

BACKGROUND: Participation in the School Breakfast Program (SBP) has been shown to improve academic performance, attendance and reduce food insecurity; students cite time and stigmatization as barriers to participation. Innovative breakfast delivery models and universal breakfast programs have the potential to reduce barriers and increase participation in school breakfast. The Food Research and Action Center (FRAC) gold standard of school breakfast participation is an average daily participation ratio of 70 students eligible for free and reduced-price school meals (FRP) participating in school breakfast per 100 FRP students participating in school lunch.

OBJECTIVE: The purpose of this study is to determine if school districts in Illinois that implemented alternative school breakfast models had higher participation by FRP students in the SBP in the 2016-2017 school year.

METHODS: Secondary data reported by schools and collected by the Illinois State Board of Education (ISBE) for the 2016-2017 school year were analyzed. These data include: the number of school breakfast and school lunch meals served to free and reduced-price eligible students by school district; breakfast delivery models by school; and attendance and chronic truancy data by district. The Food Research and Action Center (FRAC) school breakfast calculator formula was utilized to calculate FRP student ADP ratios for each school district. Excel and SPSS were used to compile and analyze the data. Initial descriptive statistics were generated, then the sample was dichotomized by the exposure of 60% or more of schools in the district offering an alternative model and less than 60% of schools offering the model; this dichotomization was derived from the literature. Breakfast models studied were Breakfast After the Bell, Grab and Go, Breakfast in the Classroom, Second Chance, and the traditional model. Descriptive statistics were generated for each dichotomized group, including the mean ADP ratios. T-tests were run to calculate the differences between mean ADP ratios of exposed and unexposed groups for each model. Finally, the relative risk was calculated to find the association between 60% or more of schools offering an alternative model and the FRAC participation ratio goal of 70/100 FRP students.

RESULTS: 10.55% of school districts had an FRP ADP ratio greater than 70. The school districts, on average, had 13.07% of schools offering breakfast after the bell, and 89.85% of schools offering a traditional breakfast model. The mean FRP ADP ratios were higher in the exposure groups; the differences in means between exposed and unexposed groups were significant except for the Grab and Go model. School districts with 60% or more of schools in a school district serving an alternative model were positively significantly associated with reaching the FRAC goal of an ADP ratio greater than 70, except for the second chance model. Both the Grab and Goal and Breakfast in the Classroom model groups, when the school districts had 60% or more schools offering these models, were more than 5 times as likely to achieve an FRP ADP ratio greater than 70.

CONCLUSION: The findings from this study support the research that alternative breakfast delivery models can increase student participation in the SBP. Establishing alternative delivery model success could provide Illinois schools the rationale to transition to these models. Increased participation in the SBP has the potential to improve student academic achievement and attendance and food insecurity and increase federal funding and support for child nutrition programs. Continuous state-wide evaluation of this program is necessary to track success in future school years. Further research is needed to evaluate each school year to track individual district and model successes in Illinois, as well as more in-depth analysis of each model. There should also be more qualitative research related to stigma and barriers to school breakfast participation.

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