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Urban Tree Committees of New England, USA: Describing Past, Present, and Future Regional Trends

In the United States, grassroots responses have emerged to supplement urban forest management efforts traditionally led by local, county, and federal governments. Urban tree committees are one such grassroots response, whose service exists between a formalized organization and ad-hoc task force. While past research has described the roles and responsibilities of various urban forest management actors, no studies have previously established a baseline understanding of regional urban tree committees, including the membership of paid and volunteer committees, their programming and educational initiatives, and key audiences. In this study, we distributed a participant survey to all known urban tree committees of the six state area of New England, a subregion that shares a highly urbanized land cover, bucolic exurban landscapes, and unique political systems. Our study successfully recruited representation across small and large cities of each New England state. Findings are summarized in three sections: an overview that describes urban committees by geography and the timeline/ motivators of committee formation; 2) the workplace operations typical to urban tree committees, including types of organizations and their mission statements, personnel composition, meeting frequency and operational guidance, and sources of funding; and 3) the programs, activities, and participants engaged by urban tree committees. This study identifies the presence and prominence of urban tree committees throughout the New England region, elucidates the ongoing need for resident engagement in local natural resources management, and highlights the reliance on unpaid personnel in the municipal governance structure. Cities of similar sizes may share more in common than those of different sizes in the same state – and there is significant opportunity for cross-disciplinary research and practice to build upon existing regional strengths.

Keywords

urban forest management, urban trees, committee, New England

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1. INTRODUCTION

Of the 800+ million acres of forested land in the United States (U.S.), 141 million acres are located in cities and towns (National Association of State Foresters 2018; USDA Forest Service 2023a). Urbanized areas house 81% of the U.S. population, thus urban forests are important assets to maintain for residential quality of life (Elton et al. 2022a; Coleman et al., 2023). The trees and forests within cities often include street trees, landscaped boulevards, urban parks, gardens, greenways, and conservation plantings (Johnston 2015, Miller et al 2015).

Urban forestry in the United States is the responsibility of federal, state, and municipal government agencies. For example, the federal Urban and Community Forestry Program (UCFP) administered through USDA Forest Service provides technical, educational, and financial assistance to US states, territories, communities and partners (USFS UCFP 2025), and also monitors urban forestry programming, support, and investment through the Community Accomplishment Reporting System (CARS) (USFS UCFP 2022). The role of states may range from acting as intermediaries of federal financial and technical resources, to directly funding and supporting urban and community forestry initiatives across sectors within the state, often with collaboration at the local level (Rines et al 2011).

While all levels of government generally have responsibility for the operations and regulations of urban environments in the U.S., municipal-level natural resource funding has declined in recent decades (Warren et al. 2023, Stobbart *and* Johnston 2012), spurring more than $1 billion in federal investments to "reach communities that are marginalized, underserved, and overburdened by pollution and underinvestment" (USDA Press Release 2023). Since municipal expenditures often require or request broad public support, funding deficits may generate or exacerbate unfavorable public opinions such as, less favorable perceptions of unmaintained parks and natural areas (Li and Nassauer 2020) and distrust toward municipal government management capacities (Carmichael and McDonohough 2018). These outcomes may further impact communities of lower socio-economic status by perpetuating physical and perceptual barriers of inclusive access to maintained green spaces, urban forests, and recreational facilities (Coleman et al. 2023, Locke and Grove 2016). Additionally, the ability of urban forest managers to prioritize inclusive community access to healthy urban forest stock alongside baseline management practices (e.g., tree planting, formative pruning) may be further bypassed because of reactive management response and lack of budgetary capacity to address acute or chronic pressures facing urban forests (e.g., addressing tree or limb failure, controlling a pest outbreak) (Breger et al. 2019, Healy et al 2023).

Despite these challenges, government institutions remain an important source of urban forestry implementation, rules, and resources (Ordonez et al. 2019; Eisenman et al. 2021) and may have a more robust urban forestry infrastructure in larger cities than in small cities (Treiman and Gartner 2004). Though small cities are an understudied area of urban forestry, initial conclusions suggest different urban forestry management practices when compared to medium or larger cities. For example, Doroski et al. (2020) found that small cities of the U.S. Northeast not only had fewer planting records but also planted fewer trees and had a greater number of invasive tree species relative to the proportion of the total urban population, urban area, and number of cities surveyed. From a nationwide dataset, Hauer and Peterson (2014) also conclude that smaller cities not only

operate on smaller budgets but also have fewer tree canopy cover goals and shorter decision-making chains than larger cities.

Grassroots responses have emerged to fill important gaps and better establish the co-stewardship of urban natural resources (Elton et al. 2022a, Krasny et al. 2014, Fors et al. 2019). Urban environmental stewardship involves education, conservation, management, monitoring, and advocacy of quality of life and civic environmental engagement issues in urban areas (Fisher et al. 2012). Stewardship may occur in different ways; for example, more formal nonprofit/nongovernmental organizations (NGOs) may co-manage a high-profile conservation area or botanical garden (Elton et al. 2022b, Rigolon and Gibson 2021), or smaller groups of individuals (i.e., "friends groups") may less-formally maintain or fundraise on behalf of a park or arboretum (Krasny and Tidball 2012, Fors et al. 2019, Jasny et al, 2019).

Previous research has described organizational dynamics of urban forestry in the U.S., including the roles and responsibilities of legally-mandated urban tree staff (e.g., Tree Wardens, Harper et al. 2017), motivations to volunteer for urban tree stewardship and urban forestry (Elton et al. 2022), job satisfaction in urban forestry (Ricard and Bloniarz 2006), organizational structure and decision making (Hauer and Peterson 2014) and the motivational goals behind urban tree planting programs (Eisenman et al 2021).

In the United States, urban tree committees fall between a formal NGO and an ad-hoc association, and have been previously defined in academic scholarship:

> "[Tree] committees and commissions are organizations, or components of larger bodies, that are in the public sector, primarily in local government. Each municipality has a number of town boards filled by elected or appointed representatives; some of them have…shade tree or community forest commissions," (Ricard and Dreyer 2005, p. 222);

and

> "…the body of individuals charged with looking after the welfare of trees in the community…these include tree commission, tree committee, beautification committee and others. Sometimes the word advisory is inserted to more clearly define the main function of the organization, such as tree advisory board," (Fazio 2015, p.3).

