

2022-2023 School Programs Evaluation Report

Overview

WCS Education works to inspire a diverse and inclusive movement of conservation advocates. Our school programs contribute to this goal, inspiring students to engage with animals, discover the natural world, and take action to protect wildlife and the environment. We recognize the impact of our programs and are committed to delivering these experiences to all students. During the 2022-2023 school year, we facilitated **over 3,900 programs for over 104,000 students**.

This evaluation report describes the reach and impact of our school programs using registration information and teacher surveys. We aimed to document participation across program types, students' and teachers' needs and interests, and the learning and engagement that occurred. Results provide insight into how our work connects students to wildlife and wild places and how we can continue to strengthen our practice.

Data Sources

Registration Records included details for all programs delivered, such as program type, park, and date. Data also included school information, such as location and Title 1 status.

Post-Program Teacher Surveys ($N = 524$) allowed teachers to provide feedback on their program experience, including reflections on their students' engagement and learning.

SEPT 2022 – JUNE 2023

104,079 TOTAL STUDENTS

3,945 TOTAL PROGRAMS



Julie Larsen © WCS



Veronica Miller © WCS

Context

The 2022-2023 school year was an opportunity to reimagine and rebuild our in-person field trip programs. Schools were eager to return to our parks after years of pandemic-related travel restrictions and many students went on the very first field trip of their academic careers. We were ready to welcome students into our parks and help them discover animals, nature, and conservation.

We offered a range of program types. Our educator-led Classroom Programs and Outdoor Adventures covered topics from animal adaptations to careers in conservation. Science Fairs and Community Days brought the whole school community into our parks, recognizing the important role that adults and peers play in student learning. In the spring, adult volunteers returned to the zoos and aquarium to deliver Guided Tours. Self-guided Scavenger Hunts were an option throughout the year. For those who could not make it to our parks, our Outreach Program was an option for local schools to host our educators, and Virtual Field Trips were also available.

This was the 15th year that WCS participated in the Urban Advantage (UA) program, which supports free field trips, teacher professional development, and family days at eight science-based cultural institutions in New York City, including the Bronx Zoo and New York Aquarium. In the past, around 700 classes and 2,000 family groups visited these two parks through the UA program each year, however, an overuse of UA vouchers in Summer 2022 meant that UA was forced to end voucher fulfillment in February 2023. This administrative challenge reduced our ability to meet the needs of our UA schools.

Despite the reduction of visits from UA schools, in the 2022-2023 school year, we exceeded program goals by over 40%, delivering over 1,100 more programs than anticipated. We exceeded revenue goals by 50%, generating close to \$190,000 more than anticipated. Our revenue and reach metrics speak to both the appetite for our programs and the unique opportunity for WCS to deliver on our education mission.



Bronx Zoo Education © WCS



Bronx Zoo Education © WCS

Classroom Programs

We delivered **1,512 classroom programs to 37,186 students**. These programs include educator-led discussions and activities, exhibit visits, and the opportunity to meet an animal ambassador up close. Classroom programs are the most common type of facilitated program at each of our parks and the number of programs delivered exceeded this year's goals by 25%.



Total Classroom Programs

1,512

Outdoor Adventures

We delivered **216 outdoor adventures to 5,486 students**. These programs are entirely outdoors and include exhibit exploration led by a WCS educator. We underestimated the popularity of these programs and we delivered nearly three times the number of Outdoor Adventures as expected.



Total Outdoor Adventures

216

Virtual Programs

We delivered **150 virtual programs to 2,382 students**. Virtual programs are educator-led and include live footage of our animals and exhibits and discussion. Virtual programs were less popular this school year than in the past two years and we delivered half as many as expected. Bookings were consistent from October through March, with a drop off in the spring when on-site programs became popular.



Total Virtual Field Trips

150

Guided Tours

We delivered **321 tours to 8,100 students**. These programs returned in Spring 2023 after a three-year hiatus and include a tour of select exhibits led by a WCS adult volunteer. Guided tours are the only type of facilitated program that continues into June, allowing us to extend field trip opportunities to the end of the school year.



Total Guided Tours

321

Self-Guided

1,104 school groups participated in scavenger hunts with 30,707 students. Groups receive pre-visit materials to help them structure their self-guided visit and we often suggest this option when facilitated programs are filled. More than double the number of groups participated this year compared to last year, highlighting the demand for in-person visits. Additionally, schools redeemed **496 UA vouchers for self-guided visits with 13,168 students**.



