

School Gardens to Reduce Inequalities

Hicks Honors College, University of North Florida, Jacksonville, Florida

Katherine Evans, Kathryn Fox, Clio Chazan-Gabbard

Introduction

- Garden-based learning results in
 - Higher test scores
 - Better physical and mental health
 - Improved social skills
 - More awareness of sustainability and climate action
- However, most school gardens are located in wealthy and privileged areas, leaving black and poor children to fall further behind their affluent peers.

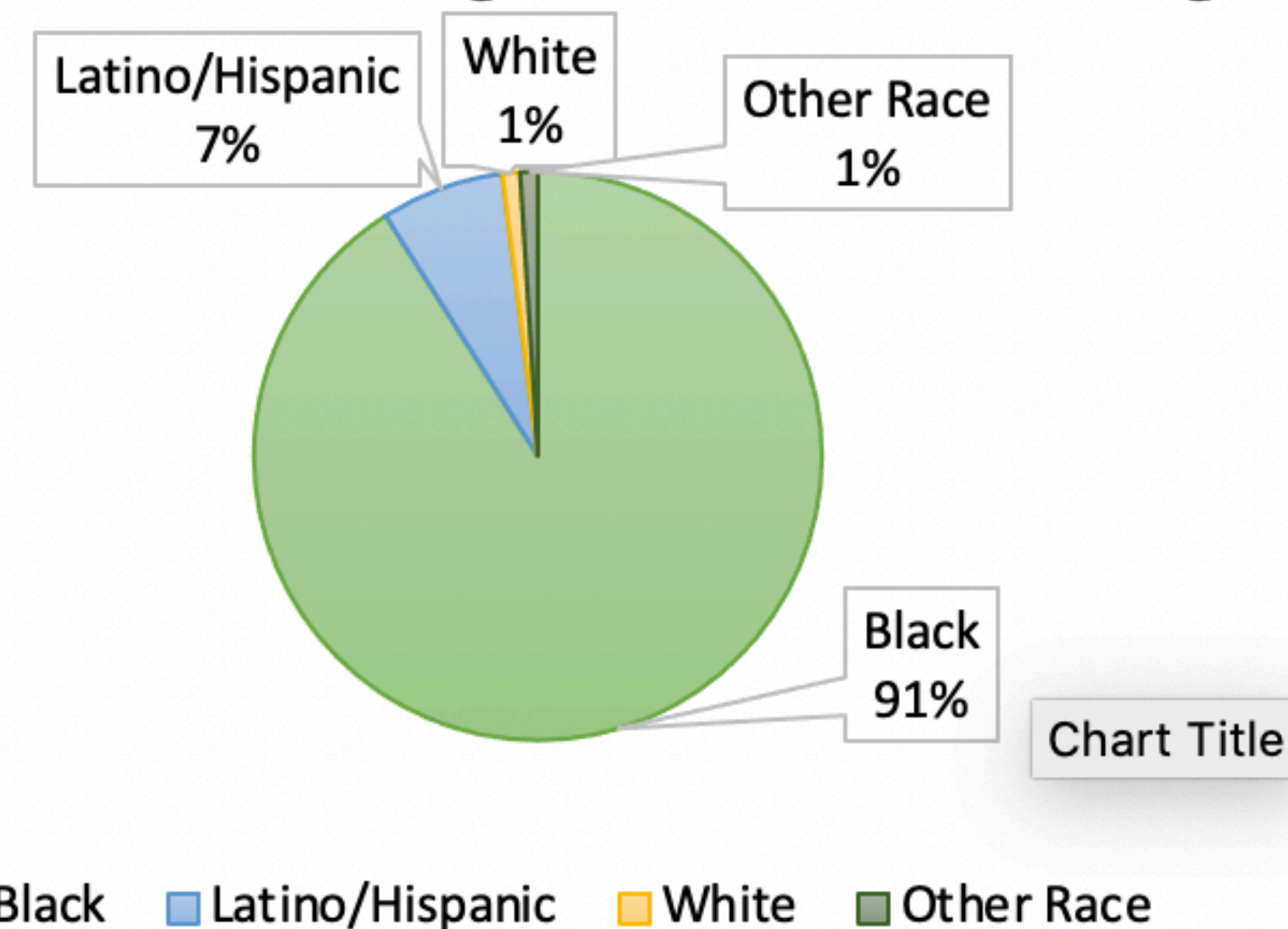
Our Solution

- We propose a non-profit organization
 - The organization will implement, monitor, manage, and facilitate school gardens in underprivileged areas.
 - School gardens in low income and black schools can increase these student's tests scores, quality of health, and climate action awareness. (Rashawn et al., 2016).



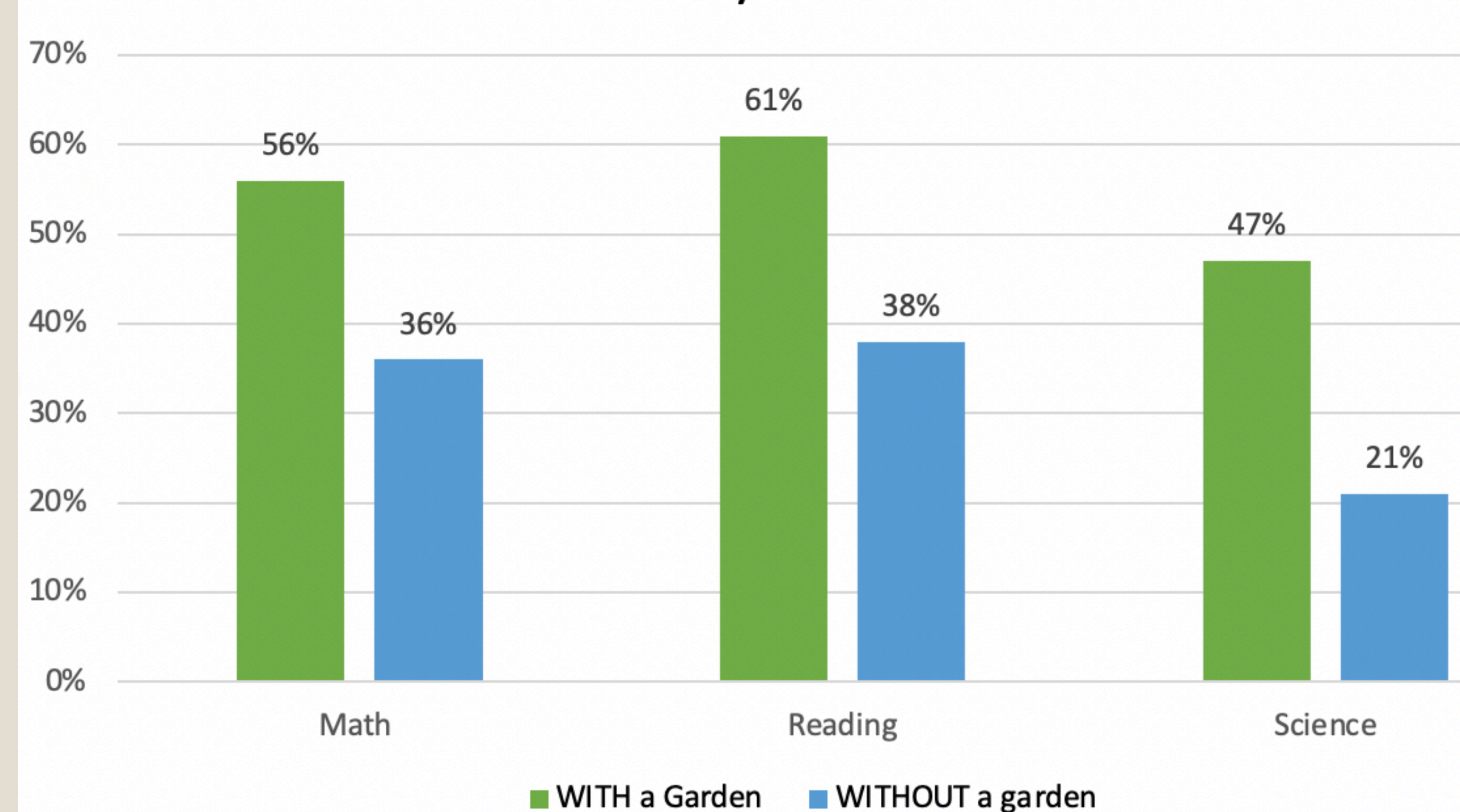
The Arizona Association for Environmental Education:
<https://www.arizonaace.org/tag/benefits/>

