

School Programs 2021-2022 Evaluation Report

Overview

WCS Education recognizes the impact that informal science education programs can have on interest in science and conservation, and we are committed to delivering these experiences to all students. During the 2021-2022 school year, we facilitated **nearly 3,400 programs for over 85,000 students**.

These programs enabled learners to connect with wildlife and wild places, online through our virtual field trips and career panels or in-person at their schools or during a visit to one of our five parks.

This report describes the programs' reach and impact using registration information and teacher surveys. The evaluation aimed to document participants' needs, the learning context, and how both changed over the course of the year. Results provide insight into how our work connects students to science and nature, as well as ways we can continue to advance our practice.

Data Sources

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

Post-Program Teacher Surveys ($N = 328$) were emailed to teachers to provide feedback on their program experience, including reflections on their students' engagement and learning.

SEPT 2021 – JUNE 2022

TOTAL PROGRAMS

3,389

TOTAL STUDENTS

85,444



Veronica Miller © WCS



Prospect Park Zoo Education © WCS

Context

Most K-12 students in New York City and the surrounding metro area returned to school in person for the 2021-2022 school year, following nearly a year and half of disrupted, hybrid, and virtual learning.

Despite the broad return to schools, most WCS school programs continued to be held online because of continued pandemic-related logistical challenges. For example, the New York City Department of Education (DOE) did not allow busing for school field trips, limiting in-park visitation to students who could walk to a WCS park. Additionally, New York City cultural institutions required visitors to be vaccinated against Covid-19. Although the city made a special allowance for DOE students visiting these institutions, many teachers and administrators were unsure about which rules applied to their students. Amid this continued disruption, WCS Education drew on two years of experience running thousands of online programs and continued to deliver high-quality **virtual field trips** throughout the 2021-2022 school year.

Starting in early 2022, some nearby schools scheduled **in-person field trips to our zoos and aquarium**. Students walked to the parks where they experienced live animal encounters, hands-on activities, and exhibits. Concurrently, schools began booking **outreach programs**, where WCS educators traveled locally, engaging children in conservation learning in their own classrooms. These immersive in-person experiences are a key element of our education approach.

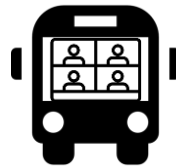
In March, the DOE gave permission for schools to bus students for field trips, a shift that flooded our registrar team with bookings for in-person field trips at all five parks. Within a matter of weeks, field trips for the rest of the 2021-2022 school year were sold out. As this was the first opportunity for many schoolchildren to go on a field trip, once facilitated programs were booked, schools started registering for **scavenger hunts** and **Urban Advantage self-guided programs**.

The changing nature of informal education during a pandemic continued to present new challenges for WCS Education. Despite these challenges, our creative, energetic, and dedicated team continued to demonstrate their commitment to inspire a diverse and inclusive movement of conservation advocates by providing meaningful learning opportunities for tens of thousands of schoolchildren.



Virtual Programs

WCS Education facilitated **1,125 virtual field trips for 28,458 students**. Most virtual field trips were 45-minute instructor-led sessions delivered on Zoom or Google Meets and included science activities and an up-close animal encounter. This category also includes our new *Wild Careers!* series, which was a conversation with a panel of WCS STEM professionals from all over the world that highlighted a variety of careers and told the stories of the diverse people working in conservation.



Total Virtual Field Trips

1,125

In-Person Programs

WCS Education facilitated **999 in-person programs for 24,168 students**. These programs included classroom programs and outdoor adventures at our parks, as well as outreach programs where educators visited local schools.



Total In-Person Programs

999

Self-Guided Programs

In-person programs rapidly filled once busing became available in March. Eager for students to visit in person, teachers sought out our self-guided options. The Urban Advantage (UA) program provides schools with vouchers for a free visit to the Bronx Zoo or New York Aquarium. Schools redeemed **577 UA vouchers to visit our parks with 16,124 students**. An additional **475 school groups participated in self-guided Scavenger Hunts with 13,220 students**.



