

# 2023-2024 SURVEY RESULTS

Final

Report



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## About O'Neill Sea Odyssey

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O'Neill Sea Odyssey (OSO) is a 501(c)3 non-profit organization founded in 1996 by wetsuit innovator and surfer Jack O'Neill. A living classroom was created on board a 65-foot catamaran sailing the Monterey Bay National Marine Sanctuary.

OSO offers a three-hour program where 4th through 6th-grade and special education students from schools throughout Central California receive hands-on lessons in marine biology, marine ecology, and navigation. The program is conducted onboard the Team O'Neill catamaran with follow-up lessons at the shoreside Jack O'Neill and Harry Hind Education Center at the Santa Cruz Harbor. Since its inception, OSO has served over 127,000 students.



The O'Neill Sea Odyssey program

outcomes are as follows; 1) students will increase their awareness of threats to watersheds and the ocean, 2) students are more likely to protect Monterey Bay and the ocean, and 3) students will advocate for ocean and watershed stewardship to their families and friends. The mission was updated in September 2024. *O'Neill Sea Odyssey provides free and transformative ocean-going educational experiences to students from diverse backgrounds, igniting their scientific curiosity and empowering them to take action to protect our oceans and watersheds.* This is done by delivering an interactive curriculum that emphasizes the connections between land and sea through a multi-disciplinary approach including ecology, biology, and mathematics.

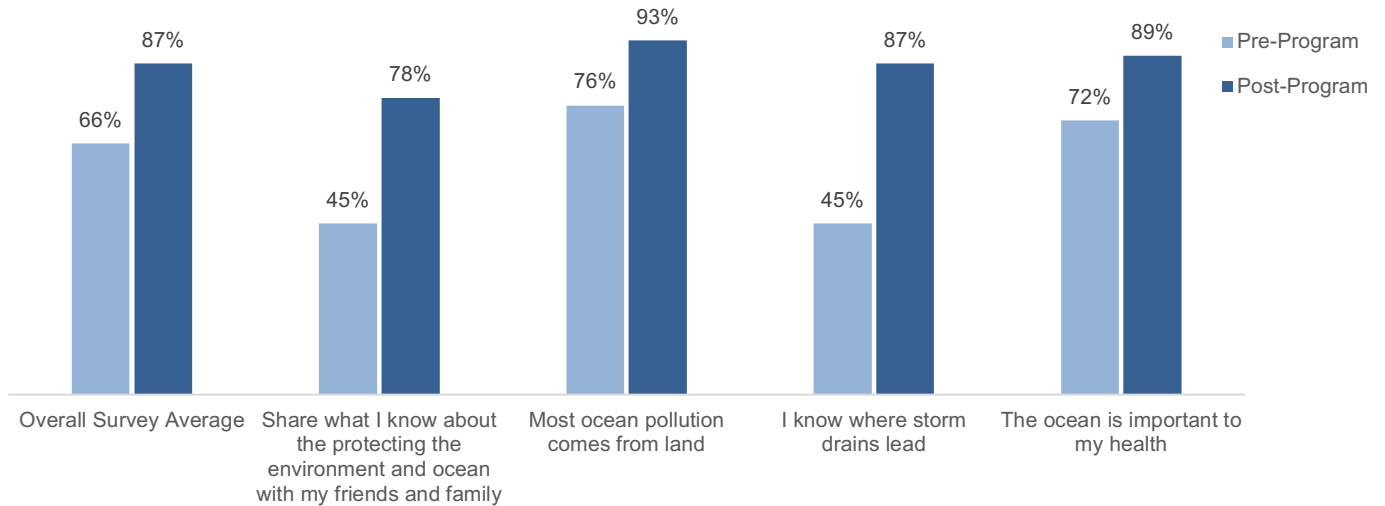
The OSO website (<http://www.oneillseaodyssey.org/>) provides extensive curriculum and learning materials designed to introduce students to the topics they will be learning in the program. Teachers and group leaders are encouraged to use these materials with their students before attending the program and afterward as follow-up activities.

Thanks to the generous support of donors, OSO is free of charge. Students earn their way into the program by completing a Student Action Project. This project is intended to build on the OSO curriculum and encourage students to take actionable steps toward protecting their ocean, coast, and watershed. A Student Action Project could be a broad range of activities such as a campus, beach or watershed cleanup, plastic use or lunch waste audit, or writing a letter to an elected official regarding an environmental issue of concern. Teachers and group leaders are required to submit evidence of their Student Action Project.

# Executive Summary

Before participating in the OSO program, an average of 66% of students agreed with the survey questions overall. After attending the program, this percentage increased to 87%.

## Percentage of All Students Who Agreed with Survey Questions, Pre- and Post-Program, 2023-24

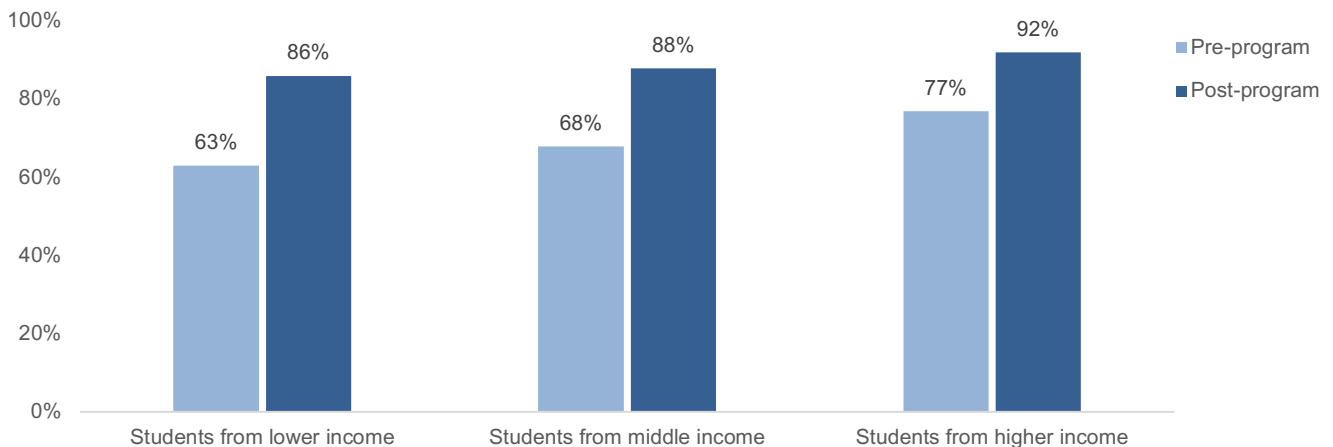


Source: Student Surveys, 2023-24 (N=4,074 students).

Over half (55%) of students were socioeconomically disadvantaged.

The students from lower (63%) and middle (68%) income groups generally had lower overall levels of agreement before the program started than the higher income groups (77%). By the end of the program, all income groups agreed (between 86% and 92%)

## Students' Overall Survey Averages, Pre- and Post-Program, by Income Level, 2023-24



Source: Student Surveys (2023-24: Lower income students: N=2,533, Middle income students: N=1,093, Higher income students: N=448.)



# Data Highlights

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## Demographics

Between July 2023 and May 2024, 177 groups participated in the O'Neill Sea Odyssey (OSO) program, representing 4,358 students. Group sizes ranged from 8 to 41 students, with an average group size of 25.

The majority of groups came from Santa Cruz County (41%), Monterey County (33%), and Santa Clara County (23%).

Approximately 86% of groups were of students between 4<sup>th</sup> and 6<sup>th</sup> grade, the program's target population. Just under half (48%) of students indicated it was their first time on a boat in the ocean.

Based on population estimates, 74% of the students were Hispanic or Latino, 15% were White, 8% were Asian, Filipino, or Pacific Islander, 1% were African American, less than 1% were American Indian or Alaska Native, less than 1% were of another race/ethnicity, and 2% were two or more races.

