

RESEARCH BRIEF:

Evaluating the Impact of Breakfast After the Bell on Chronic Absenteeism



Schools in the United States are facing an absenteeism crisis. Millions of American students are missing three weeks or more of the school year, meaning they are chronically absent from school¹. The effects of chronic absenteeism are staggering and severe, leading to reduced student achievement², an increased likelihood of dropping out of school³, weakened social development⁴, and worse future employment prospects⁵. Students at higher risk for chronic absenteeism include students in low-income households⁶, students of color⁷, and students with disabilities⁸.

To address absenteeism, there is a growing effort among both research and policy communities to identify and develop school solutions that exist beyond curriculum and instruction. This study contributes to this effort by examining whether providing school breakfast as part of the school day (Breakfast After the Bell) can improve student outcomes like chronic absenteeism. Although Breakfast After the Bell has been found to increase student participation in school breakfast⁹, less is known about the potential impacts of Breakfast after the Bell on chronic absenteeism. Although exploring the reasons why Breakfast After the Bell might influence absenteeism is outside of the scope of this study, it was conjectured that Breakfast After the Bell might improve chronic absenteeism by providing needed nutrition or by establishing a routine that reduces stressors and improves attitudes towards school, which research suggests can influence absenteeism^{10,11}.

Study Design

In 2019, Share Our Strength commissioned a national and state-level study by the University of California Santa Barbara to answer the question, “Do students and schools with Breakfast After the Bell (BAB) experience reductions in chronic absenteeism and other improvements in student outcomes?” Professor Michael Gottfried, PhD, and his PhD student Jacob Kirksey, MA, preeminent education researchers from the University of California Santa Barbara, conducted this study.

This study involved two analyses, one focused on state-level data and one focused on national data.

The state level analysis assessed whether schools required to implement BAB due to state legislation experienced improvements in chronic absenteeism. Nevada and Colorado were chosen for the analysis given their state legislation allowed for rigorous analysis and their school-level breakfast data was readily available. Per the legislation, schools were required to provide BAB if there were at least 70 percent of students eligible for free or reduced-price meals. The state analysis examined chronic absenteeism rates before and after this legislation for schools (elementary, middle, and high) that newly adopted BAB, compared to schools that did not have a change in their BAB status (Differences-in-Differences analysis). The most rigorous portion of this analysis was a Regression Discontinuity Design, which examined post-legislation chronic absenteeism when comparing schools who narrowly were included in the legislative requirement (just above 70 percent of students eligible for free or reduced-price meals) and schools who narrowly were excluded from the legislation (just below 70 percent of students eligible for free or reduced-price meals), controlling for previous absenteeism. The analysis relied on Nevada and Colorado administrative data for school breakfast as well as federal data on chronic absenteeism from the Civil Rights Data Collection during School Years 2013-2014 and 2015-2016. Chronic absenteeism was defined by students missing 15 or more days of school.

The national analysis examined whether young elementary school students attending a school with one particular type of BAB, Breakfast in the Classroom (BIC), experienced improvements in chronic absenteeism and other outcomes (e.g. test scores and social-emotional development). This analytic approach examined students whose access to BIC changed between the two years, and compared these students to other students who did not have a change in their access to BIC (Differences-in-Differences analysis). The analysis relied on data from the Early Childhood Longitudinal Survey (ECLS-K), a nationally representative sample of young elementary school students across the county, analyzing data on Kindergarteners in School Year 2010-2011 that followed them through the next school year. Chronic absenteeism was measured based on students missing 11 or more school days by February/March when data was collected, which means these students would have been considered chronically absent by the end of the year.

Findings

The Nevada and Colorado analysis found that schools with BAB was associated with the following statistically significant improvements ($p < 0.05$):

- There was a 6 average percentage point reduction in **chronic absenteeism rates** overall after schools adopted BAB.
- There was as large as a 9 percentage point average reduction in **chronic absenteeism** for schools on the margins of being affected by the policy (i.e. narrowly included or excluded from the legislative requirement to offer BAB).
- Schools with relatively high breakfast participation rates tended to have a larger decrease in chronic absenteeism. Additionally, BAB was particularly helpful in reducing chronic absenteeism in elementary and rural schools.

The study evidence shows that BAB is a promising practice to reduce student absenteeism as well as boost other outcomes like achievement and internalizing behaviors. Therefore, as policy makers grapple with how to ensure that our students are set up to be nourished *and* successful in school, BAB stands out.

The national analysis found that, among young elementary school students, BIC was associated with the following statistically significant improvements ($p < 0.05$):

- A 4 percentage point decrease in the likelihood of **chronic absenteeism**.
- A 5 percentage point decrease in **number of days absent**. This translates to each school's students missing half of a day less of school on average.

Although analyzing changes in absenteeism was the main focus of the study, exploratory analysis from the national data also found:

- A 1.5 percentage points statistically significantly improvement in **reading achievement**.
- A 6 percentage point statistically significant improvement in a scale measuring **internalizing behaviors**. Internalizing behaviors was measured on a 4-item scale; teachers were asked to answer a validated set of questions about student anxiety, loneliness, low self-esteem, and sadness.

Conclusion

Taken together, the national and state analyses demonstrate that BAB has the potential to decrease chronic absenteeism rates. In particular, the causal inference from the state analyses show that BAB can reduce chronic absenteeism. Exploratory analyses suggest there may be additional benefits to reading test scores and improvements in internalizing behaviors. School breakfast is often viewed as something separate from the school day and school performance, but in fact, these findings show that it was very much intertwined with student success in schools where BAB was implemented. Thus, as education stakeholders, community groups, and policy makers across America consider 1) how to most effectively provide students with breakfast and also 2) how to most effectively leverage school programs to improve student success, this study arms stakeholders with new knowledge that BAB can push the needle toward meeting both of these goals.

For more information on the study, please contact Karen Wong of the No Kid Hungry Center for Best Practices: kwong@strength.org

¹ Chang, H. N., Bauer, L. Byrnes, V. (2018). *Data Matters: Using Chronic Absence to Accelerate Action for Student Success*. Attendance Works and Everyone Graduates Center.

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³ Rumberger, R. W., & Thomas, S. L. (2000). The distribution of dropout and turnover rates among urban and suburban high schools. *Sociology of Education*, 73(1) 39-67.

⁴ Gottfried, M. A. (2014). Chronic absenteeism and its effects on students' academic and socioemotional outcomes. *Journal of Education for Students Placed at Risk*, 19, 53-75.

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⁶ Romero, M. & Lee, Y. (2008). *The Influence of Maternal and Family Risk on Chronic Absenteeism in Early Schooling*. New York, NY: National Center for Children in Poverty: The Mailman School of Public Health at Columbia.

⁷ US Department of Education. Chronic absenteeism in the nation's schools. From: <https://www2.ed.gov/datastory/chronicabsenteeism.html>

⁸ Ibid

⁹ Anzman-Frasca S., Djang H.C., Halmo M.M., Dolan P.R., Economos C.D. (2015). Estimating impacts of a breakfast in the classroom program on school outcomes. *JAMA Pediatrics*, 169(1):71-7.

¹⁰ Kleinman, R., Hall, S., Green, H, Korzec-Ramirez, D., Patton, K., Pagano, M., Murphy, M. (2002). Diet, Breakfast, and Academic Performance in Children. *Annals of Nutrition & Metabolism*, 46 Suppl 1. 24-30.

¹¹ Gottfried, M. A. (2015). Can center-based childcare reduce the odds of early chronic absenteeism? *Early Childhood Research Quarterly*, 32, 160-173.