FLORIDA IMPACT

WHY SCHOOL BREAKFAST IS IMPORTANT

For Florida's Kids

A WHITE PAPER PREPARED BY FLORIDA IMPACT

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INTRODUCTION

According to recent research from the US Department of Agriculture (USDA), **FOOD INSECURITY**, the inaccessibility of sufficient food to support an active, healthy life, presents a serious problem for the health and wellbeing of over 15.8 million households (12.7%) across the United States. Approximately 59% of food-insecure households reported relying on one or more Federal nutrition assistance programs, including school-provided lunch and breakfast.[1] The state of Florida performs poorly compared to other states in food security. Data from the USDA, Census Bureau, and Bureau of Labor Statistics ranked Florida 8th in the nation for child food insecurity and 10th in the nation for overall food insecurity in 2013. Furthermore, 53 out of 67 counties in the state face an overall food insecurity rate above 15%.[2]

School meal programs are a critical component of the fight against hunger and food insecurity in the United States and beyond. Further national research from the USDA has found that less food-secure students obtained far higher proportions of their daily calorie and nutrient intake from school meals than highly secure students. Across all food security levels, students who skipped breakfast did not make up those missed calories during the day. Thus, lunch is not an appropriate or sufficient substitute of a nutritious breakfast. Additionally, breakfast skipping was most often associated with lower income households, higher obesity rates, and generally lower reported health status.[3] This data clearly demonstrates the importance of implementing and preserving effective programs to support nutrition.

HUNGER also presents a significant burden to the United States economy. A 2007 study placed the cost burden of hunger in this nation above $90 billion. Of this, almost $10 billion is the result of poorer education-related outcomes such as higher rates of absenteeism and grade retention, and lower productivity in schools and the workplace. More than $65 billion worth of this hidden tax resulting from hunger is attributed to poorer health outcomes and higher rates of psychosocial dysfunction.[4] Proper implementation and utilization of the **SCHOOL BREAKFAST PROGRAM** represents a highly cost-effective means of reducing the price of hunger for all Americans.

Implementing high quality school breakfast programs in our schools is an effective means of promoting higher academic performance, lower rates of absenteeism, greater mental and physical health outcomes, and improved behavior, all while helping to **ERADICATE HUNGER** in some of the nation's most disparate communities.

BREAKFAST BENEFITS ACADEMICS

Low hunger rating scores, not feeling hungry, not missing breakfast, and high quality dietary intake have all been associated with improved academic achievement, concentration, attendance, psychosocial function, and cognition in children. It is hypothesized that breakfast consumption directly provides hunger relief and improves both time in school and nutrition status. In turn, these three factors contribute to improved attention, cognition, behavior, and engaged time. Ultimately, this produces higher academic attainment levels.[5] Eating breakfast has repeatedly been shown to **IMPROVE STANDARDIZED TEST SCORES**, especially in spelling, reading, and math.[6]

BREAKFAST BENEFITS PHYSICAL HEALTH

Studies from around the globe have found that regular breakfast consumption by students is associated with improved macronutrient profile, healthier bodyweight, lower BMI, lower obesity, higher likelihood of meeting recommended daily nutrient intake, improved academic achievement, improved concentration, higher attendance, improved psychosocial function, and improved cognition (particularly regarding memory and attention). [7] [8]

A 2003 study of 611 boys and 634 girls (15-16 years old), found that irregular breakfast eating (omission at least once a week) (12% of boys and 24% of girls), was significantly associated with daily or occasional smoking, having a negative perception of body weight, omitting other meals, and higher energy from snack foods between meals. This reliance on snack foods also led to lower intake in protein, calcium, fiber, and zinc (alongside iron and vitamin C in girls exclusively). Additionally, those who skipped breakfast more regularly also had lower intakes of micronutrients, but higher intakes of sucrose and alcohol.[9]