Over half (55%) of students were socioeconomically disadvantaged.

Approximately 62% of participating groups were lower income groups, 28% were middle income groups, and 10% were higher income groups.

## Website Use

Seventy-seven percent of all teachers/group leaders reported that they had used the online teaching materials provided on the website before their trip, and the vast majority of the teachers (91%) intended to use the online teaching materials in the classroom after the trip.

When asked which online resource the teachers/group leaders used, 87% used the pre-trip education materials (teacher packets) followed by 58% using the safety and important information on the website. The online resource that teachers/group leaders identified as most helpful was the pre-trip education materials (81%).

## Program Ratings

In every topic area, the vast majority of teachers/group leaders (between 93% and 98%) indicated that their students had "learned a lot."

Of the three topics learned on the boat, 98% of teachers/group leaders thought students had "learned a lot" in the Marine Biology station. Ninety-seven percent of teachers/group leaders thought students had "learned a lot" in the Sailing and Navigation station, and 96% of teachers/group leaders thought students had "learned a lot" in the Ecology station.

Of the three topics learned in the classroom, the vast majority of teachers/group leaders said that students had "learned a lot" in the Marine Biology station (97%), followed by the Ecology (95%) and Sailing and Navigation stations (93%).

Nearly all (98%) of the teachers/group leaders reported that their students had "learned a lot" from the overall learning experience.

## Student Environmental Awareness

The Student Survey showed that the OSO program was effective in promoting substantial increases in students' environmental awareness. Before participating in the OSO program, an average of 66% of students agreed with the survey questions overall. After attending the program, this percentage increased to 87%.

When student surveys were divided by income level, results showed that all groups of students increased their environmental knowledge after attending the program. The students from lower (63%) and middle (68%) income groups generally had lower overall levels of agreement before the program started than the higher income groups (77%). By the end of the program, all income groups agreed (between 86% and 92%)

# Results

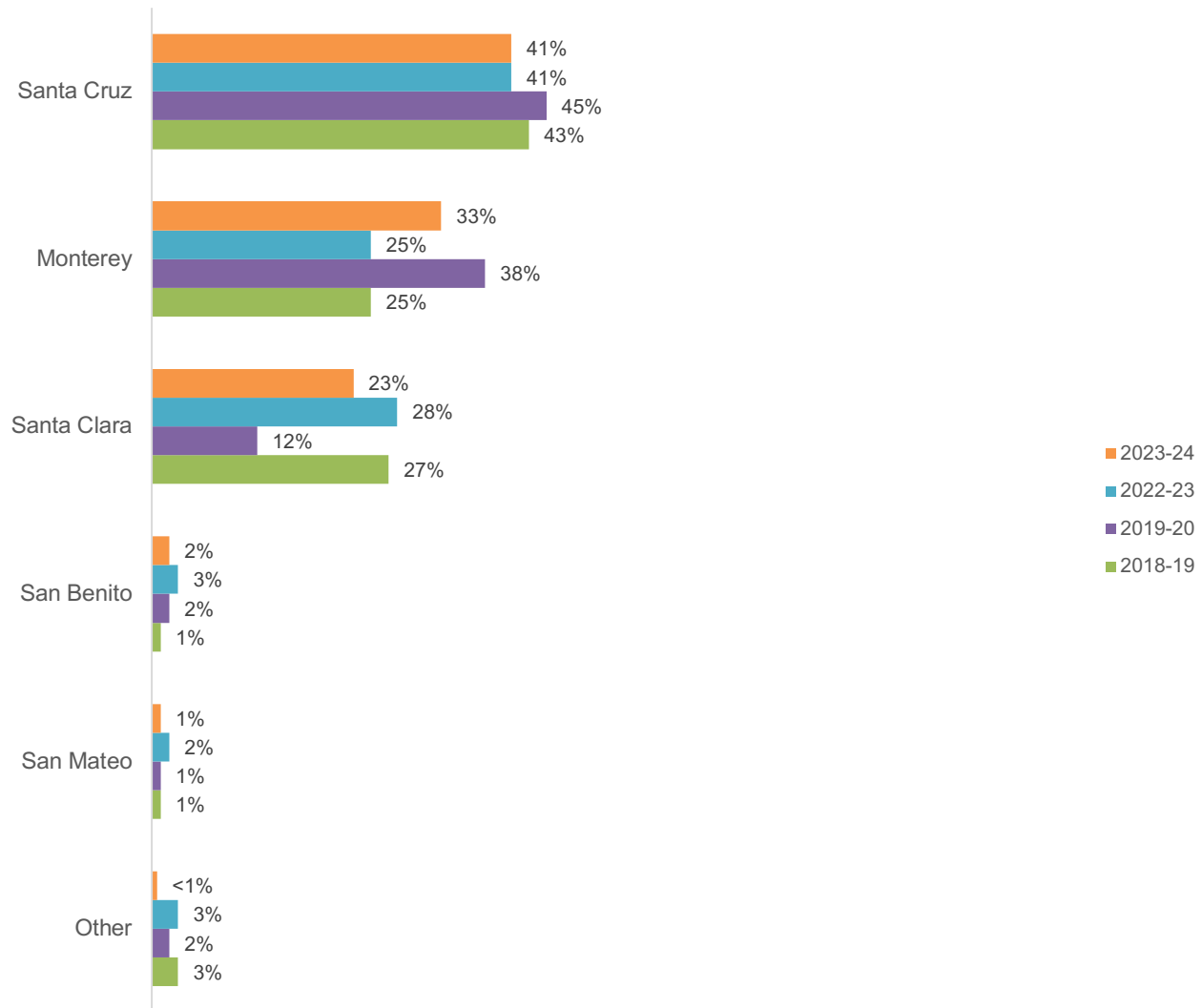
## Student Participation and Demographics

Between July 2023 and May 2024, 177 groups participated in the O'Neill Sea Odyssey (OSO) program, representing 4,358 students. Group sizes ranged from 8 to 41 students, with an average group size of 25.

### Counties of Origin

Most groups came from Santa Cruz County (41%), Monterey County (33%), and Santa Clara County (23%). Between 2010-11 and 2023-24, these three counties have continued to be the most frequent origins of groups.

#### Participating Group's County of Origin



Source: O'Neill Sea Odyssey (2023-24 N=177 groups; 2022-23 N=133 groups; 2019-20 N=112 groups; 2018-19 N=209 groups).

