

Assessing the Value of Ocean Stewardship and Education through the Ocean Guardian School Program



Photo Credit: Bill Henry

OGS students are learning about local watersheds by participating in a hands-on experience. Students are planting native species to help improve riparian habitats.



Photo Credit: All Saints' Day School, Carmel, CA

An OGS teacher is teaching students about their local watershed while immersing them in the outdoors. OGS program helps to actively engage and affect students through on-site experiences and learning.

Ocean Guardian Schools

The Ocean Guardian School (OGS) program is a grant program supported by the National Marine Sanctuary Foundation (NMSF) and coordinated out of NOAA's Office of National Marine Sanctuaries (ONMS). The program furthers the educational goals of ONMS by supporting hands-on, ocean stewardship projects in K-12 public, private, and charter schools. Schools are awarded small grants (\$1,000 to \$4,000) to carry out their own school or community-based conservation projects that make a difference in the health and protection of their local watersheds and/or the world's ocean.

Survey of Parents

In the spring of 2016, roughly 50% of OGS participated in a survey to estimate both the monetary and non-monetary benefits of the program to children. OGS teachers contacted parents of OGS students, asking them to complete a survey about their perceptions and values towards their child's participation in the program. All surveyed schools were in California.

What do parents think of OGS?

Nearly 90 percent of parents support their child's participation in the program. Nearly 80% of parents support outdoor education and 85.3% support environmental education. Roughly, 80% of parents thought OGS program positively influenced their child's perceptions of watersheds, ocean ecosystems and our natural world. In addition, about two-thirds of parents thought their own perception of watersheds, ocean ecosystems and our natural world was positively influenced through their child's participation in the program.

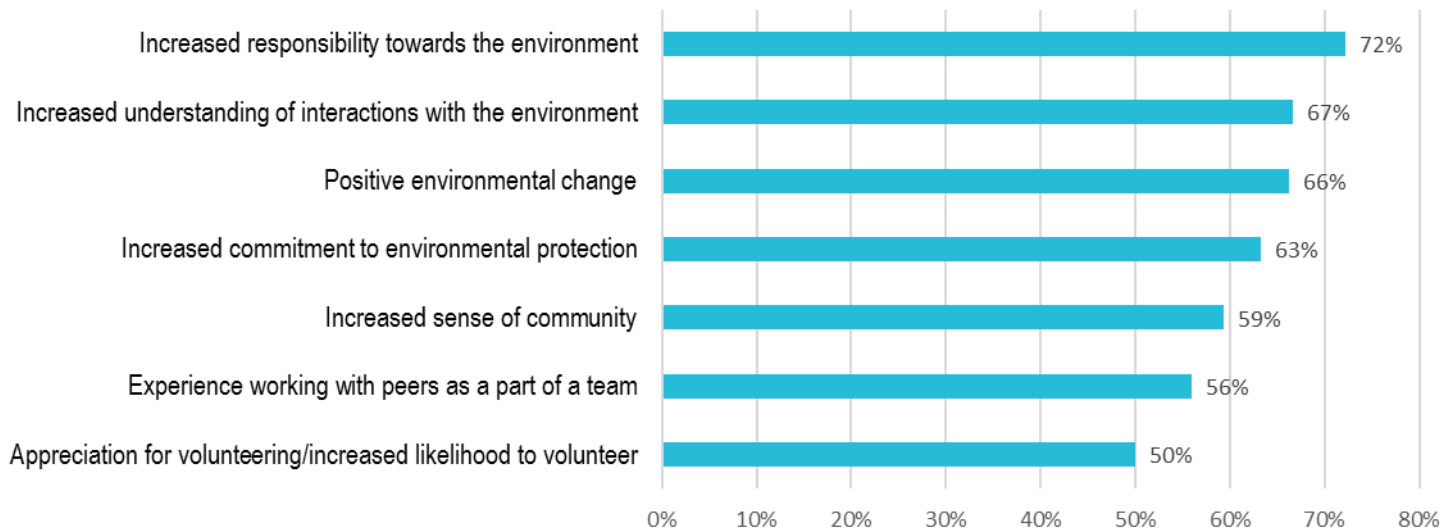
Nearly ten percent reported they would like to see the program "available to more students, schools, and teachers" with several noting that federal funding is important because it provides opportunities for low-income families to participate.