BREAKFAST BENEFITS MENTAL HEALTH & BEHAVIOR

The benefits of breakfast are not limited to physical health or academic performance. Missing breakfast can also negatively impact lifestyle factors and social and behavioral outcomes. A 2002 study found that regular breakfast consumption was associated with reduced stress levels and **IMPROVED PHYSICAL AND MENTAL HEALTH**.[10] This was supported by a 2007 study which demonstrated again that breakfast consumption is associated with reduced mental distress and improved academic performance.[11] However, it is also important to assess the impact of nutritional content in mental health outcomes. In 2008, a team demonstrated improved mean mental health scores in students aged 13-15 following regular consumption of a high-quality (consisting of at least three food groups) breakfast. Furthermore, each additional food group eaten at breakfast was associated with a further improvement in mental health score. This further emphasizes that quality of the meal plays an equally significant role in producing positive health outcomes alongside actual consumption.[12] Mental health may serve as a proxy or predictive factor for violence or substance abuse later in life. As part of a system of school-based behavioral interventions, the CDC found that school breakfast programs have a **POSITIVE IMPACT ON VIOLENCE AND AGGRESSIVE BEHAVIOR**, as measured by

conduct disorder, externalizing behavior, acting out, delinquency, and suspension/disciplinary referrals.[13]

Psychiatric stress has also been found to be significantly higher among breakfast skippers than semi- or non-skippers. This also led to higher prevalence of violent behavior among the same group. Furthermore, students who skipped breakfast were more likely to be

victimized, bullied, and participants in physical fights.[14] In Minnesota, the implementation of universal breakfast programs produced decreases in disciplinary problems, and improvements in social behavior, attendance, concentration, and energy alongside an increase in math and reading scores.[15] An adequate breakfast can also **DECREASE BULLYING** in schools by reducing depression, a mediator for victimization. A 2014 study of 11-20 year olds found that victims of cyberbullying and school bullying were more likely to skip breakfast often (usually eat breakfast 3 or more times per week), or frequently (2 or fewer times per week).[16]

Predictive risk factors for violence for children aged 10-12 (followed up at 13-14 and 15-18) include early antisocial behavior (violence, truancy, nonviolent delinquency), attention problems, family conflict, low school commitment, and living in neighborhoods where young

people were in trouble. Simultaneously, low levels of attention problems, low risk-taking, refusal skills, school attachment, and low access/exposure to marijuana were all found to be protective factors. While no single intervention can address all of these predictive factors, there is ample evidence to suggest that increasing breakfast consumption can limit or remove their impact, especially in schools.[17] As previously mentioned, school breakfast programs have been shown to improve academic achievement and absenteeism in schools.[18] In this way, school breakfast provision provides a benefit to the entire community, much like summer and afterschool programs.

BREAKFAST QUALITY

Improving breakfast consumption is not the only factor that must be considered for improving positive health outcomes. Quality of breakfast is also critical. A 2008 study in Mexico found that only 4.88% (12-17 year olds) had a complete breakfast, and 68.29% took a breakfast of poor quality. A complete breakfast encompassing at least 25% of daily energy consumption and 4 essential food groups was found to push academic performance beyond the impact of a lower-quality morning meal.[19] Regular consumption of breakfast, especially alongside high fruit intake, has been associated with decreased odds of behavioral problems in the classroom. The

reverse was found to be true for high intake of unhealthy, sugary foods or drinks.[20] Improving school behavior and social engagement is very important, as it serves as a predictor for dropout, which in turn contributes to prolonged disparities and **LONG-TERM POOR HEALTH OUTCOMES**.[21] Although the current administration has begun removing some of the most stringent food guidelines[22] established to ensure school meals met strict health criteria,[23] meal content is important in realizing anticipated health outcomes.

However, in order to increase patronage, school meals must also be culturally relevant and appealing to the children being served. **CULTURALLY RELEVANT MEALS** can be important in addressing concerns that immigrant populations typically skip breakfast more frequently than native populations.[24] This is especially critical in Florida school districts which encompass many highly diverse communities. The CDC highlights that students can be encouraged to participate in school meals by: providing appealing and nutritious meals, applying input from students and parents regarding food options, ensuring that students have sufficient time to eat, and preventing overt identification of low-income students eligible for free or reduced-price meals (i.e. opening free meals to all students)[25]

