donuts. ... I'm letting principals know that many kids have high BMI, but they don't see the need. They don't see the relationship.</i>

Perceptions Regarding the Breakfast in the Classroom Program

Ten out of the 12 nurses interviewed have a positive view of the *Breakfast in the Classroom* program, believing that it helps to ensure that students are starting their school day with breakfast. Two nurses commented on issues related to waste and the nature of the food being served while one nurse believes that students should be eating breakfast exclusively at home.

Perceived benefits of the program include its capacity to assure that all students have access to breakfast. Several nurses also commented on reductions in visits to the school health office they have observed when a *Breakfast in the Classroom* program is initiated. Challenges relate to scheduling, a need for greater student education, improvements in the nutritional content of the food served and wastage problems.

PERCEPTION OF DPS NURSES REGARDING THE BIC PROGRAM

BIC Views	DPS Nurse Quotes
Solves Problems	<ul style="list-style-type: none"> - <i>Bring the program back to the classroom because there is no stigma attached. There are a lot of children who wouldn't eat without these programs. I hope the majority of nurses will agree that this program needs to be there.</i> - <i>I rarely see kids with hunger at the Elementary school level coming in. The classroom program makes a huge difference. When I saw it come to our building this year, I was very excited. It worked really well at my previous school. I don't know what teachers think of the program. It's an awesome program. I would be sad to see it go. It also reduces behavior issues that are hunger related. I always fear vacations and breaks from school like this. I don't know what support students have at home.</i> - <i>At (our school), the program is offered later, so kids who come late to school can still get food. Major benefit of this is that more kids get food. The all come late, but can still get the breakfast.</i> - <i>The program has helped.</i>
Fewer RN Visits	<ul style="list-style-type: none"> - <i>A lot fewer visits in the morning now with the BIC program.</i> - <i>Since program started, number of kids hungry has reduced. Fewer kids coming in to me in the morning.</i> - <i>It helps. At (the other school) where we don't have it, those kids come in hungry.</i>
Need to Modify the Program	<ul style="list-style-type: none"> - <i>BIC is a good idea because it saves time. Problem is taking 20 minutes for breakfast. That's an issue if it's math class. It's fine if it's in a class that's not as content heavy so there is more time to give out and eat the breakfast. It used to be that breakfast would be served before first period, but now it's served during first period. We need to check the factors; what's good and what's not. Breakfast in the morning when the children are more mature is fine. But with younger ECE, it's too hard for the kids to get back to focusing on school work when they've had breakfast first.</i> - <i>I think the program would be really helpful. We have to remember kids aren't going to make good decisions because of where they are in development. The education needs to happen. The program will be good if it's food the kids will eat. That's the issue. There has to be an attitude change. Need to educate our young teachers about importance of food and hydration. Kids don't drink water. Hydration is an issue. I will have a kid who's hungry and the teacher doesn't educate. Education, education, education. Kids need to have breakfast in the classroom. Rodents and bugs are a problem. Well, then teach them to throw away in the trash can, not the floor. Nutrition education needs to happen. We need to have a specific class on nutrition and hydration and tell kids how bodies work, what the signs and symptoms of illness are.</i>
Program Challenges	<ul style="list-style-type: none"> - <i>It's also just plates of food being thrown away. It's wasteful. Also, it's too early in the morning for the kids to eat these meals. I see more bellyaches early in the morning than what I saw before the program. The French toast in the package isn't good. I've got a bigger issue with the families and that kids should be eating at home. The parents are taking advantage of this and not having nutritious meals at home. We're enabling poor social habits among families. We should educate the kids to feed themselves.</i> - <i>We've had this program for the last 3 years. One of the schools had a truck. Revolution foods. Because it was all cheese and soy based, kids were sick throwing up. Elementary School kids were taking this food. I would like to see more fruit in the breakfast meals. The fiber would carry them over until lunchtime.</i>

Suggestions for BIC Program Improvements

DPS Nurses offered a number of suggestions as to how *the Breakfast in the Classroom* Program might be improved. As categorized below, their recommendations addressed the type of food being served, a need for better communication and education, issues related to mess and whether students should be eating at home rather than at school.

