Rockaway, NY: A Community Diving Headfirst into Closing the Water Competency and Ocean Literacy Gap

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Introduction

Swimming ability and engagement with bodies of water are often divided along racial and socioeconomic lines, creating a structure in which some people are considered "allowed" to participate in aquatic activities and environments, and others are not. This is particularly dangerous as swimming is not only a form of leisure, which all people should have access to, but it's also a survival skill. Yet, many coastal areas and bodies of water have become defined as white spaces, creating an atmosphere of exclusion and gatekeeping. Research shows that a high percentage of Black people have low or no swimming ability compared to white people,[1] pointing to structural factors such as lack of access to pools and swimming lessons, the racialization of blue spaces, racial stereotypes, fear of water, and generational trauma to explain these disparities.

In many communities, there is a lack of water competency and ocean literacy to empower and educate people on how to interact with bodies of water. However, Rockaway, NY is looking to change the narrative of who is allowed in the swimming pool or on the beach. As a coastal and diverse community, Rockaway has access to miles of beach and ocean water; and yet, the community members that spend time on the beach and are strong swimmers are often defined along racial and socioeconomic lines. Community organizations in Rockaway have made efforts to diminish this stratification, and organizations such as Laru Beya, Rising Tide Effect, Swim Strong Foundation, and Rockaway Initiative for Sustainability and Equity, in particular, look to empower the community by focusing on water competency and ocean literacy programs.

This research project seeks to understand the racial and socioeconomic barriers to water competency and ocean literacy in coastal communities like Rockaway, NY. Specifically, how are

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[1] US Department of Health & Human Services; Center for Disease Control and Prevention; "Drowning Prevention;" published in 2019; <https://www.cdc.gov/safechild/drowning/index.html>

community organizations addressing the racial and socioeconomic disparities in ocean literacy and water competency? Although ocean literacy, water competency, and the racialization of blue space has a robust foundation of literature, there is less research on community-based action. Through studying Rockaway and interviewing key community organization leaders and community members, this research contributes to the existing body of literature by providing a story occurring in real time of a community-led movement to minimize racial disparities in ocean literacy, water competency, and blue spaces, acting as a reference for future community-oriented programs. Rockaway community organizations show that, beyond the academic literature that can often feel removed from quotidian life, barriers to water competency and ocean literacy such as generational trauma, avoidance of water, in-access to pools, and swimming lessons remaining unaffordable still very much exist in the present. These organizations exemplify the ways in which to challenge these barriers and disparities: through swimming and community programming that mentors those that have not had the opportunity to be exposed to swimming or blue spaces in a comfortable manner; and they also exemplify what still needs change: comprehensive curriculum in schools devoted to water safety, a public pool in Rockaway to provide a stable learning environment for locals, a bigger emphasis on raising ocean literate future generations, and more support for the community organizations that are on the ground, trying to make change happen.

Background

The Rockaway peninsula is a racially and socioeconomically diverse coastal community. As a part of New York City, the Rockaway peninsula can be found jutting out from southern Queens and is home to a long stretch of beach. During the summer months, Rockaway is packed with a medley of beachgoers, with people "down for the day" (DFD's) and locals, alike, flocking to Rockaway's shores. Although the beaches are staffed with lifeguards, every summer there are a number of drownings, which begs the questions: *who* is drowning and *why* are they drowning? In Rockaway, there is largely a lack of water competency and ocean literacy, despite the Rockaway community's proximity to the ocean. The following section will provide a more in-depth illustration of the disparities the Rockaway community faces in ocean- and swimming-related fields, and will contextualize the following literature review and analysis of the primary sources collected on these topics. Specifically, this background component will cover information on Rockaway and its beaches, a more in-depth explanation of water competency and ocean literacy, and racial and socioeconomic drowning risks.

Rockaway, Queens, New York

Rockaway, encompassing Far Rockaway, Edgemere, Arverne, Rockaway Beach, Rockaway Park, and Breezy Point, acts as a home to a diverse yet stratified group of people. On its eastern end (Far Rockaway, Edgemere, and Arverne), the peninsula is predominantly a low-income community and community of color, while Rockaway Park and Breezy Point, on its western side, are majority communities of affluent and white families. Looking specifically at zip codes of 11691 and 11692 (Far Rockaway, Edgemere, and Arverne), Black people make up

61% of both areas with a median income of $46,819 and $50,267, respectively (as of 2019).[2]

Rockaway Park (11694) and Breezy Point (11697) are each 83% and 95% white, and 1% Black, with median household incomes of $84,485 and $105,750, respectively.[3] There is clear stratification between the peninsula's eastern and western end, delineated by the racial and socioeconomic makeup of each area.
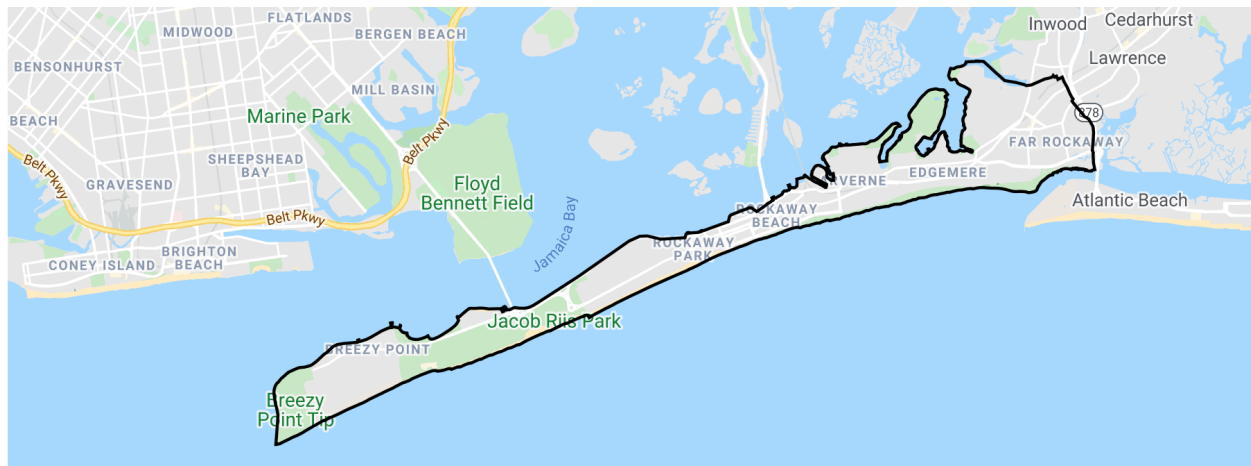
Figure 2: Neighborhoods in Rockaway (Google).[4]

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[2] US Census Bureau; "ACS Demographic and Housing Estimates;" (ZCTA5 11692); published in 2019; <https://data.census.gov/cedsci/table?q=ZCTA5%2011692&tid=ACSDP5Y2019.DP05>; US Census Bureau; "Income in Past Twelve Months (In 2019 Inflation-Adjusted Dollars);" (ZCTA5 11691); published in 2019; <https://data.census.gov/cedsci/table?q=ZCTA5%2011691&t=Income%20and%20Poverty&tid=ACSST5Y2019.S901>

[3] US Census Bureau; "ACS Demographic and Housing Estimates;" (ZCTA5 11694); published in 2019; <https://data.census.gov/cedsci/table?q=ZCTA5%2011694&g=860XX00US11694>; US Census Bureau; "ACS Demographic and Housing Estimates;" (ZCTA5 11697); published in 2019; <https://data.census.gov/cedsci/table?q=ZCTA5%2011697&tid=ACSDP5Y2019.DP05; US Census Bureau; "Income in Past Twelve Months (In 2019 Inflation-Adjusted Dollars);" (ZCTA5 11694); published in 2019; <https://data.census.gov/cedsci/table?q=ZCTA5%2011694&t=Income%20and%20Poverty&g=860XX00US11694&tid=ACSST5Y2019.S1901>; US Census Bureau; "ACS Demographic and Housing Estimates;" (ZCTA5 11697); published in 2019; <https://data.census.gov/cedsci/table?q=ZCTA5%2011697&tid=ACSDP5Y2019.DP05>

[4] "Rockaway." *Google*, Oct 4, 2021.
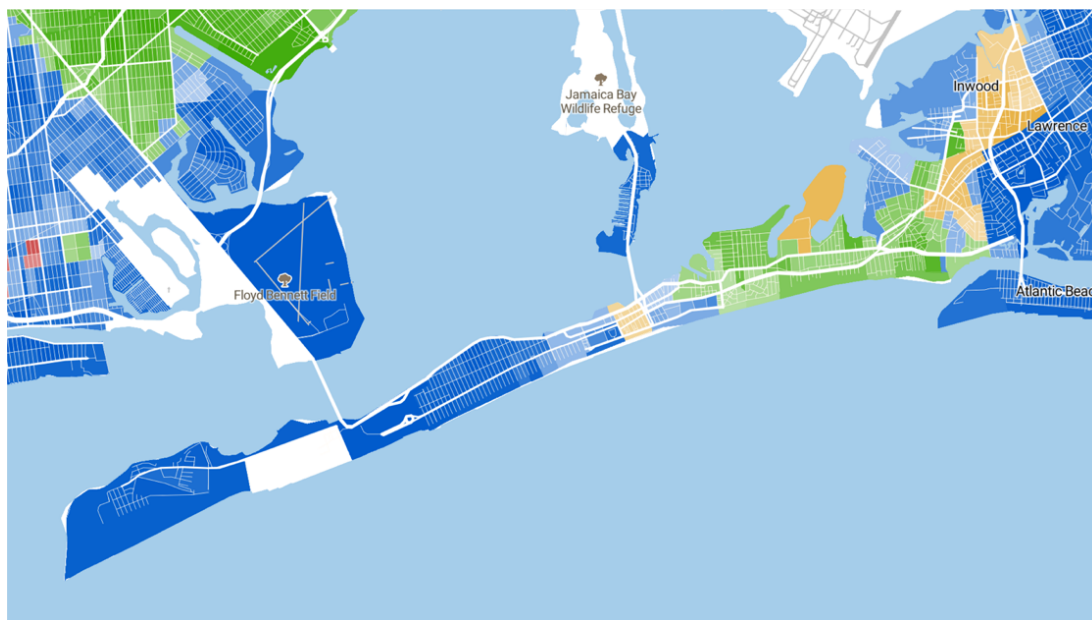
Figure 3: Racial Makeup of Rockaway Neighborhoods (Best Neighborhood).[5]