Urban tree committee members may draw upon their own expertise – or leverage the expertise of others – to formalize local tree-related policy, provide education, or represent residents on matters related to urban trees (Fazio 2015). Residents may also directly engage as a member of an urban tree committee (Harper et al. 2018, Fazio 2015). Urban tree committees may work directly with municipal forestry staff and decision makers, providing advice or labor to conduct activities like urban tree planting or maintenance activities (e.g., pruning, watering, scouting for pests) (Ricard and Dreyer 2005). Whatever the task, urban tree committees are charged with formally reflecting the "will of the community" (Fazio 2015).

At present, no studies have been conducted to establish a baseline understanding of urban tree committees, including the membership of volunteer committees, their

programming/educational initiatives and subject matter, and key audiences. With global interest in urban forestry and urban greening currently in its ascent (Eisenman et al 2021), this research seeks to fill these important gaps.

We developed and disseminated a survey to explore factors that describe the capacity and networks of urban tree committees. These factors included the composition and motivations of urban tree committees, key stakeholders/partnering organizations and quality of interactions between partners, and operations of these committees throughout the New England subregion of the U.S. We used these factors to characterize urban tree committees in New England and relate them to city size, historic events, and policy decisions in urban and community forestry to both inform further research initiatives and to help inform the formation and operations of urban tree committees, both locally and nationally.

2. METHODS

2.1 Study Area

In the United States, urbanized settings are areas with a population of at least 5,000 individuals or at least 2,000 housing units (U.S. Census Bureau 2023a). New England is a six-state metropolitan subregion of the Northeastern United States that includes Maine, New Hampshire, Vermont, Connecticut, Rhode Island, and Massachusetts (Figure 1). New England states are among the most heavily forested and rank as six of the seven states with the highest percentage of forest cover in the nation (New Hampshire = 88.9%, Maine = 83.1%, Vermont = 81.5%, Connecticut = 72.6%, Massachusetts = 70.8%, and Rhode Island = 70.3%; Nowak and Greenfield, 2012). This forest cover is primarily oak-hickory forest type in the south and transitions to maple-beech-birch and spruce-fir forest types moving north (USDA Forest Service 2023b).

While heavily forested, states in New England are also highly urbanized. Connecticut, Massachusetts, and Rhode Island rank among the five states with the highest percentage of urban land cover in the country (Table 1, Nowak and Greenfield 2018) and are among the six most densely populated (U.S. Census Bureau 2020). In all three of these states, urban and community forests comprise over a quarter of the total statewide forest cover (Nowak and Greenfield 2012). Like other regions of the United States, New England includes a range of city sizes, most of which are small cities (76% cities have population < 10,000) punctuated by a few larger cities (3% cities population > 50,000, 6% population 25,000-49,999, and 15% cities population 10,000-24,999; U.S. Census 2023b).

In terms of public policy and administration, New England also upholds several unique systems of local government that may directly affect the outcomes of place-based organizing efforts and urban forest governance. For example, all New England states except Vermont and New Hampshire feature a “home-rule”, where the state constitution permits municipal governments to pass laws to govern themselves. The “town meeting” is a legislative branch of local government in smaller towns developed in the Massachusetts Bay Colony in 1629 and

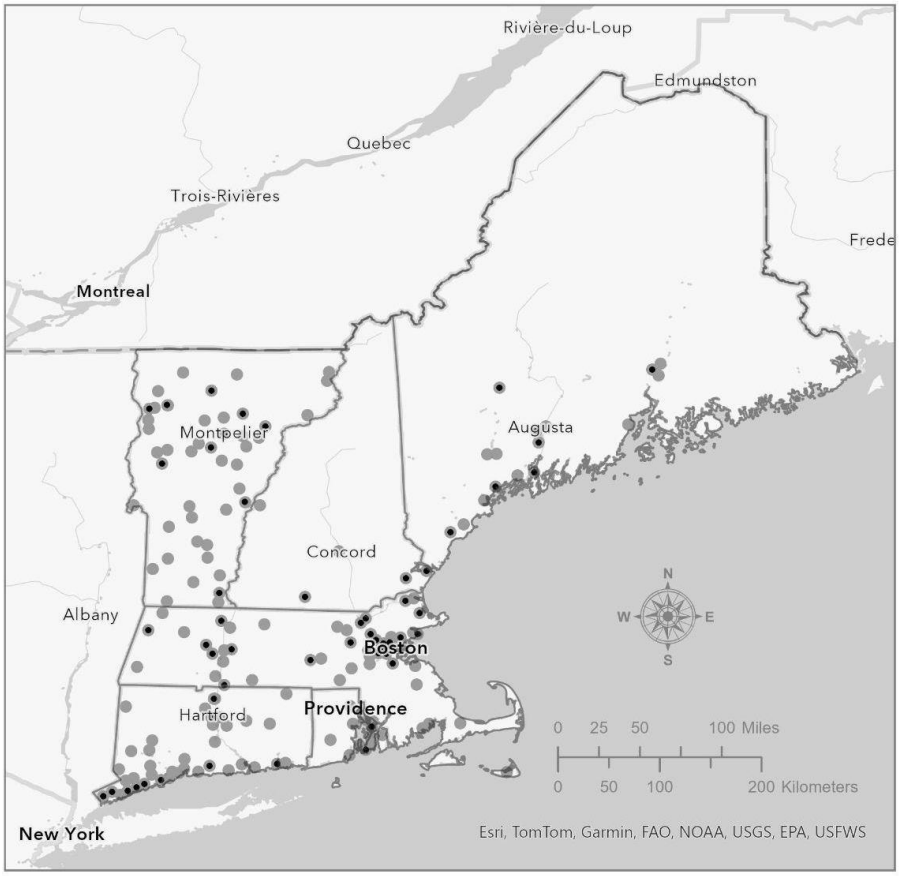


Figure 1. Study area of the New England sub-region, where participants were recruited from areas approximated by grey dots and responding participants are shown as black inset dots.

remains a de facto representative body of local citizens used to authorize budgets and enact local laws (Zimmerman 1999, Galvin 2008). In larger cities, the city council operates as the legislative body between citizens and the municipal government. Lastly, the unique role of "tree warden" exists in all New England states as a legally-mandated official in each municipality that is responsible for the preservation, maintenance, and stewardship of municipal trees (Harper et al. 2017, see also C.G.A. 451-23-58 in Connecticut, M.A. Gen. Laws § 14-87-2 in Massachusetts, M.R.S.A. § 3282 in Maine, N.H.R.S.A. § 231-139, R.I. Gen. Laws § 2-14-2 in Rhode Island, 24 V.S.A. § 871 in Vermont). In the words of Ricard and Dreyer (2005) the "…municipal tree warden is arguably the most important human component of a city or town's community forestry program." A municipality "cannot conduct an effective community forestry program without the participation, perhaps even the leadership, of a well-qualified, active tree warden (p.154)."