LUNCH

It is important to note that lunch is not a sufficient substitute for a proper breakfast. One of the reasons for this is the impact of a significant decline (and subsequent spike) in blood glucose levels resulting from a skipped meal. Such glucose drops are associated with agitation, irritability, and reduced concentration.[26] In adults, this is also associated with tendency towards violence, hyperactivity, alcoholism, and drug abuse.[27] Eating lunch after skipping breakfast does not necessarily provide a resolution to these issues. One study found that lunch consumption actually led to a decline in alertness and attention, producing negative cognitive results.[28]

ALTERNATIVE BREAKFAST

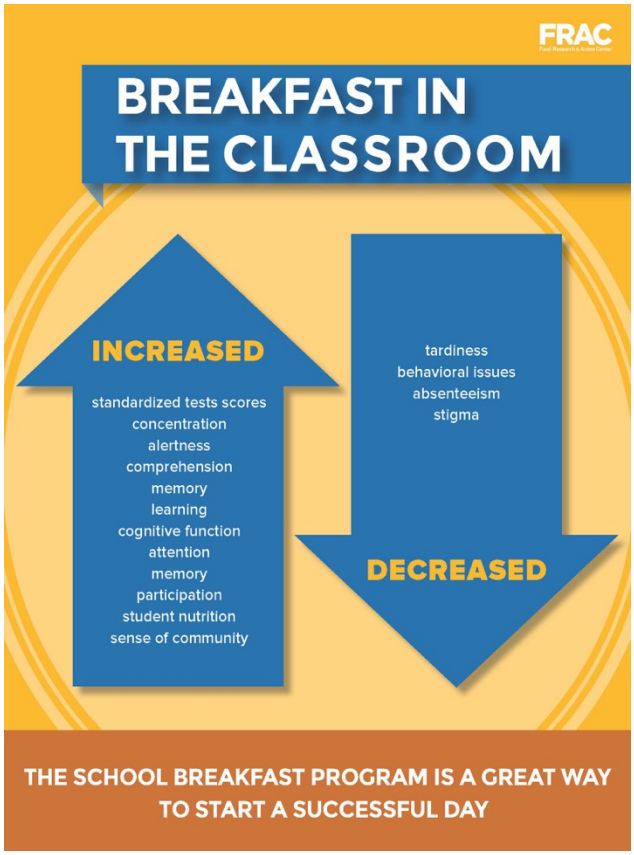
The national School Breakfast Program has been a step in the right direction for improving breakfast participation across the United States. However, simply offering breakfast does not ensure high levels of utilization. Therefore, many jurisdictions, from school districts to entire states, have implemented novel means of encouraging more students to participate in breakfast at school. One of the most successful interventions has been breakfast after the bell. **BREAKFAST AFTER THE BELL** resulted in a 20% increase in breakfast participation in Nevada after just three months[29], and brought Colorado from 44th to 11th in the nation for

school breakfast participation in 2015.[30] To date, 12 states have implemented alternative breakfast legislation, with legislation pending in a further three.[31]

Overall, in 2015 the Food Research and Action Center (FRAC) found that breakfast after the bell programs across the nation resulted in increased school breakfast participation, fewer occurrences of student hunger, improved attentiveness, improved school environment, fewer tardy students, improved classroom environments, fewer visits to the school nurse, fewer occurrences of absenteeism, fewer disciplinary referrals, improved scores on reading, math, cognitive, and standardized tests, and improved graduation rates.[32] Furthermore, eating breakfast at school (approximately 30 minutes prior to the study-administered examination) significantly improved scores over routinely eating breakfast at home (2 hours prior) or not eating breakfast.[33] This means that alternative programs, such as breakfast after the bell may offer academic benefits even to students who are already receiving a breakfast at home, especially for students with long commutes or early drop-off times due to other family commitments.

There are many potential reasons for **WHY STUDENTS SKIP BREAKFAST**, and it is important for every school to identify and address those causes within their unique student population. Despite an ever-expanding number of school breakfast programs and evidence supporting their importance, many students are still not taking full advantage of the available meals.

