

# Teen Urban Tree Corps

## Summer 2021 Report



SPEAK FOR THE TREES

Boston

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# A Letter from Our Staff

We're proud to share with you our final report for the 2021 Teen Urban Tree Corps program. This was a summer filled with learning, engaging, exploring, and connections.

The Teen Urban Tree Corps program was founded in 2019 with the goal of educating and engaging Boston's next generation of urban foresters and environmentalists. In that first summer of outdoor work, teens inventoried over 5,000 street trees. In 2020, due to the COVID pandemic, the program pivoted to an entirely virtual program. It wasn't ideal, but our teens from that summer stepped up to the challenge by sharing stories of their community forests.

In the spring of 2021 we were faced with a similar challenge - should the program be in person or virtual? Coming out of a school year where youth faced disruptions due to the pandemic, we at Speak for the Trees made the decision to develop as much of a "normal" in-person summer experience as possible. Our youth, facing so much time in front of computers and in zoom classrooms, deserved face to face time to explore, learn, and grow together.

And our teens not only met the challenge, but exceeded our high expectations. They amazed us with their commitment, insights, ideas, and thoughtfulness. They brought with them a sense of wonder, joy, and curiosity. We hope some of that is captured in the pages that follow. We thank them so much for their hard work and energy and know that they will continue to apply their commitment, energy, and ideas to make the world a better place.

In the report below we lay out the goals, activities, and successes and challenges of the 2021 Teen Urban Tree Corps program. We're proud of all we've accomplished together since 2019 and look forward to continued growth and partnership with all of those who have participated and supported this program. Whatever role you played - as a funder, an amplifier, a guest speaker, or a visitor, - thank you! Your support of these teens and their work is laying the foundation for a greener, healthier, and more equitable urban forest in Boston.

Gratefully,



Eva Paradiso  
Education Coordinator



David Meshoulam  
Executive Director

# Section 1: Program Overview

## History of the Teen Urban Tree Corps Program

Speak for the Trees' (SFTT) Teen Urban Tree Corps program (TUTC) is a 6-week hands-on education and training program in urban forestry for Boston youth ages 15-18. Through workshops with professionals and field trips, teens learn about the importance of trees and explore opportunities to grow and support the city's urban forest through the lens of environmental justice, social resilience, and community empowerment.

The program first ran in 2019 with twelve teens; in addition to learning, these youth inventoried over 5,000 street trees in the Roxbury and Dorchester neighborhoods of Boston. In 2020, due to the pandemic, the program transitioned to an online format where sixteen teens created stories about their community forests. The results of their work, including videos and reports, can be found online at [treeboston.org/teen-urban-tree-corps-2020](https://treeboston.org/teen-urban-tree-corps-2020).

## 2021: A Year of Continued Challenges, Changes, and COVID

In the summer of 2021, fifteen teens discovered the field of urban forestry and arboriculture and learned about the importance of Boston's urban canopy. Six weeks of guest speakers, presenters, and field trips allowed the teens to develop knowledge and skills in urban forestry which they applied in groups to community forest plans.

Due to the continued uncertainty of COVID and the vaccine timeline for youth, beginning in the spring of 2021, SFTT staff developed a flexible program with options for a virtual, in-person, or hybrid summer program. A month before the program started, with infection numbers decreasing and vaccination rates increasing, SFTT staff decided to hold a fully in-person program and mandated that staff, participants, and guests were fully masked during all events.

In May 2021, program staff, including two staff members, Ashley Pedersen and David Meshoulam, a newly hired Program Coordinator, Eva Paradiso, and an arborist consultant, Kristina Bezanson, developed a scope and sequence for the program. This included listing out goals and objectives, creating activities, organizing field trips, inviting guests, ordering materials, and hiring additional teens and Team Leaders.



## Section 2: The 2021 Program

### Program Educational Objectives

The TUTC Summer 2021 program was framed by two primary goals: workforce development and the creation of community planting plans.

#### **1) Workforce Development: Introducing youth to urban forestry and arboriculture through hands-on work and learning from professionals in the fields**

The goal of creating connections between the youth of Boston and professionals in the fields of urban forestry and arboriculture was to provide opportunities to foster growth in the field of urban forestry, a field predominantly composed of middle-aged white males. The median age of someone working in the field of urban forestry is 52 years old, 91% are white, and 78% are men (Wiseman et al. 2020; [URBAN FORESTRY 2020: An Investigation of Student Perceptions, Career Opportunities, and Professional Practice](#)). Throughout the program, teens met and spoke to guest speakers and presenters who shared their career paths and work experiences. The Teen Urban Tree Corps provides an opportunity to bridge the gap between the current supply and demand in urban forestry (Fig. 1).



**Figure 1. Urban Forestry "career train" framework.**

The Teen Urban Tree Corps is Stop 2 in the train to develop workforce pathways in urban forestry for the City of Boston. Concept map developed by Ashley Pedersen.

## 2) Community Planting Plans: Having youth develop and design planting plans in their communities.

In addition to learning about urban forestry, the program provided youth opportunities to become changemakers and leaders in their communities. This was facilitated through a final project through which teens could apply the skills they learned throughout the summer as a tool to explore the trees in their communities and suggest how they might improve their own communities' tree canopy cover. Teens were asked to think about places they frequented in Boston and opportunities for tree plantings. Then, in groups, they selected sites where they wanted to work on a community planting plan.

## Daily Schedule

The TUTC program met in person on weekdays. The program ran from Tuesday, July 6th through Friday, August 13th. Teens met daily from 9:00 am to 2:30 pm at Community Academy of Science and Health High School (CASH) at 11 Charles Street, Dorchester, around the corner from Speak for the Trees' office. Most days started with a warm up game or activity and then either progressed into a presentation, guest speaker, journal activity, or field trip that explored and furthered topics in environmental justice, urban forestry, and arboriculture. There was variability in the daily schedules dependent on guest visitors, site visits, and weather.

## Weekly Curriculum

During late spring, SFTT staff developed an outline and framework for the program. Professor Kristina Bezanson from the Stockbridge School for Arboriculture provided expertise as an ISA Certified Arborist. She assisted in guiding the weekly themes, ensuring that learning focused on urban forestry, the importance of Boston's tree canopy, workforce development, and career opportunities in arboriculture and urban forestry. Although each week had a targeted theme, the themes blended between weeks. This was both a recognition of the inter-relationship of the concepts and also served to match the availability of our guest speakers. The thematic curriculum can be found in Table 1 below.

Week	Dates	Theme
Week 1	July 6th- July 9th	<u>Urban Forestry:</u> What is an urban forest and why does it matter?
Week 2	July 12th- July 16th	<u>Tree Biology:</u> What is an urban ecosystem and how does Boston's function?
Week 3	July 19th- July 23rd	<u>Green Infrastructure and Site Planning:</u> How do we plant and care for trees?

Week 4	July 26th- July 30th	<u>Tree Care:</u> Who's responsible for the urban forest?
Week 5	August 2nd- August 6th	<u>Tree Management:</u> How can we build resilience in the face of climate change?
Week 6	August 9th- August 13th	<u>Final Projects:</u> How can we improve upon Boston's urban forest by creating a planting plan for our community?

Table 1. Weekly Themes for Teen Urban Tree Corps, Summer 2021.

In Week 1, teens learned about urban forestry as a concept. They began to define an urban forest and think about its benefits to people with an emphasis on environmental justice and equity. Teens explored equity through different axes, including environmental, racial, social, and economic issues. This provided a foundation for the teens to understand the importance of Boston's urban forest and context for the tree coverage disparities across neighborhoods.

In Week 2, the teens dug into tree biology, tree identification, tree physiology, and tree anatomy. Additionally, teens learned about tree inventories and planting plans. The tree inventory and planting plans were critical to introduce at an early stage in the program to allow the teens to think about their community forestry plans and planting projects.

In Week 3, teens learned about site planning and green infrastructure. Teens learned about green infrastructure designs and the importance of including green spaces when developing and planning cities.

In Week 4, teens thought about who is responsible for the urban forest. Teens considered street trees, park trees, and trees on private land, the different challenges that these trees face and what people take care of these different trees. The teens also started to explore their role as tree stewards and how they can take care of the city's trees; they learned from Speak for the Trees Staff about our [Adopt-A-Tree Program](#).

In Week 5, teens focused on climate change impacts and how to create resilient communities as they worked out the details of their community planting plans. Teens had conversations about how tree species suitability might change with increasing temperatures, increased prevalence of severe storms, and other complications from climate change.

In Week 6, the teens focused on completing their final projects. Teens were given time throughout the week to further research, develop, and complete their tree planting plans and presentations. During this final week, elected officials visited the program and the youth expressed their concerns for Boston and their communities and ways in which they felt that there was opportunity for Boston to improve. In the final week, teens were also given the opportunity to physically climb a tree under supervision of professional tree climbing arborists.

## Guiding Questions

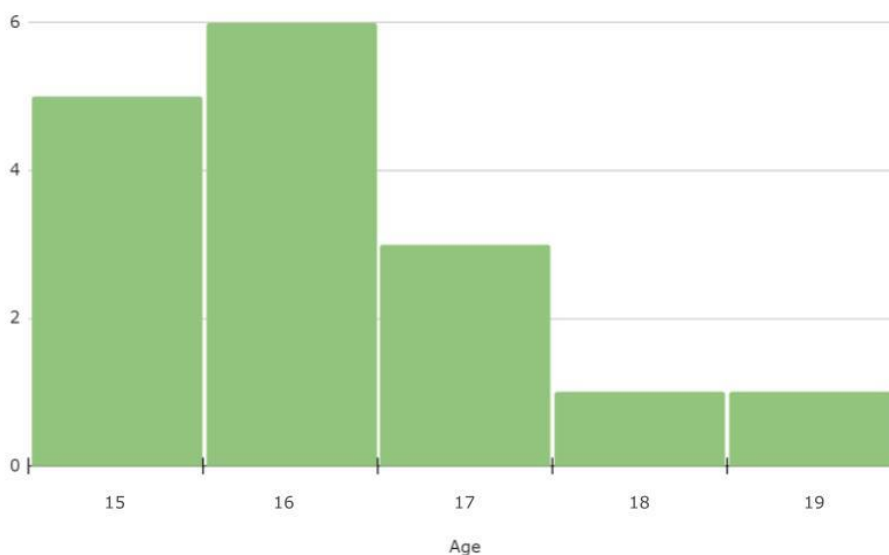
In the beginning of the program, the teen participants developed a series of guiding questions through the [Question Formulation Technique](#). This exercise allowed the teens to think about priority questions that they wanted to explore over the course of the summer. The group settled on three guiding questions for the summer program.