Table 1. New England municipal context and the recruited urban tree committees, adapted from Nowak and Greenfield (2018) and the current study.

	Past Research		Current Study		
	Urban forest cover (%) (2010)	Urban land area (%) (2010)	Total # municipalities (2024)	Total #urban tree committees recruited	Survey response rate (*n*, %)
Connecticut	61.6%	37.7%	169	36	11 (30.6%)
Maine	58.5%	1.2%	483	16	7 (43.8%)
Massachusetts	57.1%	38.0%	351	48	24 (50.0%)
New Hampshire	56.3%	7.2%	234	5	3 (60.0%)
Rhode Island	38.7%	50.6%	39	13	3 (23.1%)
Vermont	1.7%	49.2%	256	19	9 (47.4%)
		Total	1,532	137	57 (41.6%)

2.2 Survey Design and Distribution

A formal survey instrument was designed according to Dillman et al. (2014), with the primary objective of eliciting information from representatives of active urban tree committees (see Appendix 1). Questions were categorized into themed sections: Origin Story', Organizational Structure', Programming', 'Partnerships' and 'Demographic Information'. The survey included closed and open-ended questions, and 5-point Likert scale options, where 5= "Always__", 4= "Usually__", 3= "Occasionally___", 2= "Rarely___", and 1= "Never___". The survey was piloted and updated with input from subject-matter experts of New England, including state urban forestry coordinators and regional academic specialists in urban forestry.

Urban tree committees were identified in four ways: (1) review of individual municipal websites; (2) follow-up inquiries to select local municipal employees (i.e., the tree warden) to verify the location of an urban tree committee; (3) direct inquiries to state urban forestry coordinators asking for both corroboration and contribution to the list of urban tree committee contacts; and (4) snowball sampling, where new urban tree committees were listed by participating tree committee representatives (Sexton et al. 2011). Of the 1,500 municipalities in the New England region, we identified 137 urban tree committees to survey and received a survey response rate of 41.6% (*n*=57 tree committees) (Table 1).

The survey was first distributed on 9 February 2023, using methods outlined by Dillman et al. (2014) to the identified point of contact from each urban tree committee. Survey recruitment included three messages: (1) an introductory email outlining the research and objectives, featuring a link to the Qualtrics survey, (2) an email reminder sent one week later (16 February) to non-respondents, (3) a final email reminder sent two weeks after (23 February) the first distribution, indicating that the survey deadline had been extended by an additional week, until 2 March.

Snowball sampling facilitated a second round of survey recruitment on 2 March 2023, adding 25 new contacts; two reminder emails were sent to non-respondents at 1-week and 2-week intervals (9 and 16 March, respectively), with the survey formally closing on 23 March 2023. The survey was sent to a total of 171 contacts. Of these, three communities submitted the questionnaire twice, by two separate committee members. In these cases, only the first submission was included in the analysis in order to reduce redundant data entry for questions about each organization and each tree committee representative.

2.3 Analytic Strategy

All analysis, figures, and tables were aggregated in Microsoft Excel and R (Rstudio Team 2020). To characterize survey responses from urban tree committees, we calculated and reported summary statistics (mean, standard deviation, minimum and maximum values) or frequency/ percentage proportions and graphs for each survey question. Questions that were 'Select all that apply' were only reported as cumulative frequencies and not percentage proportions. Participants reported historic and expected future conditions via five-point Likert scale questions. Historic and future conditions were compared with Wilcoxon signed-ranks tests; this non-parametric alternative to paired samples means tests was used because responses were not normally distributed for any variable(s). Lastly, the survey data were categorized and analyzed by a population size class designation to detect differences based on city size (population <10,000, 10,000-24,999, 25,000-49,999, and > 50,000; US Census, 2020). We used Voyant Tools, an open-source web-based text reading and analysis program to analyze tree commission mission statements (Voyant Tools 2024) that were requested as part of the survey, in order to assess each organization's scope of prioritized activities and management focus. Because Voyant Tools does not recognize word derivatives (e.g. trees versus tree) as the same word, we adjusted word tense and plural versions of the same word where appropriate for consistency across committees; commonly occurring words with obvious relationships to tree committees (like tree) were not intentionally omitted. Results are presented as three thematic sections, with several subsections:

1) Overview of Urban Tree Committees in New England: to summarize the geographic spread and timeline/motivators of committee formation;

2) Workplace Operations of Urban Tree Committees: to describe the types of organizations, mission statements, personnel composition, meeting frequency and operational guidance, and sources of funding;

3) Programs and Activities of Urban Tree Committees: to report the historic and future scope of programs and activities led by the urban tree committees, alongside the participants of these programs.

3. RESULTS

3.1 Overview of Urban Tree Committees in New England

3.1.1 Geographic Range

The committees that responded to this survey were distributed fairly evenly between smaller and larger cities, with population ranges < 10,000 (*n*=15, 26.3%), 10-25,000 (*n*=16, 28.1%), 25-50,000 (*n*=14, 24.6%), or > 50,000 (*n*=12, 21.1%). Relative to the total number of municipalities per state, Rhode Island reported proportionally more committees than any other state, where a third of all municipalities in Rhode Island have a tree committee (Figure 2). By volume, the greatest number of committees were based in Massachusetts (*n*=24, 42%), followed by Connecticut (*n*=13, 22.8%) and Vermont (*n*=10, 17.5%).