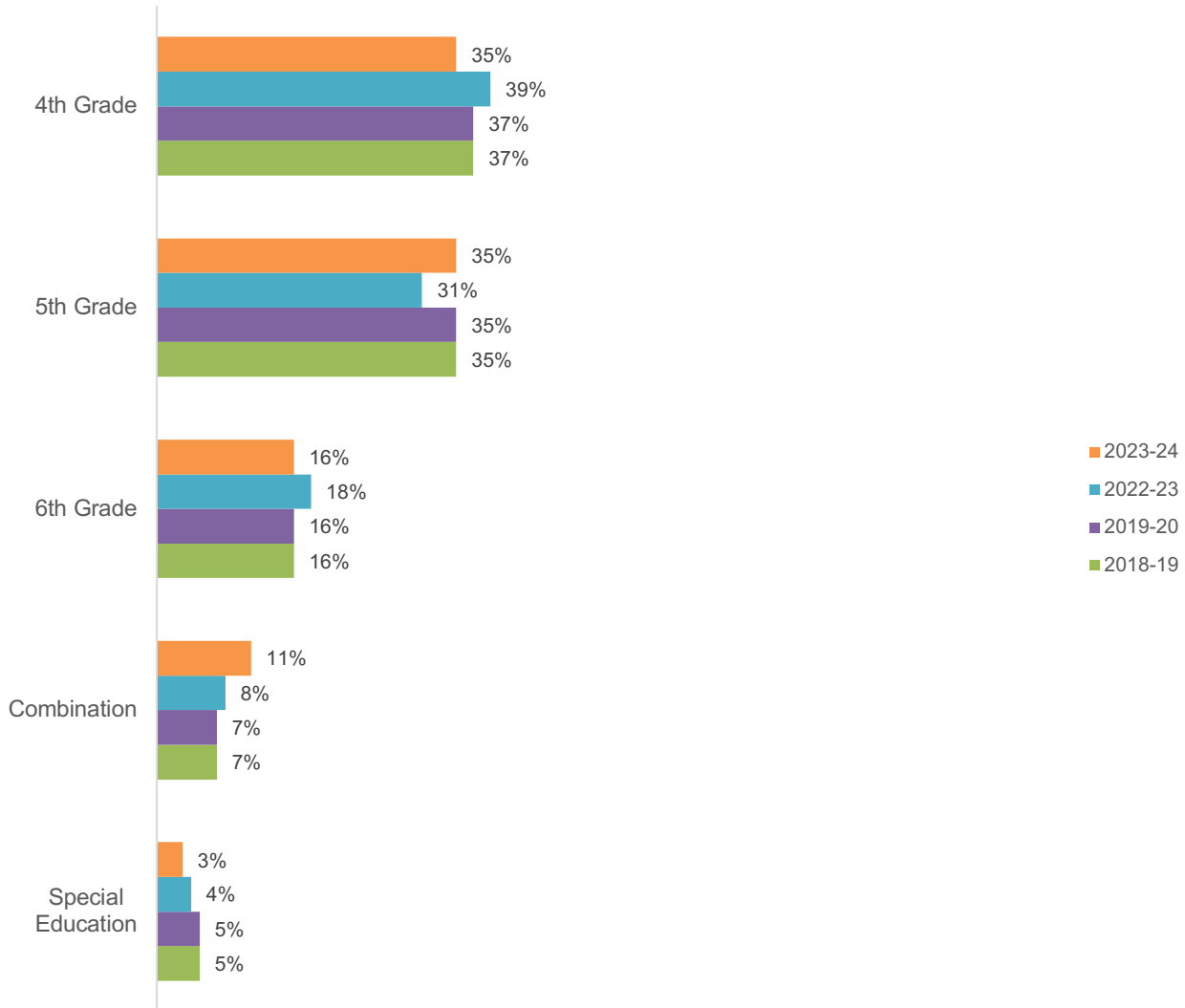
\* "Other" counties differ by year but includes the counties of Alameda, Contra Costa, Nevada, Sacramento, San Francisco, San Joaquin, Sonoma, Stanislaus, Yolo, Merced and those where no information was available.

## Grade Levels

OSO's target population is students in the 4th through 6th grades and, in 2023-24, the majority of groups were in this grade range (86%). In 2023-24, both 4<sup>th</sup> and 5<sup>th</sup> grades were 35% of the groups, 6<sup>th</sup> grade was 16%, and combined 4-6<sup>th</sup> grade groups were 11%.

Most groups of students participated through schools, although a few came from community centers and day camps.

### Grade Levels of Groups

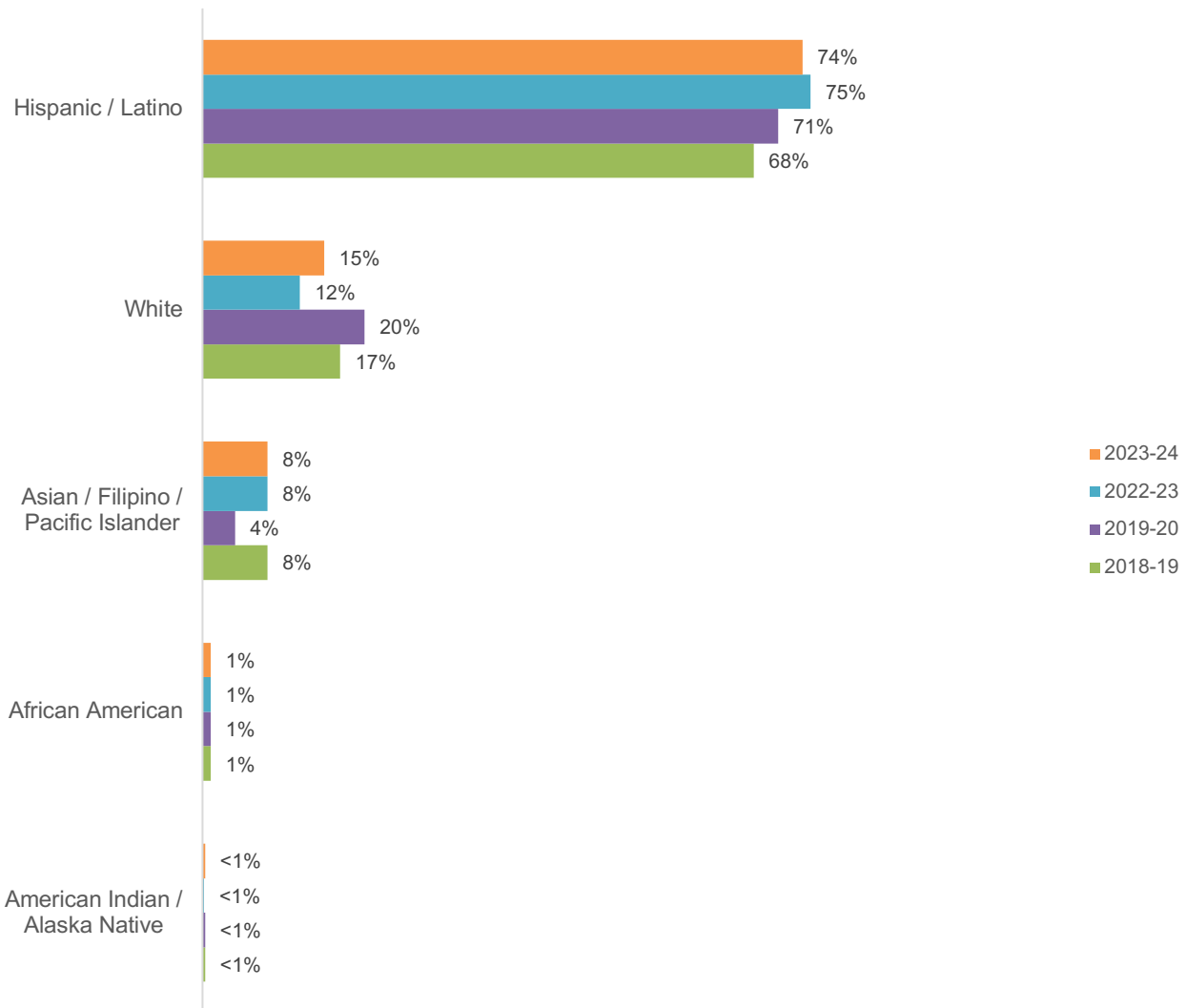


Source: O'Neill Sea Odyssey (2023-24 N=177 groups; 2022-23 N=133 groups; 2019-20 N=112 groups; 2018-19 N=209 groups).  
 \* "Special Education" refers to groups comprised of students in grades other than 4<sup>th</sup> through 6<sup>th</sup>.

## Race/Ethnicity

The race/ethnicity of participants was estimated using percentages obtained from the California School Dashboard (Dashboard), based on the year and school name. In 2023-24, it was estimated that 74% of the students were Hispanic or Latino, 15% were White, 8% were Asian, Filipino, or Pacific Islander, 1% were African American, less than 1% were American Indian or Alaska Native, 2% were two or more races, and less than 1% were of another race/ethnicity.

