

**Interim Study Proposal 2017-033, by Rep. Clarke Tucker**

**Evaluating the Impact of School Breakfast After the Bell on Student**

**Health and Achievement**

**Report to the Joint Education Committee, Arkansas General Assembly**

By

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## **Background**

### **Need**

In March 2017, when this interim study was approved by the Arkansas General Assembly, more than 19 percent of Arkansas families and 26 percent of our children were identified as food insecure, meaning they do not have consistent access to adequate food. The good news is, as of August 2018, fewer Arkansas families (17%) and children (23%) are reported to be struggling with hunger (Feeding America, Map the Meal Gap 2018.) While for years following the great recession about 200,000 Arkansas children were considered food insecure, that number has now dropped by more than 18 percent, to 163,800 children (Feeding America). While it is important to note the success anti-hunger initiatives have had on reducing the number of hungry kids in Arkansas, food insecurity remains above pre-recession levels (USDA 2017) and we must continue to work hard to improve nutrition access for the nearly 1 in 4 kids in this state who still may not know where their next meal is coming from.

### **Progress**

When the Arkansas Hunger Relief Alliance became the lead partner in Arkansas for Share Our Strength's No Kid Hungry Campaign in 2010, a host of child hunger relief advocates joined together to focus on ways to improve children's access to healthy, nutritious meals where they live, learn and play.

To support kids' nutrition needs at school, we focused on improving access to school breakfast as well as school lunch. Nearly 60 percent of Arkansas public school students qualify for free or reduced-price school meals, yet many of those low-income students were not eating the nutritious school breakfast offered due to barriers such as social stigma, late buses or carpools, long cafeteria lines and tight class schedules. Eating breakfast as part of the school day is associated with positive student health, behavior

and academic outcomes such as improved concentration in class, lower rates of chronic absenteeism, fewer classroom disruptions and less frequent visits to the school nurse. (Deloitte, No Kid Hungry Center for Best Practices, 2013)

**Breakfast = Success:** Many (443 as of fall 2018) school districts in Arkansas, with the help of the No Kid Hungry campaign's implementation funds and technical assistance, have introduced various Breakfast after the Bell models in their schools and have seen their breakfast participation rates increase dramatically. Statewide, the number of breakfast meals served to low-income students increased by 4.4 million since 2011, and federal meal reimbursement increased by \$13.5 million. (AR Dept. of Education)

In fact, Arkansas is ranked 8<sup>th</sup> in the country when comparing free-reduced price school breakfast to lunch participation. (Food Research Action Center)

#### **Community Eligibility Provision (CEP) in Arkansas**

- Since CEP first became available to all states in 2014, the program has grown rapidly in popularity in Arkansas. CEP adoption has been a key component of the Arkansas No Kid Hungry school breakfast increase goals for the last 5 years.
- School district CEP adoption totals by school year:
  - 2014/15: 2 districts, 4 schools
  - 2015/16: 22 districts, 70 schools
  - 2016/17: 45 districts, 139 schools
  - 2017/18: 58 districts, 185 schools
  - 2018/19\*: 65 districts, 202 schools (not yet certified)
- Currently, approximately 88% of the highest need (over 50% Identified Student Percentage) school districts in Arkansas are successfully serving breakfast and lunch to all students at no charge, without stigma and without administrative complications, which has greatly increased

the number of students starting their day well-nourished and ready to learn. This has undoubtedly contributed to the 3.1 million breakfast meal increase in the state since 2013.

### **State Strategic Partners**

Recognizing that school breakfast can fuel student success and expand school district nutrition budgets, several state-level child health and education initiatives have adopted the No Kid Hungry goal of increased participation in school breakfast as a key strategy in their efforts to improve student health and academic outcomes. Such initiatives include:

- Healthy Active Arkansas, the Governor’s 10-year plan to reduce obesity and improve health
- Forward Arkansas, the AR Board of Education-approved plan to improve student success
- The Arkansas Grade-level Reading Campaign, focused on reading readiness by third grade
- The Natural Wonders Partnership Council five-year strategic framework to improve child health in Arkansas

## **Interim Study Rationale**

### **Program impact on student health and academic outcomes**

Recognizing the growth in school breakfast participation due to these combined efforts, the purpose of this study was to determine whether Arkansas schools offering a Breakfast after the Bell (BAB) program, such as Breakfast in the Classroom, Grab and Go Breakfast and Second Chance Breakfast, are experiencing not only increased meal participation but also improvements in student health, behavior and academic outcomes. Previous No Kid Hungry campaign-requested research and school leader reports and surveys suggested that adoption of Breakfast after the Bell programs did, indeed, produce improved classroom attention and behavior, fewer disruptions during instructional time, and fewer trips

to the school nurse. (Clinton School report) (AMFA) In addition, districts that adopted either the Community Eligibility Provision or Provision 2 (U.S. Department of Agriculture regulations allowing eligible low-income districts to serve all students breakfast and lunch at no charge) also saw increases in participation and lessening of the social stigma associated with free versus paid meals. Yet, school districts were not able to link these meal delivery improvements to improved student test score, attendance or health statistics.