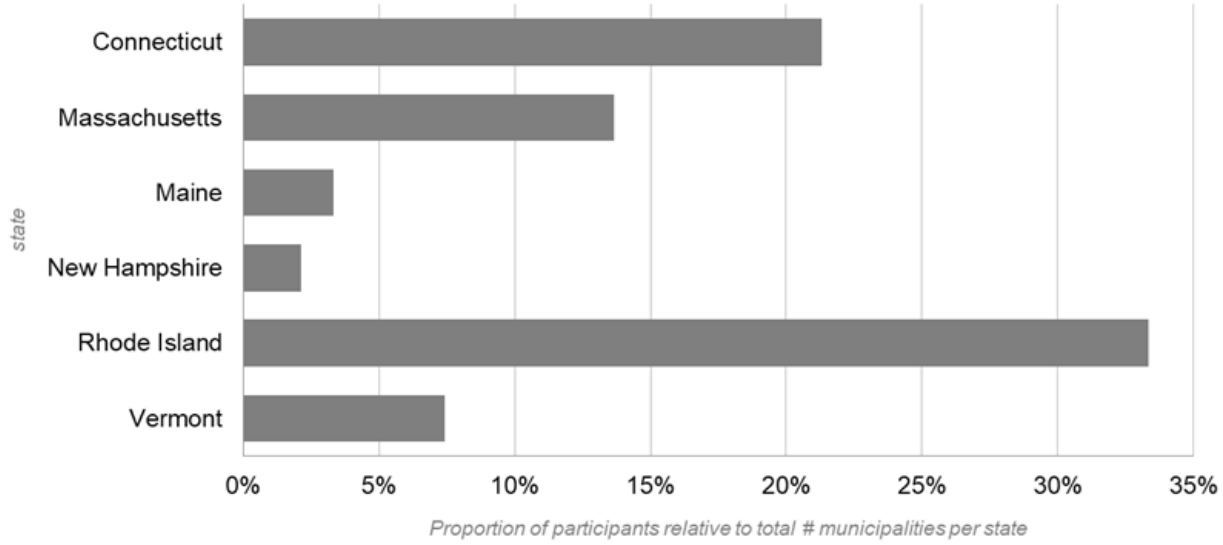


Figure 2. Urban tree committee participants relative to the total number of municipalities per state.

3.1.2 Timeline and Motivators of Formation

Of the committees that responded to the survey, nearly 60% (n=34) were formed in the last two decades (Figure 3); city size class did not appear to affect the timing of committee formation. The oldest committee was established in Massachusetts (1886) with the most recent tree committees forming in 2021 in Connecticut (*n*=1, 1.7%), Massachusetts (*n*=2, 3.5%), Maine (*n*=2, 3.5%), and Rhode Island (*n*=1, 1.7%).

Most urban tree committees reported that their formation was motivated by the need to "improve canopy cover" (*n*=42), a trend that has continued since the 1990s (Figure 4). Other

motivations included “to improve and beautify the neighborhood”, “to extend and enhance limited municipal resources" (*n*=29), “to advocate for funding” (*n*=23), and “to combat climate change” (*n*=17). Since the 1980s, a smaller subset of tree committees also formed as a consequence of notable tree loss (*n*=8) and several written comments elaborated on this, citing utility pruning or limited municipal budgets for tree planting. Others explained that they formed to address challenges of tree preservation and health, or as a requirement to become a Tree City USA (see Arbor Day Foundation 2024, *n*=2).

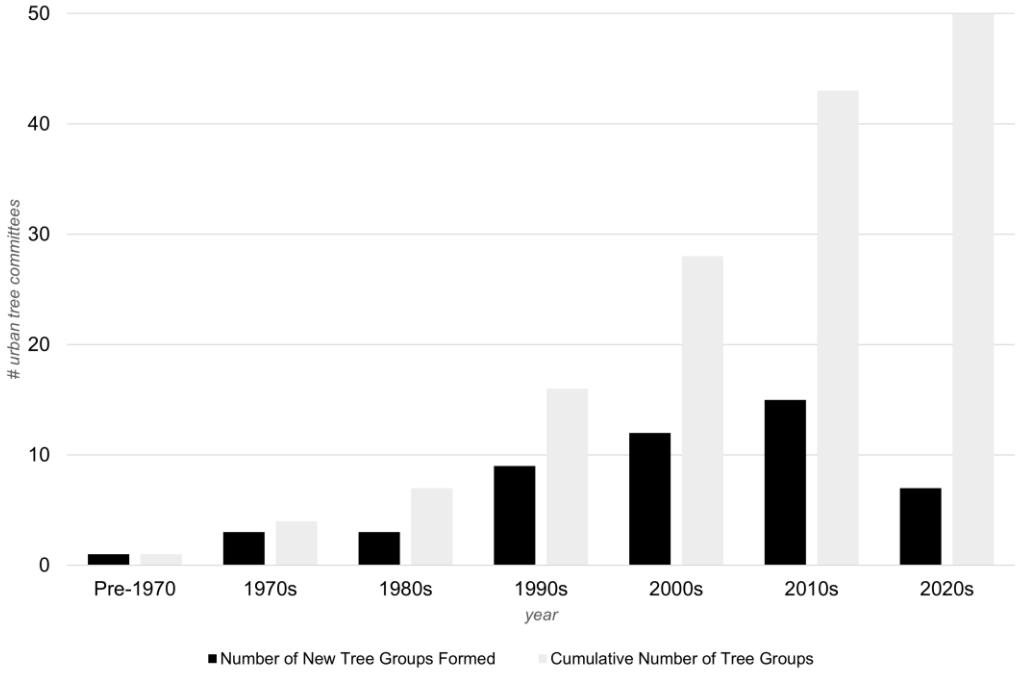


Figure 3. Formation of urban tree committees over time.

Many urban tree committees reported that city staff and municipal departments were “always” or “usually” engaged in the organizations’ formation, including the mayor/first selectman (*n*=24, 42.1%), forestry department (*n*=18, 31.6%), department of public works (*n*=30, 52.6%), and parks department (*n*=24, 42.1%), as well as private residents (*n*=32, 56.1%). Stakeholders that were “occasionally”, “rarely”, or “never” engaged during urban tree committee formation included federal agencies (*n*=43, 75.4%), state agencies (*n*=29, 50.9%), civic organizations (n=38, 66%), corporations/ private businesses (*n*=40, 70.2%), neighborhood organizations (*n*=30, 52.6%), and private arborists/contractors (*n*=30, 52.6%).