In the summer months, the Rockaway beaches and Atlantic Ocean draw massive crowds of New Yorkers from all over the city, filling the peninsula with hordes of beachgoers. Although lifeguards are stationed across Rockaway beaches, there have been 25 drownings at Rockaway beaches, including one that occurred when lifeguards were on-duty, since 1999.[6] Most of those who drown in Rockaway are young people of color, who often haven't received proper swimming and safety instruction and don't have regular access to swimming pools.[7] Aydon Gabourel, one of the founders of Laru Beya and a Rockaway local, didn't learn how to swim until a few years ago because of the absence of a public swimming pool and water safety education in Rockaway.[8] This is a common reality, and Aydon specifies that it is many adults

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[5] Map of Rockaway peninsula delineating racial makeup of neighborhoods: Green = majority Black, Blue = majority white, Yellow = majority Latinx; "Race, Diversity, and Ethnicity in Arverne, NY." *Best Neighborhood*, Oct 4, 2021, https://bestneighborhood.org/race-in-arverne-ny/.

[6] Miriam Rosenberg, "Drowning Stats Deceptive: After Hours or Closed Beaches Not Included," *The Wave*, June 1, 2007, https://www.rockawave.com/articles/drowning-stats-deceptive/.

[7] Denis Hamill, "Beach Disparity in Rockaway Is a Black and White Issue," *NY Daily News*, August 11, 2008, https://www.nydailynews.com/new-york/queens/beach-disparity-rockaway-black-white-issue-article-1.318402

[8] Juliette Kenn de Balinthazy, "Laru Beya Collective Is Revolutionizing Surfing for Black and Brown Youth," September 1, 2021, https://www.teenvogue.com/story/laru-beya-surf-collective-black-and-brown-youth.

and children, alike, that don't know how to swim in Far Rockaway, the part of the peninsula that

is predominantly a community of low-income families and families of color.[9] As Cynthia

Bayard, a member of Laru Beya and the Rockaway community, says, "you would be surprised

how many people don't know how to swim, and they've lived by the beach their whole lives."[10]

The beaches in Rockaway can be especially deceptive—many people only intend to wade

in to their knees but get drawn in by the seemingly calm waves, unable to recognize its

dangerous rip current underneath.[11] The Parks Department First Deputy Commissioner, Liam

Kavanagh, called Rockaway "the most challenging beach for swimming and lifeguarding."[12]

Cynthia Hicks, a member of Laru Beya, "recalled a time where she had to save a distressed

swimmer who had been living in Rockaway all their life, but had no knowledge of basic

swimming knowledge,"[13] demonstrating that there is a lack of ocean awareness and swimming

ability in Rockaway. Although surrounded by water, the Rockaway community faces a large

deficiency in pools and water and ocean safety instruction which makes it difficult for people in

the community to safely learn to swim and engage with bodies of water. As Warren Sampson,

co-founder of Laru Beya, summarized:

> "Growing up here, we didn't have access to the beach; the kids who lived here, myself
> included, couldn't afford swim lessons, let alone surf lessons […] Water safety, how to
> read rip[currents]…we didn't know any of it—we didn't have access to pools, we didn't
> have access to anything."[14]

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[9] "Rockaway Beach Civic Association: Water Safety Community Meeting," Zoom, Jan 6, 2022.
[10] CBS New York, "Laru Beya Collective In The Rockaways Brings Surfing To Kids Who May Not Otherwise Had The Chance To Try It," *CBS News*, July 27, 2021, https://www.cbsnews.com/newyork/news/laru-beya-collective-in-the-rockaways-brings-surfing-to-kids-who-may-not-otherwise-had-the-chance-to-try-it/.
[11] Isabella Guerriero, "Community Calls on Governor to Support Water Safety," *The Rockaway Times*, 20 Aug, 2021, https://rockawaytimes.com/index.php/columns/8083-community-calls-on-governor-to-support-water-safety.
[12] Rosenberg.
[13] Guerriero.
[14] "The Laru Beya Collective," *Faherty Brand* (blog), September 22, 2020, https://fahertybrand.com/blogs/journal/the-laru-beya-collective.

Disparities that Cause Dangerous Ocean and Water Interactions

Ways of Defining Ocean Literacy and Becoming Ocean Literate

Absence of ocean awareness and swimming ability, i.e. not understanding the cycles of

the tides or an inability to identify and escape a rip current, indicates a deficiency in ocean

literacy. Ocean literacy is an understanding of the workings of the ocean and its cycles, and how

the ocean impacts human life and vice versa. Specifically, it is an understanding of the ocean's

ecosystem and the symbiotic relationship the ocean and humans have. Ocean literacy is seen as a

crucial strategy in adjusting people's behaviors regarding the ocean and the environment, at

large. An ocean literate person should understand the basics of the ocean, and the Ocean Literacy

Framework defines its key principles as:[15]

1. The Earth has one big ocean with many features
2. The ocean and life in the ocean shape the features of Earth
3. The ocean is a major influence on weather and climate
4. The ocean made Earth habitable
5. The ocean supports a great diversity of life and ecosystems
6. The ocean and humans are inextricably interconnected
7. The ocean is largely unexplored

Despite the marine sciences defining ocean comprehension as strictly "scientific," ocean

knowledge historically has been understood and learned in many different forms. Thus, the

framework stresses that the "relationship with the ocean should involve diverse forms of

knowledge, values and customs," specifically including indigenous and traditional methodology

and understanding.[16] Ocean literacy is used to empower people to make educated decisions on

how they engage with the ocean and relate to sustainability and ocean resources,[17] and thus is not

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[15] Melita Mokos, Giulia Realdon, and Ivana Zubak Čižmek, "How to Increase Ocean Literacy for
Future Ocean Sustainability? The Influence of Non-Formal Marine Science Education," *Sustainability* 12, no. 24
(December 19, 2020): 1, https://doi.org/10.3390/su122410647; Brian J. Plankis and Meghan E. Marrero, "Recent
Ocean Literacy Research in United States Public Schools: Results and Implications," n.d., 22.
[16] Boris Worm et al., "Making Ocean Literacy Inclusive and Accessible," *Ethics in Science
and Environmental Politics* 21 (March 11, 2021): 3, https://doi.org/10.3354/esep00196.
[17] Mokos, et al. 2.

solely centered in *acquiring* knowledge but is also defined by behavioral changes and a

multitude of approaches to ocean and environmental health. In this way, ocean literacy "leads to

more informed participation in the discussion on the future of the oceans and more responsible

and effective decision making,"[18] and aids people in developing a relationship and understanding

of the ocean in a more informed and confident way.

Expanding the Definition and Curriculum of Water Competency

      As can be seen in the case of Rockaway and the frequency of drownings on the

peninsula, there is not only a significant need for ocean literacy, but water competency, as well.

Water competency is explained as "water-safety knowledge and attitudes, basic swim skills, and

response to a swimmer in trouble,"[19] although it largely focuses on swimming ability. This

simple definition has formed the foundation of water competency and has been expanded to

include 15 different competencies:[20]

1. Safe entry competence
  a. Entry into water
  b. Surface and level off
	2. Breath control competence	3. Stationary surface competence
		  a. Buoyancy control: floating
		  b. Treading water

4. Water orientation competency
  a. Roll from front to back, back to front
  b. Turn, left and right, on front and back
	5. Propulsion competence
	  a. Swim on front
	  b. Swim on back and/or side
		6. Underwater competence
		  a. Surface dive
		  b. Underwater swimming

7. Safe exit competence	8. Personal floatation device competence	9. Clothed water competence

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[18] Sarah Fielding, Jonathan T. Copley, and Rachel A. Mills, "Exploring Our Oceans: Using the Global Classroom to Develop Ocean Literacy," *Frontiers in Marine Science* 6 (June 25, 2019): 2, https://doi.org/10.3389/fmars.2019.00340.

[19] Sarah A. Denny et al., "Prevention of Drowning," *Pediatrics* 143, no. 5 (May 2019): 2, https://doi.org/10.1542/peds.2019-0850.

[20] Robert Keig Stallman et al., "From Swimming Skill to Water Competence: Towards a More Inclusive Drowning Prevention Future," *International Journal of Aquatic Research and Education* 10, no. 2 (October 2017): 3, https://doi.org/10.25035/ijare.10.02.03.

10. Open water competence	11. Knowledge of local hazards competence	12. Coping with risk competence (awareness, assessment, avoidance)

13. Assess personal competence	14. Rescue competence
	  a. Recognize a drowning person
	  b. Assist a drowning person safely
		15. Water safety competence
		  a. Attitudes and values

Water competency is not only measuring an individual's swimming skills, but also specifically measures an individual's ability to conduct themselves appropriately in a controlled and uncontrolled aquatic environment. Competencies 11-15 testify to the importance of understanding one's own limitations, being conscious of the risks and hazards of swimming, and being able to rescue a swimmer.[21] Thus, basic swimming courses should teach a holistic water competency curriculum that includes both swimming and water safety awareness skills.

