PE-Nut™

Physical Activity and Nutrition Working Together™ (PE-Nut™) is a program that uses a whole-school approach to motivate students, parents, and educators to eat healthier and be physically active. The long-term effects of PE-Nut™ found that compared to their counterparts, PE-Nut™ students achieved:

Healthier Weight

After participation in PE-Nut™:

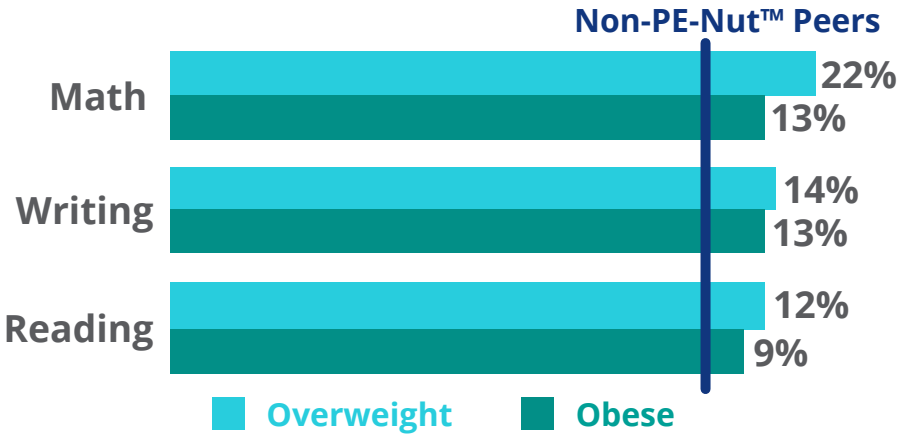
↓ Overweight students **decreased BMI***;

= Normal weight students **maintained BMI***; and

↑ Underweight students **increased BMI***.

Higher Academic Achievement

Overweight and obese PE-Nut™ students were **more likely to score proficient** on standardized tests than their peers who did not receive PE-Nut™.



Better School Attendance

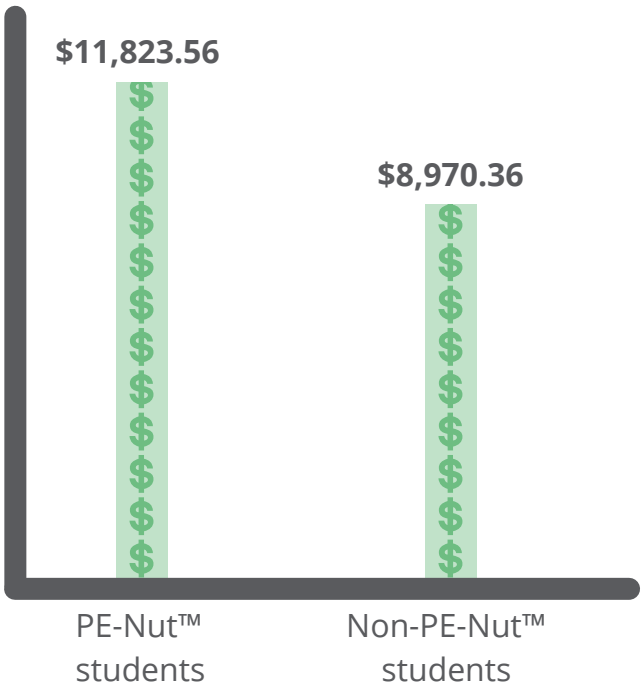
Obese PE-Nut™ students were found to be **absent one day less** than normal weight students who did not receive PE-Nut™, and fewer days absent is related to greater academic achievement.

Data from 2008-2012 were compared between 4 Traverse City Michigan Area Public Schools (TCAPS) schools that administered PE-Nut and 4 schools that did not. Students height, weight, sex, and age information were used to calculate student's BMI-z score. Regression analysis included treatment status (participated in PE-Nut or didn't), students BMI and their Michigan Educational Assessment Program, or MEAP, reading , writing and math scores.