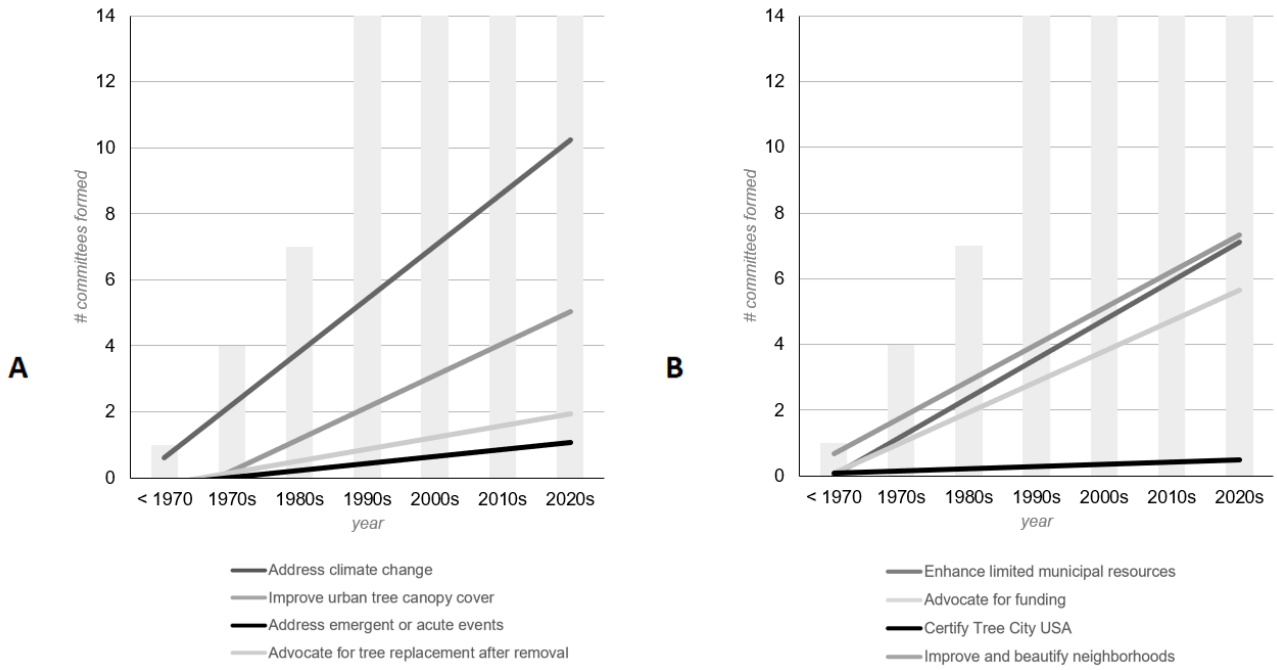


Figure 4. Motivators of urban tree committee formation over time, separated by environmental-based factors (A) and organizational/community factors (B). The cumulative number of urban tree committees formed over time are displayed behind the trend lines in light grey.

3.2 Workplace Operations of Urban Tree Committees

3.2.1 Types of Organizations and Mission Statements

About half of the urban tree committees operate through a municipal department (n=33, 57.9%), and this occurs predominantly in cities with populations > 10,000 (n=25, 43.8%). Fewer were registered non-profit organizations (n=8, 14%). Other committees classified themselves as unrelated to municipalities – private organizations not working on obtaining nonprofit status (n=15, 26.3%).

Of the urban tree committees surveyed, 68% indicated that they had a defined mission statement (*n*=40), especially in small-to-mid sized cities with populations less than 50,000 (*n*=35, 61.4%). The most frequently used words in these mission statements were “tree” (*n*=143), “town” (*n*=44), “public” (*n*=35), “committee” (*n*=28), and “planting” (*n*=22) (Figure 5).

Figure 5. The 25 most frequently used terms in urban tree committee mission statements.

3.2.2 Personnel

Approximately a quarter of urban tree committees have paid staff on their committee (*n*=13, 22.8%) or have seats for arborists (*n*=32, 56.1%) or municipal staff (*n*=28, 49.1%). Almost all utilize volunteers (*n*=50, 87%). Committees that had paid staff positions had an average of two positions (*sd* = 4.09); the highest number of staff paid on any committee was six positions. These paid staff positions were mostly municipal employees though they also included executive director and administrative positions for 501(c)3 committees. City size class had little impact on the presence of paid staff; however, tree committees in larger cities with paid staff tended to have more paid positions than committees in smaller cities (Table 2).

In addition to their presence on the committees, respondents indicated that they also rely heavily on volunteers relative to programming and activities. All but six of the committees surveyed utilize volunteers to implement programs and activities. The mean number of volunteers engaged annually was 21, though some committees utilized up to 100 volunteers. Collectively, these volunteers contributed 16,912 hours of labor annually (the equivalent of 8 FTEs). Within individual tree committees the mean number of volunteer hours contributed annually equated to 445 hours, with a maximum of 2,220 hours. Duties of these volunteers included assisting with clean-ups, tree stewardship, tree inventories, tree planting, outreach and engagement, education, managing social media and websites, fundraising, and organizing events. There were no discernable differences between the number of volunteers or volunteer hours and city size class. Volunteer recruitment relies on multiple outreach mechanisms (*n*=38) (e.g. public events, social media, and press releases); very few tree committees indicated that they use only one recruitment tactic (*n*=6) or are directly appointed by the City Council (*n*=4). Volunteers of most organizations

were onboarded informally (*n*=36) and at the time of this study, no organizations offered formal volunteer training.

Table 2. Urban Tree Committee paid staff across city population sizes. (m=mean, sd= standard deviation, n=number of occurrences)

	Population size	Urban tree committees with paid staff	Number of positions in cities with paid staff
Full sample	*m*=31,311, *sd*=31,370	*n*=12 (21.1%)	*m*=1.91, *sd*=4.09
City Size Class	< 10,000	*n*=4 (33.3%)	*m*=1.75, *sd*=0.50
	10-25,000	*n*=3 (25.0%)	*m*=2.00, *sd*=1.00
	25-50,000	*n*=3(25.0%)	*m*=1.00, *sd*=0.00
	> 50,000	*n*=2 (16.6%)	*m*=3.50, *sd*=3.50

Individual survey participants (as representatives of the urban tree committees) were primarily committee chairs or co-chairs (*n*=34), followed by municipal employees (*n*=10), tree wardens (*n*=10), members (*n*=8), and one elected official (note that respondents could select more than one role). A few respondents identified their role as "other " – these roles included executive director and president. Respondents were evenly split between identifying as male (*n*=27, 49%) or female (*n*=28, 51%); all of the respondents identified as white. Respondents were also mostly older (40% were 65-74; 18% were 45-54, 15% were 35-44 and 55-64, 10% were 75-84, and 2% 2 were 25-34 or over 85) and highly educated (highest education levels achieved were a doctorate at 18%, master's degree at 35%, four-year degree at 30%, and a two-year degree or professional degree at 12%, with <1% featuring a few years of college). Respondents were motivated to be involved in their tree committee primarily as a means to "contribute to the community" (*n*=43) and "for environmental benefits" (*n*=36). Top motivators also included "for local aesthetic" (*n*=31) and "for personal fulfillment" (*n*=29), while other motivating factors included "to improve local economic conditions" (*n*=13), "to learn new skills" (*n*=11), and "for physical activity or active recreation" (*n*=4).