Drowning Rates Point to Racial and Socioeconomic Factors

Disseminating ocean literacy and water competency is especially important because of how frequently people drown or come close to drowning. Drowning is an especially common risk for young people, and for children ages one through fourteen, in particular, drowning is a leading cause of death just after car crashes.[22] Three children die each day due to drowning.[23] Such high rates of drowning fatalities usually occur due to an absence of adult supervision, a lack of fencing around bodies of water or life jackets, and inadequate swimming competency.[24] Swimming lessons can reduce drowning rates of children ages one to four by 88%.[25] The

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[21] Denny, et al. 3.
[22] US Department of Health & Human Services
[23] US Department of Health & Human Services.
[24] Jennifer Pharr et al., "Predictors of Swimming Ability among Children and Adolescents in the United States," *Sports* 6, no. 1 (February 24, 2018): 1, https://doi.org/10.3390/sports6010017.
[25] Pharr, et al.1.

negative variables that often point to low swimming ability are: being female, Black or Hispanic, guardian's income, and being afraid of injury or drowning.[26] In many cases, the line between being at greater risk of drowning and not is drawn along racial and socioeconomic lines, as "economic and culturally based factors contribute to contemporary African-American children being less likely to swim confidently […] Opportunity still remains a factor; many inner-city areas, which have a higher proportion of Black residents, are less likely to have public swimming pools."[27] In fact, Black people are 1.5 times more at risk of fatally drowning than white people.[28] Positive variables associated with high swimming ability, on the other hand, are: age, enjoyment of swimming or a best friend that enjoys swimming, knowledge of water safety, parent encouragement and/or swimming ability, a pool being accessible year round, etcetera.[29]

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[26] Pharr, et al. 6.
[27] Belinda Wheaton, "Surfing, Identity and Race: Belonging and Exlusion," in *The Cultural Politics of Lifestyle Sports* (Routledge: Taylor & Francis Group, 2013), 148.
[28] US Department of Health & Human Services.
[29] Pharr, et al. 6.

Literature Review

<u>Ocean Literacy Programs and Efforts to Be More Inclusive and Effective</u>

Challenges to Delivering and Diversifying Ocean Literacy Programs

Ocean literacy has largely been a field of knowledge gatekept by those highly educated in marine sciences.[30] However, due to the relevance of ocean health in all parts of human life, Worm *et al.* argue that ocean literacy programs should be widespread throughout coastal and non-coastal communities, "tailored to regional cultural contexts."[31] Research on ocean literacy has emphasized the need for a diverse approach to spreading ocean knowledge: teaching and instructing communities through formal and informal education and using local and traditional/indigenous knowledge and ways of learning. Kelly *et al.* write, "local and traditional knowledge can play a critical role in retaining understanding of the ocean within and amongst communities, and is increasingly being recognised as an important component of ocean literacy initiatives."[32] Therefore, people may absorb and implement local and traditional knowledge more easily into their daily lives due to the nature of learning such knowledge through hands-on and experiential "informal" methods, rather than learning it in a "formal" classroom.[33] Ocean literacy programs should highlight scientists who specialize in marine science *and* people who regularly engage with the ocean such as fisherpeople, divers, surfers, artists, etcetera,[34] centered in a diversity of voices and experiences.

While much of the literature on ocean literacy acknowledges the need to establish ocean literacy programs within different parts of the community, their research mainly sticks to

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[30] Worm, et al. 2.
[31] Worm, et al. 5.
[32] Kelly, et al. 6.
[33] Rachel Kelly et al., "Connecting to the Oceans: Supporting Ocean Literacy and Public Engagement," *Reviews in Fish Biology and Fisheries* (February 10, 2021): 6, https://doi.org/10.1007/s11160-020-09625-9; Worm, et al. 4.
[34] Worm, et al. 4.

studying and implementing programs through schools. Even a study conducted by Mokos *et al.*, which emphasized "non-formal" education through the implementation of hands-on activities, operated within a school system. Plankis *et al.* explicitly conduct their study within the US public school system, using an eleventh- and twelfth-grade classroom in New York and a seventh-grade classroom in California as their case studies. Massive Open Online Courses (MOOC) have also been disseminated globally, with specific courses such as "Exploring Our Oceans" bringing the classroom to whomever wants to access information on the oceans. This online classroom element allows for a diversification of its student body, and "Exploring Our Oceans" has supported a diverse range of learners of all ages, with very different life experiences, and reached a global audience with wide range of motivations for taking the course."[35]

While implementing ocean literacy curricula within academia is efficient and effective, working closely and engaging with community members and local, traditional and indigenous ways of learning are also important as they can diversify the way in which information is disseminated and absorbed and can create newfound relationships between learners, community members, and the ocean. Ferreira *et al.* have a holistic approach to increasing ocean literacy in local communities, working specifically within the coastal communities of Vedras and Lourinhã, Portugal. Although part of their study includes an "educative project" in which an "Educational Activities Guide," "Contents Book," and training courses were developed for teachers and educators, Ambassadors of Biodiversity (EmBio) also held educational and engaging exhibitions designed to be displayed in public spaces, and administered action and awareness campaigns.[36]

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[35] Fielding, et al. 6.

[36] José Carlos Ferreira et al., "Ocean Literacy to Promote Sustainable Development Goals and Agenda 2030 in Coastal Communities," *Education Sciences* 11, no. 2 (February 7, 2021): 6-7, https://doi.org/10.3390/educsci11020062.

Activities included beach clean-ups, scavenger hunts, field lessons, and seminars.[37] What made EmBio's project so successful was that it was an informal educational project—although it partly took place in a formal school setting—and it fostered a strong relationship with the community and engaged with and incorporated local knowledge.[38]

Operated in Portugal, Ferreira *et al.*'s project highlights the gap in community-based ocean literacy programs in the United States. Despite many case studies focusing on increasing ocean literacy in the US, the US-based literature emphasizes working within school systems and features the classroom as its star method of action. What's also lacking in the literature—Ferreira *et al.*'s study included—is a focus on community organizations and working with the community programs and groups that have already been established. Ferreira *et al.*'s study, specifically, engages with the community, but it is ultimately an external organization: EmBio, that establishes itself as the overarching authority for increasing ocean literacy in the community.

Using a Social Lens to Implement Ocean Literacy Programs

The literature also mainly focuses on increasing ocean literacy for environmental reasons: to promote and ensure the success of the UN's Sustainable Development Goals (SDG's)[39] and to encourage more proactive and environmentally-friendly behavior.[40] The effects of "Exploring Our Oceans" MOOC were described as, "increased awareness of, and attitudes to, ocean issues; increased applications to undergraduate and postgraduate programs; development of communication and outreach skills in the Southampton postgraduate community, and partnership

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[37] Ferreira, et al. 7.
[38] Ferreira, et al. 6.
[39] Ferreira, et al. 2.
[40] Mokos, et al. 3; Kelly, et al. 2.

building with Nelson Mandela University, South Africa."[41]Although promoting sustainability and scientific thought is evidently important and a key objective to increasing ocean literacy locally and globally, this reveals a gap in the literature in that there is a dominant focus on environmentalist and scientific motives to ocean literacy and not a people-oriented one that focuses on ocean engagement. However, the social benefits are also worthy of attention. Reorienting ocean literacy programs, as well as ocean literacy research, to be more people-centered rather than environmentalism-based can actually spur more engagement and foster a stronger relationship with the ocean and the environment as people begin to feel more comfortable and knowledgeable in an ocean space. While concerned with the environmental and sustainability factors of ocean literacy, research should also be asking questions such as, do ocean literacy programs make people feel more knowledgeable, confident, comfortable, and able to engage with the ocean or beach?

Developing Inclusive Water Competency Programs

Vulnerable Groups Should Learn in Controlled and Uncontrolled Swimming Conditions

Researchers studying swimming are typically very conscious of the fact that learn-to-swim programs are handling vulnerable groups, whether that be racial and ethnic minorities, traumatized adults, or children. Children, despite being quick-learners, are especially vulnerable. In a study investigating children's perceived and real swimming abilities, Costa *et al.* concluded that there were significant differences in children's perceived and real aquatic competence, with children perceiving their swimming skills to be higher than their actual abilities.[42] Children have

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[41] Fielding, et al. 4.
[42] Aldo M. Costa, Alexandra Frias, Sandra S. Ferreira, Mario J. Costa, António J. Silva, and

a tendency of overestimating their skills, which is especially dangerous in an uncontrolled water environment, when proficiency in swimming is put to the test and especially important.

Striving to mend this disconnect between perceived and real aquatic competence, as well as between aquatic competence in a controlled and uncontrolled environment, a robust part of the literature emphasizes a need for swimming skills to be equally transferrable to open water or unstable environments. Most drownings occur unintentionally and in open bodies of water, so people must have experience swimming in turbulent, cold, and unpredictable conditions.[43] Open water may be inaccessible to certain programs or too dangerous to introduce to swimmers; however, research suggests replicating the uncontrolled characteristics of open water in pool simulations so that swimmers can be exposed to waves/rough waters and cooler temperatures.[44] Despite these recommendations and the urgency with which the literature writes on this topic, there lacks a focus on implementation. There is an absence of research on the actualized effects of simulating uncontrolled waters with drowning rates and water competency. Rockaway, on the other hand, has access to the Atlantic Ocean which can offer a space to familiarize those at a particular swimming level with moving waters. Community organizations in Rockaway, such as Rising Tide Effect, are implementing methods to simulate larger bodies of water in their instructional swimming pool lessons, as well.