### Race/Ethnicity of Students



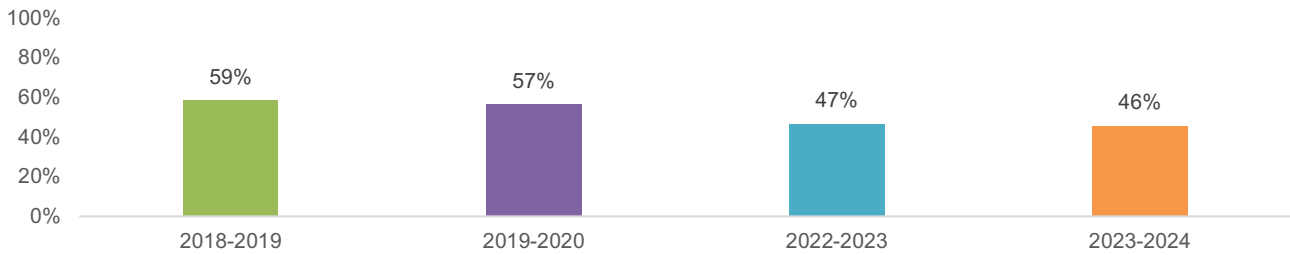
Source: Data provided by O'Neill Sea Odyssey, collected from the California School Dashboard database (2023-24 N=4,358 students; 2022-23 N=3,190 students; 2019-20 N=2,902 students; 2018-19 N=5,539 students).

Note: The "Other" and "Multiple or No Response" categories are not shown in this figure. Percentages may not total 100% for this reason or due to rounding.



## English as a Second Language

### Percentage of Students Whose Primary Language is Not English\*



Source: Data provided by O'Neill Sea Odyssey, collected from the California School Dashboard database (2023-24 N=4,358; 2022-23 N=3,190 students; 2019-20 N=2,902 students; 2018-19 N=5,539 students).

Note: This analysis combines both English Learner (EL) and Fluent-English-Proficient (FEP) students.

\* Note: FEP student data was not collected in 2022-23 and 2023-2024

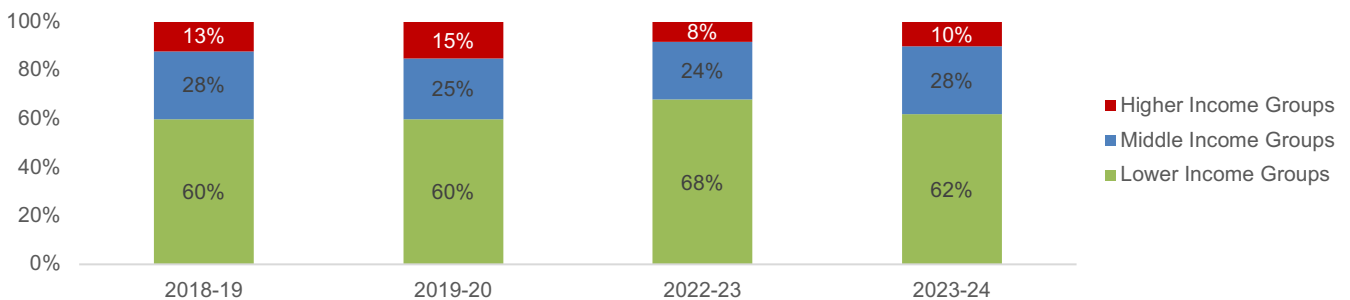
## Socioeconomically Disadvantaged

Based on the percentages obtained from the Dashboard database, in 2023-24, 55% of the students were considered socioeconomically disadvantaged. This was calculated by taking the percentage of students considered to be socioeconomically disadvantaged per class and applying that to the number of students.

The OSO program aims to make its learning experiences available to students from socioeconomically disadvantaged backgrounds. The economic levels of the communities from which participating groups came were estimated using the percentage of students considered to be socioeconomically disadvantaged. Groups with less than 1/3 of their students in this category were considered higher income, and groups with more than 2/3 of their students in this category were considered lower income. Groups that fell between these extremes were considered middle income groups.

Using this method of analysis, approximately 62% of participating groups were classified as lower income groups, 28% as middle-income groups, and 10% as higher income groups in 2023-24.

### Percentage of Groups Participating, by Income Level

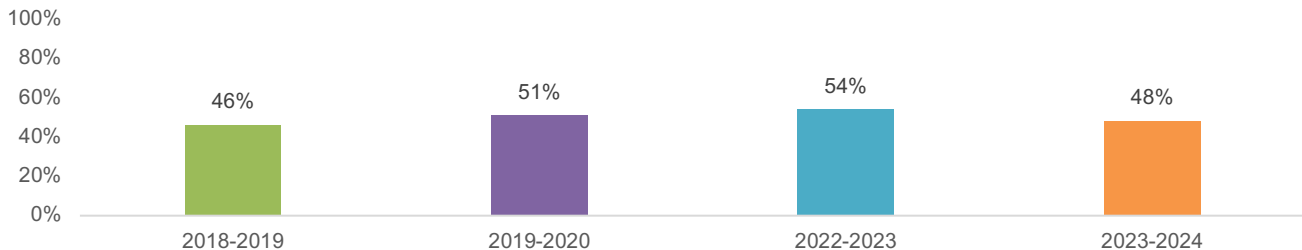


Source: Data provided by O'Neill Sea Odyssey, collected from the California School Dashboard (2023-24 N=4,358; 2022-23 N=3,190 students; 2019-20 N=2,902 students; 2018-19 N=209 groups).

## Past Experience on a Boat

During the 2023-24 year, 48% of students indicated this was their first time on a boat, similar to past years.

### Students Reporting First Experience on A Boat



Source: O'Neill Sea Odyssey (2023-24 N=4,358; 2022-23 N=3,202 students; 2019-20 N=2,902 students; 2018-19 N=5,539 students).

## Website and Teaching Materials

In 2023, OSO launched a new website where visitors can access information about the organization, news and events, impact, and ways to support OSO's mission. In May of each year, teachers submit a trip request form on the website for the following academic year. To make the most out of their experience, teachers are encouraged to utilize a teacher packet introducing marine biology, ecology, and navigation lessons and vocabulary to their students prior to their field trip. A trip planning guide is also available on the website to assist teachers before, during, and after their trip.

In their program material, OSO states that:

“...students who have been given an overview of our subjects before participating in the program benefit from a more in-depth educational experience.”

OSO, therefore, encourages teachers and group leaders to use the materials provided through the website with their students before participating in the program.

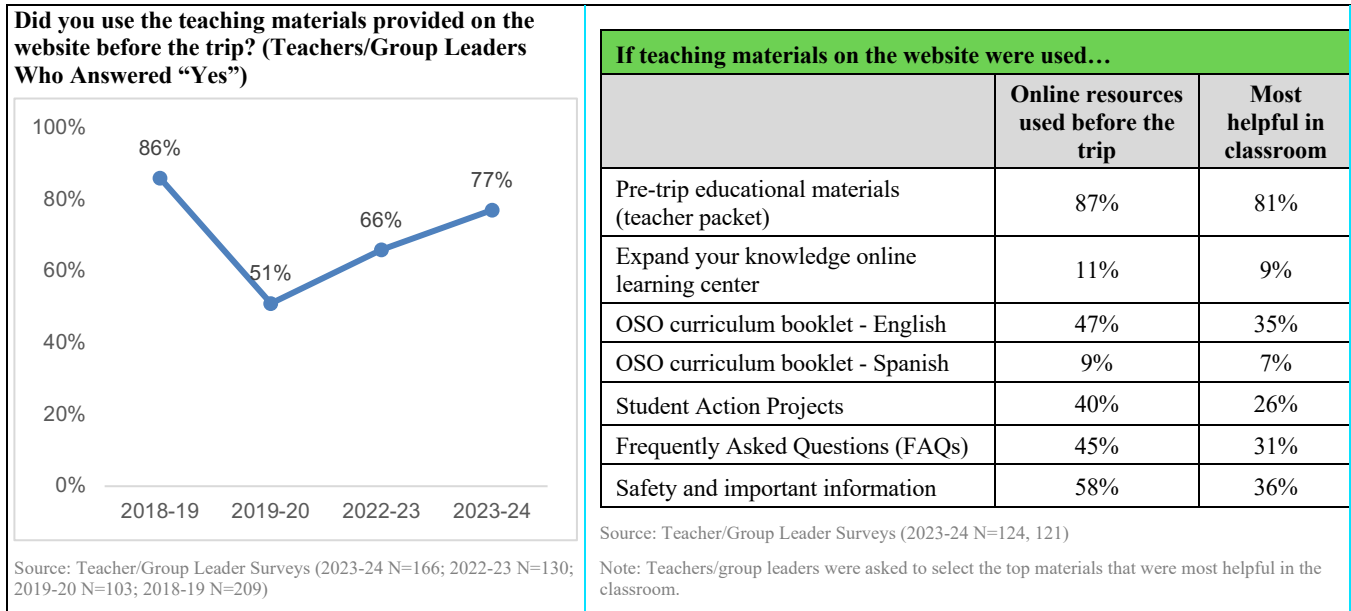
Teachers/group leaders were asked additional questions about the teaching materials available on the website.