Total Self-Guided Visits

1,600

Outreach

We delivered **146 outreach programs to 7,121 students**. These programs took place at schools during the day or as part of an afterschool program and include educator-led activities, including touching biofacts. Outreach programs were delivered by instructors from the New York Aquarium, Queens Zoo, and Central Park Zoo.

Total Outreach Programs

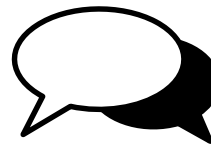


146

Science Fairs & Community Days

We hosted **15 science fairs and community days for 4,394 students and members of the school communities**. These programs are primarily delivered as part of a School Partnership (see page 8) and include free admission to the park with VIP activities, such as keeper chats, hands-on conservation stations, and animal encounters.

Total Science Fairs & Community Days

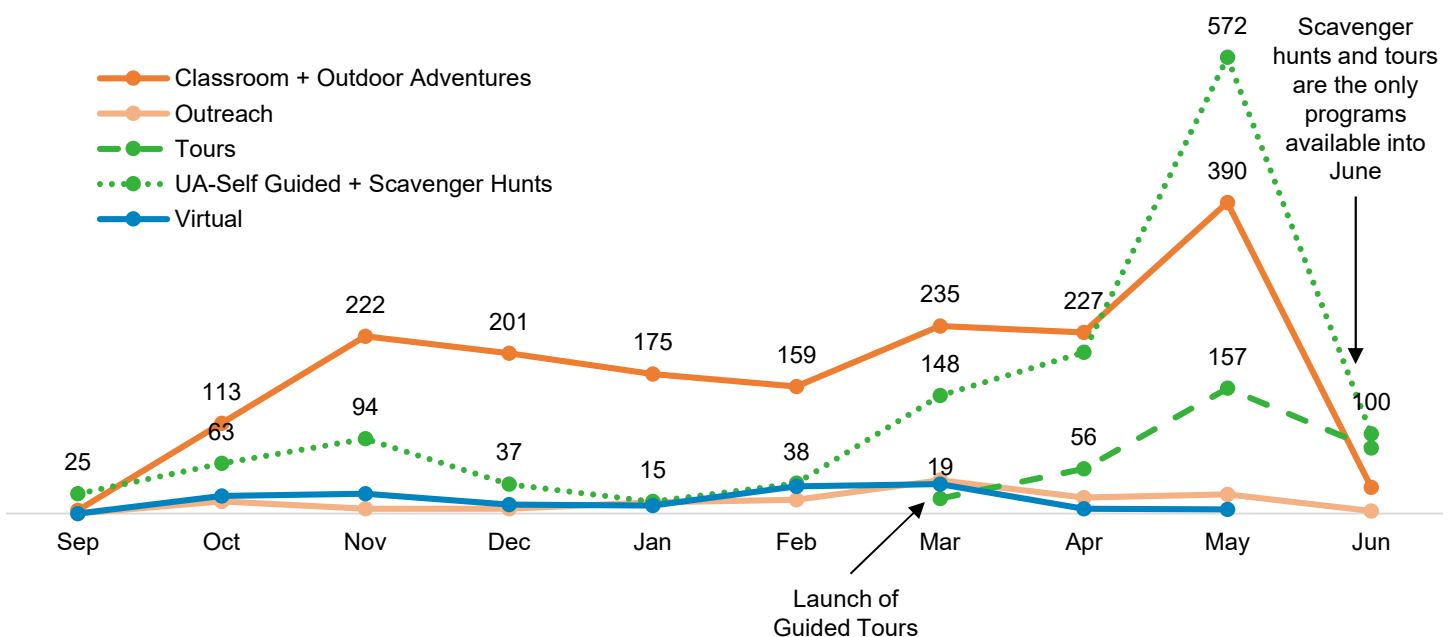


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Timeline

As happens every year, demand for school programs varied greatly by month. The beginning of the school year began slowly, with relatively few programs in September and October. Classroom programs and Outdoor Adventures had consistent bookings from November through April, with a slight dip in January and February, which is typical in the cold weather.