1. What is an urban forest?
2. How does a healthy urban forest benefit its residents?
3. How can residents help the urban forest?

## Participants & Staff

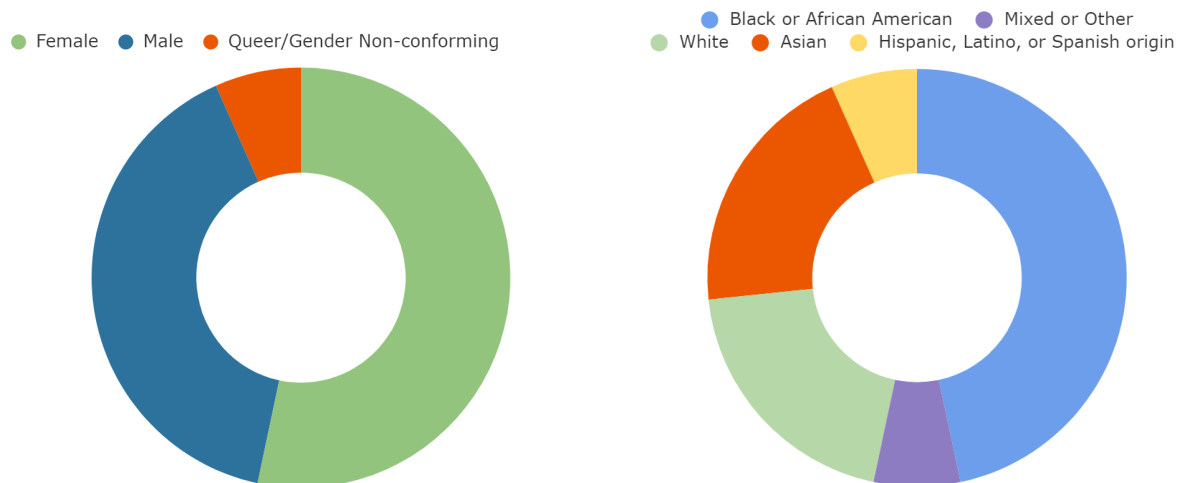
In a city as diverse as Boston, a central goal at Speak for the Trees is representing that diversity in staffing and participation. Although recruitment was challenging in the midst of a pandemic—for example, there were no job fairs held at schools this year—program staff reached out and advertised through teachers, schools, informal personal networks, SFTT's weekly newsletter, and social media to recruit and hire staff and teens.

The program consisted of 15 high school participants between the ages of 15 and 19 (see Figure 2), three Team Leaders (ages 19 - 21) and one Program Coordinator (age 23). At the time, all teens lived in the City of Boston and either attended or recently graduated from high school in the Boston area. More than 50% of the 2021 TUTC participants identified as female, 40% identified as male and 6% identified as queer/gender non-conforming. Participants were also racially diverse, with over 45% identifying as Black or African American, 20% Asian, 20% white, and ~7% Hispanic or Latino and ~7% mixed race (see Figure 3).



**Figure 2. TUTC 2021 participants by age.**

Participant ages range from 15 to 19 years with the average age of 16.2 years.



**Figure 3. TUTC 2021 participants by Gender (L) and Race (R).**

53.3 % of the teens were female, 40% were male, and 6.7% were queer or gender non conforming. In terms of race, 46.7% Black or African American, 20% Asian, 20% white, 6.7% Hispanic or Latinx, and 6.7% Mixed or Other.

Youth participants came from 8 different neighborhoods: 5 from Dorchester, 3 from Hyde Park, 2 from Allston, 1 from Charlestown, 1 from Mattapan, 1 from Roxbury, 1 from Brighton, and 1 from Jamaica Plain. Youth participants attended eleven different high schools: New Mission, Roxbury Prep, Boston Collegiate Charter School, Boston Latin School, Madison Park High School, Codman Academy Charter School, Noble and Greenough, Boston Latin Academy, Boston Prep, Mount Alvernia High School, and Match Charter Public High School.

Youth also came from families with varying levels of education. Four of the youth came from families where one or more of the parents received a graduate degree, three youth came from families where one or more of the parents received bachelor's degrees, and five of the youth came from families where one or more of the parents had high school degrees. Additionally, three of the youth were unsure about the highest level of education their parents received.

The TUTC program staff included the Program Coordinator and 3 Team Leaders (see Figure 4). Eva Paradiso joined us as the Program Coordinator position in late May 2021. Eva transitioned from a research assistant position with the USDA Forest Service Southeast Climate Hub based in North Carolina, where she was working to integrate climate change science and forest management. Eva helped develop curriculum, coordinate program logistics including field trips, guest speakers, and presenters, and helped provide support to teens and Team Leaders on their projects.

The Team Leaders were Niamh Bayliss, Izzy Essman, and Syaer Web. Niamh is a Newton native and Wellesley College student (class of 2022) studying Environmental Studies and Latin American Studies. Izzy is a St. Louis, MO native and Tufts student (class of 2022) studying English and Women's Gender, & Sexuality Studies. Syaer is a Hyde Park resident, graduate of

Henderson Inclusion K-12 Upper School, and was about to begin his studies at University of Massachusetts, Dartmouth, in the fall of 2021. Niamh and Izzy were hired directly by SFTT; Syaer was hired through the City of Boston's Successlink program. The Team Leaders each worked directly with small groups of teens on developing their neighborhood community planting projects.



Figure 4. Teen Urban Tree Corps staff, summer 2021.

From left to right, Syaer Webb (Team Leader), Niamh Bayliss (Team Leader), Eva Paradiso (Program Coordinator), and Izzy Essman (Team Leader).

In March, 2021, Kristina Bezanson, from University of Massachusetts Amherst, Ashley Pedersen, Program Associate at Speak for the Trees, and MassCEC intern Emika Brown, began developing the TUTC program. Kristina, an ISA Certified Arborist and Lecturer in Arboriculture and Urban Forestry at UMass's Stockbridge School of Agriculture, was hired as the Consulting Arborist to help create the summer curriculum. Kristina incorporated the critical components of urban forestry and what is required to become an arborist into the program curriculum. Ashley Pedersen served as the Program Associate helping develop, plan, and work on summer logistics. Ashley also assisted with hiring, onboarding, and payroll for the teens. Emika Brown, also helped with the program logistics.

Starting in June, two summer interns funded through MassCEC, Marilene Rivas-Chavez and Amelia Murray-Cooper, provided assistance with hiring and onboarding for the teens and provided additional staff support on an as-needed basis.

## Field Trips

Part of the TUTC 2021 program included a weekly field trip (see Table 2 for a complete list). The group traveled across the City of Boston and beyond to learn about different aspects of green jobs and urban forestry. Teens learned from a diverse group of professionals and absorbed their stories, which broadened the teens' perspectives on potential careers. During these field trips,

the teens made connections with various professionals in the field of urban forestry and got to see firsthand what their day-to-day tasks were like.

Below are a few ways in which field trips allowed the teens to connect with urban forestry professionals:

- Teens met with over ten researchers, graduate students, and plant technicians (see Table 3 for a complete list) at the Arnold Arboretum and learned about the path to becoming a researcher. Many of the teens remarked that they had no idea you could get paid to go to school and continue to get paid after graduation for doing research.
- Russel Holman from Arborway Tree Care shared with teens that planning to plant trees in downtown Boston can be challenging and urban trees require continuous maintenance (Figure 5, lower right). He shared a story of responding to an emergency call to Post Office Square Park at 2 am to take care of a tree that had been hit by a car. Teens learned that being an arborist is not a typical 9 to 5 job!
- Liz Luc Clowes shared her journey from business to landscape architecture and the TUTC participants learned that many people found themselves in the green industry after a career switch.
- Judith Foster at the HERO Hope Garden emphasized the importance of getting involved with local politics and standing up for your beliefs. She brought along a fellow urban farmer, Leonard Lee, who shared his honey with the teens.

Week & Theme	Field Trip Location	Description	Youth Learning Takeaways
Week 1: Urban Forestry	Arnold Arboretum	Tour of the Arnold Arboretum	People with varied backgrounds help take care of the Arnold Arboretum  People can get paid to go to school and paid to do research
Week 2: Tree Biology	Post Office Square Park	Tree ID walk - Russel Holman	Tree identification skills
	Codman Square Micro Healing Forest	Site visit - Liz Luc Clowes	How to develop a planting plan as a landscape architect
Week 3: Green Infrastructure & Site Planning	Mount Auburn Cemetery	Walking tour of Mount Auburn Cemetery - Jonathan Webb	Equipment required to maintain a large cemetery  Soaring high in a bucket truck!
Week 4: Tree Care	Hero Hope Garden	Tour of the HERO Hope Garden - Judith Foster	Sustainable agriculture and the importance of bees in local food
	Franklin Park	Invasive species (buckthorn) removal - Max Ford Diamond and Erica Holm	What is an invasive species?  How to remove invasive species using loppers, pruners, weed wrenches, and shovels



Week 5: Tree Management	Spectacle Island	Tour of Spectacle Island - Park Ranger Meg	History of Boston's trash and ecological restoration
	Franklin Park	Invasive species removal - Green Team Emerald Necklace Conservancy	Interaction with other teens doing similar green infrastructure work in Boston
Week 6: Urban Ecosystems	Franklin Park	Tree Climbing - Bear and Melissa LeVangie	Tree climbing safety and tree climbing

Table 2. Teen Urban Tree Corps Summer 2021 Weekly Field Trips.