3.2.3 Meetings and Operational Guidance

About half of urban tree committees identified that they have a meeting frequency of once/ month (*n*=32, 56.1%), with fewer meetings more than once/ month (*n*=7, 12.3%), quarterly (*n*=5, 8.7%), or annually (*n*=1, 1.7%). On average, urban tree committees have seat tenure (length of time) of 2.6 years (*sd*=0.78). Tree committees have a mean of seven committee members (*sd*=3), with the largest committee having 18 members and the smallest just one.

Most urban tree committees that responded identified that they follow some form of operational guidance (*n*=47), such as a work plan (*n*=34, especially in cities with populations < 25,000 *n*=21), strategic plan (*n*=19) and/or an annual budget (*n*=19), while fewer noted that tree ordinances or tree management plans guide committee operations (*n*=4). Most tree committees receive regular advice and information from their local/municipal department (*n*=42), followed by private arborists/contactors (*n* =34), state agencies (*n*=34), private residents (*n*=29), and/or national non-profits (e.g., Arbor Day Foundation, Audubon, American Forests, The Nature Conservancy) (*n*=23). Advice is less commonly retrieved from academic or research institutions (cooperative extension *n*=16; agricultural research stations *n*= 7), arboriculture associations (state/regional arboriculture associations *n*=10, International Society of Arboriculture *n*=4), civic groups (*n*=8), botanic gardens (*n*=3), corporations/private business (*n*= 2), and/or federal agencies (*n*= 2).

While regular advice and information is most often received from state agencies (*n*=37, 64.9%) and local/municipal departments (*n*=42, 73.7%), engagement with stakeholders did vary by city size (Figure 6). Overall, smaller cities sought advice from more organizations than larger cities, especially national non-governmental organizations (*n*=13 [22.8%] committees in cities with populations < 25,000), private residents (*n*=19 [33.3%] committees in cities with populations < 25,000), and private arborists/ contractors (*n*=20 [35.1%] committees in cities with populations < 25,000).

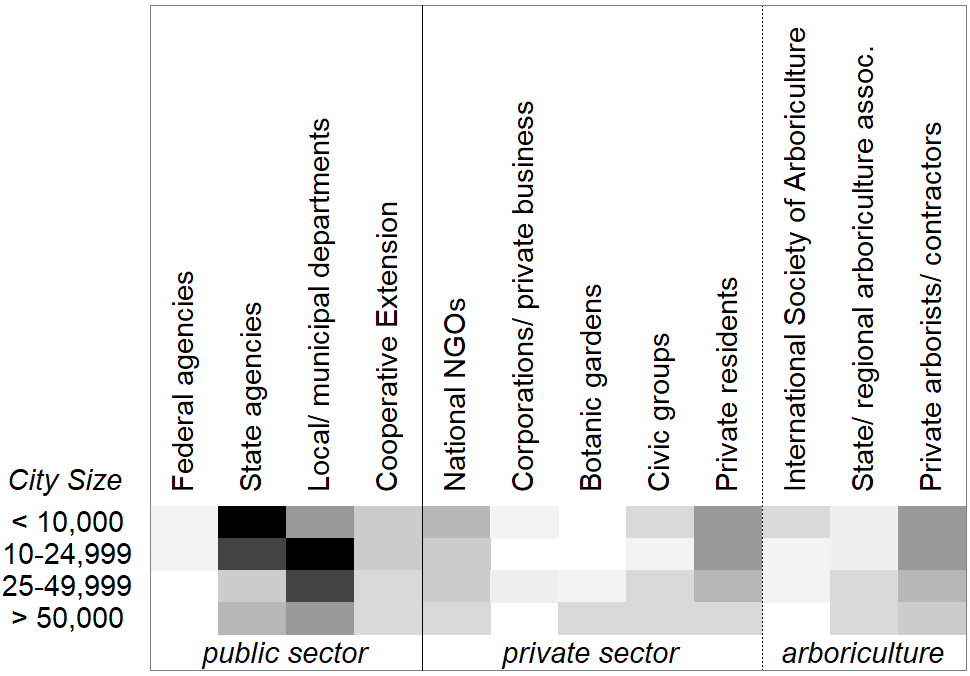


Figure 6. Stakeholders that provide the most advice and information to urban tree committees, where the crosstabs with the greatest amount of engagement (shown as a darker color value, max=12) follow a descending color scheme to the least amount of engagement (shown as the lighter color value, min=0).

3.2.3 Sources of Funding

About a third of the urban tree committees reported that they operate without an annual budget (n=21); those with a budget operate with amounts exceeding $1,000-5,000 (*n*=14, 24.5%) or $5,000+ per year (*n*=11, 19.3%), and budgets of less than $1,000 were rare (n=4, 7.0%) . The smallest city size class had the lowest budgets (*n*=11, 19.3%) but several mid-sized cities (*n*=7, with populations between 10-50,000) had the greatest frequency of budgets over $5000.

The perceived importance of historic and future funding offered by different funding agencies or mechanisms varied between urban tree committees (Table 3). Historically, the local public works/ transportation budget (*m*=3.46, *sd*= 1.79) and the local mayor or manager's budget (*m*=3.00, *sd*=1.90) have been the most important sources of funding, while urban tree committees expect that parks department budgets will be an increasingly important (*m*=3.28, *sd*=1.76) source of funding in the future. Interestingly, even though reliance on less often cited partners persists, several partners are expected to play significantly stronger roles as future funding sources, including federal agencies, local forestry/ urban forestry department budgets, and private arborists and contractors, while reliance on local NGOs is expected to decrease ($p<0.05$).

Table 3. Perceived importance of urban tree committee funding sources across time, where m = mean of Likert scale ratings (1 = least important, 5 = most important), sd = standard deviation, n = number of responses.