Schools in Washington D.C. WITHOUT gardens



Above and Below (Rashawn et al., 2016).

5th Grade Proficiency and Advanced Test Scores



Data

- To the Left: Studies have shown that school gardens offer tremendous advantages, and the image below describes these benefits (Bucklin-Sporer et al., 2010).
- The pie chart below to the left depicts the findings of a study completed in Washington D.C during the 2012-2013 school year. The study looked at the schools without gardens and found that 91% were the black majority schools, and only 1% were the white majority schools (Rashawn et al., 2016).
- The bar graph below to the left shows how test scores can drastically improve with garden-based learning. These statistics come from 5th grade students in Washington D.C. during the 2012-2013 school year. (Rashawn et al., 2016). The four categories of scores are Below Basic, Basic, Proficiency, and Advanced. Proficiency and Advanced are preferred and combined above.



Our Proposal

- The REAL School Garden Program (McCarty, 2013)
 - A very successful program helping actualized school gardens in under privileged Texas schools.
 - Begins, maintains, and integrates the garden. This organization has conducted studies and confirmed the efficacy of their curriculum.
 - This program is our inspiration and model. We want to expand this program into a nationwide organization.

Conclusion

We propose a non-profit organization that will expand the REAL School Garden Program, so it can operate nationwide.

- Obtain a 501(c)(3), donations, and volunteers.
- Work the each state's Department of Agriculture, local school boards, and the individual schools to begin the gardens.
- Providing funding, volunteers, curriculum assistance, continued maintenance, and more.

Top Image: Girls planting together

Pennington.com: <https://www.pennington.com/all-products/fertilizer/resources/school-gardens-changing-lives-and-communities>

Bottom Image: Children listening to the gardener during a lesson

Action for Healthy Kids: <https://www.actionforhealthykids.org/school-gardens-here-we-grow/>

References

Bucklin-Sporer, A., & Pringle, R. K. (2010). *How to Grow a School Garden: A Complete Guide for Parents and Teachers*. Timber Press.

Ozer, E. J. (2008). The Effects of School Gardens on Students and Schools: Conceptualization and Considerations for Maximizing Healthy Development. *Health Education & Behavior*, 34(6), 846-863. doi: 10.1177/1090198106289002

Food Empowerment Project (2020). *Food Deserts*. <https://foodispower.org/access-health/food-deserts/>

McCarty, J. (2013). REAL School Gardens Program: Learning Gardens and Teacher Training to Improve Student Engagement and Academic Performance in Low-Performing Elementary Schools. *Journal of Applied Research on Children: Informing Policy for Children at Risk*, 4(2), 1-7. <http://digitalcommons.library.tmc.edu/childrenatrisk/vol4/iss2/20>

Rashawn, R., Fisher, D. R., & Fisher-Maltese, C. (2016). School Gardens in the City: Does Environmental Equity Help Close the Achievement Gap? *Du Bois Review: Social Science Research on Race*, 13(2), 379-395. doi:10.1017/S1742058X16000229

United Nations Sustainable Development Goals

- Reduce Inequalities
- Climate Action
- Quality Education
- Sustainable Cities and Communities
- Good Health and Wellbeing
- Life on Land

Barriers

- Time
- Staffing
- Space
- Maintenance
- Curriculum integration
- Continuation