



THE FINANCIAL, EDUCATIONAL, AND ORGANIZATIONAL IMPACTS OF THE COVID-19 PANDEMIC ON OUTDOOR SCIENCE PROGRAMS

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The Research Group at The Lawrence Hall of Science, regents of the University of California Berkeley in collaboration with Better Environmental Education, Teaching, Learning & Expertise Sharing (BEETLES) and Ten Strands

STUDY OVERVIEW

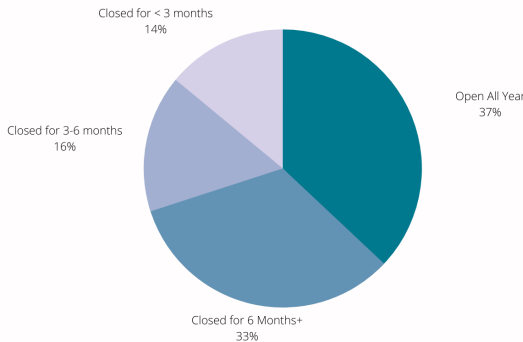
The COVID-19 pandemic shook the globe and transformed countless fields including outdoor education. This study examined the impact of the pandemic-related shutdowns and public health recommendations on outdoor science programs, specifically looking at organizations that participated in the Better Environmental Education Teaching, Learning, Sharing, Expertise (BEETLES) project.

PROGRAM CLOSURES

Most organizations closed for at least some period of time and operated with modified capacity when open.

63% of programs had to close at some point over the last year.

Program Closures In 2020



AS OF SPRING 2021, JUST 12% OF PROGRAMS WERE BACK TO PRE-PANDEMIC OFFERINGS.

18% OF PROGRAMS REMAINED CLOSED.

REVENUE LOSSES

Programs experienced significant and consequential revenue losses during the pandemic.

- Programs reported a 53% loss in Revenue from 2019 to 2020 (~\$130 million)
- Avg. \$1.4 Million per program loss from 2019- 2020
- In 2021 organizations anticipate an additional 3% loss (\$3 million)
- 2021 revenue losses may in part be attributed to holding programs that were paid for in 2020 but postponed to 2021.

RESEARCH QUESTIONS

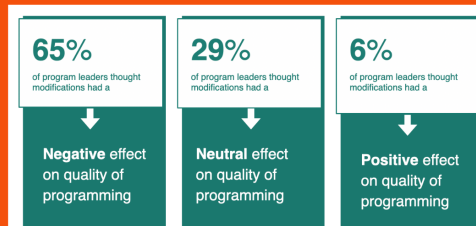
1. What were the programmatic, financial, educational, and organizational impacts of the COVID-19 pandemic on the BEETLES network?
2. Over a year since the start of the pandemic, what is the current status of programs, and what are their prospects and priorities moving forward?

PROGRAM ADAPTATIONS

Programs experienced shifts in capacity, participation, and experience as a result of the pandemic.

- 58% shifted to hybrid learning, and 49% shifted completely to online
- 81% reduced the number of participants
- 41% modified the content of their programs- including reducing hands on activities, increasing individual work, reducing peer discussions
- 33% stopped offering residential programming
- 22% added physical changes such as barriers between students, hand sanitizer, outside programs or decrease in shared materials

Many of these shifts resulted in decreased quantity and quality of the experiences offered.



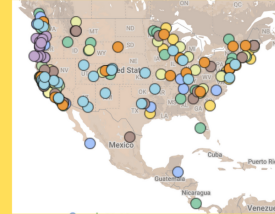
PRIORITIES FOR THE FUTURE



When asked about how programs are looking to the future: 35% of Program leaders expressed prioritization of equity and inclusion and rehiring in their goals this year.

- 64% of organizations will be hiring new staff before the end of 2021 (average of 12.5 hires per program)
- 34% of organizations anticipate increases in time or pay (average=13 staff increases per program)

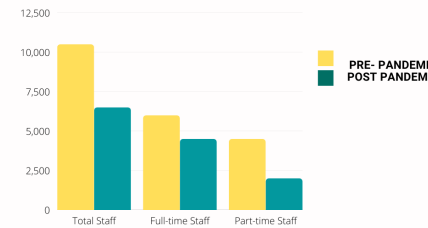
METHODOLOGY



We invited 167 Outdoor Science Programs (OSPs) from the Better Environmental Education Teaching, Learning, and Expertise Sharing (BEETLES) professional learning network to complete an online survey about the impact of COVID-19 on the organization's status related to finances, staffing, and education programs. Programs also reported program adaptations to meet COVID-19 public health recommendations, the impact of the pandemic on Black, Indigenous, and People of Color (BIPOC) participant and staff communities, and their perceptions of program needs and priorities for the future. We collected data on 111 organizations nationwide (28% in CA), 53% of which offer non-residential programming exclusively or primarily; 43% of which offer residential programming exclusively or primarily; and 4% of which offer equal amounts of both. Most were affiliated with an external/larger entity, such as a museum/science center (31%) or local educational agency (29%).

IMPACT ON STAFF & EQUITY

OPEN PROGRAMS (N=92) REPORTED LAYING OFF APPROXIMATELY 38% OF THEIR STAFF AND REDUCING AN ADDITIONAL 12% (HOURS OR PAY)



BIPOC staff comprised just 26% of all staff employed by responding programs prior to the pandemic (24% of programs employed zero BIPOC staff members). Many of these staff were laid off, exacerbating their underrepresentation.

IMPACT ON LEARNERS & EQUITY

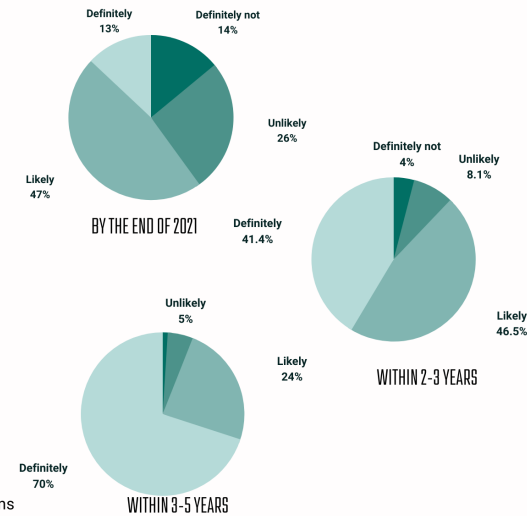
767,536 students

missed out on learning opportunities due to the impacts of shutdowns and covid 19 on outdoor science programs.

41% OF PROGRAMS

reported a decrease in the percentage of learners from marginalized communities they engage

Likelihood of Resuming Pre-Pandemic Quality and Quantity of Programming



CONCLUSIONS

In order to recover from the impacts of the COVID-19 pandemic programs identified a number of needs to move forward. These needs included:

- Funding to rebuild, redesign, rehire
- Guidance to center equity in programs, staffing, outreach, and participation.
- Support with establishing partnerships with local educational agencies
- Advocacy efforts to promote the value of outdoor learning as safe, engaging, effective, and essential.