Spring is our busiest time of year and all program were fully booked. Tours were reinstated in March and were slow to book at first, but filled up in May after other facilitated programs reached capacity. School groups that were unable to book a classroom program or tour sought out scavenger hunts.



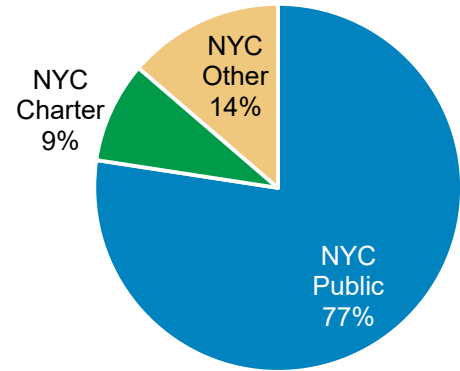
Schools Served

This year, we served students from 879 unique schools. Almost all – 95% – of the schools were located in New York State, though we also reached students from schools in seven other states (primarily New Jersey and Connecticut), as well as one school in New Brunswick, Canada. Most groups (both in-state and out-of-state) traveled to visit one of our parks in person.

Our parks are located in four of the five New York City boroughs and 87% of the schools we reached were also located in the city. Of these New York City-based groups, **86% were from public and charter schools**, a slight increase from last year (82%). There are about 1,800 New York City Public Schools and we reached over one-third (36%) of the schools in the system. We had particularly high reach among elementary schools, connecting with groups from over 45% of New York City public elementary schools.

We served students from 515 Title 1 schools. We provided **673 free programs to classes from 209 New York City Title 1 schools**, thanks to funding from New York City councilmembers, private foundations, and Urban Advantage. This funding provides opportunities for groups schools to visit us for free year-round, with particular emphasis on the fall and winter months when they can explore our parks without large crowds. This total is a decrease from the 2021-2022 school year when many schools participated in free virtual programs. This year, grant-funded programs were slow to book in the fall as teachers navigated the logistics of returning to in-person field trips. As a result, funders have allowed us to roll over some excess grant-funded programs to Fall 2023.

New York City School Groups by School Type



Note: "Other" includes private schools and home school groups.

Free School Programs for Title 1 Schools

673



Students Served



Julie Larsen © WCS

Programs Serving Students with Disabilities or Accessibility Needs

27%

About **one-quarter of groups included students with disabilities or accessibility needs**. This percentage was similar in the last two school years. Accommodation requests addressed mobility limitation, auditory, visual, and development disabilities, sensory sensitivity, English Language Learners, and students in integrated co-taught (ICT) classes.

Participation across grade bands was similar to previous years. Among our youngest learners, we reached more kindergarteners (520 groups) than PreK students (73 groups), likely because PreK children cannot travel on school busses, limiting their participation in in-park programs. **We delivered most programs (61%) to students in 1st through 5th grade**. Several of our grant-funded initiatives provided free programs for middle and high school students and enabled us to connect with students later in their academic journeys. Over 25% of programs delivered to middle school groups were grant-funded compared to 17% of programs delivered to elementary school groups.

PreK-K	Elementary (1 st -5 th)	Middle (6 th -8 th)	High (9 th -12 th)
16%	61%	17%	6%

* This analysis used the variable "Ageld" from Convergence registration data. We used programs associated with a single grade level only; 6% of the groups had a grade band ranges and were excluded from this analysis.

Eleven percent of classroom and virtual programs were custom-designed, about the same as last year. This consistent percentage suggests a demand for programs that are tailored to teachers' requests, however, requests for customization varied by park. On the high end, almost one in four programs (24%) at the Central Park Zoo were customized, whereas only 3% of programs at the Queens Zoo were customized.

Education Ecosystem

WCS Education seeks to foster relationships with schools in the neighborhoods surrounding our zoos and aquarium. In Spring 2023, we completed the second iteration of the *Education Ecosystem*, a project to **visualize our reach across the 432 schools located near our parks**. Most (65%) of these schools are K-12 public and charter schools. A little over 20% of the schools in our Ecosystem are early childhood centers.

The number of schools near each park varies from 47 for Queens Zoo to 143 for Bronx Zoo. This year, we increased the Ecosystem radius around the New York Aquarium from one to two miles, since one half of the surrounding area is in the ocean. This change added 20 K-12 public schools to the Aquarium's Ecosystem.