## **Supporting Research**

### **UCA Dietetics study**

To review BAB school district data, Alliance and ADE CNU staff developed a research process for pulling data from the ADE My School database. We requested the help of Dr. Alicia Landry, Assistant Professor, University of Central Arkansas, Department of Family and Consumer Sciences, who worked with one of her students to “evaluate the differences in standardized test scores and discipline referrals in school districts that do and do not offer alternative breakfasts.” (Attendance was determined not to be a reliable measurement because of varying district-level reporting procedures.)

### **Methods**

District-level data were gathered from ADE CNU records from the 2014/15, 2015/16 and 2016/17 school years. Descriptives and frequencies were used to describe the sample. Independent sample t-tests were used to evaluate differences between schools with and without alternative breakfast.

### **Results**

While preliminary results indicate that further research should be done to investigate the relationship between alternative breakfast offering, standardized test scores and disciplinary action, two findings

showed a significant link between schools offering alternative breakfast and positive academic outcomes in at least one of the school years reviewed:

- For the 2014/15 school year, standardized test scores for students in grades 7 and 8 were higher for students in districts with alternative breakfast.\*

\*Researchers noted that further research should be done to investigate the relationship between alternative breakfast and standardized test scores and that longitudinal studies should be done to examine changes over time.

- For the 2016/17 school year, schools that did not provide alternative breakfast were more likely to have higher rates of insubordination, bullying, and in-school suspension. \*\*

\*\*Researchers noted that further research should be done to investigate the relationship between school meals and disciplinary action.

#### UCA Dietetics Study Conclusions

- As noted above, researchers noted that further study is needed to investigate the relationship between alternative breakfast offering, standardized test scores and disciplinary action.
- Additionally, attendance and test scores should be considered as part of the overall model to identify the effect school meals could potentially have on overall academic success.
- There were significant restrictions of data and source reporting.
- The evidence base related to breakfast programs and their relationship with student discipline is very limited.

#### Suggested next steps

- Continue to study impact of BAB on student success with support of a statistician
- Request ADE software update and training

- Seek state-level funding to support pilot districts adopting BAB

### **Arkansas Grade Level Reading Campaign**

The Arkansas Campaign for Grade-Level Reading (GLR) was launched in 2011 to move the needle on education outcomes in Arkansas by focusing on third-grade reading proficiency. GLR is a collaborative effort that includes over 25 organizations, including the Alliance, with a primary goal to support all Arkansas children to read on grade level by the end of third grade, using a strategic plan that includes the strategies of increased school breakfast participation and adoption of the Community Eligibility Provision (CEP) to improve student health and school readiness.

The GLR *Full Speed Ahead 2018 Progress Report: Examples of Progress* included districts that adopted CEP in the 2015/16 school year saw significant improvement in their reading scores the next year.

- Nevada County School district: 32% increase in third graders scoring “ready in reading” on the ACT Aspire test
- Bradford School District: 27% increase in third graders scoring “ready in reading” on the ACT Aspire test
- Drew Central School district: 13% increase in fourth graders scoring “ready in reading” on the ACT Aspire test
- Mineral Springs School District: 13% increase in fourth graders scoring “ready in reading” on the ACT Aspire test

**Arkansas Meals for Achievement Impact Study**

*Arkansas Meals for Achievement* (AMFA)— approved by Act 383 of 2013 and renewed by Act 436 of 2015, AMFA provided grant funding to schools choosing to implement an alternative breakfast delivery model as part of the school day to all students at no charge, regardless of family income. Out of 200 applicants, in the 2013/14 and 2014/15 school years a total of 32 elementary, middle and high schools from around the state participated. The program was a great success, and the main goal, to increase the number of students participating in school breakfast, was achieved quickly.

Results

Increase in Breakfast participation: AMFA reported an average 84% growth in breakfast participation, with some schools achieving an over 150% increase in participation!

Impact on students

With the help of a Clinton School of Public Service student team, we reviewed the impact of providing free breakfast to all students had on student health and academic success. A survey of parents, teachers and school officials led to these findings:

- 41% of parents would not have been able to provide breakfast if it was unavailable at school
- 75% of teachers reported seeing positive changes on classroom behavior
- School nurses reported fewer student complaints of headaches and stomachaches
- 100% of principals reported satisfaction with serving Breakfast after the Bell

Termination of AMFA

Funding to support AMFA schools to cover the cost of providing meals free of charge to all students was depleted at the end of the 2014/15 school years, but fortunately, the majority of

the high-need school districts were eligible to participate in a new USDA nutrition provision, the Community Eligibility Provision (CEP), which allowed eligible districts to serve all meals free of charge, reduce income barriers and stigma, grow their breakfast and lunch participation and lessen nutrition department administrative burdens, just as the AMFA program had.

### Interim Study Recommendations:

In light of the conclusions drawn from the research noted in this report, we make the following recommendations:

- **Continue this interim study** to better identify the health and academic impacts of school Breakfast After the Bell, to identify best practices among school districts, and to infuse school nutrition into district-level strategic planning as required by the Arkansas Every Student Succeeds Act.
- **Make a grant funding pool available for new breakfast model implementation to targeted schools** to pilot various meal participation growth plans:
  - Breakfast smoothie and other menu options
  - Varying breakfast and lunch schedules so neither meal time participation is reduced
  - Best marketing plans
  - Books with Breakfast
- **Develop a school-level nutrition data collection plan** to allow school district administrators and school principals to better identify which meal programs are successful in their schools.