## Guests

One of the goals of the TUTC summer 2021 program was to connect the youth participants with guest speakers across the fields of urban forestry and arboriculture to create workforce development opportunities. During the program, teens made connections in the world of urban forestry in the fields of arboriculture, tree health care, government, landscape architecture, research, and more. Teens had a chance to learn from and ask questions of over 40 guest speakers. This included over ten arborists and more than five city officials who deeply care about Boston's urban forest. A complete list of weekly guests is included in Table 3.

An example of one of the workshops was the urban forestry career panel. The panel was composed of five urban forestry professionals, all of whom either were currently or had been an arborist. During the “Share your urban forestry career” talk, panelists shared about their organizations and companies and their roles at their current jobs (Figure 7). The panelists talked about their journeys in urban forestry and all panelists mentioned they never imagined themselves going into urban forestry when they were in high school. The career panelists said that all of the participants in TUTC knew more about urban forestry than they did when they were in high school. When asked to reflect on the career panel and what the TUTC participants learned or found interesting, many of the teens mentioned that they were surprised to hear that the panelists had not always known they were going to become arborists.

For many participants, meeting with professionals was a highlight of the program. During the mid-program survey, students said:

- “[I enjoy] being able to have professionals talk to us about various aspects of their jobs”
- “[I enjoy] learn(ing) from people about their different experiences with their job and the work that they do”
- “I like that we get these speakers with different job(s) (who) talk about their journey, and what their jobs are like.”



<b>Week &amp; Theme</b>	<b>Name of Guest</b>	<b>Title and Organization</b>
<b>Week 1: Urban forestry</b>	David Meshoulam	Executive Director, Speak for the Trees
	Christine Carmichael	Principal Consultant, Fair Forests Consulting
	Reverend Mariama White-Hammond	Chief of Environment, Energy, and Open Spaces, City of Boston
	Faye Rosin	Director of Research Facilitation, Arnold Arboretum
	Rachel Brinkman	The Manager of Horticulture, Arnold Arboretum
	Tiffany Enzenbacher	The Head of Plant Production, Arnold Arboretum
	Scott Pedemonte	Plant Technologist, Arnold Arboretum
	Lee Toomey	Weld Hill Growth Facilities Manager, Arnold Arboretum
	Grace Burgin	PhD Candidate, MSO, Hopkins Lab Fellow of the Arnold Arboretum of Harvard University
	Kristel Schoonderwoerd	PhD Candidate, OEB, Friedman Lab Fellow of the Arnold Arboretum of Harvard University
	Antonio Serrato-Capuchina	Postdoctoral Fellow, OEB, Hopkins Lab Fellow of the Arnold Arboretum of Harvard University
	Ellie Mendelson	Research Assistant, Friedman Lab and Weld Hill Labs Arnold Arboretum of Harvard University
	Jonathan Damery	Associate Editor of Arnoldia, Arnold Arboretum
	Nathan Phillips	Professor of Earth and Environment at Boston University
<b>Week 2: Tree Biology</b>	Russell Holman	Sales Arborist, Arborway Tree Care
	Kristina Bezanson	Lecturer in Arboriculture and Urban Forestry, UMass Amherst
	A.J. Elton	Graduate Student in Forest Resources and Arboriculture, UMass Amherst
	Liz Luc Clowes	Landscape Designer & Owner, Luc Clowes Landscape Design
	Frank Mastrobuono	International Sales Director, PlanITGeo
<b>Week 3: Green Infrastructure and Site Planning</b>	Maggie Owens	Planner, Boston Parks and Recreation Department
	Ryan Woods	Commissioner, Parks and Recreation Department
	Zoe Davis	Climate Resilience Project Coordinator at City of Boston, Boston Parks and Recreation
	Phil Pherron	Massachusetts Certified Arborist, ISA Certified Arborist, Licensed Applicator Barrett Tree East

	Tawny Simisky	Extension Entomologist & Interim Team Leader of the Landscape, Nursery, and Urban Forestry Program, UMass Amherst
	Jonathan Webb	Assistant Superintendent of Grounds, Mt. Auburn Cemetery
<b>Week 4: Tree Care</b>	Michelle Moon	Co-Founder, Civic Space Collaborative
	Kristina Bezanson	Lecturer in Arboriculture and Urban Forestry, UMass Amherst
	Doak Marasco	Regional Manager of Strategic Partnerships, Davey Tree
	Chris Gonzalez	Supervisor of Vegetation Management, Eversource Energy
	Greg Mosman	Tree Warden, City of Watertown
	Adam Creven	Arborist, Hartney Greymont
	Natalie Merline	TerraCorps Member, Speak for the Trees
	Elizabeth Lohr	TerraCorps Member, Speak for the Trees
	Ian Smith	PhD Candidate, Department of Earth & Environment & URBAN Programs, Boston University
	Katie Atherton	PhD Candidate Bioinformatics & URBAN Programs, Boston University
	Judith Foster	Founder, HERO Hope Garden (Healing, Empathy, Redemption, Oasis)
	Max Ford-Diamond	Tree Warden, City of Boston
	Erica Holm	Field Operations Coordinator, Emerald Necklace Conservancy
	Jen Ketel	Owner, Radiant Leaf Consulting
<b>Week 5: Tree Management</b>	Camy Olia	Camp Counselor, Drumlin Farm
	Meg Blagden	Park Ranger, Massachusetts Department of Conservation and Recreation
<b>Week 6: Urban Ecosystems</b>	Jessie Scott	Urban Connections Program Coordinator, United States Forest Service
	Chavella Leepac	Community Consultant engaging young people ages 10-19 in the City of Boston's transportation planning and processes
	Shavel'le Olivier	Executive Director, Mattapan Food and Fitness
	Kenzie Bok	Boston City Councilor
	Liz Miranda	State Representative, Suffolk 5th District

Table 3. Comprehensive List of Guest Speakers and Presenters for 2021 TUTC Summer Program.



**Figure 5. Photos from guest speakers and field trips during weeks 1 and 2.**  
**Upper left: Tree physiology with Kristina. Upper right: TUTC participants standing around the Giant sequoia at the Arnold Arboretum. Lower left: Tiffany Enzenbacher, Head of Plant Production at the Arnold Arboretum gives a tour of saplings. Lower right: Russel Holman from Arborway Tree Care identifies trees on a rainy July day at Post Office Square in Downtown Boston.**



Figure 6. Photos from Week 3.

Upper Left: Conversation with Ryan Woods, Zoe Davis, and Maggie Owens from Boston Parks and Recreation. Lower Left: Teen measuring the diameter at breast height (DBH) of a honey locust tree at Ronan Park in Dorchester. Right: Teen being lifted up in a bucket truck by Jonathan Webb at Mt. Auburn Cemetery in Cambridge.





Figure 7. Photos from Weeks 4 and 5.

Upper Left: Soil lab comparing compacted urban soils with soils from the Harvard Forest with Boston University URBAN PhD candidates Katie Atherton and Ian Smith. Upper Right: "Share Your Urban Forestry Career" Panel with Kristina Bezanson (UMass Amherst Stockbridge School of Agriculture), Doak Marasco (Davey Tree), Chris Gonzalez (Eversource Energy), Greg Mosman (Tree Warden, City of Watertown), and Adam Creven (Hartney Greymont). Lower Left: Participants learning about the history of Spectacle Island from DCR Boston Harbor Island Park Ranger Megan Blagden. Lower Right: Invasive species removal with Erica Holm from the Emerald Necklace Conservancy and Boston's Tree Warden Max Ford-Diamond.



Figure 8. Photos from a tree climbing workshop.

Tree climbing was done in Franklin Park with Bear and Melissa LeVangie from Women's Tree Climbing Workshop (<https://www.womenstreeclimbingworkshop.com/>) during the second to last day of the program.

## Final Projects

At the beginning of the program, staff introduced the final project to the participants. The goal of the project was to have teens apply the knowledge and skills that they learned during the program to a planting plan in their communities. The objectives, outline, and expectations for the project are found below (Figure 9).

During the first week of the program, the Program Coordinator and Team Leaders got to know the participants and began to explore how to best structure the 15 teens into 3 project groups. One of the main objectives for the project was to connect the TUTC participants to their local neighborhoods. Thus, a personal geographical connection helped inform the Program Coordinator and Team Leaders decisions. TUTC participants were divided into groups by location; initially each of these groups had 5 participants. Over the course of the program, there was some shuffling to help balance group dynamics. Ultimately, the three groups were composed of anywhere from 4 to 6 participants.

## TEEN URBAN TREE CORPS: FINAL PROJECT

You will use what you learn throughout the program to create a tree planting and maintenance proposal for your community. The project must provide a planting and care proposal that includes: siting of trees, species selection, proper care, and a 2-3 year maintenance plan.



You will incorporate sources of information from scientific and historical research, interviews, personal narratives, storytelling, photographs, observations, data from tree inventories, and your own original ideas.

The scale of the plan could range from a block, to a school or community center or even a few blocks. The project should be budgeted to cost \$5,000-\$10,000, including procurement, planting, outreach, and care.



### Expectations

1. Community History & Values	2. Neighborhood Tree Inventory
3. Risk Assessment	4. Tree Planting: Site Selection
5. Species Selection	6. Planting Plan
7. Maintenance Plan	8. Budgeting
9. Community Outreach	10. Personal Component

Speak for the Trees 2021

**Figure 9: Guide for the Final Project**

This handout given to the participants on the first week of the program, describing the goals of the community planting plan.

## Site Selection

After the teens were given information about the tree planting plans, they started to search for tree planting locations where there was opportunity, feasibility, and need in the neighborhood for more trees. The goal was to have youth think about and identify sites in their neighborhoods where they saw potential for more trees. The teens did this individually and then shared their ideas with their groups. Each group narrowed down their site selection options and chose a few potential sites to visit. The three groups went on site visits to examine each site prior to the final site selection. After all the site visits, groups convened and made informed final site selections based on the opportunities they saw at each site.