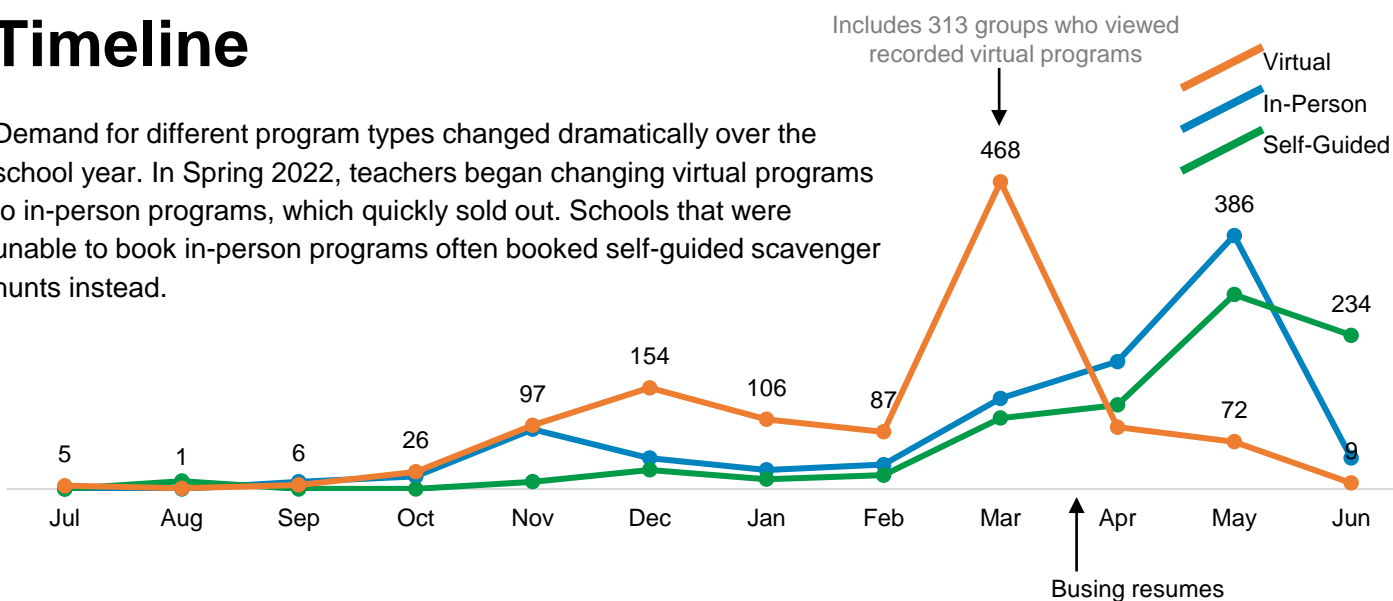
Total Self-Guided Programs

1,052

Timeline

Demand for different program types changed dramatically over the school year. In Spring 2022, teachers began changing virtual programs to in-person programs, which quickly sold out. Schools that were unable to book in-person programs often booked self-guided scavenger hunts instead.

Total Programs

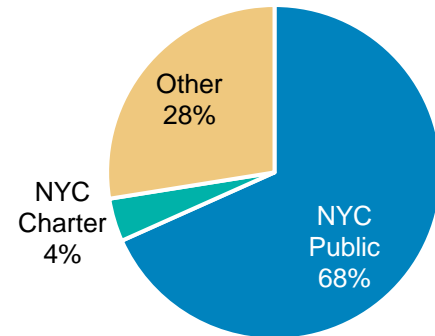


Schools Served

In the 2021-2022 school year, we served students from 409 schools in NY State and students from 15 schools in CA, CT, NH, NJ, and RI. We also served one school in Canada and one in Brazil. Overall, **82% of programs were delivered to students from New York City schools** compared to 71% in FY21. This difference highlights a return to a more local audience, similar to the 2019-2020 school year.

Over **two-thirds of school programs were delivered to students from New York City public schools**, an increase from 49% last year. This shift may reflect the NYC DOE relaxing the freeze on school field trip funding, as well as WCS Education's fundraising efforts. In 2021-2022, we received grants to provide **over 1,000 free field trip programs to 226 Title 1 schools**. This reach represents substantial growth from the 2020-2021 school year, when we provided 728 free virtual field trips to 160 schools.