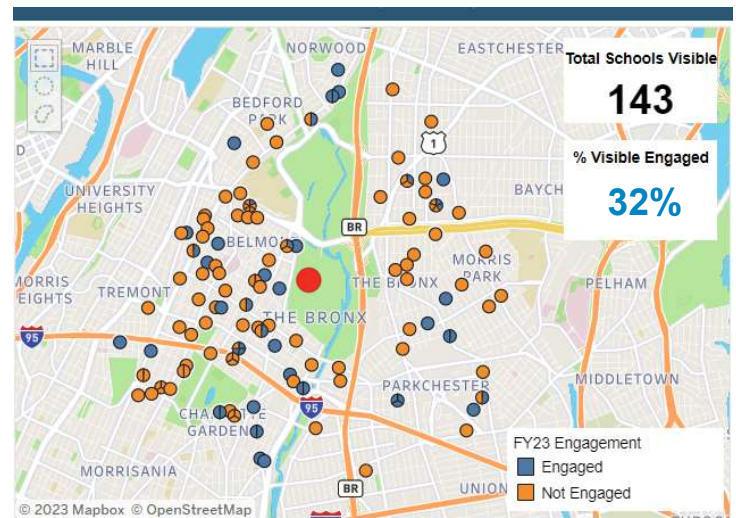
Across all parks, **30% of Ecosystem schools participated in a field trip program**, a large increase from last year's 18%. These percentages varied slightly across parks from 25% for the New York Aquarium to 34% for the Prospect Park Zoo. Additionally, each park has developed strong relationships with several nearby schools, with some schools booking dozens of programs in the same year. For example, one school close to Central Park Zoo booked 50 school programs this year.

A large percentage of the Ecosystem schools around four of the parks are Title 1 (Bronx Zoo 73%; Prospect Park Zoo 55%; Queens Zoo 45%; New York Aquarium 41%; Central Park Zoo 29%). Thus, not only are these schools within walking distance of our parks, but they are likely eligible for free programs supported by various grants to the Education Department. These two factors provide an opportunity to forge new relationships with schools that may have not visited recently.

Engagement with Education Ecosystem schools.

432

Schools in the five-park Ecosystem



Points of Engagement

Engagement with WCS includes participation in School Programs (i.e. Virtual Field Trip, Classroom Field Trip, etc.), Professional Development for teachers, and visiting the park through Group Sales.

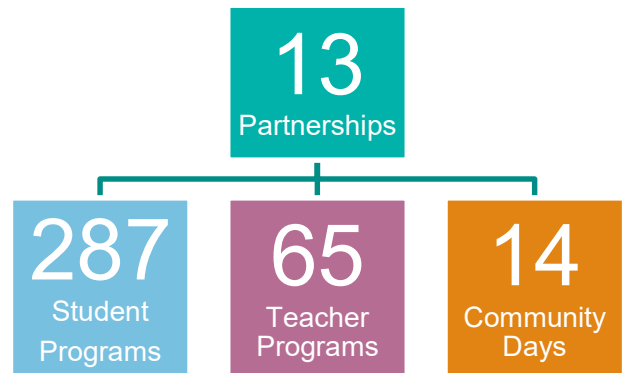
	FY20	FY21	FY22	FY23
Programs		133	211	187
PD	27	20	32	26
Group Sales	317	14	447	

Screenshot of Bronx Zoo Ecosystem.

Park	# Schools in Ecosystem	# Schools Reached	% Schools Reached	# Programs Delivered	Max # Prog per School
Bronx Zoo	143	46	32%	187	27
Central Park Zoo	89	25	28%	186	50
New York Aquarium	71	18	25%	117	24
Prospect Park Zoo	82	28	34%	138	30
Queens Zoo	47	14	30%	63	13

School Partnerships

School partnerships reflect our commitment to build long-term relationships with local schools. A formal partnership with WCS Education provides deeper engagement for the whole school community, including students, teachers, and families. Specifically, **school partners commit to participating in at least two types of education programs each year**: student field trips or outreach, teacher professional development, and community days. Partnerships provide an opportunity for relationship-building and program customization, ensuring that opportunities at the zoos and aquarium align with each school’s particular needs and interests.