In 2023-24, 77% of all teachers/group leaders reported that they had used the online teaching materials provided on the website before their trip, an increase from 2022-23.

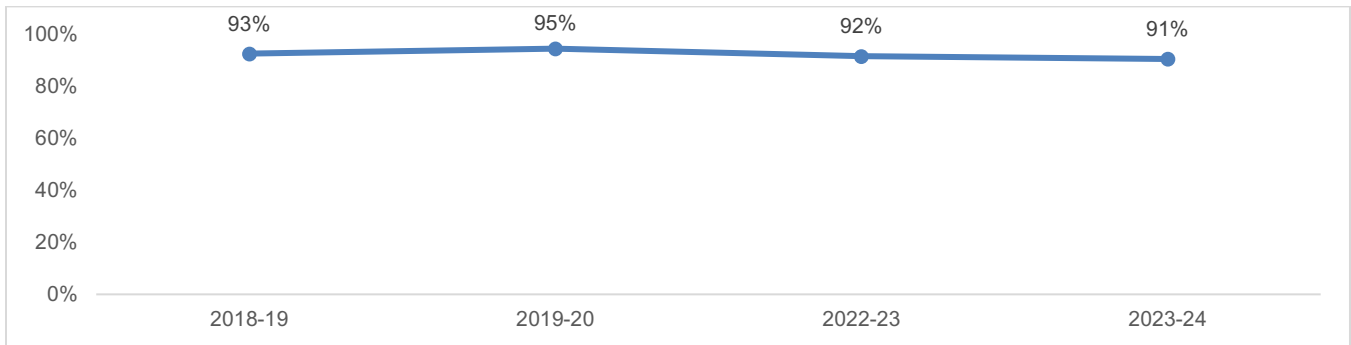
The online resources used most often by teachers were the pre-tip educational materials such as teacher packets (87%), safety and important information (58%), and the OSO curriculum booklet in English (47%).

The vast majority (91%) reported that they intended to use the online teaching materials in the classroom after the trip. This result has stayed relatively stable over the past five years.

## Use of Website Teaching Materials



## Do you intend to use the Online Learning Center or Teacher Packet Materials in the classroom after the trip? (Teachers/Group Leaders Who Answered "Yes")



## Program Ratings

Teachers/group leaders were asked to give their feedback on the quality and effectiveness of several topics that were covered in the program. Respondents could answer learned a lot, learned somewhat, or did not learn at all.

In every topic area, the vast majority of teachers/group leaders indicated that the students had “learned a lot.” The percentage of teachers/group leaders who responded this way ranged from 93% to 98% across all topics.

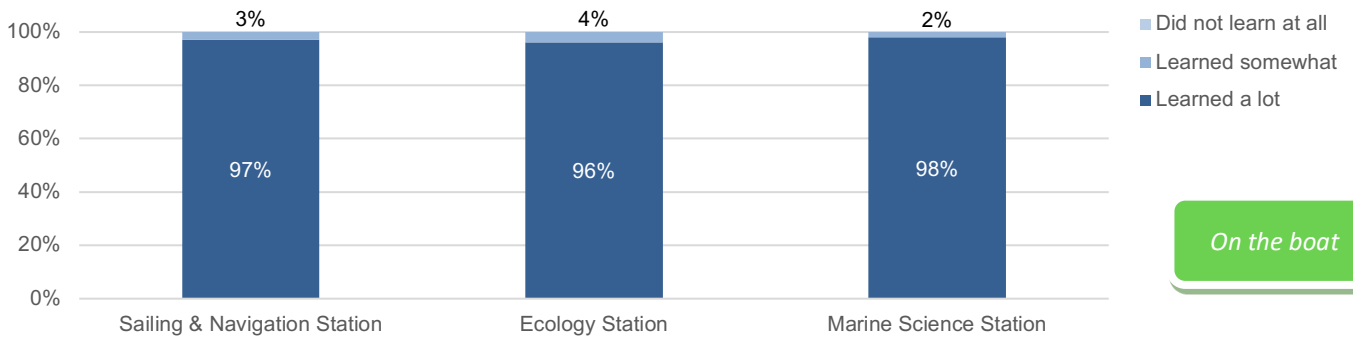
Of the three topics learned on the boat, between 96% and 98% of teachers/group leaders thought students had “learned a lot” in the Marine Biology station, the Sailing & Navigation station, and the Ecology station.

Of the three topics learned in the classroom, most teachers/group leaders again said that students had “learned a lot” in the Marine Biology station (97%), followed by the Ecology (95%) and Sailing and Navigation stations (93%).

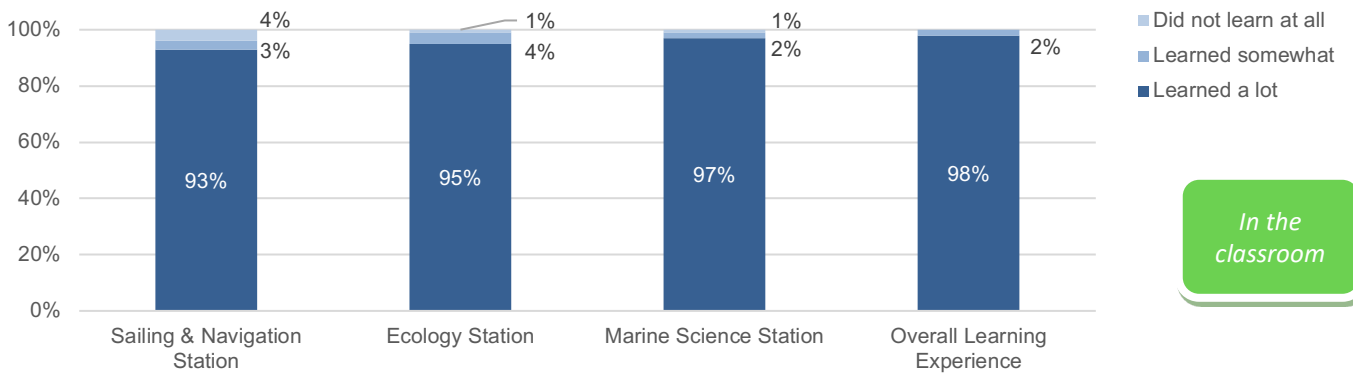
Nearly all of the teachers/group leaders (98%) reported that their students had “learned a lot” from the overall learning experience.

During the past fourteen years (2010-11 to 2023-24), the percentage of teachers/group leaders who reported that the students had “learned a lot” has been consistently high. It is important to note that due to the already high ratings of these topic areas every year, it was extremely difficult to demonstrate any further improvement across the years.

**How much do you think the children learned from the following topic areas?**



Source: Teacher/Group Leader Surveys, 2023-24.



Source: Teacher/Group Leader Surveys, 2023-24.