## Individual Reflection

During the second week of the program, participants reflected about their neighborhoods and areas in Boston where they spent time (an aunt or uncle's home, their school, a friend's house, etc.). They were asked to observe and think about the spaces where they thought there was a need for more trees, improved tree care, increased tree canopy, or tree diversification. At this point in the program, they had learned from Reverend Mariama White-Hammond, Chief of the Energy, Environment, and Open Space for the City of Boston about the history of redlining in the City of Boston and its relationship to the heat island effect, walked around Dorchester and examined the canopy cover in the Fields Corner area, participated on a tree ID walk with Russel Holman in Post Office Square, and learned about tree inventories and planting plans from A.J. Elton. They used knowledge they had gained from the guest speakers to think critically about the spaces they frequent.

This was the first time that teens clearly expressed their connection to the urban tree canopy in their daily lives. Teens had a range of responses when thinking about their neighborhoods and many showed deep concern about heat islands in the summer. Teens considered differences in tree canopy in street medians, on sidewalks, in their neighbors' backyards, on the walk from their homes to their schools, or in local parks. One student mentioned that there were very few trees on the walk to school. She said that even though the walk was less than 15 minutes, she preferred to take the bus because "it was TOO hot" and that if she walked, she would arrive sweaty and exhausted because of the lack of tree canopy. When asked if she would walk if it were less hot, she said she would.

Around this time, the teens were also asked to do an assignment to connect with their neighborhood trees. Each student filled out the "Get to Know Your Neighborhood's Trees" worksheet (Figure 10) which asked them to walk on their street and take note of the numbers of mature street trees, dead street trees, empty tree wells, front yard trees, and backyard trees. Six participants found at least one dead tree on their street and four participants found empty tree wells. The participants were also asked to think about opportunities to plant trees on their street. The range of answers and reasoning showed that within the first few weeks of the program, the participants were already grasping many of the key concepts of urban forestry.



## Get to Know Your Neighborhood's Trees

Tonight, please go home and spend 20 - 30 minutes walking around your block observing the trees. As you walk around your block examine and take note of trees you see. Fill out the table below and bring it in tomorrow. We will be meeting with 3 employees involved in the city's urban forest plan and will use these observations to guide our conversations with them.

What trees do you notice? Do you notice more street trees, empty tree pits, front yard trees, backyard trees, or no trees? What species do you see? *Please don't walk into people's private yards - just take notes from what you see on the street.*

Your name: \_\_\_\_\_

Neighborhood: \_\_\_\_\_

Your street: \_\_\_\_\_

What you see	Number you noticed	Species or notes?
New street trees		
Big street trees		
Dead street trees		
Empty tree wells		
Front yard trees		
Backyard trees		

Take a photo of your favorite tree! Why was it your favorite tree? Where do you see opportunities for more trees?

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Figure 10: Get to Know Your Neighborhood's Trees

This document was provided to youth participants to guide their work.

Some of the participants did not see opportunities for more trees because of lack of space:

- "I don't see any opportunities for more trees because there are **power lines**."
- "Me and my neighborhood's houses are **too close to each other**."

Other participants found places nearby that they believed had opportunities for more trees:

- "I see opportunities for more trees in people's **front yards** and in **some areas of the sidewalk** where construction workers can take out a sidewalk slab."
- "I see the opportunity for more trees in people's **front yards** and in **backyards**, if they have them."
- "There's lots of **empty yard space**, as well as a couple **open tree wells**."
- "There could be more trees on **blue hill ave**."

The participants were also asked to take a photo of their favorite tree and the responses showed that the participants were understanding what characteristics make a healthy tree, the benefits that trees provide, and showing connections to the trees nearby:

- “The sugar maple was my favorite tree because the **roots, leaves, and stem are healthy**. It's in a good place in my neighbor's backyard.”
- “The black oak is my favorite because it is taller than my apartment building and its **crown is wide** and allows a lot of **shade**.”
- “My favorite tree is my backyard tree because it gives my house **shade** and looks nice.”
- “It's a huge ash that **shades** our driveway really well.”
- “This tree was my favorite because its bark was an interesting color and it was **well pruned**.”
- “This is my favorite tree because I used to **sit under the tree** with my cousin in the summertime.”

## Sharing Potential Sites

Within their project groups of 4-6 teens, participants shared the areas they had identified as potential places for a tree planting plan. Each youth had identified at least one potential site and many of the youth had 2 or more sites. In total, the youth had come up with over 20 potential tree planting sites. Each group selected two to four sites to visit. They selected these sites after considering Speak for the Trees' [Tree Inventory on OpenTreeMap](#) and the American Forests' [Tree Equity Score](#), two tools that examine tree canopy data, environmental heat data, and population demographics to determine the overall tree equity in a neighborhood. They also looked at imagery on GoogleEarth and got a sneak peak at Boston Tree Inventory by Frank Mastrobuono at PlanITGeo.

One theme that emerged across all three groups was the desire of each youth to not just plan, but complete a project at their proposed site(s). As the teens were learning about the benefits of tree canopy cover, they began to realize how they, their neighborhoods, and their families might benefit from newly planted trees, better maintained trees, and tree species diversity. The teens were connecting to the areas they suggested to their groups and this made it challenging to narrow down over 20 potential planting sites to just 2-4.

## Site Visits

Preliminary site visits happened on Day 8 of the program (Thursday, July 15). Team Leaders met their groups in various locations across Boston and visited the potential sites. At each site, groups wrote down what they observed about the area, including what trees were present, any empty sidewalk tree pits, whether the trees appeared healthy, and if there were people at the site. The site visits allowed the teens to examine firsthand the tree canopy cover and see what potential opportunities might exist for tree plantings. Some sites were immediately crossed off the list when there were already healthy existing trees or there was adequate canopy coverage from trees located on private property. After site visits, groups convened to make decisions about what site they wanted to choose for their planting plans. The youth chose their final sites through a ranking process. They considered the opportunity to plant trees at the site, the

feasibility of planting trees at the site, and the need for trees based on the surrounding neighborhood tree canopy. Then they compared these results for each of the sites and chose the site they felt presented the best opportunity to plant.

Final site visits happened on Tuesday, August 3 once each group had selected their sites. At these visits, teens did a full tree inventory by identifying tree species, looking for tree stumps, measuring tree diameter at breast height (DBH), and examining trees for overall health conditions through a 360 degree view. The teens examined the trees: starting with the roots, they looked for a healthy root flare, then checked the trunk for any indication of wounds, and finally they looked at the crown to examine the leaf coverage and leaf health. All groups took notice of the foot traffic in the area and some groups even completed interviews with people who happened to be at the site.



**Figure 11. Warren Street group.**

**Teens measuring the width of the median during the final site visit at Warren Street in Roxbury.**

## Section 3: Teens' Final Projects

For the end of the program, the three groups of teens created a planting plan in their neighborhood with a budget of \$5,000 - \$10,000. Their final reports included not only a proposed planting and maintenance plan, but also a community outreach and engagement component. They shared their presentations at the final event on the last day of the program (Friday, August 13). The links to their projects can be found in Table 4.

Neighborhood	Link to presentation
Roxbury	<a href="#">Warren Street planting</a>
Hyde Park	<a href="#">Ross Field Planting</a>
Mattapan	<a href="#">Wildwood Street planting</a>

Table 4. TUTC 2021 Final Project proposals.

### Group 1: Warren Street, Roxbury

Primarily composed of participants from the “northern edges” of Boston, the Warren Street, Roxbury group had two participants from Allston, one from Brighton, one from Charlestown, one from Roxbury, and one from Hyde Park.

The Warren Street group initially proposed to plant trees in the Edward Gourdin Park; however through an email exchange with local officials, they discovered that the City of Boston already had plans for the park. They switched their plan to the Warren Street median in Roxbury since two teens had connections to the area, one living in Roxbury and the other attending a nearby high school. Through their personal experiences, they noticed that there were very few trees on Warren Street and in the surrounding area. Upon further investigation, through aerial shots on GoogleMaps, the group discovered that the Warren Street median used to have many trees, but only one remained.

The youth said they “chose Warren Street because: the median is bare and lacking in trees, this neighborhood has less canopy coverage and we chose the location keeping tree equity in mind, we knew it was able to grow trees because it already had one growing and is able to grow grass, while doing an inventory we realized how hot it was on the street, heavy foot and car traffic.”

The Warren Street team completed a tree inventory of [Warren Street from Moreland Street to Circuit Street](#). Although there was only one tree in the Warren Street median, there were sidewalk trees along the street including, red oak, little leaf linden, white oak, elm tree, hornbeam, Japanese zelkova, honeylocust, and overcup oak.

In summary: “Our goal is to plant five trees of different species in the median, and put a caretaking plan in place so the trees will not die. We need to account for the cost of: each new tree, planting the trees in the median, which may require shutting down Warren Street for a short period of time, hiring caretakers and planters for the trees. Volunteers can help take care of the trees and rescue the cost of caretakers.”

## Group 2: Ross Field, Hyde Park

Mostly composed of teens near the “southern edges” of Boston including two from Hyde Park, two from Dorchester, and one from Jamaica Plain. This group chose to focus on [Ross Field in Hyde Park](#). The results from their tree inventory showed “low tree diversity, many trees are in fair condition and in need of pruning, positioned on the outside of the field, new trees have been planted”. They created a chart to show the lacking diversity of tree species in Ross Field (Figure 12).