% of Programs Delivered by School Type



Note: "Other" includes schools outside of NYC

Free School Programs for Title 1 Schools

1,034

Students Served

Programs Serving Students with Special Needs

24%

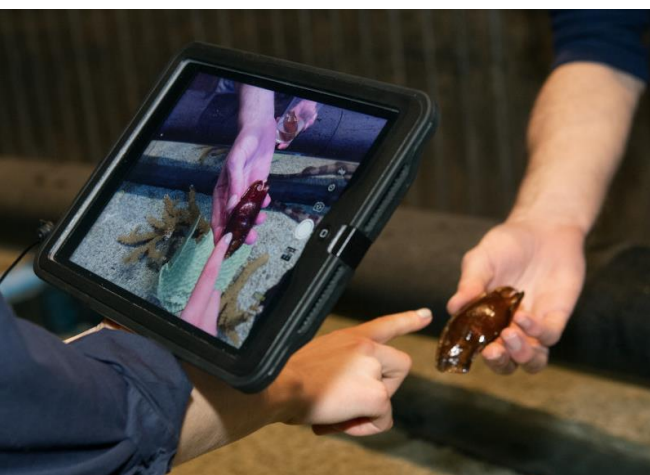
About **one-quarter of groups included students with special needs**. This was a slight increase from last year's 21% and approaching 27% from the 2019-2020 school year.

As in previous years, **most programs (51%) were delivered to elementary school students**. This percentage is substantially lower than last year's 77%, possibly because of an **increase in middle school engagement**. Grant funding for the virtual *Wild Careers* programs and Urban Advantage increased the number of programs designed specifically for middle school students.

Ten percent of programs were custom designed, about the same as last year, suggesting a consistent demand for custom programs that are tailored to teachers' requests to focus on specific content or themes.

PreK-1st	Elementary (K-5 th)	Middle (6 th -8 th)	High (9 th -12 th)
18%	51%	17%	2%

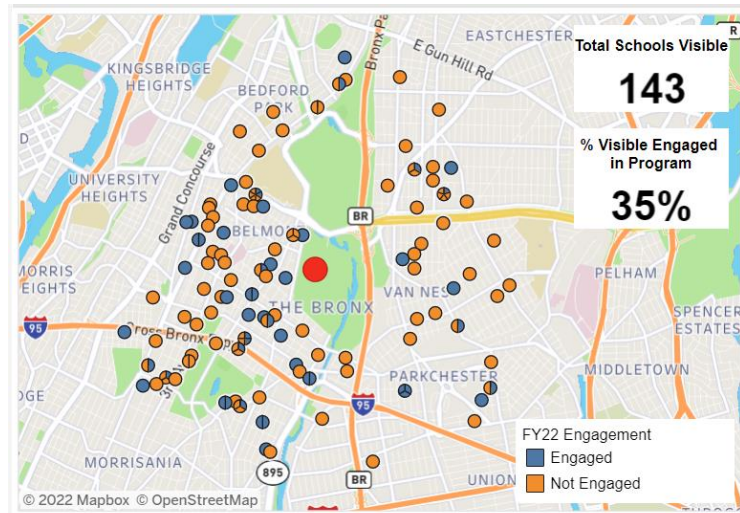
* The youngest program grade band was PreK-1st and PreK-K, we grouped these programs into PreK-1st.



Education Ecosystem

WCS Education seeks to foster relationships with the schools in the neighborhoods surrounding our zoos and aquarium. In Spring 2022, we completed the first iteration of the *Education Ecosystem*, a project to **visualize our reach across the 405 schools located within one mile of our parks**. This online tool is built in the program Tableau and includes a map of all local schools (PreK through high school), overlaid with registration data to show which schools participated in various types of education programs, including student programs, teacher professional development, and group sales field trips.

Users can click on any individual school to reveal a **school snapshot** (see image below), including address, enrollment, and student demographics. A series of filters on the map allows users to view schools that align with specific characteristics, including type of school, Title 1 status, and grade level. An additional interactive feature allows users to download a list of schools based on these characteristics and information on participation in program over the last three years.



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.