**Comparison of Topic Areas (Teachers/Group Leaders Who Said the Children “Learned A Lot”)**

	2018-19	2019-20	2022-23	2023-24
<b>On the boat</b>				
Sailing and Navigation station	97%	93%	96%	97%
Ecology station	98%	98%	98%	96%
Marine biology station	99%	98%	96%	98%
<b>In the classroom</b>				
Sailing and Navigation station	95%	96%	92%	93%
Ecology station	98%	96%	94%	95%
Marine biology station	99%	99%	96%	97%
<b>Overall</b>				
Overall learning experience	100%	99%	99%	98%

Source: Teacher/Group Leader Surveys, 2018-24.

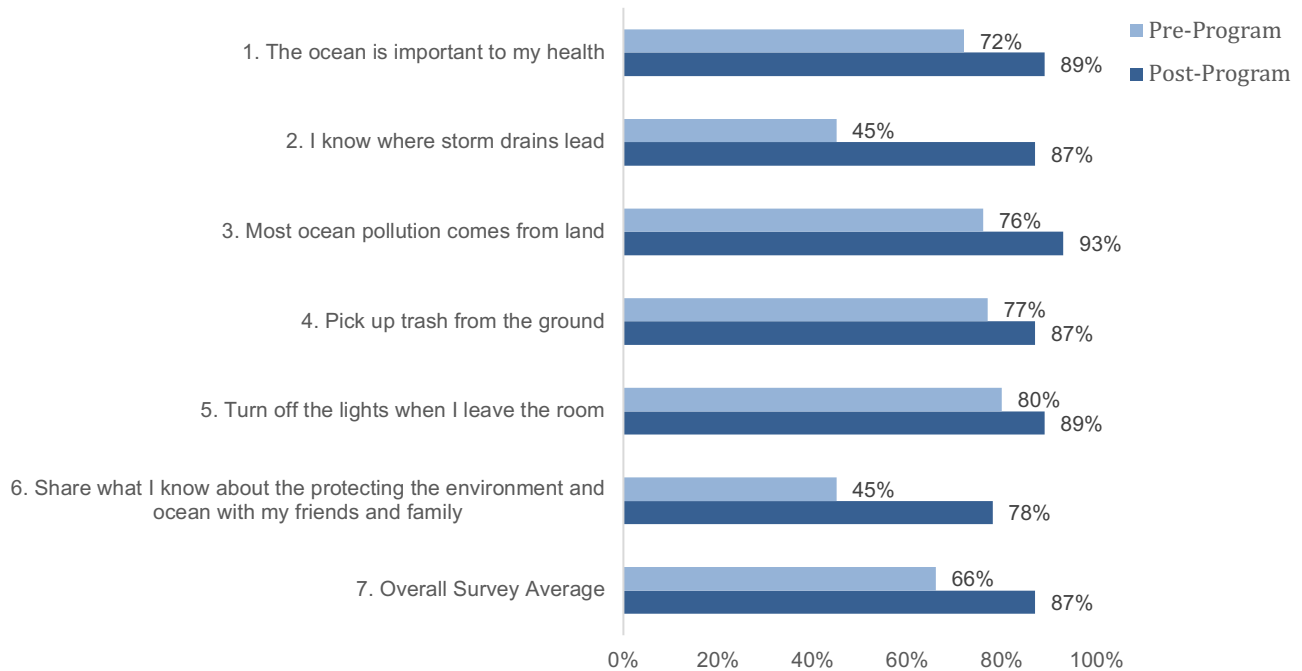
***Student Environmental Awareness***

The Student Survey was administered both before and after the program. The Student Survey included seven questions regarding their general knowledge about the ocean and their future behavior regarding protection of the environment, energy conservation, intention to share their knowledge about how to protect the environment with others, and their overall experience. Students were asked to raise their hands and close their eyes if they agreed with the statements.

The results showed that there were considerable changes in students’ attitudes toward the environment after participating in the OSO program. Before participating in the OSO program, an average of 66% of students agreed with the survey questions overall. After attending the program, this percentage increased to 87%.

For each of the seven individual survey questions, there were increases in the percentage of students who agreed with them after participating in the program. The largest increases occurred with Question 2, “I know where storm drains lead” a net increase of 42%.

## Percentage of All Students Who Agreed with Survey Questions, Pre- and Post-Program, 2023-24



Source: Student Surveys, 2023-24 (N=4,074 students).

### Effects of Economic Background

The Student Survey results were also analyzed to determine whether the economic background of students had any effect on their environmental awareness, both before and after participating in the program.

The first step was to determine how to identify students' economic backgrounds. The percentage of students considered to be socioeconomically disadvantaged was used as an estimate of the group's economic level. This percentage was then used to divide the groups into three income categories. Groups with less than 1/3 of their students in this category were considered higher income groups and groups with more than 2/3 of their students in this category were considered lower income groups. Groups that fell between these extremes were considered middle income groups.

The following figures present the survey results for the students in lower, middle, and higher income groups. When these income categories were analyzed separately, all groups showed increases in the percentages of students who agreed with the survey questions after participating in the program. However, there were interesting differences between the groups.

The most interesting findings were the amount of change and effectiveness of the OSO program in teaching and encouraging environmentally conscious behavior, relative to the groups' economic background. Before the program began, a smaller percentage of students from lower (63%) and middle income (68%) groups agreed with the survey questions overall, compared to students from higher income groups (77%). After participating in the program, the students from lower and middle income