### Tree Diversity in Ross Field

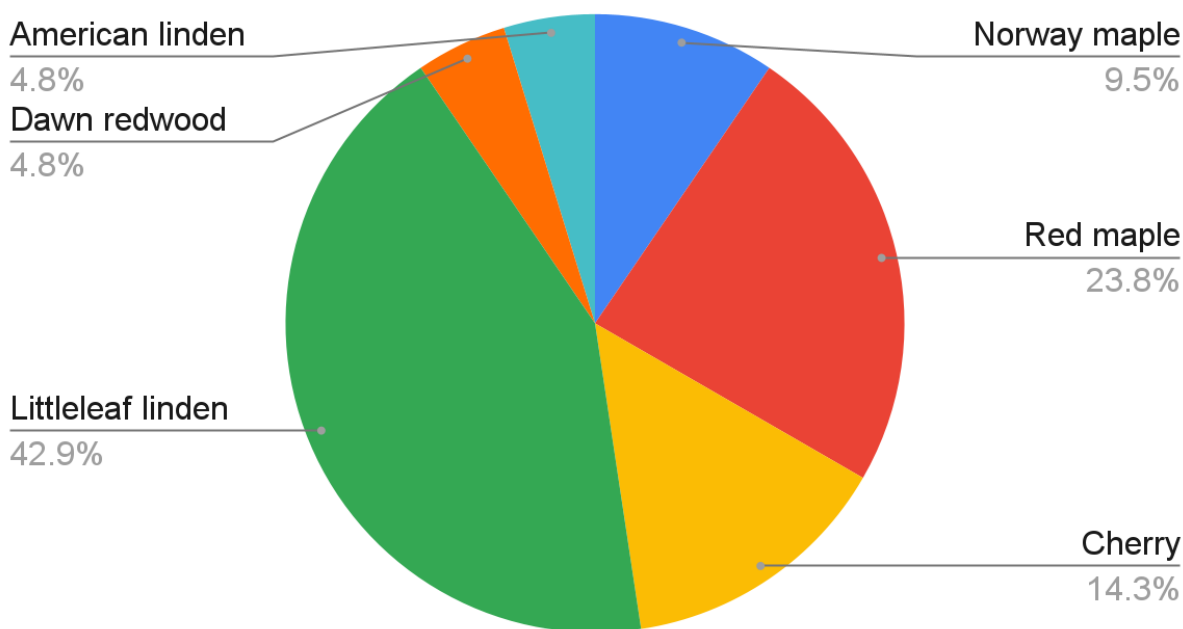


Figure 12. Tree Diversity in Ross Field.

The Ross Field group decided to create a community planting event where they would increase tree species diversity by planting pin oak and crabapple, clean up Ross Field, teach residents the importance of trees, and train them on how to prune trees with the help of professional arborists.



## Group 3 Wildwood Street, Mattapan

Three of the participants in this group lived in Dorchester and one lived in Mattapan. The group focused on a vacant lot at [83 Wildwood Street in Mattapan](#), which was primarily covered with grass and had a few trees growing along one of the fences. This group was looking at different locations in the Dorchester/Mattapan area and selected this vacant lot because one of the teens lived nearby. “Sometimes people in the community who have dogs bring their dogs there. Mattapan can get really hot during the summer and there aren’t enough trees to give shade for pedestrians. This site is on the peak of a slight hill and could be a great place for people to relax if they walk by.”

In the Wildwood Street tree inventory, they found one honey locust, six Norway maples, one buckthorn, and two eastern cottonwoods. Many of these trees were in fair to poor condition, some having dead branches or damage to the trunk and lacking space to grow; some of the trees were not stable, as they had multiple leaders as opposed to one central leader (main trunk). Most tree species will be strongest if they have one central leader instead of multiple and when trees have multiple leaders it is more likely that these trees might split in the future.

The Wildwood group decided that their plan would include adding five different tree species, including American sweetgum, pin oak, Kwanzan cherry, emerald arborvitae, and Japanese maple. They created a maintenance plan that incorporated information regarding who will maintain the tree and how to successfully remove the poison ivy and invasive species found on site. They developed a 3-D model as part of their plan (see Figure 13 below).



Figure 13. Photo of the 3-D model for the Wildwood Street planting plan.

## End of Summer Celebration

The afternoon of Friday, August 13th, Speak for the Trees held an end-of-summer final celebration that provided an opportunity for the teens to present their work to their communities. The event was held in person at Home.Stead Bakery & Cafe at 1448 Dorchester Ave in the Fields Corner neighborhood. The event was also live streamed on Zoom. Guest speakers, community members, family and friends were invited to attend the event and learn about the work the teens completed throughout the summer.

One of the teen's favorite guests from the summer program, Chief of the Energy, Environment, and Open Space, Reverend Mariama White-Hammond joined to celebrate the teens' work. She talked about the heat Boston experienced this summer, further emphasizing the importance of trees and the work the TUTC teens did this summer creating their planting plans.



Figure 14. End of summer celebration.

Everyone agreed with Chief of the Environment Mariama White Hammond that we had experienced an incredibly hot summer in Boston.



**Figure 15. End-of-summer celebration.  
Presenting, awards, and applause at the Final Celebration.**



## Section 4: Evaluation and Assessment

### Program Evaluation

The program was evaluated and assessed using surveys developed from the 2019 and 2020 Teen Urban Tree Corps programs. These assessments allow program staff to work to refine the program by evaluating what aspects of the program went well and areas where there is room for improvement. There were both internal and external evaluations and formative and summative assessments, including:

1. A pre- and post-survey with 25 questions administered the first and last days of the program;
2. A mid-program check in survey at the end of the third week;
3. An independent external evaluation from Boston Beyond that assesses youth programs throughout Boston through observation and teen surveys, examining program structure and organization, environment, and youth engagement in activities.

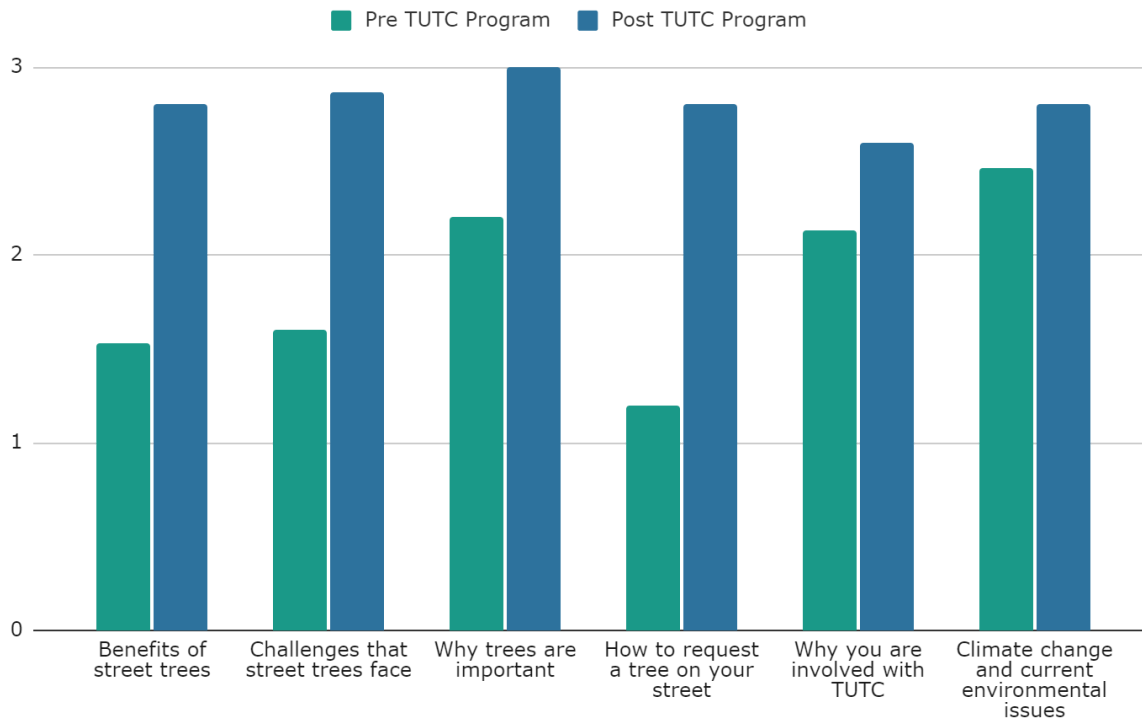
### Pre- and Post-Program Survey

On the first and second to last day of the program, program staff administered a survey to understand the participants' starting knowledge of trees and to measure what they learned over the course of the summer.

The survey was sectioned into four main sections to try and capture the youths' knowledge about trees in Boston, their relationship to trees, their thoughts on climate change, current environmental issues, and interest in related career paths, and about their feelings about Boston.

Sample survey questions include:

- Approximately how many street trees do you think there are in Boston?
- How many different species of street trees do you think there are in Boston?
- List the top 3 things a street tree in Boston needs to live a long and healthy life. Why does a street tree need those things?
- Why you are involved with TUTC
- How do you expect Boston will benefit from the TUTC program?