Nuno D. Garrido. "Perceived and Real Aquatic Competence in Children from 6 to 10 Years Old." *International Journal of Environmental Research and Public Health* 17, no. 17 (August 21, 2020): 3-4, 8, https://doi.org/10.3390/ijerph17176101.

[43] Brice Guignard et al., "Education and Transfer of Water Competencies: An Ecological Dynamics Approach," *European Physical Education Review* 26, no. 4 (November 2020): 941-942, 944, https://doi.org/10.1177/1356336X20902172.

[44] Guignard, et al. 943, 948.

Including Community Members in the Program Planning Process

Golob *et al.* also suggest four practices to be implemented in learn-to-swim programs: (1) programs should have a good grasp of "culturally normative practices and beliefs;" (2) members of target communities should be included in the planning and development of the program; (3) novices should receive proper safety instruction, as well as given the opportunity to learn and participate in recreational aquatic activities; and (4) lifeguards, swimming instructors, and program administrative faculty should be diversified, giving minorities opportunities to occupy these roles.[45] Their second and fourth suggestions especially stand out as they emphasize horizontal experimentation rather than vertical:[46] including the local community in the programming process, instead of bringing in an external organization to do the work, and encouraging the community to seek roles within aquatic fields. However, literature focusing on water competency and swimming programs diverges from this notion as the research doesn't study *community-organized* swim programs, nor is there follow-through on whether "graduates" of swimming programs are given the opportunity to seek swimming-related jobs. Rockaway fills in this space as it is community-based organizations that have led the charge in ameliorating water competency in the coastal community and initiating swimming programs. Rockaway organizations such as Rising Tide Effect and Swim Strong Foundation also encourage their students to seek lifeguard and swimming-related jobs post-swim-program, fulfilling the fourth suggestion of Golob *et al.*'s study. In this way, Rockaway can contribute to the research as a key example of internal community movements that work to improve swimming abilities.

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[45] Golob, et al. 51-52.
[46] Bryce B. DuBois, "Beaches, People, and Change: A Political Ecology of Rockaway Beach after Hurricane Sandy," n.d., 244.

Race in Blue Spaces

Perceptions of Stereotypes Surrounding Race and Swimming

Contrary to contemporary statistics that show that "nearly 70 percent of Black children are unable to swim and many Black adults hold a petrifying fear of even entering the water,"[47] historically, Black people have been known to be great swimmers. Pre-colonization, Africans along the west coast of Africa were documented to be highly skilled swimmers, which was in direct contrast to white Europeans and colonizers who were incompetent at swimming.[48] The trajectory of African swimmers upon the arrival of slave ships in Africa in the 19th century, however, is a contentious topic within the historical field. While there is evidence that slave owners—threatened by Africans' swimming skills—attempted to drown those enslaved for being disobedient,[49] other sources suggest that slave owners used swimming competence to their advantage, appointing enslaved people to dive for commodities such as pearls.[50] In these cases, slave owners and white colonizers "saw dark-skinned people as genetically predisposed to swimming because, like 'animals, they knew instinctively how to swim.'"[51] Whether enslaved people were punished or rewarded for their swimming skills, each approach was rooted in a racism that divided swimming ability along the lines of race.

This was further perpetuated in the Jim Crow era in which de jure and de facto segregation manifested in the exclusion of Black people from swimming opportunities. For example, white people drained or poured acid into pools to keep Black people from swimming

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[47] George Johnson, "Swimming's Racist Past Makes Simone Manuel's Win an Even Bigger Deal." *Ebony*, February 6, 2020. https://www.ebony.com/sports/simone-manuel-racism/.
[48] Wheaton, "Surfing, Identity and Race," 147.
[49] Knolan Rawlins, "Reestablishing a Culture of Water Competency at an HBCU," *International Journal of Aquatic Research and Education* 11, no. 1 (August 2018): 2, https://doi.org/10.25035/ijare.11.01.05.
[50] Wheaton, "Surfing, Identity and Race," 147.
[51] Wheaton, "Surfing, Identity and Race," 148.

alongside them, or were banned from swimming in public pools, altogether;[52] Black people were

forced by structural means into becoming beach service providers (such as waiters, babysitters,

and entertainers) instead of beachgoers;[53] or were "forbidden from buying, renting or even using

beachfront property."[54] In essence, "racially discriminatory measures dramatically limited access

by blacks and other people of color to beaches, housing, jobs, schools, playgrounds, parks,

swimming pools, restaurants, transportation, and other public accommodations."[55] The Jim Crow

era essentially phased out many generations of proficient Black swimmers in the US, fostering a

deficiency in swimming through lack of opportunity and discrimination.

Some contemporary texts reference and reiterate old racist ideologies that characterize

Black people as unable to swim due to biological differences and inferiorities to white people,

rather than historical and structural impediments.[56] For example, in "Barriers to Swimming and

Water Safety Education for African Americans," Ito writes:

> "there is some agreement in the literature that African American adults on average have a
> denser body composition and longer limbs in relation to their chest cavity size. These
> differences could result in greater difficulty floating and consequently may increase the
> difficulty in learning to swim. In contrast, Daniels, Khoury, and Morrison (1997) and He,
> Horlick, Thornton, Wang, Pierson, Heshka, and Gallager (2002) found there was little
> difference between the races in body composition in children before puberty. This means
> that there is little difference that would affect a child's capacity to float, and consequently
> their ability to learn to swim."[57]

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[52] Gail H. Ito, "Barriers to Swimming and Water Safety Education for African Americans,"
International Journal of Aquatic Research and Education 8, no. 3 (August 2014): 243,
https://doi.org/10.25035/ijare.08.03.04
[53] Cassandra Phoenix, Sarah L. Bell, and Julie Hollenbeck, "Segregation and the Sea: Toward a
Critical Understanding of Race and Coastal Blue Space in Greater Miami," *Journal of Sport and
Social Issues* 45, no. 2 (April 2021): 118, https://doi.org/10.1177/0193723520950536.
[54] Robert García and Erica Flores Baltodano, "Free the Beach! Public Access, Equal Justice, and the California
Coast," *The City Project*, 2005, 153.
[55] García, Baltodano, 154.
[56] Belinda Wheaton, "Space Invaders in Surfing's White Tribe: Exploring Surfing, Race, and
Identity," in *The Critical Surf Studies*, ed. Dexter Zavalza Hough-Snee and Alexander Sotelo Eastman (Duke
University Press, 2017), 186.
[57] Ito, 244-245.

This text was written in 2014; and yet, it's still regurgitating the racist rhetoric that Black people can't float because of "denser body composition and longer limbs." Even in Ito's effort to offer a differing perspective in the controversy is a half-hearted attempt to debunk this myth, arguing that such racial and biological differences don't develop until past puberty. This racist scientific discourse originated from a prejudiced "study" published in 1969, and has since been refuted.[58] Although there is consensus among most literature that the notion that "Black people don't swim" is a fallacy,[59] the very fact that such falsities can be distributed in as contemporary of a time as 2014 further works to perpetuate racist narratives. In fact, many Black people reportedly don't learn to swim or develop a fear of the water because these stereotypes are so pervasive.[60] Accordingly, it's especially important that more anti-racist literature is disseminated and harmful rhetoric is drowned out. Studies of communities such as Rockaway can be constructive in serving as additional evidence to debunk racist stereotypes as community organizations give their predominantly Black community the opportunity to learn and thrive in an aquatic environment.

Generational Avoidance of Water

Lack of access to pools and opportunity to learn how to swim has only worked to exacerbate a loss of swimming ability within the Black community and the generational trauma that survives today. Ultimately this has led to an avoidance of swimming and water, as:

> "attitudes and values developed over 100 years of history of mistreatment of African Americans at beaches and pools, as well as continued racial segregation and social reproduction of culture and class in the educational system and other institutions of our

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[58] Wheaton, "Surfing, Identity and Race," 147.
[59] Wheaton, "Surfing, Identity and Race," 146; Wheaton et al., "Coastal Blue Space and Wellbeing Research," 87; Rawlins, 3.
[60] Rawlins, 3; Wheaton, "Space Invaders in Surfing's White Tribe," 186.

society including tax funded recreational institutions, municipal parks, recreation departments, and park districts."[61]

Many parents pass down their avoidance of water because of their own negative experiences with swimming or because of fear that has been instilled by other family members or friends. In most cases, parents, due to their fear of water, are not likely to encourage their children or loved ones to take part in swimming activities and learning opportunities, and deny access to swimming, altogether.[62] Generational trauma, in this way, can be close and far removed, passed down from ancestors or simply by parents or grandparents, acting as a barrier to acquiring crucial swimming skills that could decrease drowning rates. Constraints from familial generational trauma, racial stereotypes, and lack of access dictate who can swim and in what conditions.[63] Swimming sites become spaces of fear, racism, and exclusivity, rather than of leisure and enjoyment, magnifying the disparities found within beachgoer and swimmer demographics.

The Repercussions of Defining Blue Spaces and Aquatic Activities as "White"

Black people and other people of color may also feel uncomfortable in entering aquatic environments and blue spaces—defined as large bodies of water such as oceans, lakes, and rivers[64]—as such sites have become progressively dominated by white populations either local to the area or visiting as tourists.[65] A growing body of literature points to feeling unwelcome, being surveilled, and the legacy of segregation as key factors that have led to the racial stratification of coastal areas and the avoidance of blue spaces by people of color, particularly Black people.