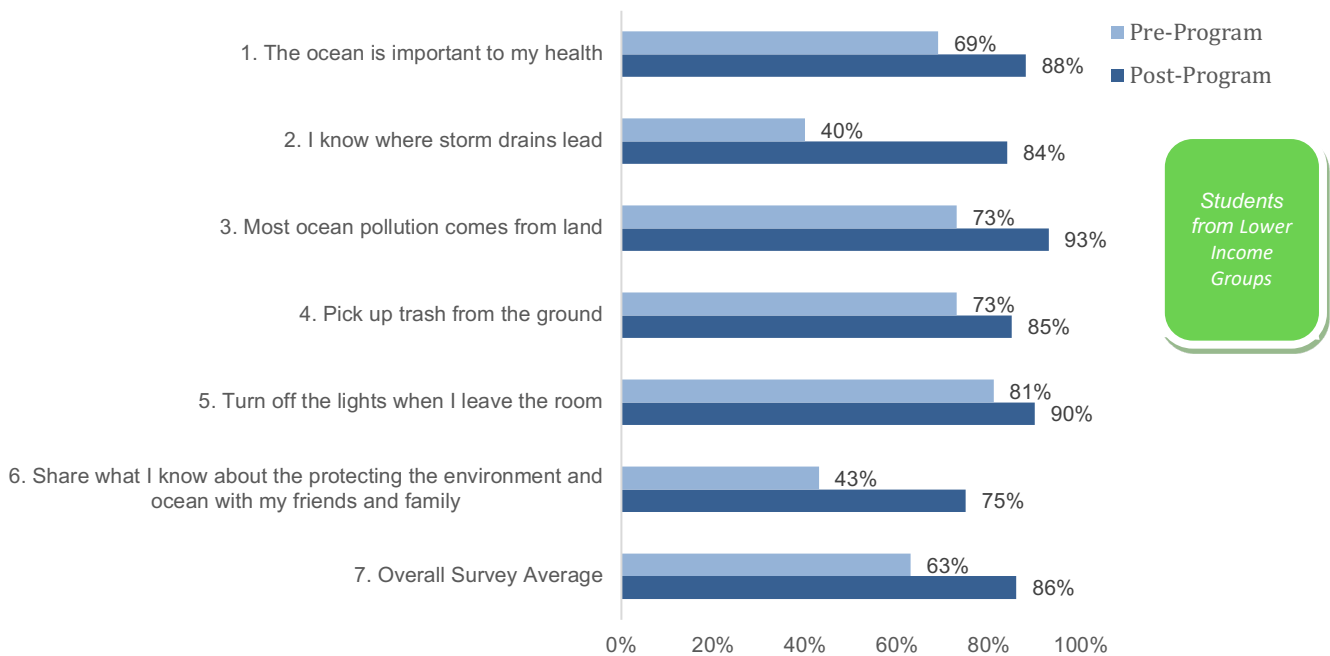


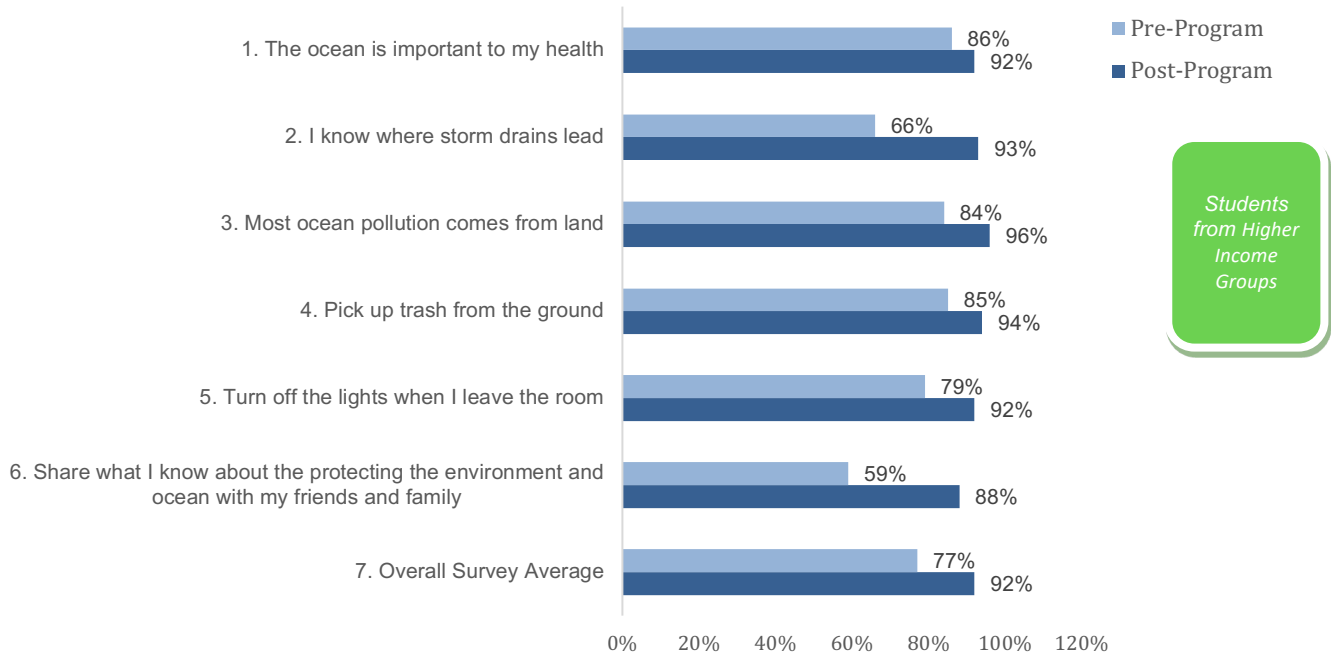
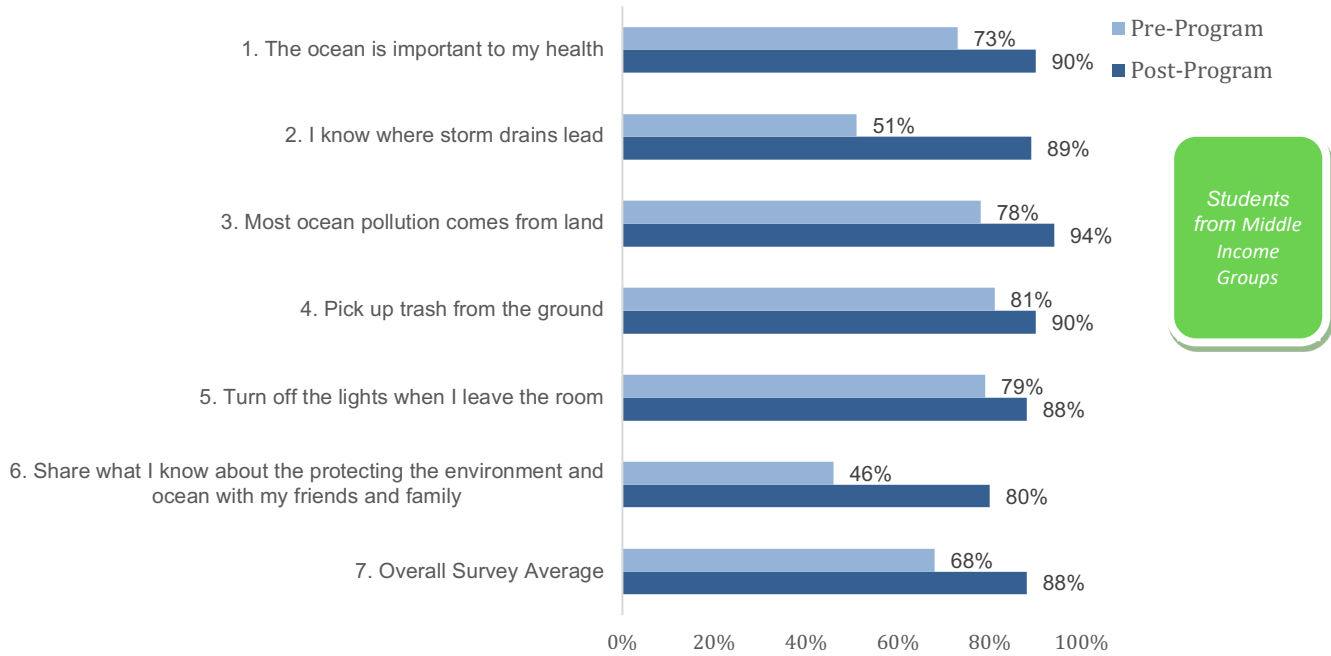
groups increased agreement to similar levels as their high income peers. After participating in the program, 86%, 88% and 92%, respectively, of students from lower, middle, and higher income groups agreed with the survey questions.

When specific survey questions were examined, the question that showed the largest difference related to economic background was Question 2, "I know where storm drains lead." For this question, students from lower and middle income groups demonstrated a greater amount of change between pre- and post-program surveys (net change of 44% and 38%, respectively) compared to students from higher income groups (net change of 27%).

Overall, most students, regardless of economic status, reported that they would share their knowledge about protecting the environment with their friends and family, were more confident in their knowledge of where storm drains led, and reported that they would behave in ways to protect the environment after participating in OSO.

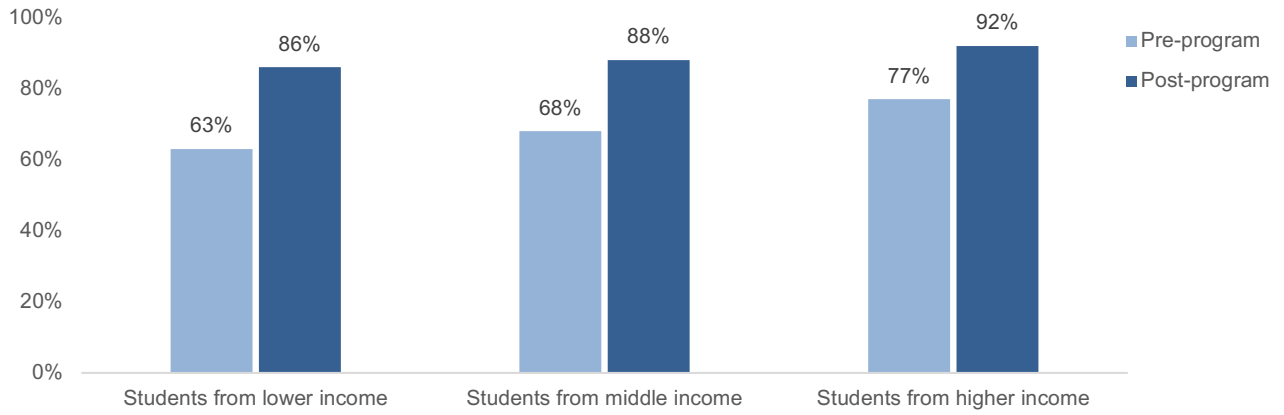
**Percentage of Students Who Agreed with Survey Questions, Pre- and Post-Program, by Income Level, 2023-24**





Source: Student Surveys (2023-24. Lower income students: N=2,533, Middle income students: N= 1093, Higher income students: N=448.)