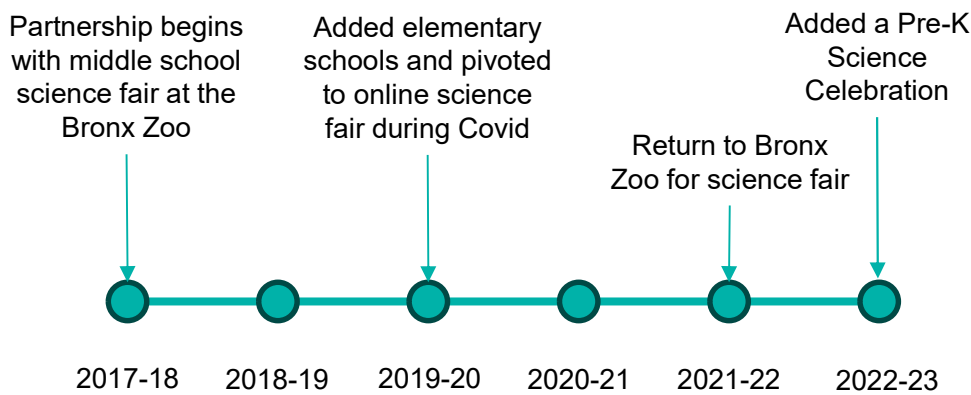


We had **13 school partnerships** this year, an increase of one since last year. Twelve of the partnerships were with individual schools and one was at the district level and included programming for all 33 elementary and middle schools in District 12 in the Bronx. Out of the 45 individual schools involved in partnerships, **67% were located within one mile of our parks**, emphasizing the role of partnerships in cultivating local relationships.

Partnerships are flexible and each looks slightly different from others, with changes also occurring from year to year. We highlight two examples here.

- The New York Aquarium launched a partnership with Staten Island School of Civic Leadership in 2014. Early years involved field trips to the Aquarium, though more recently, the partnership has focused on supporting students doing ecological fieldwork at a nearby creek. This type of field-based programming has been replicated in other partnerships.
- The Bronx Zoo partnered with District 12 in 2017, beginning by hosting a science fair for middle schoolers. Two years later, we expanded the partnership to include elementary school, and in 2022, added Pre-K.

Thank you to Queens Zoo Education for partnering with our school. They have provided us with time, expertise, resources for the classroom, and support in arranging trips and providing family engagement opportunities as we get out new public school pre-k center off the ground. Queens Zoo Education help has been invaluable.
-Partner School



District 12 Partnership Timeline



Inspiring Marine Protection and Careers for Teens (IMPACT)

IMPACT is a year-long school program to prepare teachers and high schoolers for the green STEM careers on the horizon. New York State is on track to become the epicenter of the US offshore wind industry and IMPACT engages youth in building the knowledge and skills to pursue these types of sustainability careers.

30

Teachers participated in PD workshops

568

Students took a field trip to the Aquarium

63

Students presented at the IMPACT science showcase

Teachers participated in 19 hours of professional development, building their knowledge of climate change, wind energy, and ocean ecosystems and their science teaching skills. Following PD, all teachers indicated that they felt confident supporting their students in exploring renewable energy careers.

Students mastered science content during classes at school and at the Aquarium and dozens applied their knowledge as they developed and carried out science fair projects related to climate change.

Groups presented their work at a science showcase in May, sharing their findings with peers, teachers, family members, and conservation experts. All projects demonstrated insight into New York City climate challenges and solutions, many calling on governmental organizations and community groups to take action to mitigate climate change impacts.



89%

of teachers agreed that IMPACT increased their students' interest in renewable energy careers.



Motivation and Learning Goals

On the post-program survey, we asked teachers to select up to two reasons for why they chose the WCS program. **Nearly two-thirds selected the opportunity to see animals and exhibits**, followed by the *focus on science content* (36%) and *connections to curricula* (35%). *Providing a fun experience* remained a priority for 20% of respondents. Motivations have shifted slightly since last year and may reflect a return to pre-pandemic states, with teachers being mindful of needing to connect field trip experiences to their curricula. Cost (7%) and convenience (6%) are still low priorities for teachers.