FY23 School Programs	FY22 School Programs	FY22 PD	
	211	32	
Place Holder	FY21 School Programs	FY21 PD	FY21 Groups Sales
	133	20	14
		FY20 PD	FY20 Group Sales
		27	317

Screenshot of education ecosystem around the Bronx Zoo.

School Snapshot

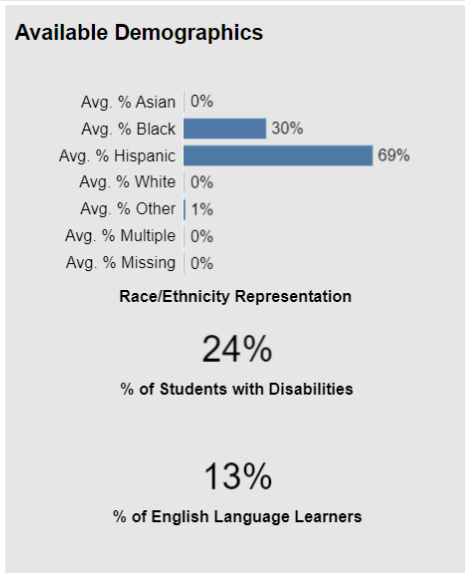
School Name: PS 67X/Mohegan
Address: 2024 Mohegan Avenue, Bronx NY 10460
School Type: Public
DOE ID: X067
Partner Status: Partner
UA School Status: Not UA
Title 1 Status: Title1
Co-Ed Status: CO-ED
Total Enrollment: 368
Economic Need Index: Above 95%

School Grade Bands

Dark blue indicates the school has those grade levels.

PreK Grade Band	K Grade Band	Elementary Grade Band	Middle School Grade Band	High School Grade Band
Dark Blue	Dark Blue	Dark Blue	Light Blue	Light Blue

Screen shot of a school snapshot.



Most of the 405 schools located near our parks (87%) are public and charter schools overseen by the New York City Department of Education. In FY22, **18% of these 405 schools participated in an Education program** for students or teachers, a percentage that is similarly to FY21. These percentages vary widely by park (range 10% to 35%) and age group. We were most likely to engage with the local elementary schools; about **one-third of the 165 elementary schools near our parks participated in FY22 programs.**

The Education Ecosystem is a visually engaging and flexible tool that staff can customize based on their priorities for recruitment, grant funding, and reporting. We will continue to update the programmatic data to provide current engagement metrics, while considering other types of information to build into the ecosystem to make it as broadly useful as possible.

School Partnerships

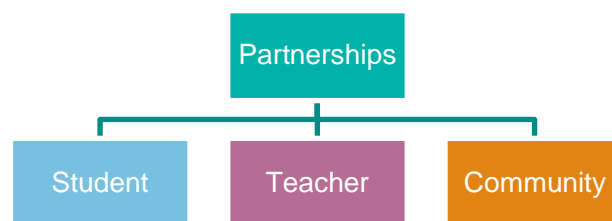
School partnerships reflect our commitment to build long-term relationships with local schools. While many schools participate in programs year after year, partnerships provide a broader and deeper type of engagement. **School partners commit to participating in at least two types of education programs each year:** student field trips, teacher professional development, and community programs.

In the 2021-2022 school year, we had **12 partnerships**, representing substantial growth from seven partnerships in FY21. While most partnerships were with individual schools, one partnership was with District 12 and included programming for all 33 elementary and middle schools in the district. Out of the 45 individual schools involved in partnerships, **62% were located within one mile of our parks**, emphasizing our focus on cultivating local relationships.

The funding model for partnerships varied. Three partnerships were funded through a grant from the New York City Office of Sustainability; schools applied directly, with support and coaching from WCS Education. Additionally, many of the partner schools were Title 1 and qualified for grant funding that we secured to increase access to field trips. We drew on these additional sources of funding to make the direct costs for the partner more affordable. The remaining schools allocated their own internal funding to cover the programs.

Each partnership was **facilitated by an Education staff member** who helped the partner select programs and served as point person for the year. All partnerships involved student field trips and teacher PD, with most also including a science fair or community event. **We delivered 325 programs through our partnerships**, including various types of student, teacher, and community programs. Partnerships comprised 7% of WCS Education's student-facing programming.