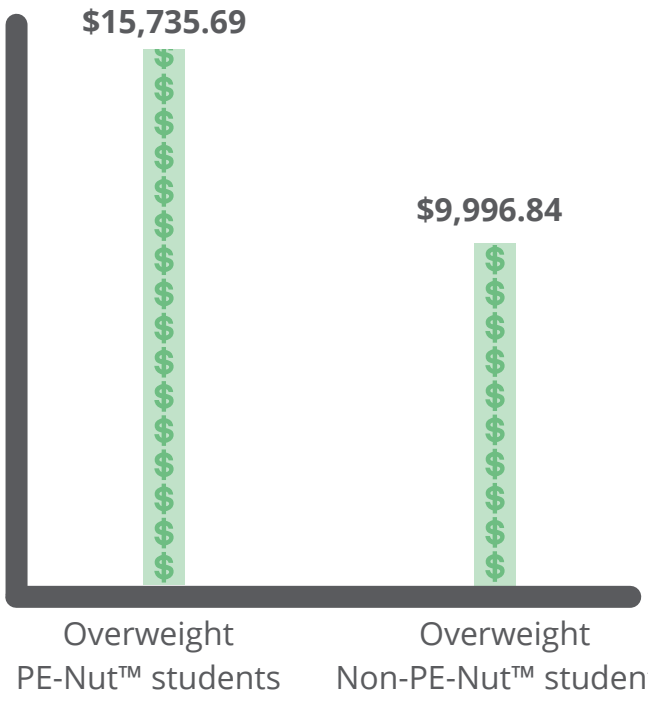
*Healthy weight outcomes were assessed using BMI z-scores according to Centers for Disease Control and Prevention (CDC) cut-points.

Predicted Higher Future Earnings*

PE-Nut™ students will **earn more** money on average over their lifetime.



This benefit in future earnings is **greater** for overweight students that participated in the program.



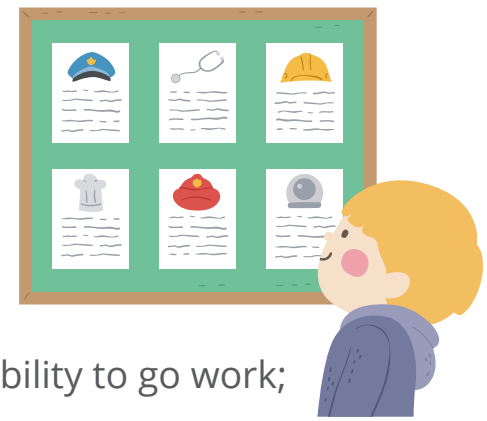
Projected Economic Impact**

An economic impact analysis showed that PE-Nut™ **saves**:

7.69 Quality-Adjusted Life Years (QALYs)***;

$187,330.10 in average lifetime healthcare costs; and

$31,161.15 in average productivity costs related to an inability to go work;



for a positive net benefit with a value of $130,021.30 for the entire program.

*Higher Future Earnings (i.e., lost wages avoided) = workday gained per year x average daily wage x # of years worked.

**Economic Impact of PE-Nut on Participants' Future Earning in TCAPS: The linear projections of the absences model were used to estimate the future wages of PE-Nut participants could gain from their participation in the program. The average work day productivity gained per year, total benefits, cost per participant, net benefit and the present value of the net benefits are calculated.

***QALYs refers to an estimate of reasonable quality years of life one might gain as a result of an intervention, in this case, PE-Nut™. Reference: Centers for Disease Control and Prevention (CDC). Introduction to NCD Epidemiology. Atlanta, Georgia: CDC; 2013.

Taylor, G., Weatherspoon, D., Scott, M., & Jones, S. (2016). *An economic analysis of physical and nutrition education on student achievement and future net benefits.* [Unpublished doctoral dissertation]. Michigan State University.

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MICHIGAN FITNESS FOUNDATION

TCAPS Traverse City Area Public Schools Great Community, Great Schools