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[61] Ito, 243.
[62] Ito, 250.
[63] Matias Ignacio Golob, Audrey R. Giles, and Kyle M. Rich, "Enhancing the Relevance and Effectiveness of Water Safety Education for Ethnic and Racial Minorities," *International Journal of Aquatic Research and Education* 7, no. 1 (February 2013): 42-43, https://doi.org/10.25035/ijare.07.01.05.
[64] Belinda Wheaton et al., "Coastal Blue Space and Wellbeing Research: Looking beyond Western Tides," *Leisure Studies* 39, no. 1 (January 2, 2020): 84, https://doi.org/10.1080/02614367.2019.1640774.
[65] Phoenix et al. 129; Wheaton, "Space Invaders in Surfing's White Tribe," 183.

Black people avoid these sites because they feel "other"[66]—they become "space invaders" as they are seen as deviants of the norm and "trespassers,"[67] creating a mode of surveillance in which the "welcomed" (white) beachgoers are hyperaware and observational of the "unwelcomed" beachgoer's every move.[68] Some Black people simply do not want to go to the beach because they see it as a white activity. They may receive judgement from other Black community members, friends, or family, for trying to assimilate or "act" white.[69] In this way, Black people may receive judgement for enjoying coastal and blue sites from different directions: from white and Black counterparts. In being defined as a white space, the beach and blue spaces become limiting to those that are perceived as not fitting the standard and become sites of marginalization.[70] This hyper-surveillance and ostracization gives aid to Black people's avoidance of the beach, so much so that, for some, it no longer occurs to them to go to the beach.[71] Blue spaces become racialized spaces that ward off those who are "other" than the white and wealthy, characterized by their disparities rather than their natural amenities.[72]

Location is Key: Studying Directly Coastal Communities

The literature that has focused on the racialization of blue spaces has focused primarily on Black people as externalities that come into a space as the "outsider," or as "space invaders." Even Liberty City, Miami, which is defined and studied as a predominantly Black *coastal* community in Phoenix *et al.*'s research, is in fact four to ten miles away from the coast, requiring

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[66] Wheaton et al., "Coastal Blue Space and Wellbeing Research," 85-86; Wheaton, "Surfing, Identity and Race," 143.
[67] Wheaton, "Space Invaders in Surfing's White Tribe," 183.
[68] Phoenix, et al. 130.
[69] Wheaton, "Surfing, Identity and Race," 148.
[70] Phoenix, et al. 116.
[71] Phoenix, et al. 124-125.
[72] Phoenix, et al. 121.

residents of Liberty City to either commute to the beach by public transportation, bike, or their own vehicles.[73] What happens when a Black community is directly situated by the ocean, like Rockaway, NY? Geographically, the widest point of Rockaway is three-quarters of a mile which is a small fraction of the distance residents of "coastal" Liberty City must travel. Research on Rockaway contributes to the already existing body of literature in that it provides information on a community that is *directly* coastal. In this way, factors of transportation and accessibility to the beach are less relevant, and racial and socioeconomic disparities can be examined more closely, as well as the methods that community organizations are establishing to minimize such racial stratification in beach attendance and blue spaces.

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[73] Phoenix, et al. 129.

Methods

To collect primary data on water competency and ocean literacy disparities and community organizing occurring in Rockaway, I coordinated eight interviews and attended a community meeting. Conducting these interviews was crucial in answering my research question: how are community organizations addressing racial and socioeconomic disparities in water competency and ocean literacy on the Rockaway peninsula? In collecting these primary sources, I was provided with first-hand accounts and more extensive responses that couldn't be provided through a survey or collection of datasets, and allowed me to gather responses on a variety of questions that were tailored to the type of person or organization that I was interviewing. All interviews and the community meeting were conducted and attended over Zoom or over the phone due to the COVID-19 pandemic. My interviewees included four community members: Corey Oliva, Jordan Asbury, Max Frankel, and Sean Aiken. The other half I interviewed as community organization leaders: Shawn Slevin, the founder of Swim Strong Foundation (SSF); Kaitlin Krause, the founder of Rising Tide Effect (RTE); Michi Jigarjian, the Social Impact Officer of the 7G Group, which is the owner of the Rockaway Hotel and is affiliated with RTE; and Jeanne Dupont, the founder of Rockaway Initiative for Sustainability and Equity (RISE). Interviewing community organization leaders was especially significant to my research as it gave me the opportunity to better understand the motives of the organization, the obstacles they come across in establishing their programs and their future plans, and their own takes on the racial and socioeconomic disparities in Rockaway.

In order to get into contact with interviewees, I reached out to individuals and organizations using personal connections, social media platforms like Instagram, and the email provided on organizations' websites. Other sources were found using snowball sampling through

the connections made in each interview. Although I wasn't able to conduct an interview with a member from Laru Beya, they remain an important organization in Rockaway, and so, I've included Laru Beya within my analysis, my research collected from various sources including their website, January newsletter, blog posts, and articles.

Data Findings & Analysis

Based on interview data and background research, barriers to swimming and beach access are still prevalent on the Rockaway peninsula, although community organizations are working to deconstruct such obstacles. SSF, RTE, RISE, and Laru Beya are each distinct, approaching the issue of high rates of drowning and low levels of water competency and ocean literacy from different angles.[74] SSF and RTE focus highly on swimming and water safety skills, running learn-to-swim programs in Rockaway and approaching ocean literacy through a water competency perspective. Both RISE and Laru Beya approach ocean literacy through hands-on experiences: RISE has multiple programs that use a scientific frame to encourage students' environmental and ocean curiosity, while Laru Beya encourages an environmental and ocean stewardship by exposing underserved Rockaway youth to surfing and the beach. In all cases, these organizations meet each student where they are at, helping to take down mental and social barriers, and watch as their students blossom into engaged and confident aquatic figures.

While the four community members that were interviewed each spoke of a childhood in which they were encouraged to learn to swim and felt comfortable spending time at the beach and in the pool, this reality is different from the vast majority of people in Rockaway. The reason that these Rockaway locals learned how to swim was due much to parental encouragement and private access to a pool. Jeanne Dupont, founder of RISE, sees this as an issue of socioeconomics and where people have grown up on the peninsula. Dupont says:

> "it's really […] a socioeconomic issue where on the west end [Rockaway Park and Breezy Point], if you were to go to a beach on the west end […] most of the families that are on that beach, their families, their parents, their grandparents were lifeguards, so they all know how to swim. Their kids, the first thing they do is throw them into a class at six months and say, 'hey you're going to learn to swim kid' […] On the east end [Far

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[74] For visual reference, there is an organized chart displaying each Rockaway community organization and their programs and characteristics in the Appendix.

Rockaway], you don't have that, so there's a lot of people jumping in the water, [and] they don't know how to swim […]"

Cynthia Bayard, Rockaway local and Laru Beya member, said, "'you would be surprised how many people don't know how to swim, and they've lived by the beach their whole lives.'"[75] In fact, Aydon Gabourel—co-founder of Laru Beya—didn't learn to swim till a few years ago, despite having lived in Rockaway since he was young. There are a lot of adults and children in Far Rockaway that don't know how to swim, he says.[76]

One reason the narratives of the community members interviewed differed so greatly from the reality that other Rockaway locals and community organizations describe may be because of interviewee selection bias. These interviews were conducted through personal outreach to workers on the boardwalk in Rockaway. As Sean, the owner of a pizzeria at one of the boardwalk concession stands, says, the concessions aren't geared towards the whole community and, because of "the rent that you have to pay, the money you have to make, the cost of labor, and the cost of goods, the cost of insurance—all those things don't lead to the kid that lives in the housing project to be able to walk up to the boardwalk and afford something to eat, so they're excluded from that, as well." In this way, the boardwalk draws a specific crowd in its customers and its workers: people who have grown up comfortable in blue spaces and able to afford food from the concessions.

Community Organizations Help to Overcome Generational Trauma

Generational trauma remains an overt limitation to many of the people, especially parents, coming into contact with the community organizations in Rockaway. Aydon explicitly

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[75] CBS New York.
[76] "Rockaway Beach Civic Association: Water Safety Community Meeting."

stated in a community meeting that "there is a generational fear of the water […] you either know somebody who has drowned in Jamaica Bay[77] or the ocean."[78] One of Laru Beya's members and surf instructors, Farmata Dia, experienced this as her cousin drowned in Rockaway.[79] Adanya Gabourel, another Laru Beya member and Rockaway local, recalled saving a child's life in a pool as the mother was left by the poolside, unable to save her child.[80] Generational trauma continues to persist because the barriers to water competency and ocean literacy still exist. Shawn Slevin, founder of SSF, often comes across people—grandparents, in particular—that turn away from SSF's programs because they believe they keep their family safe by keeping them out of the water. Jeanne Dupont from RISE comes across similar fears, with parents telling her that they oppose their children learning to swim because they wouldn't be able to save them if in a dangerous situation, as they don't know how to swim, themselves. People see avoidance as key to safety. In avoiding—in abstaining—from swimming and learning important safety skills, they believe they are ensuring the security of their child.