	Historic			*Future*			*Wilcoxon Signed-Ranks Sig. Diff*
Funding Source	*m (sd)*	*med*	*n*	*m (sd)*	*med*	*n*	*p-value*
Federal Agency (i.e. USDA Forest Service)	1.61 (1.18)	1.00	46	2.39 (1.53)	2.00	41	***
State Agency	2.72 (1.70)	2.00	46	3.09 (1.70)	4.00	43	
National/State non-profit	1.25 (0.71)	1.00	40	1.89 (1.28)	1.00	35	***
Local Mayor's/Municipal Manager's Budget	3.00 (1.90)	4.00	48	3.18 (1.81)	4.00	44	
Local Forestry/Urban Forestry Department Budget	2.24 (1.75)	1.00	42	3.05 (1.77)	3.50	38	***
Local Public	3.46	4.00	50	3.70	4.00	47	

Works/Streets/ Transportation Department Budget	(1.79)			(1.60)			
Local Parks Department Budget	2.82 (1.81)	2.00	44	3.28 (1.76)	2.00	43	***
Local Planning/Community Development Department Budget	2.02 (1.47)	1.00	43	2.59 (1.69)	2.00	41	
Local NGO Budget	1.40 (0.93)	1.00	40	1.78 (1.24)	1.00	36	***
Local Tree Committee/Board Budget	2.75 (1.82)	2.50	44	2.95 (1.76)	3.00	41	
Corporation(s)	1.61 (1.18)	1.00	41	2.20 (1.42)	1.00	41	
Civic Organization(s)	1.60 (1.08)	1.00	40	2.19 (1.43)	2.00	37	***
Private Foundation	1.93 (1.47)	1.00	42	2.64 (1.62)	3.00	36	***
Private Resident(s)	2.68 (1.61)	3.00	44	2.98 (1.57)	3.00	42	
Private Arborists/Contractor(s)	1.56 (1.07)	1.00	41	1.92 (1.21)	1.00	37	***
							*** = $p<0.05$

3.3 Urban Tree Committee Programs and Activities

3.3.1 Types of Programs and Activities

Most committees identified that they host programs and activities across a combination of locations (e.g., residential neighborhoods, landscaped city parks, street tree belts) (n=54, 94.7%) and advertise activities through combined public engagement outlets (n=47, 82.4%). Very few host programs in single locations (n=3, 5.2%), or rely on a single engagement outlet (n=10, 17.5%). Historically and into the future, the most popular urban tree committee activities, on average, were identified as tree planting and public events like Arbor Day (Table 4). However, urban tree committees expect to significantly increase the amount of programs and activities predominantly around tree planting and tree pruning and, to a lesser extent , invasive species removal/ restoration, land protection, and educational initiatives for adults and youth ($p<0.05$).

In spite of these expected rises in programming, most urban tree committees (*n*=36, 63.1%) indicated that they do not formally evaluate their programs for success or performance. Those that do undertake some type of performance evaluation report tracking the total number of trees planted or removed, or using inventories (*n*=8, 14%) and other indicators of successes, like program outcomes, funding strategies, and hiring approvals (*n*=7, 12.3%).

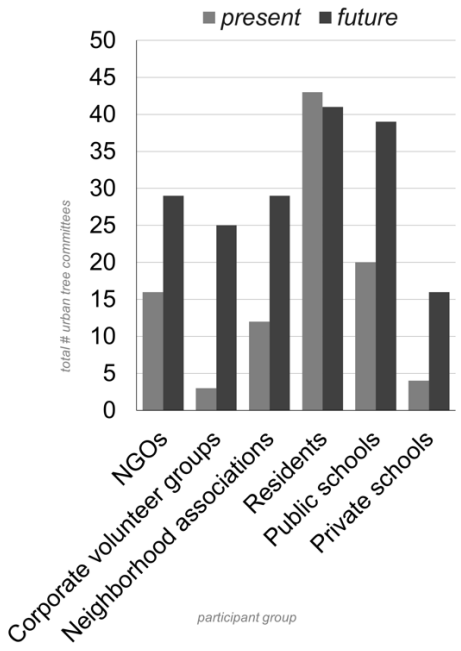
Table 4. Historic and future urban tree committee programs and activities, where m = mean rating of Likert scale ratings (1 = least important, 5 = most important), sd = standard deviation, n = number of responses.

	Historic			*Future*			*Wilcoxon Signed-Ranks Sig. Diff*
Program/ activity	*m (sd)*	*med*	*n*	*m (sd)*	*med*	*n*	*p-value*
Tree planting	4.18 (1.29)	5.00	51	4.44 (1.09)	5.00	52	***
Tree pruning	2.81 (1.45)	3.00	48	3.40 (1.45)	3.00	48	***
Tree watering	3.56 (1.37)	3.50	48	3.83 (1.37)	4.00	48	
Tree removal	2.46 (1.52)	2.00	48	2.58 (1.59)	2.00	50	
Land protection	2.04 (1.19)	2.00	46	2.53 (1.46)	2.00	45	***
Invasive species removal/ restoration	2.38 (1.28)	2.00	45	2.98 (1.47)	3.00	48	***
Adult education classes	2.17 (1.27)	2.00	47	2.78 (1.36)	3.00	49	***
Youth education classes	2.13 (1.28)	1.00	47	2.88 (1.30)	3.00	49	***
Public events (e.g. Arbor Day, Earth Day)	4.12 (1.28)	5.00	51	4.24 (1.19)	5.00	51	
Farmers Markets	1.87 (1.21)	1.00	47	2.15 (1.30)	2.00	46	
Fundraisers	2.09 (1.33)	1.00	45	2.30 (1.49)	2.00	43	
*** = $p<0.05$							

3.3.2 Present and Future Participants

Participants responded that their programs overwhelmingly focus on residents (*n*=52, 91.2%), but also include public schools (*n*=20, 35.1%) and non-profit organizations (*n*=16, 28.1%) (Figure 7.). In the future, urban tree committees report a slight decrease in focus on resident participation and more interest in targeting programs and activities to neighborhood associations, corporate volunteer groups, public and private schools, and nonprofit organizations.

Figure 7. Present and future program participants



4. DISCUSSION

This study was intended to establish a baseline understanding of regional urban tree committees and can be used as guidance for other new, growing, or existing urban tree committees. The descriptions of the organizational structures, funding mechanisms, partnership arrangements and mission statements, and other reported fields from the survey of the present study, may be useful to guide focus of new or growing committees. Urban tree committees are well-integrated and networked within municipal government structures (and at times, nongovernmental networks as well), and this paper provides a framework for local committees to reflect on their own structure and compare themselves to other regional organizations.

4.1 Formation of Urban Tree Committees

From the sample of participants drawn in this study, the formation and scope of urban tree committees varies greatly across the New England region of the U.S. and expanding tree canopy cover and contributing to community livability are long standing motivators of committee formation.