One of the perks of partnerships is the opportunity for customization, and several partners worked closely with their Education point person to craft a package that met specific needs. For example, the South Bronx Community Charter School kicked off the year with three weeks of school at the zoo, including programs led by WCS instructors, as well as renting classroom space for their teachers to use.



Partnership Programs Delivered

Student

233

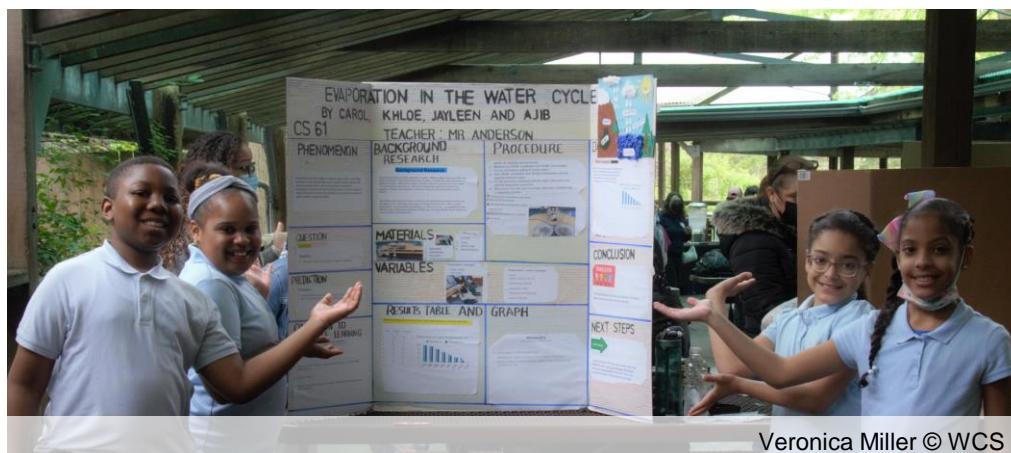
Teacher

81

Community

11

The team was SUPERB.
The instructors were experienced educators and together with the [Manager of Education] were able to align the learning students were doing at the Zoo with the project we had them working on at school. Our main point of contact at the Zoo ...helped bring our vision to life and supported our teachers in enriching and implementing the project.
 -Partnership Principal



Veronica Miller © WCS

Motivation and Learning Goals

We asked teachers to select up to two reasons for why they chose to participate in a WCS program. Of 328 survey respondents, **62% participated for the opportunity to see animals and exhibits**. This was similar to last year, and an increase from 48% in 2019 for in-person programs. This priority suggests that teachers are even more interested in seeking out unique zoo and aquarium experiences for their students after experiencing the upheaval of pandemic learning. Like last year, teachers continue to prioritize the *focus on science content*. *Connections to curricula* and providing a *fun experience* remained high priorities but were less important motivators than last year. Additionally, receiving the program for free was not among the top motivations (9%, compared with 89% in FY21), suggesting that schools had more funding options this year. There were no differences in motivations between teachers participating in in-person versus virtual programs.

We asked participants who prioritized the focus on science content or curriculum connections to explain their learning goals for the education program. Like last year, half of respondents noted how the specific program connected to their STEM curriculum content. An additional 5% shared their learning goals connected to non-STEM subjects like writing and literature. This year, teachers **more frequently highlighted the importance of practicing skills** (18% compared to 13% in FY21) and **connecting the curriculum to real-life applications** (15% compared to 9% in FY21).

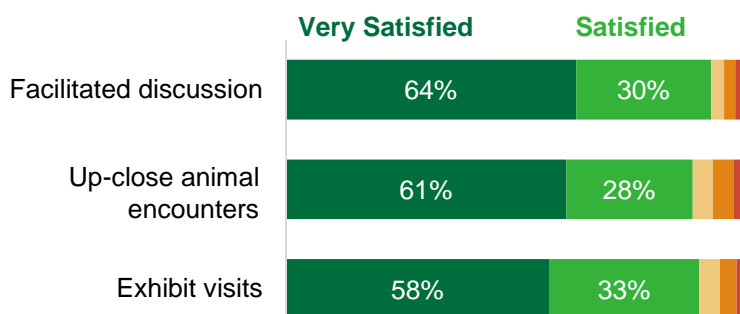
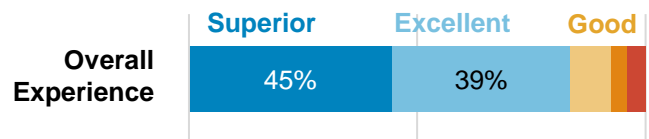
	Animals and exhibits	Focus on science content	Curriculum connection	Looked like fun
All Programs	62%	41%	31%	25%
Δ from FY21	-2%	-1%	-8%	-10%