### Students' Overall Survey Averages, Pre- and Post-Program, by Income Level, 2023-24



Source: Student Surveys (2023-24: Lower income students: N=2,533, Middle income students: N=1,093, Higher income students: N=448.)

# Conclusions

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## *Student Participation and Demographics*

During the 2023-2024 program cycle, 177 groups participated in the O'Neill Sea Odyssey (OSO) program, representing 4,358 students. The average group size was 25.

The demographics of the groups and students who participated in the OSO program were similar to previous years. The majority of groups came from Santa Cruz, Monterey, and Santa Clara Counties (97%), and the majority of groups (86%) were comprised of students in the 4<sup>th</sup> through 6<sup>th</sup> grades. Just under half (48%) of all students indicated it was their first time on a boat in the ocean.

It was estimated that over two-thirds (74%) of the students were Hispanic or Latino, 15% were White, and 11% were of other races/ethnicities. The percentage of English Learners (EL) was 46%.

Over half of the students (55%) were socioeconomically disadvantaged. By using the percentage of students considered to be socioeconomically disadvantaged in each group as an estimate of the group's economic level, it was determined that approximately 62% of participating groups came from lower income communities.



## *Website and Teaching Materials*

Over three-quarters (77%) of teachers and group leaders indicated that they used the website materials with their students *before* participating in the program. The vast majority of teachers (91%) reported that they intended to use the online teaching materials in the classroom after the trip, similar to past years.

Open-ended response questions in the survey asked teachers/group leaders to suggest any topic areas that would be helpful to include in the Sea Odyssey experience and if they had any additional comments.

## *Program Ratings*

Based on the Teacher/Group Leader Survey results, the OSO program was evaluated extremely positively. In every topic area, the majority of teachers/group leaders (93% to 98%) indicated that the students had “learned a lot.” Nearly all of the teachers/group leaders (98%) reported that their students had “learned a lot” from the overall learning experience.

## *Student Environmental Awareness*

The Student Survey showed that there were substantial changes in students' environmental knowledge and behavior after participating in the program. Before participating in the OSO program, an average of

66% of students agreed with the survey questions (indicating that they knew a lot about the ocean and storm drains and behaved in environmentally responsible ways), which increased to 87% after attending the program.



The Student Survey results were also analyzed to see whether economic background had any effect on students' survey responses. Student groups were divided into three income levels (lower, middle, and higher) and all three income groups' survey responses were analyzed.

Similar to 2022-2023, all income groups saw improvement in their agreement with the overall survey results. Before the program began, lower, middle, and high income groups agreed with the survey questions overall (all three groups were between 63% and 77%). After participating in the program, students from all income groups demonstrated similar levels of improvement, agreeing between 86% and 92% of the time.

### Summary

Overall, the program was very well attended by the target population of students, the program materials were frequently used, and the program was very highly regarded by teachers/group leaders. In addition, Student Survey results suggest that the OSO program succeeded in bringing all students to a higher level of environmentally conscious behavior and knowledge despite some factors (such as economic background) that may have limited how much environmental awareness a student had before attending the program.

# Appendix I: Research Methodology

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## *Survey Design and Methodology*

In prior years, separate surveys were designed and distributed to different groups of program participants: group leaders, teachers and parents, students, and the OSO crew. For over 10 years, two surveys have been utilized: one was distributed to the teachers/group leaders, and another was administered to the students.

### *Teacher/Group Leader Survey*

Teachers and group leaders were asked to complete a short survey after attending the O'Neill Sea Odyssey (OSO) program.

In this survey, teachers/group leaders were asked to evaluate the program based on how much they thought the students learned from each of the program areas, including three topics taught on the boat portion of the program, three topics covered in the classroom portion, and one question asking them to rate the students' overall learning experience. Teachers/group leaders rated these program areas using a scale ranging from learned a lot, learned somewhat, to did not learn at all.

Teachers/group leaders were asked several questions about the OSO website and program materials available from it. They answered whether they had used the teaching materials provided before taking the trip, which online resources they used before the trip, which teaching materials were most helpful in the classroom, and whether they intended to use any of the online Learning Center or Teacher Packet materials in the classroom after the trip. Finally, they were asked open-ended questions about whether there were any additional topic areas that would be helpful to include in the Sea Odyssey experience and if they had any additional comments.

### *Student Survey*

The Student Survey was designed to be administered to them before *and* after attending the program. Students were asked to raise their hands and close their eyes if they agreed with the questions (indicating a "yes" response), and the number of raised hands for each question was tallied.

The Student Survey included seven questions. Three questions asked about their general knowledge:

- The ocean is important to my health.
- I know where storm drains lead.
- Most ocean pollution comes from land.

Three questions asked about their behavior:

- I pick up trash from the ground.
- I turn off the lights when I leave the room.
- I share what I know about protecting the environment and ocean with my friends and family.



Two questions asked about their experience pre and post trip:

Pre-trip: Previously participated in the O'Neill Sea Odyssey program

Post-Trip: This was my first time on a boat on the ocean

After attending the program, students were asked to retake the survey to see if they agreed with the same three general knowledge questions, if they plan to do the three behaviors listed above, and if they have previously participated in the program or if it was their first time on a boat in the ocean.

## *Demographic Data Collection*

In addition to filling out the survey, teachers/group leaders were asked to provide the name of their school or group, the number of students in their group, and the grade level(s) of their students.

## *Data Analysis*

In this report, most of the data in the analyses came from the OSO Teacher/Group Leader and Student Surveys. However, student ethnicity and level of English fluency were estimated using percentages obtained from the California School Dashboard database developed by the California Department of Education. Using the Dashboard, OSO obtained the percentages of each of these demographics for



each school participating in this program. For each school group, these percentages were applied to the total number of students in that group to estimate the number of students with these demographics.

Starting in 2023-24, OSO phased out the use of Free or Reduced-Price Meal (FRPM) data. Instead, they now use the "Socioeconomically Disadvantaged" subgroup from the Dashboard database, which includes Students who are eligible for free or reduced priced meals; or

have parents/guardians who did not receive a high school diploma. This was calculated by taking the percentage of students considered to be socioeconomically disadvantaged per class and applying that to the number of students

Some of the questions in the Teacher/Group Leader Survey were open-ended. Participants were asked to provide comments and suggestions for additional topics to be covered.

A census approach was used for both the Teacher/Group Leader and Student Surveys. In this type of survey approach, every teacher and student who participated in the program also answered the surveys (as opposed to giving the surveys to only a sample of the participants).

Note that demographic data was not available for every group and not every group answered all the survey questions. For this reason, the number of groups or students reported in some analyses may differ from the total number of groups and students that participated.

If you have any additional questions about the project, please contact [john@appliedsurveyresearch.org](mailto:john@appliedsurveyresearch.org)

## About the Researcher

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Applied Survey Research (ASR) is a social research firm based in Santa Cruz County.



ASR is dedicated to helping people build better communities by creating meaningful evaluative and assessment

data, facilitating information-based planning, and developing custom strategies. ASR has more than 30 years of experience working with public and private agencies, health and human service organizations, city and county offices, school districts, institutions of higher learning, and charitable foundations. Through community assessments, program evaluations, and related studies, ASR provides the information that communities need for effective strategic planning and community interventions.

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