RECOMMENDATIONS BY DPS NURSES FOR BIC PROGRAM IMPROVEMENTS

BIC Suggestions	DPS Nurse Quotes
Food Portions and Food Choices	<ul style="list-style-type: none"> - <i>Portions aren't good. I had a 200-lb kid who received so little. Lactose intolerant kids can't drink milk; these kids get reactions and symptoms. They tell me they get sick. One girl drank bad milk and was really sick. She was out for 3 days. Schools need to look at this on a culture basis. ...If they're not going to eat what they have, they won't eat. Many things are served that people of color don't eat.</i> - <i>There's not enough food for them. The kids can't go without. We can as adult have just coffee maybe, but the kids can't. The kids don't have any food between 7:30 and 11 am. Elementary school kids can't wait to eat later. They can't be told to wait. If they're hungry, they have to eat now. Middle school kids can wait until lunchtime.</i> - <i>I hear from kids they can't have seconds if they want it. I think it's a logistical issue in the classroom when they have kids who want more and others who won't eat the food. They want to share with each other, but this is an issue.</i>
Need for Healthier Food	<ul style="list-style-type: none"> - <i>80% of my students have stomach aches after lunch. It's terrible food. Nutrition is not the first priority for schools. They're not focused on it. The thing is kids can't focus without good nutrition. No one can survive from 7-7 with only a cookie, 2 milks and one piece of pizza..... Breakfast is so important. They need fruit for energy. People know, but it's cheaper to provide un-nutritious foods.</i> - <i>Need to offer healthier choices. A lot is packaged, not fresh. Need to have less processed foods.</i> - <i>What I don't like about the program is the unhealthy food. I see the cart every day. It has strawberry stuffed strudel. They're getting food, but this? Yes, maybe it's slightly more costly to provide healthy options, but it's our responsibility to teach. Strudel isn't okay. High salt foods are bad too. We aren't setting a good example and not teaching the right thing in terms of the message we're giving them. Kids will think that strudel is fine, packaged food is fine, processed food is fine. My main concern is the health of the food, that it's limited in terms of accommodation for food allergies or lactose intolerance. In those cases, the menu provided is not an alternative for them.</i> - <i>I feel the meals could be way more nutritious. They're high in sugar. The snacks are better (fruit). Breakfast needs to be less carbs and healthier.</i> - <i>I don't know how the menus are decided. The difficult part is to get the students to eat. Fruits and vegetables, I'm sure that's included. I've noticed milk cartons. Sometimes kids don't want to drink it. A balanced meal is what I'd recommend.</i> - <i>With the teen girls, they don't want to eat because they think they'll gain weight. Or, they don't like it. They don't have enough variety. If they had more entrees with some kind of meat vs only cereal and milk which isn't enough. It won't tide them over until lunch. Some get there at 7 and then lunch isn't until much later.</i> - <i>I'm upset about a couple of things on the menu. They had pizza. They had sugared raisins too. They need to look at this. There's no reason to have these foods. Having chocolate milk only on Fridays is a good idea. It's a neat treat.</i>

	<p>...They get nachos and chips if they run out of regular diet. The cheese sticks and chips “count” for the carbs required for a meal, but that’s not a meal! I have a girl with diabetes and this is a problem.</p>
Hydration	<ul style="list-style-type: none"> - Those who come in late, it would be nice to provide sacked food for them instead of having to come to me. Smoothies would be great. That’s a good idea. Schools should make sure the kids use sanitizer before they eat. And water. It’s so key. I get a lot of dehydrated kids. I go over it all the time with the kids. I wish the school would emphasize that more. I wish water bottles were free for the kids. I give out some but they’re expensive. - We live in CO, so dehydration is an issue.
Addressing the Needs of Students with Food Allergies and Diabetes	<ul style="list-style-type: none"> - My biggest concern is food allergies. Kids understand what they need to avoid, but I’m not knowledgeable of all the kids who have dietary needs. I have many I am aware of, but there are many more who have the problem that I don’t know about. I’m so busy during the day with immediate needs. I don’t have the capacity as one person to get into the nitty-gritty details with particular kids. I have all the documentation electronically, but the forms aren’t completely answered or correctly answered. I don’t think they’re accurate, but I can’t call every family to confirm what they’ve written or not written down. - I have a number of students with diabetes. It’s a problem at (our school) because they eat at home and get their insulin in the morning. Then they come to school and eat again, so the insulin has to be adjusted. We’ve got to figure out what we’re going to do at school. I have a newly diagnosed 4th grader so I have to do a lot more working with her. She can’t just have a second breakfast.Allergies will become a problem for this program; trying to figure out what to do with these kids at both lunch and breakfast is an issue. - Students come in with asthma and a lot of allergies to nut product foods. We have a lot of kids with skin allergies. Now we have all these things that we didn’t see years ago. Stuff we never heard of. There’s a lot of asthma; a lot of diabetes.
Need for More Education and Communication	<ul style="list-style-type: none"> - The program needs more communication with the school and the parents. It’s a new program. I don’t know what’s being served. As a parent, I want to know what they’re serving. - It’s possible the food provided isn’t enough. There are no problems with obesity, generally speaking. Education for the parents is important.
Couple with Education	<ul style="list-style-type: none"> - I think there could always be more nutrition education but not necessarily just to the kids. Also to society. Parents, King Soopers, how to afford to feed your kids. I would have the program at all schools. Maybe not at elementary level, but definitely high school. More education needed in the classrooms for students. Parents need education too, but I don’t think it would make a lot of difference. I don’t think what the program feeds kids is healthy. - We need more education around good meals, good food, the importance of breakfast.... What they get isn’t really food. The kids throw the milk away, but that’s worked before, so they should provide it. There is a salad bar and kids will grab the fruit from it. We have an Icee machine which isn’t good. It’s sugar water. And there are chips. Also bad.
Address Mess	<ul style="list-style-type: none"> - Floors are a mess in the classroom after the breakfast. There’s a need for cleaning. They have to adjust the time by cleaning up afterwards.
Improve Tally System	<ul style="list-style-type: none"> - <i>It would be better if teachers didn’t have to inventory everything. The kitchen inventories, but there should be nutrition staff to do the inventory.</i>
Students Should	<ul style="list-style-type: none"> - I have to say I’m not in favor of this program. My issue is a broader one that

Eat at Home

isn't going to get fixed. I think kids should be home with their parents. I think this program enables dependency. This program is in all of the schools I'm in. I haven't seen more kids. But more bellyaches. The food isn't good. The program isn't doing what its aim is to help families with lower SES. The type of food is bad. Packaged from China. They are intact families with homes and plenty of access to food. I tell the parents that the program is poorer quality than what they could get at home. ... When they leave home after high school, they need to know how to cook. I think nutrition is covered very little. The program hasn't produced the results of having getting kids eating healthy food so they come to school ready to learn. I think there needs to be a big push of family, the family ties, we need to have family meals. I don't think these programs do that. We need to pull back and look at where these kids will be 15 years from now. Immune systems and colds. They need fiber and fresh foods in their diet. This is only enabling the problem.