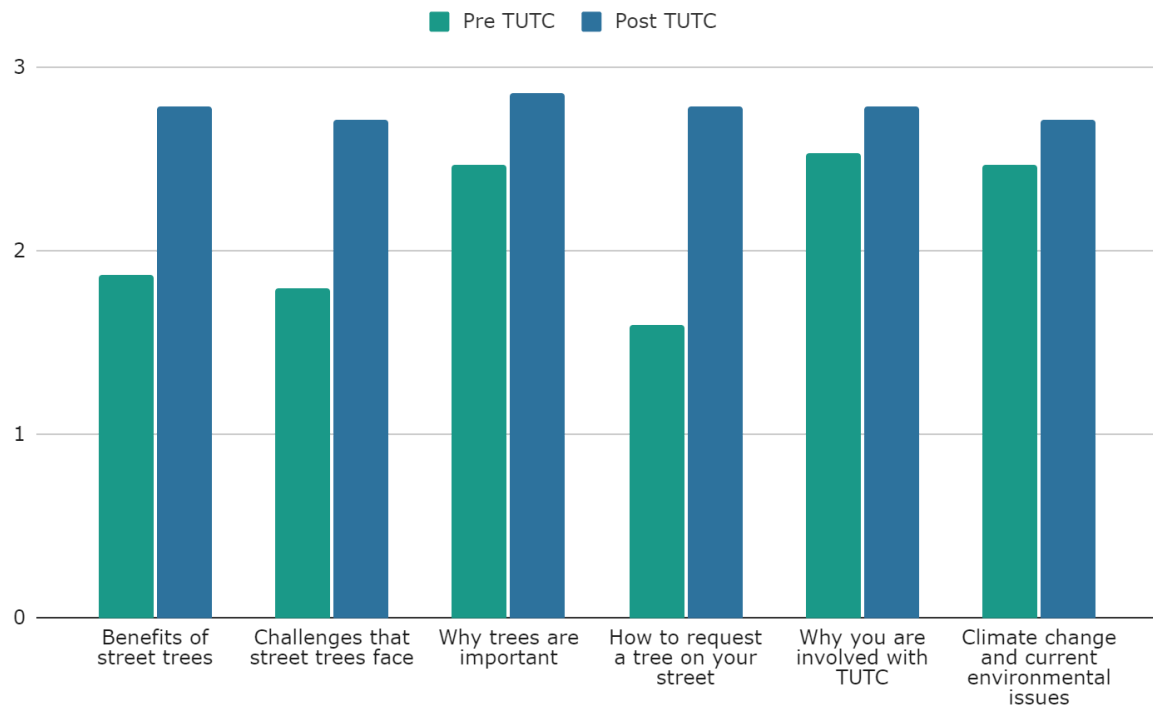


**Figure 16. Average responses from the pre and post survey question.**

**"Over the past few months how often have you engaged in a conversation about:**

- the benefits of street trees
- the challenges that street trees face
- why trees are important
- how to request a tree on your street
- why you are involved with TUTC
- climate change and current environmental issues"

**1 is never, 2 is sometimes, and 3 is often (n = 15).**

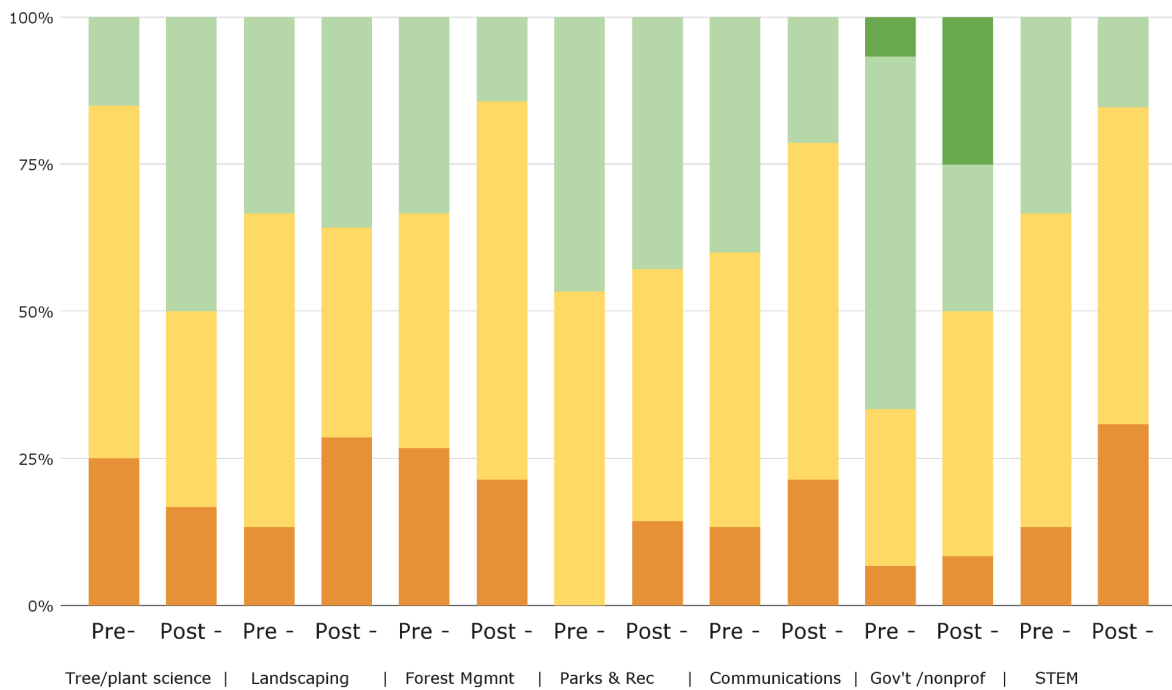


**Figure 17. Average responses from the pre and post survey question.**

**"Over the past few months how *confident* have you felt having a conversation about:**

- the benefits of street trees
- the challenges that street trees face
- why trees are important
- how to request a tree on your street
- why you are involved with TUTC
- climate change and current environmental issues"

where 1 is not confident, 2 is somewhat confident, and 3 is very confident (n = 15).



■ Very interested 
 ■ Somewhat interested 
 ■ Not interested 
 ■ Never heard of it

**Figure 18. Pre and Post Responses to the question:**  
**"How interested are you in the following career?"**  
**(Very interest, Somewhat interest, Not interested, Never heard of it)**

1. Tree or plant science (Arboriculture, Botany, Forestry, Horticulture)
2. Landscaping (design, planning, and maintenance of gardens and parks)
3. Forest Management (Planting, managing, and caring for forests and/or street trees)
4. Parks and Recreation (programming and protection for a city's parks)
5. Communications (media and content creation, graphic art and design)
6. Government or nonprofit management
7. Science, Technology, Engineering and Math (STEM) (n = 15).

In the survey, TUTC participants were also asked to list as many tree species as they could both at the beginning and end of the program (Figure 19). The participants went from being able to cumulatively name 13 unique species to 39 unique species, showing a deepening knowledge of tree species.

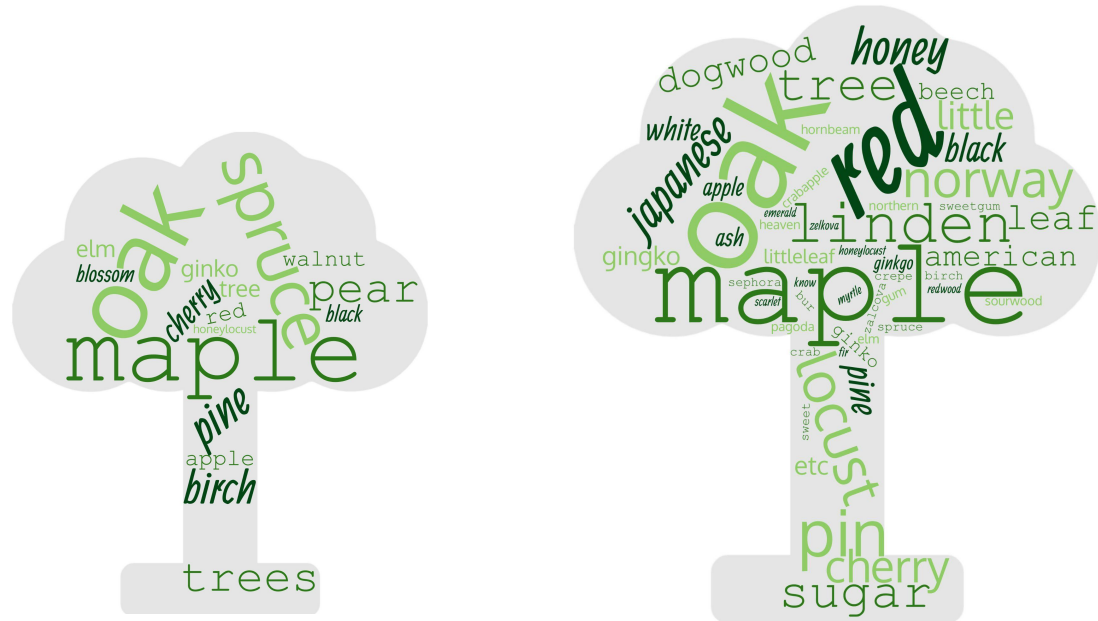


Figure 19. Word cloud of the species all youth listed in the pre survey (left) and post program survey (right).

Finally, using the Place Attachment Scale, TUTC teens were asked to evaluate how the program changed their attachment to the city of Boston (Kudryavtsev et al. 2012). Analyzing pre-post data, there was a clear increase in connection to Boston, though it was not significantly different (Table 5;  $p = 0.077$ ).

	Mean Place Attachment Score	Standard Deviation
Pre-program	3.071	0.449
Post-program	3.241	0.547

Table 5. Mean place attachment survey for pre and post program surveys.

Participants were given an opportunity to reflect on what they gained from the program and how they thought Boston would benefit from the TUTC program.

- “I learned about the heat island effect, climate justice, red-lining, tree ID, and soil compaction from the TUTC program. The program changed my perception of climate

change as something that will affect certain people more than others and changed my perception of how to stop it.”

- “I benefited from the TUTC Program by getting a better understanding of how to properly take care of trees.”
- “Boston will benefit from the TUTC Program by having tree coverage, cooler air, and safer places to go to.”
- “I expect that Boston will become more temperature regulated and that some residents will be more connected to nature because of the TUTC program.”

When asked what is one major challenge facing Boston’s urban forest and what could be done about it, there were three main challenges that surfaced in the participants’ responses:

**1. Space:**

“The lack of space, specifically in sidewalks. Boston needs more trees but neighborhoods like Chinatown don’t have the sidewalk space to put trees.”

**2. Water and tree care:**

“One major challenge facing Boston’s urban forest is the trees not getting enough water. [Residents] of Boston could volunteer to water them.”

**3. Tree removals:**

“People wanting to get rid of the trees around them instead of keeping them.”

## Mid-Program Check-In Survey

The end of week 3 was the halfway point of the program. Staff took this opportunity to get feedback from the teens on a few different topics including:

1. Satisfaction with the summer job;
2. Satisfaction with SFTT staff;
3. Favorite guest speaker and field trip;
4. Part of the urban forest they’re most interested in and something they want to learn more about;
5. Things they like about the program; and
6. Areas of the program that could be improved.