However, Kaitlin Krause, the founder of RTE, mentioned that a lot of the parents of the students in her learn-to-swim program that didn't know how to swim, themselves, were the most adamant about their children learning to swim and dedicated to bringing them to each swim lesson. While generational trauma is a very real barrier to learning to swim and engaging with bodies of water, organizations like RTE are able to provide a place in which trauma can unravel and instead give room to learning necessary skills. Dupont remarked that parents would often come to speak to her after their children had participated in her programs, commenting on how

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[77] Jamaica Bay is on the northern side of the Rockaway peninsula while the Atlantic Ocean borders the southern coast.
[78] "Rockaway Beach Civic Association: Water Safety Community Meeting."
[79] Kenn de Balinthazy.
[80] Kenn de Balinthazy.

invaluable the program was and that their children were now passing along the information and educating their parents.

<u>Meeting Students Where They're At: Teaching the Basics Allows Students to Blossom</u>

In many cases, the organizations' programs are participants' first encounter with the water. Dupont has often experienced a student telling her, "today was the first day I've ever gone in the water in my life. I grew up in Rockaway, I've been here my whole life and I've never gone in the water." Knowing that Rockaway, as an underserved community, would have cases of generational trauma and avoidance of water, community organizations designed their programs to be more inclusive and conscious of these barriers. For example, SSF's swimming program specifically uses a competitive swimming lens, teaching the basics and technical skills to swimming, to create a good foundation of skills for those that have never learned properly. Slevin says, "I feel that people are more effective and efficient in the water with the correct stroke mechanics […] therefore they're going to stay in the water […] [and] they won't be exhausted so quickly." Slevin sees competitive swimming skills as the fundamentals to swimming and elevating competent swimmers. In using this competitive swimming strategy, SSF has successfully taught over 10,000 students to swim and has been operating its program in Rockaway for 13 years.[81]

RTE's learn-to-swim program concentrates on the basics of swimming, as well, focusing on meeting students where they are at. Even the initial application for the program asks if the student knows someone or has experienced personally any traumatic water incidents. In that way, Krause has an idea of how each of her students may approach their lessons. Krause noticed

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[81] Guerriero.

that students who have parents that know how to swim engage in the program in a very different manner than those that don't, and often students who haven't been in the water before or who have generational trauma have trouble with breath control (i.e. they are afraid to put their face underwater, hold their breath, or blow bubbles). Krause understands that it's important to be proficient in these fundamentals before moving on because it's difficult to feel comfortable in the water, otherwise. In this way, RTE's first step is ensuring each of their student's comfortability. It's not about checking off boxes for Krause, but more about "observing their comfort and […] their spirit." Because the program works in small groups—about 12-18 students—the program is able to give each student personal attention and see them blossom into competent swimmers. Although a younger organization than SSF, RTE has been successful in fostering a generation of new swimmers since its pilot ran in October 2020. In fact, Tamia Davis, a student of RTE, "began her swim journey just a month ago and is now able to swim independently."[82]

SSF and RTE are also aware of the limitations of operating in a pool: while they are teaching students to be competent and safe swimmers, they cannot raise a fully water competent class because they cannot expose students to unstable water environments due to liability issues. However, both organizations take on this challenge, wanting to ensure that students can be competent swimmers in open water. RTE's program creates a simulation of open water by using boards to create waves in the pool once students are at an advanced swimming level. The challenge is to continue swimming against these waves while taking a clean breath. RTE and SSF also both encourage their students to get involved in other water sports such as surfing, sending them along to their partners such as Laru Beya and Black Surfing Association to learn how to surf and engage with the ocean for free. These programs show how, despite impediments

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[82] Guerriero.

that may hinder their ability to achieve full water competency among their students, they are able to use their resources and join forces with other community organizations to ensure that their students become water competent swimmers.

Community Efforts Must Also Address Structural Inequities

Even before RISE had been actualized into an organization, Dupont, as an individual, organized to take down barriers that excluded the underserved from Rockaway's beaches, fighting for more lifeguard stands to populate the beaches in Far Rockaway. Once buying a home in Far Rockaway in 2005, Dupont noticed that there was a lack of lifeguards in the community, resulting in the beach being "closed," unlike in Rockaway Park, which had many lifeguard stands posted up and down the beach. Dupont is convinced that the "closed" beach regulations were instituted due to racism: the area between 74th and 140th (Rockaway Park) is more white and wealthy, while the neighborhood where she resides (Far Rockaway) is majority low-income and residents of color. Dupont says, "those people aren't white [speaking of Far Rockaway]. Those people are Black, and brown, and Latino. That's why the Parks Department doesn't recognize them, because to them, they're invisible." This speaks to the fact that, because the beach and blue spaces are thought of as white spaces, and people of color are seen as invaders and outsiders, the people of Far Rockaway aren't seen as needing the same amenities as the communities farther west on the peninsula. However, Dupont eventually succeeded in getting three more lifeguard stands, which allowed the beaches to open and for community members in Far Rockaway to spend time on the beach and the water without receiving any reprimanding from authorities.

In creating water-competency- and ocean-literacy-focused programs, these community organizations actively begin to take down more barriers that make blue spaces exclusive. RTE, RISE, and Laru Beya all provide their programs for free to its students, and SSF has a scholarship program that provides free or discounted lessons to those that need the support. Laru Beya also supplies snacks, bathing suits (in certain cases), wetsuits, surfboards, and a ride to the beach. Situated in the Rockaway Hotel, RTE also ensures that each of its students are fed, the hotel providing a free meal during every swim lesson, and provides swim suits and proper equipment for entering into the pool. By offering their services for free or at a discount, and ensuring that students aren't lacking in other resources or coming to class hungry, RTE, RISE, Laru Beya, and SSF take down the barrier of affordability and accessibility. Swimmers are able to perform to the best of their ability and attend each class because matters of money, food, or equipment are not an issue. Students are able to become competent swimmers, giving them the confidence to introduce themselves into spaces they perhaps hadn't felt invited into before, and parents feel more comfortable in allowing their children to engage in these spaces, as well. Dupont recalled parents coming up to her, elated that their kids were learning so much in her programs, saying that their children were also passing down their knowledge and teaching their parents what they had learned, whether related to water safety or simply the importance to recycling and composting.

One of Laru Beya's core missions is to make the Rockaway beach accessible to the locals, and the Faherty Brand explains in a blog post featuring Laru Beya that they focus on "helping their kids reclaim the place they grew up in."[83] Laru Beya "provided 12 full weeks of free lessons to over 35 children this summer, hosted monthly beach clean-ups, entered our young

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[83] "The Laru Beya Collective," *Faherty Brand.*

female mentees in their first all-female surf competition, and welcomed over 100 surfers at our most recent Halloween surf contest and fundraiser," as written in their January 2022 newsletter.[84] "We pretty much made a safe haven for those people who needed those things [access to water activities] and didn't have the funds," says Cynthia Hicks, a Laru Beya water safety instructor.[85] Terumi Murao, a Laru Beya mentor, reflected that "'some of these kids have never been in the water before and don't know how to swim […] they go from being really anxious and nervous about the water to running into the ocean the moment they get to the beach. They go from fear to confidence, from anxiety to inspiration.'"[86] Laru Beya deconstructs the barriers to the beach and the ocean, thus fostering a community that allows locals to blossom in a blue space. And the change is seen: "now, more than ever before, local kids of color, women, and queer folk are paddling into line-ups at Rockaway beach."[87]

Cultivating A New Generation of Leaders and Aquatic Figures Through Mentoring

These organizations also foster mentorship programs that encourage students to take part in other water sports and fill aquatic roles that hadn't previously been open to them. Specifically, SSF partners with a multitude of organizations to encourage its more advanced students to "use these swimming skills beyond the lessons," whether that is encouraging them to take part in other water-based sports or jobs such as in the military, as a lifeguard, or first responder. Because of this support, a large percentage of Slevin's students have become lifeguards. RTE also has a mentorship program in which a guest speaker is invited to talk with students once a week. These speakers include former lifeguards; the founders of the hotel; a nutritionist to talk about staying

[84] Laru Beya Collective. 2022. "The Laru Beya Collective Newsletter." *Laru Beya Newsletter*.
[85] CBS New York.
[86] Kenn de Balinthazy.
[87] Kenn de Balinthazy.

hydrated and healthy at the beach, how everyone's skin burns and needs sunscreen; etcetera. As Krause said, part of RTE's mission is not only to teach people to swim, but also to show that a career can come out of these new-found skills. In effect, both SSF and RTE apply Golob *et al.*'s call to diversify swim-related roles and give minorities the opportunity to participate in water-based activities and jobs. In providing mentors, the organizations demonstrate to their students what they can and should strive for and elevate a new generation of leaders and aquatic figures that come from a multitude of backgrounds.

Laru Beya also undertakes mentoring their youth, writing on their website that their "goal is to develop [their] mentees into well-rounded, confident, and environmentally conscious adults," which they undertake through "surfing instruction, climbing, photography, partnerships, legal expertise, etc."[88] They also write that they "[create] long-term access to well-rounded mentorships, building connections within the surfing community, while incorporating sustainability and driving positive change in environmental movements."[89] RISE cultivates leaders within its students as well, giving their older participants the opportunity to become their younger students' mentors. Specifically, high school students who participate in RISE's Shore Corp program—a 4-year paid internship that focuses on environmental stewardship and aquatic and leadership skills—become the counselors of Aqua 101, a summer program for kids ages 10-14 years old. Not only do these high school students learn significant leadership skills, but they also then become role models for the younger generation, showing that they can, too, be leaders. By creating mentorship programs, RISE, Laru Beya, RTE, and SSF each give their students the opportunity to become leaders, themselves. They encourage their students to fill positions that were previously not available to them, creating spaces in leadership roles and giving their

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[88] "About," *Laru Beya Collective* (website), n.d., https://www.larubeyacollective.com/about.
[89] "About," *Laru Beya Collective.*

students a sense of empowerment and inspiration from their mentors. These organizations work

to elevate a new generation of leaders and aquatic figures.