	Animals and exhibits	Focus on science content	Curriculum connection	Looked like fun
All Programs	65%	36%	35%	20%
Δ from FY22	+3%	-5%	+4%	-5%

We asked teachers who prioritized the focus on science content or curriculum connections to explain their learning goals for the education program. In an increase from last year, **more than half** (63% compared to 50% in FY22) noted how the **specific program connected to their STEM curriculum content**. An additional 7% shared their learning goals connected to non-STEM subjects like writing and literature. This year, teachers were less likely to highlight the importance of practicing skills (10% compared to 18% in FY22) and connecting to real-life applications (12% compared to 15% in FY22).

They loved every part of the Congo exhibit. They also really loved meeting the box turtle and being able to touch her shell.

We are beginning our unit on plant and animal adaptations and the program helped introduce the key vocabulary to the students along with some real live animals.

Overall Experience and Satisfaction

Most teachers (84%) rated their program experience as excellent or superior. Facilitated programs were rated more positively (87% excellent or superior) than self-led scavenger hunts (64% excellent or superior).

Almost all teachers were happy with the program activities. Like last year, over 90% were very satisfied or satisfied with exhibit visits, up-close animal encounters, and discussions.



Favorite Experiences

Teachers praised multiple parts of their programs and many had trouble choosing one favorite experience. The most common favorite part were the **interactions with WCS educators**, who teachers described as enthusiastic, knowledgeable, and responsive to teachers' and students' needs.

The next most common favorite part was meeting animals. Teachers reported that their students enjoyed **encountering animal in the classroom and at exhibits**.

Over one-quarter of teachers **mentioned specific science and animal-themed activities** as their favorite part. Activities varied by age and program theme, but some of the favorites included conservation advocacy activities, using a stopwatch and form to record animal behavior, and visiting different stations in the classroom to examine biofacts.

Ten percent of respondents mentioned that their students enjoyed the sea lion show / feeding demonstration. Though this response came from visitors to all five parks, most (69%) were visiting the Aquarium. While not officially part of education programs, teachers may view the sea lion show as integral to their students' experience at the park.

[Our favorite part was] the level of engagement from facilitator. She went above and beyond to make the program understandable and engaging.

[The best part was] getting close and personal with the chinchilla!

The best part for my students was seeing the gorilla in their habitat and eating their food.

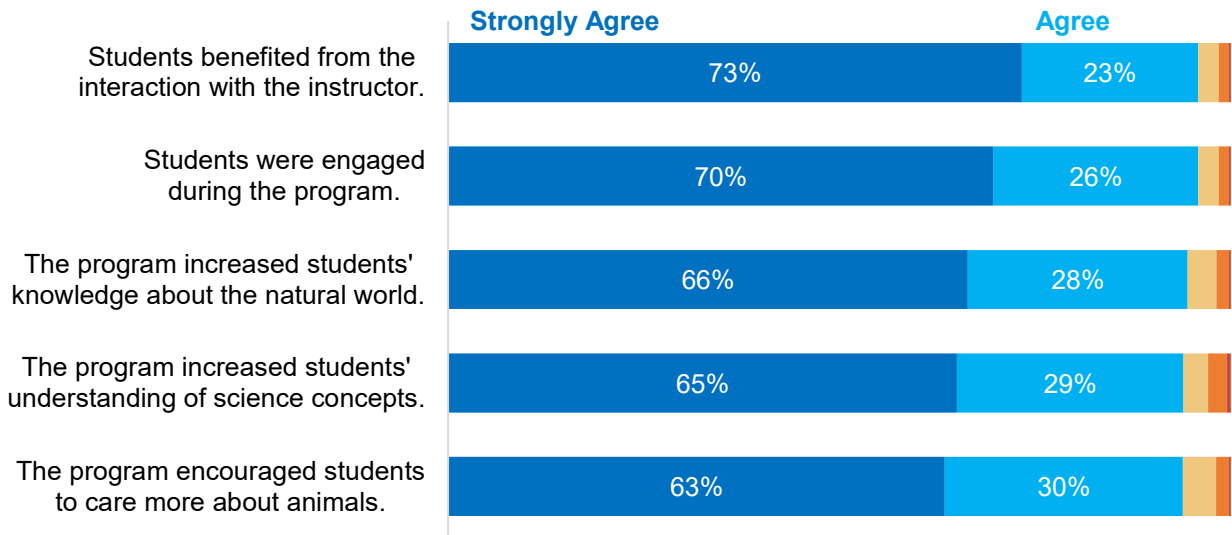
My favorite part was writing the letters to NYC representatives, calling for more action on mitigating climate change, encouraging students to have a voice in the battle against climate change.