One parent said of OGS they "*Knew nothing about it [the OGS] until it happened. It was refreshing that something happened without having to push for it. (We have a relatively poor school district and have to constantly battle the finances).*"

An Ocean Guardian School

- Provides projects for students related to the conservation of local watersheds, the world's ocean, and/or special ocean areas, like national marine sanctuaries.
- Provides opportunities for students, teachers, parents and friends to participate in a range of environmental sustainable activities.
- Provides learning and programs and opportunities that reflect environmentally sustainable practices that enable all students to be environmentally active and committed "Ocean Guardians."
- Provides ways for classrooms to promote best environmental practices within local communities, while at the same time projecting a positive image of the school itself.

Percentage of Parents Reporting their Child Received the Benefit (sample size=270)



Does OGS program improve behavior?

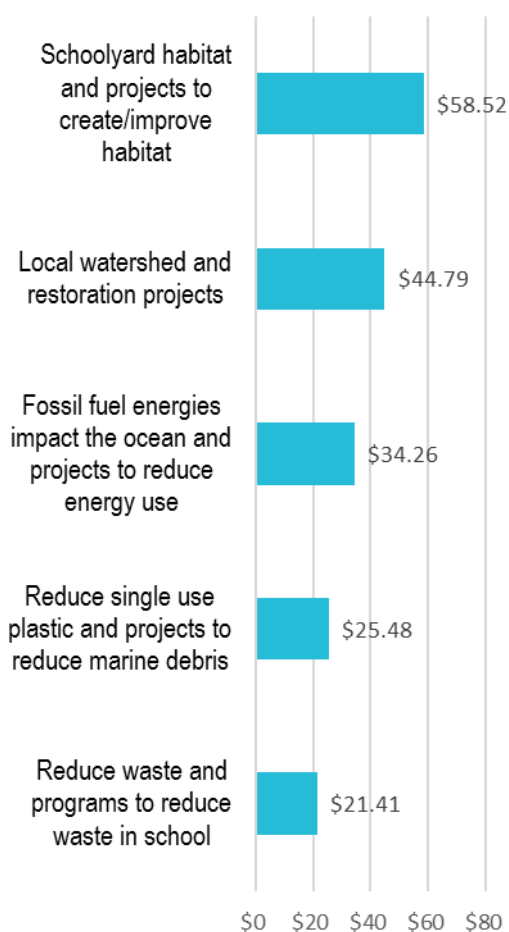
Although many parents reported both themselves and their children were already recycling, minimizing water use, and single-use plastics, there were slight improvements to these behaviors. The greatest change to behavior reported was students are now talking to others (family and friends) about the actions others can take to improve the environment. Two-thirds of the children are having conversations with others and 22% of students are encouraging others to make more eco-friendly decisions.

What are the benefits?

The graph above shows the benefits that parents reported their child received because of participating in OGS. The top two benefits parents reported were: 1. An increased responsibility towards the environment; and 2. The increased understanding of how people interact with the environment. Forty percent of parents reported their child received five or more benefits.

One OGS parent stated, *"My daughter has become passionate about reducing environmental impact and has become much more outgoing and willing to speak in public about this. She is a shy kid. This has been a huge deal!"*

Value of Ocean Guardian Pathways



What will parents pay for OGS?

An OGS project must fall under one of the five pathways shown in the graph to the left. Additionally, some OGS involve community members in their project. When estimating the value of OGS, the highest valued pathway of OGS is schoolyard habitat and gardens. Parents are willing to pay nearly \$60 through increased school costs and/or field trip costs for their child to receive this education. Watershed restoration has a value of roughly \$45 to parents.

Benefits versus Costs

When considering the grant amount awarded to the school and the number of students participating, on average \$14 - \$53 of a school's grant is spent per student. This means that if a student participates in a habitat project, the benefit to that student (\$59) exceeds the maximum amount spent on the student (\$53). Another example of where benefits exceed costs is if a student learns about both marine debris and fossil fuel energies or both recycling and fossil fuel energies.

For more information:

A complete copy of the report can be accessed at:

Or contact a sanctuary economist

Dr. Danielle Schwarzmann
Danielle.Schwarzmann@noaa.gov