Centering Ocean Literacy Through Experience-Based Learning and Programming

Laru Beya is defined as "on the beach" in Garifuna, a language of Afro-Indigenous

people found in Central America and the Caribbean.[90] In its name and in its mission, Laru Beya

centers itself in the ocean and the beach, "helping to foster a culture of respect, a reverence for

nature, and gratitude for the ocean as a haven for [people's] individual growth and the

regeneration of [people's] community at large, starting with returning the access of the beach

back to the locals."[91] Specifically, Laru Beya "exists to provide education and access for the

historically excluded youth of the Rockaways, as well as addressing the challenges to BIPOC

surfers."[92] In this way, Laru Beya creates a culture of ocean knowledge and literacy by inviting

formerly excluded people into the space and allowing them to engage with and learn hands-on

about the ocean and the beach through activities like surfing and beach clean-ups. Laru Beya also

partners with organizations such as Surfrider Foundation to teach Laru Beya mentees about the

environment. As Aydon says, "'a *huge* part of this is getting these kids involved with the

environment. It's incredibly important to protect your own backyard.'"[93] Not only does Laru

Beya encourage this for environmental-consciousness, but they also see learning about the ocean

and engaging and protecting it as a way to take care of oneself: "where you live affects your life:

the air, land, and water all play a role in our physical, mental, and emotional wellbeing," Aydon

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[90] "About," *Laru Beya Collective.*
[91] Kenn de Balinthazy.
[92] "About," *Laru Beya Collective.*
[93] "The Laru Beya Collective," *Faherty Brand.*

remarked.[94] Laru Beya, thus, centers ocean literacy and stewardship as an environmental and personal, human stewardship.

RISE's programs also focus on ocean knowledge, including environmental research projects within their curriculum. Programs such as Environmentor and Living Classroom support students through their research projects on the Rockaway and Jamaica Bay shoreline and ocean, giving students the opportunity to learn about the ocean and the symbiotic relationship humans and the natural ecosystem have with it. Rockaway community members Sean, Jordan, and Corey each reflected on their experience attending Rockaway schools, stating that ocean education remained absent within their schools' curriculum. In fact, Jordan explained he learned more about the ocean in a class he took in college than he had ever learned in his life living in Rockaway. In this way, RISE's programs that focus on ocean education are extremely important as they fill a gap in their student's learning that school curriculum isn't fulfilling. Through curiosity and experimentation, RISE fosters a community of youth that have a hands-on and scientific understanding of their ocean environment.

Ocean Literacy Often Approached Through Water Competency Lens

Of the four community members interviewed, Max was the only participant to have had any ocean instruction as a part of his school curriculum. Max attended Scholars Academy for middle and high school in Rockaway Park, and he mentioned learning about the ways that the ocean economically benefitted and affected communities, such as the way the ocean drew people to Rockaway for a beach day and to buy food at the concessions stand found along the boardwalk. While this is more instruction than other schools in Rockaway are teaching, it

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[94] "The Laru Beya Collective," *Faherty Brand.*

focuses on the way that the ocean affects humans, rather than vice versa, and does not foster a holistically ocean literate youth.

Max also explained that his school had a big focus on ocean safety, bringing in someone to talk about rip currents every year. As can be seen in Max's school's ocean curriculum, instruction about rip currents is often prioritized above other ocean education. Most organizations approach ocean literacy through a water competency lens, understanding the ocean through its risks. With such an approach, ocean instruction hones in on what students need to know to ensure their safety which can be seen in SSF's "Know Before You Go" program. Slevin hopes to reach people everywhere, whether it be coastal or land-locked, in schools or extracurricular activities with this program, addressing: (1) the definition of drowning and drowning statistics, (2) general water safety tips, (3) understanding of different types of bodies of water and how to engage with them, (4) rip currents (i.e. what causes them, how to identify them, and how to navigate safely getting out of them), (5) safety at water parks and while boating, and (6) seasonal dangers of tropical storms, hurricanes, ice, and flooding. The "Know Before You Go" program is especially important in Rockaway which is susceptible to hurricanes and was hit by an especially devastating hurricane—Hurricane Sandy—in the fall of 2012. Nine people died in Rockaway, and dozens more in the greater New York area.[95] In some cases, "people rushed into their basement to turn off utilities or grab valuables."[96] This is where "Know Before You Go" comes in as an educational program that can instruct people on the ocean and natural disasters, and how to behave in these sorts of emergencies.

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[95] Lisa L. Colangelo, "Hurricane Sandy, One Year Later: Rockaway Landscape Changed by the Storm," *NY Daily News*, October 26, 2013, https://www.nydailynews.com/new-york/hurricane-sandy/hurricane-sandy-year-rockaways-article-1.1494222.
[96] Colangelo.

RTE also partners with SSF, providing "Know Before You Go" to its students and administering an exam on the information within the program. Programs like "Know Before You Go" and water safety instruction are extremely important in ensuring people's safety and reducing drowning fatalities; however, while learning about rip currents does correlate to the oceans, the nature of the instruction has more to do with safety than understanding the ocean, and thus could be considered a part of water competency rather than ocean literacy. Krause also says that they incorporate ocean literacy into RTE's program by talking about it and sharing stories with and among students. Although this helps create a comfortable and safe environment for students to learn and share stories, it is not an organized curriculum that teaches students about the ocean. Students should have a broader understanding of ocean ecosystems and how they fit into that ecosystem, as ocean literacy specifically necessitates an understanding of the symbiotic and reciprocal relationship the ocean and humans have with each other. There is room for more ocean instruction in these organization's curricula to foster an ocean literate public body that engages with ocean spaces both knowledgeably and comfortably.

Policy Recommendations

Although the community organizations in Rockaway have been filling a large gap in water competency and ocean literacy disparities, doing good work that should be continued, these organizations make it clear that they cannot do it all without some additional supports put in place to help alleviate inequity in the community. A common issue that community organizations run across is not having enough money or resources to be able to provide their programs to all the students that wish to participate. Essentially, they need *more* of what they're already doing: more learn-to-swim programs, more pools, more instruction. Community organizations in Rockaway are rallying, pushing for water safety instruction policy to be passed in New York State and meeting with government officials to put pressure on constructing a pool on the peninsula. While these efforts are necessary, they mainly target water competency instruction, rather than ocean literacy. The ideas that community organizations are already pushing for are necessary but should be amended to include an ocean literacy focus, as well.

Integrating Water Safety Education Into Public School Curricula

While community organizations in Rockaway have distinct and separate identities from each other, a network of Rockaway's organizations have convened to pool their resources to push for real policy change in New York State regarding water competency disparities. Organizations such as Laru Beya, SSF, Surfrider Foundation, RTE, and Rockaway Beach Civic Association (RBCA) have been meeting regularly since February 2021 as the Water Safety Education Coalition[97] to principally support Senate Bill S2207 and Assembly Bill A728 which are each sponsored by NYS Senator Joseph Addabbo and NYS Assemblywoman Stacey Pheffer

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[97] "Rockaway Beach Civic Association: Water Safety Community Meeting."

Amato who is a Rockaway local. S2207/A728 require that water safety instruction is taught in all NYS public schools and that the curriculum includes:

> "the proper use of flotation devices, awareness of water conditions, how to respond if caught in a rip current, the proper supervision of swim areas, safe behaviors in and around the water, the importance of pool barriers and fencing, the importance of formal swim lessons, the importance of avoiding alcohol and substance use with water recreation, the importance of cardiopulmonary resuscitation for drowning victims and the importance of the order of administering such aid," etcetera.[98]

Such instruction will be age appropriate, adaptable to each grade level between Kindergarten and 12th grade. The program that the bill outlines parallels a program that already exists: Swim Strong Foundation's "Know Before You Go" program, an established course that addresses many of the issues the bill identifies and is distinct because of its adaptability: it can be modified depending on grade level and provides slide shows, activities, and homework assignments depending on age. In this way, while the policy would be implemented in a formal school setting, it has the potential to engage with and include local community organizations that are experienced and knowledgeable about water safety.

The Water Safety Education Coalition has collected more than 100 signatures from organizations and more than 1000 signatures from individuals in support of the bill. Queens Borough President Donovan Richards also stated that his office is fully behind the effort in a recent community meeting held by RBCA on January 6th, 2022. Queens Borough President Richards asserted how important it is to educate the youth of the community and work on the "underlying issues" that Rockaway has experienced in terms of water safety disparities. Senator Addabbo echoed this sentiment, mentioning that the legislation has bipartisan support and "isn't going to break the bank."[99]

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[98] New York State Senate, *Senate Bill S2207.* 2021-2022 Legislative Session. https://www.nysenate.gov/legislation/bills/2021/S2207.
[99] "Rockaway Beach Civic Association: Water Safety Community Meeting."

Incorporating a program focused on water safety instruction in schools is crucial in diminishing the water competency gap and reducing drowning rates. As Laru Beya writes on their website, "by providing water safety education in schools, the socioeconomic and cultural barriers to accessing these resources can be lessened. Thus, laying the foundation for a more inclusive and safer recreational water community."[100] Although the bill doesn't require swimming instruction and thus cannot fully achieve water competency within its student body, the bill is a step in the right direction.