[I want] students to experience collecting data or making observations and contributing to a community science investigation.
 –Practicing Community Science Program Teacher

Overall Experience and Satisfaction

Most teachers (84%) rated their program experience as excellent or superior.

Most teachers were satisfied with program activities. They **were particularly happy with the facilitated discussions with WCS instructors** (94% *Very Satisfied* or *Satisfied*). Like last year, over 95% felt their students were *engaged during the program* and that they *benefitted from the live interaction*.



Favorite Experiences

Teachers praised multiple parts of their programs and had trouble choosing one favorite part. **The best parts of the program varied by experience type.**

Teachers who participated in in-park facilitated programs mentioned the interactions with the instructors most frequently. Teachers who completed scavenger hunts expressed their appreciation to be out of the classroom and spend time at the exhibits.

Outreach participants highlighted the program activities most frequently. A little over half of virtual field trip participants said the up-close animal experience was the best part, especially noting the observations of invertebrates. Multiple components of a single program were often mentioned, suggesting that many components interact to create unique experiences for students.

Our presenter was amazing with the children. She had them engaged and total management of the class. The materials that the children got to touch were amazing . . . The perfect part was when she brought out the live horseshoe crab. The students were amazed. Thank you for this experience in a difficult time.

– Outreach Program Teacher

Everything! My students were engaged the entire time due to the thoughtful balance of informing through slides, lecture, questioning, slide interaction, and student creation.

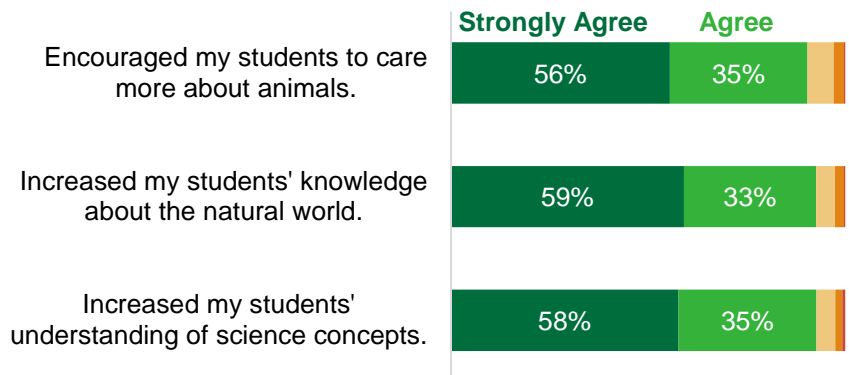
– Virtual Field Trip Teacher

	Instructor Interaction	Out-of-class Time	Exhibit Time	Feeding animals	Activities	Up-close animals
In-park facilitated	37%	10%	18%	3%	13%	26%
Scavenger hunt	0%	38%	38%	17%	4%	0%
Outreach	32%	11%	0%	0%	39%	36%
Virtual field trip	41%	1%	6%	0%	22%	54%