A 2016 study examined breakfast behavior differences and access to school breakfast, among children from food-secure compared with food-insecure households. Some of the breakfast behaviors examined included breakfast skipping, location, food and drink choices and participation in the school breakfast program. The findings suggest that the Universal School Breakfast did not significantly remove barriers to school breakfast participation. In fact, the biggest barrier to participation was student's inability to arrive early to school. Breakfast behaviors between food-secure and food-insecure households demonstrated few differences in breakfast behaviors. Despite the free access to school breakfast, the participation levels were low, regardless of the student's household food security status.[34]



A 2013 survey of American high school students found that limited time and lack of hunger before school were the two primary reasons for failing to have breakfast. Alternative breakfast programs, such as breakfast after the bell, have been proposed specifically to address these issues. Extending breakfast cafeteria hours, implementing a mobile breakfast cart, and allowing breakfast during the first class period improved breakfast participation by more than 400% in those aforementioned students.[35]

SECOND CHANCE BREAKFAST is a similar program which was successfully implemented in select Hillsborough County, Florida schools in 2014.[36] Florida statutes require school districts to make breakfast meals available to students through alternative service models, to the maximum extent possible and in accordance with federal guidelines.[37]

ECONOMICS & BREAKFAST IN FLORIDA

In 2017, FRAC published a report outlining the school breakfast program performance of the 73 largest school districts in the nation (seven are located in Florida) for the 2015-2016 school year. Of these 73 large districts, 26 have already met FRAC's goal of 70 low-income children participating in the school breakfast program per 100 participating in the national school lunch program. Duval County Public Schools is the only district in Florida which has reached this goal (76.0 breakfast students per 100 lunch students). Unfortunately, two Florida districts were among the ten lowest performing large districts, with less than 50% of lunch students participating in breakfast.[38]

The **COMMUNITY ELIGIBILITY PROVISION** is critical in improving meal services and opportunities in the most deprived communities across the country by providing free breakfast to all students within a school. Any district or school is eligible to participate provided that at least 40% of its students are eligible for free school meals. According to FRAC, of the 73 largest school districts in the nation, only 15 did not take advantage of community eligibility in the past two school years (2015-2016 and 2016-2017). Of these districts, four are in Florida. Community eligibility reduces the stigma of income-based meal programs, thereby helping to increase

participation. Furthermore, the elimination of school meal applications relieves the administrative and financial burden of overseeing this process. In many districts, this money is redirected towards improving nutrition, meal planning, and food procurement.[39] Schools also receive additional funding from the Federal government for expanding meal participation. Based upon data from the 2015-2016 school year, FRAC estimates that increasing school breakfast participation so that 70% of students participating in the school lunch program also participate in breakfast would provide an additional **$78,114,656 IN ADDITIONAL FEDERAL FUNDING TO THE STATE OF FLORIDA** while simultaneously **FEEDING 275,304 ADDITIONAL STUDENTS**.[40] Such funding increases have already been realized in successful program expansions around the country. Cost/benefit analysis from the recent implementation of school breakfast programs in Wisconsin highlights how such programs can bring additional funds into the school district/community, create jobs, and increase the overall financial stability of school-based food service. Furthermore, it is suggested that school meal programs can in fact be profitable to schools and districts through sound management and increased participation.[41]

CONCLUSION

The studies presented in this document have been conducted across the globe, demonstrating that poor breakfast adherence is a universal barrier to students around the world. It has been clearly demonstrated that there are many factors involved in achieving the positive outcomes known to be associated with breakfast. Regular consumption of a nutritious breakfast benefits many aspects of mental, physical, and behavioral health in youth and young adults alongside improvements in academic attainment and higher test scores. As well as improving consumption rates, school officials must also consider timing, accessibility, quality, and cultural relevance. All of these factors can make or break any breakfast program.

Today, our state has the opportunity to create significant progress in combatting hunger and other public health concerns by making breakfast relevant and available to all of our students. The **FLORIDA STATUTES EMPOWER SCHOOL DISTRICT SUPERINTENDENTS** and school boards to work together to adopt policy to provide appropriate food and nutrition programs.[42] While every district, and indeed every school, is unique across Florida, all exist within the common goal of providing today's students and tomorrow's leaders with an equitable start to every day. The positive outcomes from regular, nutritious breakfast consumption stretch throughout the day and beyond the classroom. Existing policy must now be adapted to ensure that school breakfast programs are relevant and available to benefit all students, setting each and every one up for their best chance at success.

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End Notes:

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