However, while the bill specifically targets water safety, it could go a step further in adding a focus on oceans to encourage ocean literacy among younger generations. The bill does require education on rip-currents and how to read different water conditions, but this falls a little short of being ocean *literate*, and acts more as a water safety measure. As revealed by Corey and Jordan, their Rockaway school curriculum didn't include education on the oceans, despite living in very close proximity to it. However, students should have a good understanding of the ways the ocean and human lives play a role in the other's system. In this case, "Exploring Our Oceans" MOOC, or an equivalent of this course, could be a good reference for creating an ocean literacy curriculum in NYS. This gives students the opportunity to properly understand how to interact with the ocean and the importance of it, and will allow students to feel more comfortable in engaging with blue spaces. Especially in Rockaway, a peninsula based on the Atlantic Ocean, students should have a good understanding of the significance of the ocean and how it affects their lives.

While S2207 and A728 have yet to pass, S7129 and A7734—co-sponsored by Assemblywoman Amato and NYS Senator Timothy Kennedy—have been approved.

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[100] "Keep Rockaway Safe," *Laru Beya Collective* (website), n.d., https://www.larubeyacollective.com/watersafety.

S7129/A7734 is a temporary commission to assess and develop programs that focus on instructing and educating students on water safety and swimming.[101] While the existence of this commission shows that there is movement and support for the cause, the commission is searching for answers that we already have: there *are* disparities in water competency, and there also *are* community organizations and programs that are already well-versed in the water competency gap and provide swimming and water safety instruction (i.e. SSF and its "Know Before You Go" program and RTE's learn-to-swim program). What is needed is water safety instruction to be administered and incorporated into school curriculum, which can be done by state policy collaborating with the community organizations and programs that already exist.

Build A Public Pool in Rockaway

Ironically, Rockaway does not have a public pool. Far Rockaway High School has a pool that is in and out of operation. Beach Channel High School has a pool designed for learning to scuba dive and has remained inoperable. The YMCA has a pool in Arverne but requires membership in order to use it; yet, there is no pool on the peninsula that is open to the public, free of charge. In fact, "though surrounded by water, a shortage of pools and lifeguards in the Rockaways makes it nearly impossible for kids to safely learn to swim, especially for Brown and Black children."[102] In the recent RBCA community meeting, Queens Borough President Richards indicated his support for the construction of a pool in Rockaway, although he said that the project would be expensive and most likely cost about $60-100 million to start from scratch.

A public pool in Rockaway would give locals access to a stable body of water where they can enjoy the amenities of a pool on a hot summer day and start to become comfortable around

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[101] New York State Senate, *Assembly Bill A7734.* 2021-2022 Legislative Session. https://www.nysenate.gov/legislation/bills/2021/A7734.
[102] Kenn de Balinthazy.

and in water at their own pace. Constructing a pool in Rockaway would allow community members to follow this path to swimming competency by giving them the opportunity to learn to swim which they can graduate from if they have the desire to, whether that's advancing to swimming in the ocean, applying to become a lifeguard, becoming a swim instructor, etcetera. A pool can be the first step in reducing racial and socioeconomic disparities with respect to access to water, as well as making the pool and the beach a more welcoming space.

Water Safety Community Programs Should Focus More on Ocean Literacy

As already discussed, much of the programming that focuses on swimming and water safety skills is lacking in ocean literacy instruction. While programs such as "Know Before You Go" are extremely important and greatly needed, its discussion on ocean-related-topics relates more to mitigating risk and ensuring safety of participants, rather than also educating on the ocean and the relationship we have with it. These community programs could be amended to include ocean education. Water safety instruction inclusive of ocean literacy can help raise a knowledgeable community that is then confident in approaching blue spaces.

Increase Funding for Community Programming

A common obstacle that these four organizations each came across was a lack of resources and reaching capacity within their programs. Each organization that was profiled mentioned money being a clear obstacle. SSF operates strictly on a volunteer basis so that it can keep its costs as low as possible and provide lessons at discounted or free rates for the students that need it. RISE, RTE, and Laru Beya also provide their programs for free meaning that they only receive funding through grants and donations. These organizations want to reach as many

kids as possible, however their resources can only be stretched so thin. To help support these organizations, NYS should provide governmental support, alleviating these organizations of the financial burdens that often hinder them from reaching their full potential. Organizations would be able to expand into standard-sized and more pools, expand into different and additional programs, provide more food, bathing suits, surfboards, transportation, etcetera, to these crucial, life-saving, breaking-barriers programs.

Conclusion

The Rockaway peninsula is separated along largely racial and socioeconomic lines: the west end of the community is mostly white and upper-class, while its east end is primarily a community of color and low-income. While residents technically have easy access to the beach—the peninsula is only eleven miles long and three miles wide, as Slevin says—access does not always relate to physical proximity. Many locals have grown up in Rockaway without learning to swim or going to the beach because of factors like generational trauma, unaffordability, a fear of water, lack of access to a stable learning environment for swimming, and the exclusivity of the beach.

Organizations across the peninsula, noticing such stratification and disparities in water competency and ocean literacy, have developed to mitigate these gaps. Organizations like Swim Strong Foundation and Rockaway Initiative for Sustainability and Equity have been in Rockaway for over a decade now, establishing roots and relationships with the community and other organizations. Among the younger generation of organizations are Laru Beya and Rising Tide Effect who have both started their programs in the last few years. Whether these organizations have been here for long or not, their programs have seen positive results, with students blossoming and becoming full-fledged swimmers, surfers, community members, and leaders. There's no doubt that the work they have been doing is good work, supporting and empowering their community.

And yet, there is still much to do. This project has found many gaps in the literature, including a lack of research on non-school-oriented water-competency and ocean-literacy curricula, community organized programs, and directly coastal communities. This study is just one of what should be many: a project that centers community and community organizing within

its study on water competency and ocean literacy initiatives. While published literature continues to explore ocean literacy programs through the perspective of environmentalism and sustainability, future research should also address the ways that disseminating ocean knowledge can improve people's lives socially. Existing literature fails to incorporate how approaching ocean literacy through a social framework can accomplish environmentalist and sustainability objectives by empowering communities to engage with the ocean and blue spaces, thereby encouraging environmental stewardship through social change.

On the ground, community organizations have joined together to push for the government to establish water safety education in all its New York State public schools. While there should be a larger focus on ocean literacy, this need should not take away from the necessity and importance of the S2207/A728 policy initiative. Adding ocean literacy to organizations' programs and policy initiatives may only be possible with more resources and funding for these organizations. Governmental support is not only necessary for water safety education policy but also for each individual organization that continues to do good work in Rockaway and for the community.

Although there is always more work to be done, Rockaway, NY acts as a good example of the positive ways in which organizations can impact a community and provide necessary and crucial programming. Swim Strong Foundation, Rising Tide Effect, Rockaway Initiative for Sustainability and Equity, and Laru Beya each elevate the Rockaway community with their programs, supporting individual community members and joining together to create a team of organizations that elevates the community as a whole and pushes for important policy change.

Appendix

Appendix A. Rockaway Community Organizations

Organization	Swim Strong Foundation	Rising Tide Effect	Rockaway Initiative for Sustainability and Equity (RISE)	Laru Beya
Water Competency Initiatives	Teaches paid/discounted/free swim and water safety lessons using a competitive swimming approach.	Teaches free swim and water safety lessons	Shore Corp	Surf lessons, which includes teaching the basic functions of and skills required to ride a surfboard, surfing etiquette, and safety instruction.
	"Know Before You Go"		Aqua 101	
Ocean Literacy Programs	"Know Before You Go"	Talk about it and share stories amongst students and instructors	Aqua 101	Beach clean-ups
		"Know Before You Go"	Environmentor	Partnership with Surfrider Foundation
			Living Classroom – program for students in Pre-K-6th grade that teaches students about the Rockaway natural environment and coastline	
Mentorship / Additional Programs	Partners with different kinds of organizations to encourage more advanced students to get involved in other aquatic activities (i.e. partnered with Surfrider Foundation to provide free surf lessons for students).	Guest speaker comes in once a week to mentor kids (i.e. former NYC lifeguard, the founder of the Rockaway Hotel, a nutritionist to talk about the importance of sunscreen and staying healthy and hydrated at the beach). Focuses on showing students that swimming skills and water safety can lead to a career or other hobbies.	High school interns from the Shore Corp program are the counselors in for middle school students in Aqua 101.	Exposure to resources, such as: to climbing instruction, photography, legal expertise, etc.
	International Water Safety Day (May 15th) – coast guard, navy divers, lifeguards, first responders, etc. come to speak to students			Fosters mentorships between surf students and instructors/members of the Laru Beya community.
Additional Provisions	Scholarship program to help pay for lessons	Meal provided during lesson		Snacks
				Bathing suits (in certain cases)

				Wetsuits
				Surfboard
				Rides to the beach
Open Water Exposure		Rising Tide Effect does not expose its students to open water due to liability constraints, but the learn-to-swim program does simulate open, "unstable" waters by creating waves with boards and challenging students to swim against it.	X	X
Target Group	Kids	Kids that are most "at-risk," i.e. kids that wouldn't be able to afford swim lessons, are newly independent (~14 years old), had a bad year (one student's home was lost to a fire, two students lost their fathers).	Kids: Middle and high school	Kids: 8-18 years old
Founded by Community Member(s)				X
Obstacles	Money	Seasonal (the Rockaway Hotel's pool is outside, so lessons can only occur during warmer months when the pool is operable).	COVID-19 pandemic – difficult to operate the programs when they are meant to be in-person	Money
	COVID-19 pandemic – couldn't operate due to lessons being in-person and the Far Rockaway High School's pool remaining inoperable	Pool (the Rockaway Hotel's pool is only 4 feet deep, so can't teach students how to go deep or jump in safely)		
		Capacity (they can't reach enough students operating out of only one pool)		

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