Learning Outcomes

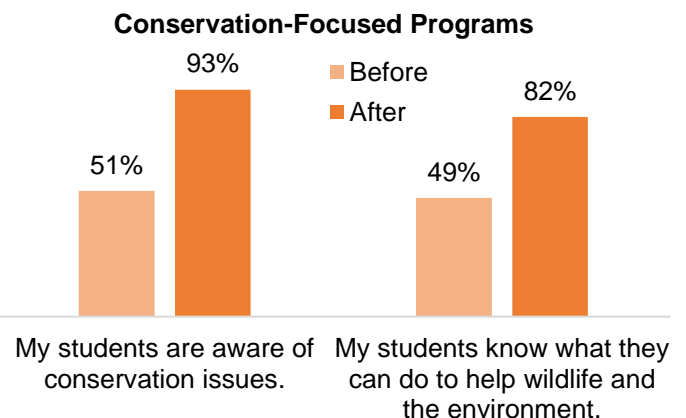
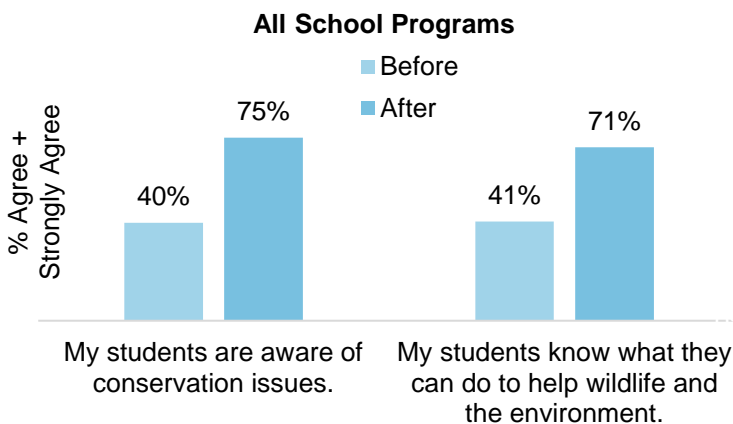
Most teachers (90% to 93%) **Strongly Agreed** or **Agreed** that the programs increased their students' knowledge and connections to nature and animals. Although overall agreement was similar to FY21, the strength of agreement was slightly different. This year, a larger percentage of teachers selected **Strongly Agree** (56% to 59%) compared to last year (46% to 52%). This year's high ratings were more similar to FY20, when the vast majority of programs were in person.



We asked teachers to reflect on how the program contributed to their students' understanding of conservation. **All programs increased student awareness of conservation issues and action.** Twenty-five percent of teachers participated in a program specifically focused on conservation (e.g., Conservation Innovation). These **programs showed particularly large gains in participants' awareness of conservation issues and action.** Most of the conservation-focused programs are geared towards middle and high school students, which is consistent with age-appropriate teaching recommendations.



Louis Bankston © WCS



Conclusions

- The 2021-2022 school year brought new challenges and WCS Education adapted by offering a variety of virtual and in-person programs to meet our audiences' diverse needs.
- WCS Education delivered 3,389 programs to nearly 86,000 participants. Over 1,000 of these programs were delivered for free to NYC Title 1 schools through grant-funded initiatives.
- Programs were delivered to a more local audience than last year. Eighteen percent of schools located within one mile of our parks participate in WCS programming, with potential to grow this percentage through targeted outreach.
- Partnerships with schools was a large area of growth this year and included 12 partnerships and 325 programs delivered to students, teachers, and community members. Partnerships have allowed us to develop deep and consistent relationships with NYC schools, many of which are within walking distance of our parks.
- Participants were overwhelmingly pleased with the programs. Participants enjoyed the unique experience of engaging with animals and valued the interactions with instructors.
- 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. Additionally, teachers expressed their appreciation for students learning and spending time outside of their classroom.

Recommendations

- Use the Education Ecosystem to identify local schools to target for outreach and partnership development.
- Continue to invest in middle and high school programs that focus on conservation and are particularly effective at developing a conservation ethic in our audiences.
- Continue to anticipate changes in programming and support staff with adapting to these changes.



Appendix

List of School Partners

Partner	Borough	# Programs		
		Student	Teacher	Community
Bronx Little School*	Bronx	4	2	1
District 12 (includes 33 elem & middle schools)*	Bronx	33	35	1
IS 123X / James M Kieran	Bronx	2	3	1
PS 205X / Fiorella Laguardia*	Bronx	32	1	1
South Bronx Community Charter	Bronx	72	14	1
Maple Street School*	Brooklyn	16	4	1
PS 249K / Caton*	Brooklyn	10	6	2
MS 256M / Lafayette Academy	Manhattan	4	2	1
PS 191M*	Manhattan	18	10	1
Washington Market School	Manhattan	36	1	
PS 200Q	Queens	2	2	1
PS 861R / SISCL	Staten Island	4	1	

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