Instructor interactions	Up-close animal encounter	Exhibit time	Activities	Sea lion show / feeding	Overall experience	Out-of-class time/ Being at the park
43%	39%	38%	27%	10%	6%	3%

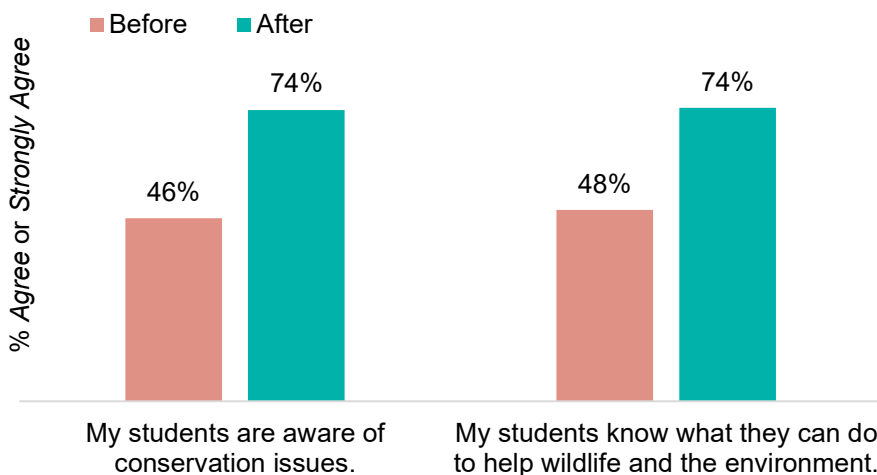


Learning Outcomes

Almost all teachers felt that their students benefited from their interactions with the instructor (96% *agreed or strongly agreed*) and that students were engaged during the program (96%). Regarding learning, nearly all teachers indicated that the program increased students' knowledge of the natural world (94% *agreed or strongly agreed*) and science concepts (94%), and that the program encouraged students to care about animals (93%). The percentages are similar to last year.



We asked teachers to reflect on students' conservation knowledge and before and after their program. Nearly three-quarters felt that their students were aware of conservation issues and knew what they could do to help wildlife after the program, compared to under half before the program, indicating a **large gain in conservation knowledge**. The "after" percentage was similar to last year, but the "before" percentage was slightly higher (~40% in FY22), which may reflect students having an uninterrupted year of school with more opportunities for pre-program preparation.



Central Park Zoo Education © WCS

Improvements

When asked about possible improvements, more than 20% of teachers felt the **programs did not need to be changed**.

As usual, some teachers (15%) mentioned wanting to meet more **animals up close** or being able to choose the animals they met.

Day-of logistics also received some feedback (14%). Teachers mentioned wanting a place to leave lunches or a person to greet their group. Others had suggestions about shifting the timing of programs because of bussing constraints or requested information about what exhibits they would see on a tour.

Some teachers (11%) wanted different activities or felt the **lesson plans or materials** could be adjusted for learners of different ages. Ensuring the right age level was particularly common feedback for scavenger hunts and teachers suggested making the materials more challenging for older students and providing a simplified version for non-readers.

Nothing! It was everything we hoped for.

I would have loved close interaction with a second animal for a comparison observation opportunity.

I would like to know ahead of time the types of animals that will be available for the students. For example, if a chinchilla, fennec fox, or a turtle are the options. I would have picked the fennec fox or turtle.

I would begin programs later than 10AM. The buses will not leave [school] before 9:30. We can't get there for a 10AM class. Unfortunately, we arrived 30 minutes late and had to rush through everything.

I would scaffold the field journals to make them more advanced as you deliver the program to the upper grades.

Something more child friendly for younger kids. More pictures. A clearer hunt.