36% of students were extremely satisfied and 64% were somewhat satisfied with their job experience. TUTC participants expressed even greater satisfaction with the program staff availability and responsiveness, with 79% extremely satisfied with the staff and 21% somewhat satisfied.

In the survey, students mentioned they really enjoyed Reverend Mariama White-Hammond and Phil Perron from Barrett Tree East, as they were both engaging public speakers. The students enjoyed learning about tree equity from Rev. Mariama and insects from Phil. Many of the students had never been to the Arnold Arboretum or the Mt. Auburn Cemetery and the teens

noted that those field trips were two of their favorites at the midway point in the program. TUTC participants enjoyed learning about the maintenance of trees, planning and planting new trees, tree inventories and tree conservation and preservation.

Students also mentioned that they liked exploring different places, identifying trees, going on field trips, “constantly going outdoors and breathing fresh air”, learning new thing about a topic they don’t know a lot about, and having professionals talk to them about their jobs, “I’ve enjoyed how much we get to learn - there are speakers coming in practically every day who are experts in their respective fields”.

Teens wanted to learn more about budgeting for an urban forest, effects of climate change on other aspects of society including water and food, invasive animal species, tree identification and tree climbing. One student made a comment that got to the heart of SFTT’s mission when they wrote: “I want to learn how to show to people how important trees are in a way that’s not spitting out logistics.”

One change that many students wanted to see was an increase in field trips. One teen said they specifically wanted more field trips in forests (e.g. Blue Hills) to see more tree species and insects. Another wanted the program participants to have the opportunity to prune and water trees. One requested for more background on the guest speakers before they presented. Whenever possible, the program staff worked to make adjustments to the program based on the students' feedback.

TUTC participants were also asked to write something they enjoyed, learned, or found meaningful during the program. The largest portion of the group said they enjoyed learning about trees, how to identify and take care of them and two students brought up systematic injustice and redlining. They also mentioned enjoying meeting and making new friends.

## External Evaluation: Boston Beyond

This was the second year that Speak for the Trees worked with Boston Beyond, a pro-bono external evaluation organization that assesses youth programs throughout Boston through observation and teen surveys. The two components included an observation by a trained Beyond Boston staff member, called Assessment of Program Practices Tool (APT), and a Survey of Academic and Youth Outcomes -Youth (SAYO-Y). These standardized instruments not only allow the organization to compare itself to other organizations, but allows staff to track changes of the program over time.

The full APT Observation Write Up and Feedback Form can be found in Appendix A. Additionally, a tabulation of the results are included in Appendix B. For the most part, internal and external evaluations had the TUTC program just above average on several metrics, including Level of Youth Participation, Staff Promote Engagement and Stimulate Thinking, Opportunities for Leadership and Responsibility, Youth Enjoy and Feel Engaged, Youth Feel

Challenged, and Youth Have Choice and Autonomy. TUTC scored slightly higher than average on Supportive Adults Present and Supportive Social Environment.

One area where youth felt as though the program fell short was in helping them academically. On a scale of 0 to 4.0 with a goal benchmark of 3.0, TUTC scored 1.69 in “Helps Youth Academically” compared to 2.74 for all summer programs. Because we opted to focus on workforce development in our summer enrichment program, rather than academics, this lower average did not come as a surprise.



## Section 5: Conclusion and Looking Ahead

### Conclusion

Summer 2021 was a summer of extremes, with multiple heat days and also several days of downpour. This “new normal” highlighted Boston’s changing climate, and the 15 teens in the Teen Urban Tree Corps program experienced it directly through rain and scorching hot days. Teens also saw how climate change works on a global scale, with haze covering the Boston skyline from forest fires on the west coast and Canada. By the end of the summer, at least a dozen bottles of bug spray had been used to fend off the mosquitoes and there were occasional complaints about the long days of walking. But the elements were no match for the Teen Urban Tree Corps participants; through all the long days outside, the teens demonstrated resilience.

As staff, we saw immense growth among teens in terms of their sense of self actualization, their learning, and their ability to connect themselves to their space, their neighborhoods, their environment, and themselves. These results are captured in their stories and our surveys: teens came out of the program knowing more about trees, better understanding the relationship between trees, and health, and having a sense of ownership for their future.

### Looking Ahead: School Year and Summer 2022

The planting plans that the TUTC participants created will serve as the basis for the TUTC school year program as well as the summer program in 2022. This spring and fall, a subset of teens from the program will have the opportunity to continue their work. It is our goal to have their initial projects come to fruition with tree planting events throughout the spring. These trees will serve to increase Boston’s urban forest making it more resilient and equitable.

This summer’s program has demonstrated a deep interest, commitment, and eagerness among Boston’s youth to make a difference in their communities. They recognize the links between climate change, geography, and trees and are eager to improve their neighborhoods and their city. Much work remains to be done, however, to provide them with the skills and education so that they can gain access to future employment in the field of urban forestry. There remains many opportunities, as demonstrated in Figure 1, to grow TUTC into a more immersive and comprehensive program in urban forestry career training that provides learning and skill development for local youth and young adults. In 2022 we aim to deepen our partnerships with local organizations, professionals, and with educational institutions throughout Boston, Massachusetts, and New England to expand the connections between trees and people and provide meaningful exposure, learning, and training in the field of forestry.

## Section 6: Partners and Supporters

### Acknowledgements

We'd like to thank the many partners who helped us in thinking through the third year of our Teen Urban Tree Corps program. Their support was instrumental in ensuring that these 15 teens would have a meaningful summer of growing and learning about trees and urban forestry.

#### Partnerships



And the many many speakers, guests, and volunteers who provided us with time, expertise, and opportunities to explore the many facets of urban forestry.

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#### Financial Support



Funded in part by the USDA Forest Service through the Massachusetts Department of Conservation and Recreation Urban and Community Forestry Program.

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Speak for the Trees is rooted in the values of justice, equity, diversity and inclusion. The organization is committed to building a team that represents diverse backgrounds, perspectives, & skills and is an equal opportunity provider.

# Appendix A: APT Observation Write Up and Feedback Form

The following are the results of the Assessment of Program Practices Tool (APT), designed to measure program quality. This was conducted by Boston Beyond for 101 sites. A trained, certified observer visits the program, and observes and rates program practices such as social-emotional environment and engagement.

(SAYO-Y Youth Surveys = End-of-program survey about youth experience)

Program Site: Teen Urban Tree Corps Program

Observation Date: 08/10/2020

Brief Description of Activities: This was an in-person observation including: arrival, transitions, and four activities. Activities included: Intro to the life and work of forestry, a Zoom call with a current employee of USDA parks and forestry to share his experiences, what they do, what is needed for employment and questions and answer session; and a guest speaker from transportation planning with an interactive question and answer session again where youth worked in groups to respond to questions.

1. Generally, what were your findings regarding:

a. Structure of program (e.g., scheduling, transitions, space)

- The scheduling all tied into the theme of the program.
- The pace was relaxed where youth had opportunities to work in groups and part of their teams to work on their final presentations.
- Transitions were smooth and handled quickly.

b. Organization and nature of activities in program

- Each activity offered tied into the work this group have been doing for the summer.
- The day started with staff talking about urban forestry and the importance it has on communities.
- The discussion was followed by youth engaging in conversations and responding to questions posed by staff: youth posted their responses on sticky notes on the white board set up around the room and worked collaboratively to come up with a definition that included all youth voices.

c. Staff and their role in promoting youth engagement, stimulating thinking, and positively guiding youth behavior

- Staff was engaging and upbeat, excited to share with youth her knowledge and experiences while bringing awareness to youth of all the benefits of their work.
- Throughout each activity, staff asked open-ended questions and were actively engaged with youth.
- Staff closely supervised the activities but was very flexible in youth management.

- Staff was able to maintain youth attention through each of the activities and was both supportive and encouraging of youth.
- Youth had ample time to engage in each activity and also had time throughout the day to work in their groups to work on their final projects and presentations.

d. Relationships between staff and youth

- Youth were cooperative with staff requests and were busy and engaged in the activities.
- Youth listened to staff and staff did a good job listening to youth.

e. Youth participation in activity time and peer relations between youth

- Peer relationships were positive and youth cooperated with each other as they changed groups for most of the day, giving them an opportunity to work with more than their project groups.

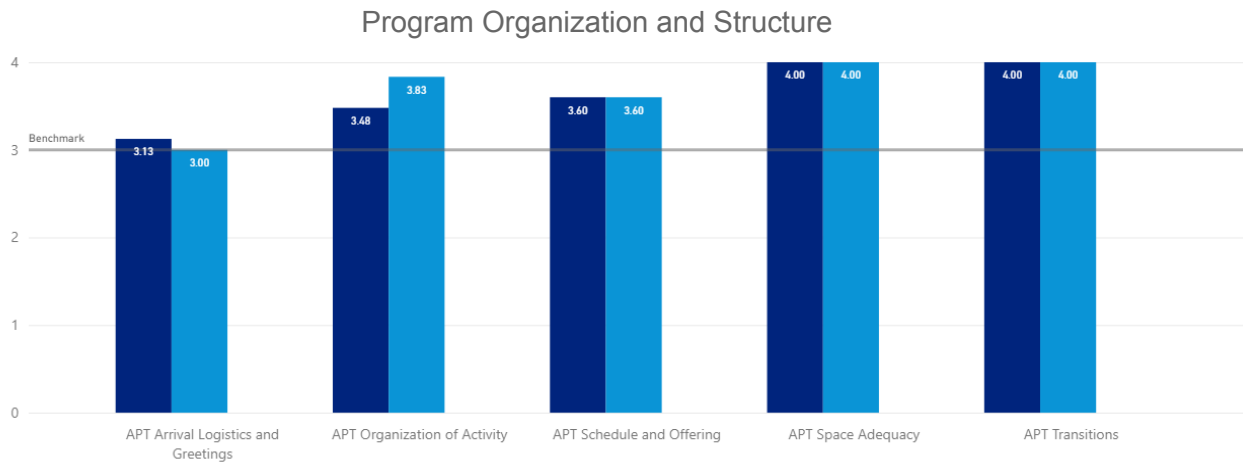
2. Overall, what are some strengths of the program?

- The program connected all the material and presentations to the subject matter of the program.
- Staff were flexible with youth, and upbeat and helpful to youth.
- There was a variety of experiences and opportunities for youth to work on their own, in groups, and have opportunities to speak with experts in urban forestry and offering youth insights into possible job opportunities.

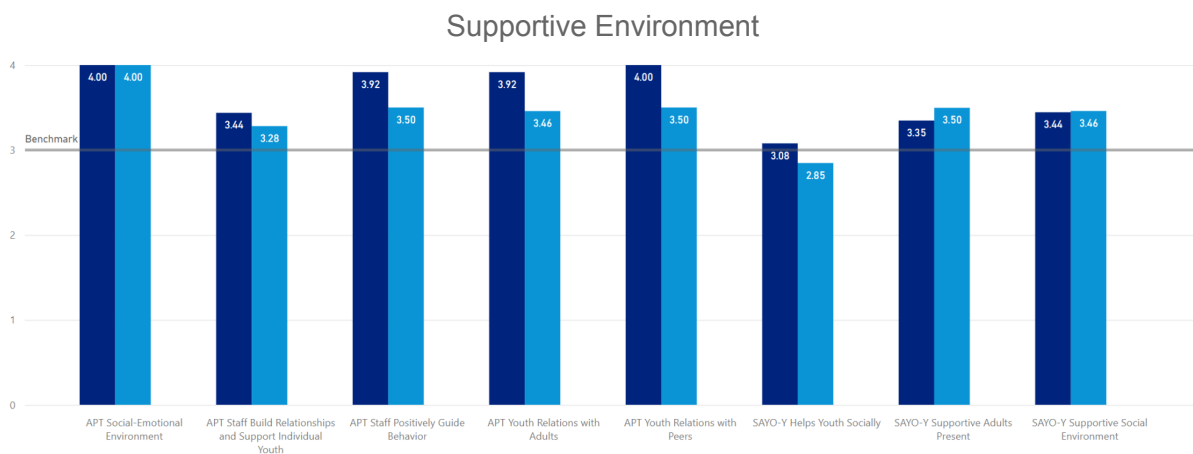
3. Overall, in what areas could improvements be made?

- It would be good to include some opportunities for youth to lead a discussion or opportunities for youth to share control in the running of activities. Spread out the presentations and or zoom calls to one per day providing youth with the opportunities to explore the topics more. It would be good to share an overview prior to presentations so youth could be better prepared with questions.

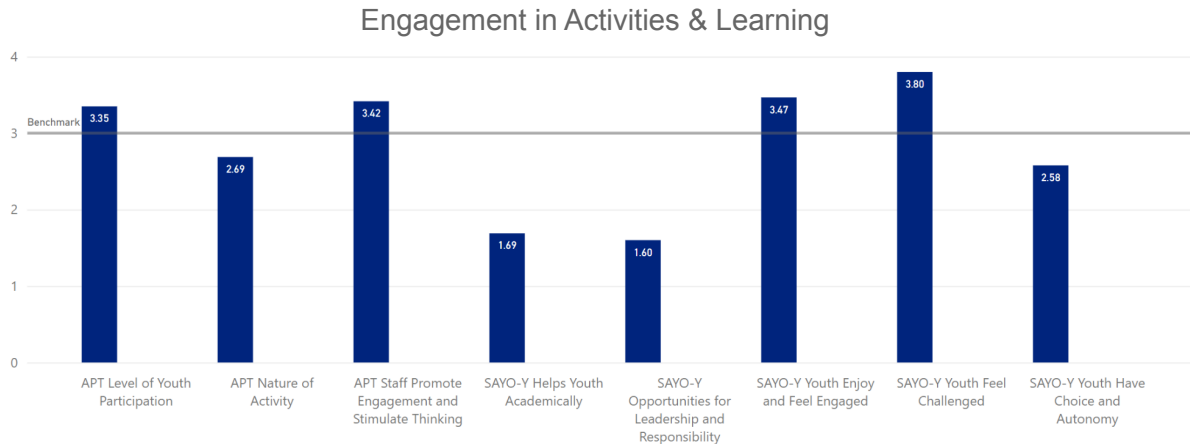
## Appendix B: Boston Beyond Report



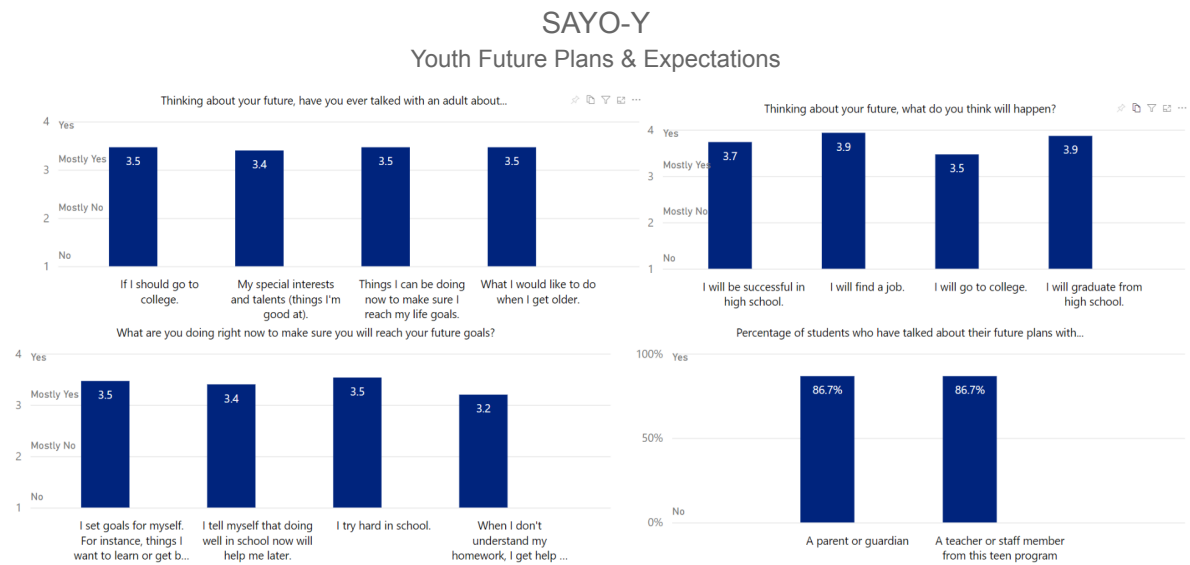
**Figure B1. Program Organization and Structure for the 2021 Summer Teen Urban Tree Corps (dark blue) and all other summer programs evaluated by Boston Beyond in 2021 (light blue).**



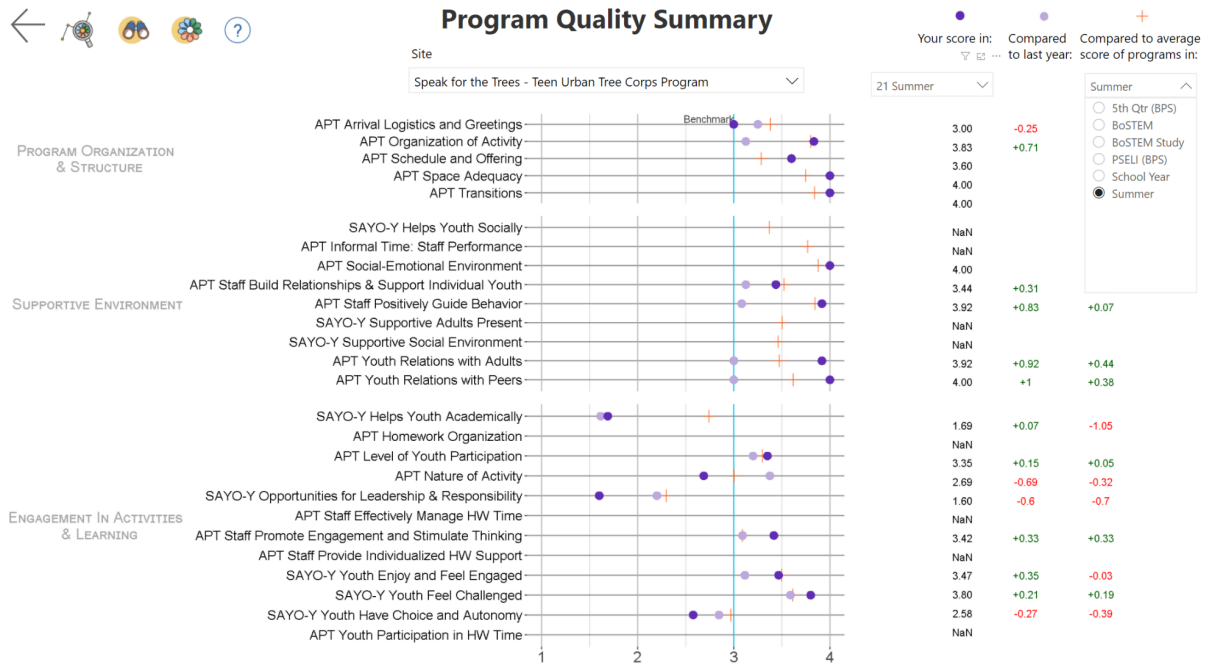
**Figure B2. Supportive Environment for the 2021 summer Teen Urban Tree Corps (dark blue) and all other summer programs evaluated by Boston Beyond in 2021 (light blue).**



**Figure B3. Engagement in learning and activities for the 2021 summer Teen Urban Tree Corps (dark blue).**



**Figure B4. SAYO-Y youth future plans and expectations for the 2021 summer Teen Urban Tree Corps (dark blue) and all other summer programs evaluated by Boston Beyond in 2021 (light blue).**



**Figure B5. SAYO-Y Program Quality Summary comparing the 2021 summer Teen Urban Tree Corps (dark purple), the 2020 summer Teen Urban Tree Corps (light purple) and compared to average score of summer programs.**