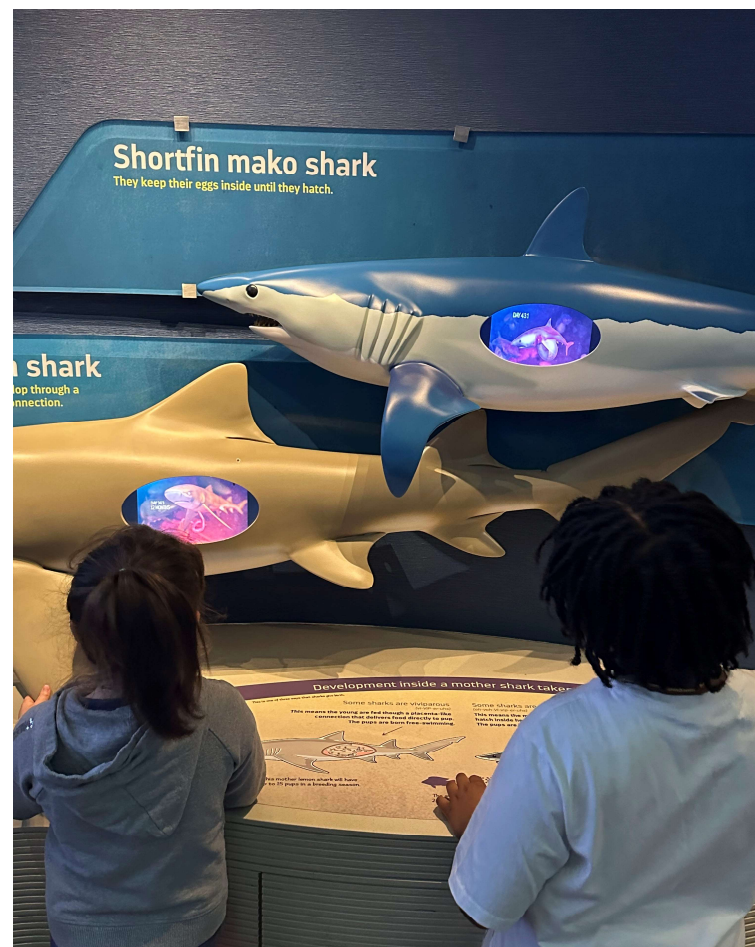


Conclusions

- The 2022-2023 school year brought back a full return to in-person programs and we delivered 3,945 programs to nearly 105,000 students.
- Over 600 of these programs were delivered for free to students at New York City Title 1 schools.
- Registration in the fall was slow, possibly reflecting teachers readjusting to school procedures for field trips. Registration in the spring, however, outpaced expectations across all program types.
- Programs were delivered to a more local audience than last year. 30% of schools located within one mile of our parks participated in WCS programming, up from 18% last year.
- Multi-year partnerships allow us to cultivate deep relationships with schools and adjust programming as needs and interests change.
- Teachers were overwhelmingly pleased with the programs. Engaging with animals and interactions with instructors continue to be highlights.
- Programs supported students' learning in a variety of ways, with teachers reporting increases in students' understanding of science and the natural world and stronger connections with conservation.

Recommendations

- Reach out to schools in the early fall to encourage fall and winter program registration.
- Continue to invest in middle and high school programs, ensuring that materials include opportunities for deep learning.
- Ensure that Scavenger Hunts reflect teachers' needs and provide a positive experience.
- Continue to use the Education Ecosystem to identify nearby schools to engage.
- Identify ways to mitigate logistical challenges and manage day-of expectations for teachers. For example, update the Frequently Asked Questions on the field trip websites to include information about carrying lunches, why ambassador animals can not be selected, etc.



Appendix

List of School Partners

Partner	Borough	# Programs		
		Student	Teacher	Community
District 12 (includes 33 elementary & middle schools) *	Bronx	33	35	2
South Bronx Community Charter	Bronx	27	2	1
PS 314X / Fairmont Neighborhood	Bronx	5	2	1
PS 214X / Lorraine Hansberry Academy	Bronx	3		1
Astor Collegiate Academy	Bronx	6	2	
Maple Street *	Brooklyn	6	1	1
PS 249K / Caton *	Brooklyn	19	7	2
PS 200K	Brooklyn	80	2	1
PS 217K	Brooklyn	5	2	
IS 239K / Mark Twain	Brooklyn	9	1	1
PS 191M *	Manhattan	18	10	1
PS 861R / SISCL	Staten Island	9	1	
Mosaic Pre-K Center @ New York Hall of Science *	Queens	18		1
PS 171 / Peter G Van Alst	Queens	19		1
PS 186 / Castlewood	Queens	30		1

Note: * indicates that school is located within one mile of a WCS park. 24 of the District 12 schools are in this radius.