Of importance is also that urban tree committees in New England, and likely elsewhere, are continuing to form every year. This study shows that the cumulative number of urban tree committees has exponentially risen – and continues to rise incrementally – alongside significant historical events and scientific breakthroughs affecting environmental management, tree care and urban forestry. The late 1800s is generally the period ascribed with the initiation of grassroots involvement in urban forestry in the U.S. (Harper et al. 2017); the 1970s featured many important milestones in relation to urban forestry including the emergence of formal studies and technical reports (Cool et al 1973, Ottman et al 1976, Miller and Bate 1978) formalization of the US Environmental Protection Agency (U.S. EPA 2024). Other more current landmark occurrences included the Millennium Ecosystem Services Assessment in 2005 (MEA 2005) and the deployment of iTree by the US Forest Service in 2006 (e.g. Nowak et al. 2008).

The 1990s farm bill ushered in the America the Beautiful initiative that included stable federal funding for urban forestry (Kuser 2007) – at this same time urban tree committees proliferated to improve canopy cover, especially in smaller cities or urban centers with modern populations of 10- 25,000 people. Our finding that nearly 60% (n=34) of urban tree committees were formed in the last two decades substantiates the relative infancy of organized urban and community forestry as a discrete community of practice (O'Herrin et al. 2020). And since the 1980s, a smaller subset of tree committees has also formed due to noticeable tree loss. The recent formation of urban tree committees may also be indicative of diminishing resources for municipal governments for tree care, as well as interest in accessing unprecedented federal funding for urban and community forestry. Future research should consider how the federal IRA allocations and the availability of grants and funding incentivize urban forest management and programming in the US Northeast (Machado and Coleman 2023).

4.2 Physical and Social Geography Inform Urban Tree Committee Representation

Each state of New England also reported notable differences in the formation and reporting of urban tree committees. Massachusetts reported the greatest number of urban tree committees and substantial survey participation relative to the number of statewide municipalities, and this may not be surprising given the history of grassroots urban greening in the state. For example, urban tree and greening groups like the Brookline (Massachusetts) Tree Planting Committee were formed in 1886. Perhaps indicative of a broader trend of the time, it was also around this period that individuals like J. Sterling Morton, who is credited with initiating Arbor Day via the planting of 1,000,000 trees in Nebraska in 1872, were actively advocating for more trees (Jonnes 2016).

In addition to Massachusetts, Connecticut and Rhode Island are the most densely populated states in the nation and also have the highest extents of urban forest cover (Nowak and Greenfield 2018); unsurprisingly we found that these states also have proportionally more tree committees. It remains unknown how prevalent and relevant urban tree committees are distributed across other regions of the country and is an opportunity for future research.

Of interest, representation from small cities and rural communities – e.g. from small urban centers and cities in Vermont and Maine – was higher than expected and supports a unique opportunity to replicate the protocol of this study in other subnational regions. Urban and community forestry has been studied in small towns and mid-sized cities across other regions of the U.S., including by Kuhns 1998 (Intermountain West); Lewis and Boulahanis 2008 (Southern U.S.). While these smaller cities are numerous in the U.S., they are often underrepresented in academic research – and the affiliated literature – because of lower survey response rates (Doroski et al. 2020). Because urban tree committees are an important capacity-building mechanism within the structure of municipal urban forestry, there is an opportunity to continue studying small communities, which typically have fewer staff, staff with fewer credentials, and smaller operating budgets (Hauer and Peterson 2014).

4.3 The Composition and Operations of New England Urban Tree Committees Are Both Unique and Generalizable

The scope and description of personnel supporting New England's urban tree committees are both unique to this region and similar to reports from previous research, specifically in terms of volunteers, tree wardens, and the participant survey respondents (Harper et al. 2017). This finding confirms that urban tree committees are an important form of labor for regional urban forest management, and urban tree committees often interact with and rely on municipal department assets, features and resources (i.e., their listing of an upcoming meeting on a municipal department website to comply with open meeting laws; their use of meeting space in municipal buildings), and department employees (like Tree Wardens, DPW directors-employees, etc) that support committee initiatives and/or hold seats on the committees themselves.

Yet, our study reiterates that this labor largely goes unpaid, unfunded and may be operating without formal training. Given the empirical and anecdotal importance of volunteers to urban tree committees in subregions of the United States, this may signal important opportunities for funded research and review of European tree committee-equivalents, where resident involvement in the establishment and management of urban forests has been occurring for a substantially longer time (Johnston 2015).

Not surprisingly, 50% of the participating urban tree committees identified having a tree warden as a member of the group. Previous research indicates that New England's tree wardens may be occasionally reluctant to collaborate with urban tree committees, due to concerns of differing objectives for a community's urban forest program or that volunteers may lack the necessary depth of knowledge related to municipal tree care (Harper et al. 2017). However, it was surprising to see that urban tree committees do not often regularly engage with arboricultural associations, regardless of city size – which further emphasizes the importance of tree wardens/urban foresters or tree care experts participating aboard urban tree committees to help address critical knowledge gaps.

Another less-surprising finding is that the demographics of the survey respondents align with findings from other studies related to urban forestry administrative leadership – that the preponderance of volunteers are educated, older, white females (Asah et al. 2014; Guiney and

Oberhauser, 2009; Still and Gerhold, 1997). While this should not be misconstrued as the demographic of all urban tree committees, past research suggests that committee leaders could better represent the communities and neighborhoods served in order to understand local, contextual, and sociocultural needs, impacts, and preferences of residents and communities served (e.g. Nesbitt et al. 2018, Carmichael and McDonohough 2018).

While not explicitly asked in our study, recognition of limited participation from certain demographics by urban tree committees is likely reflected by their noted increased interest in focusing future activities more on youth and adult education, as well as interest in developing future programming to better engage neighborhood associations and schools. With national support, state policies, and programs in urban forestry focused investing in underserved communities (such as Massachusetts' Greening the Gateway Cities program (Commonwealth of Massachusetts 2024) or Connecticut's statewide urban tree canopy goals for environmental justice communities established in PA 23-206 (State of Connecticut 2023), it will be important to track whether state and federal investments help steer committee composition to better reflect community demographics.

Similarly, this study shows that urban tree committee workplace operations are expected to change over time, including the scope of activities, partners, and funding sources pursued. Urban tree committees are facilitators of potentially high-impact, public-facing arboriculture and urban forestry activities - but very few are evaluating the impact of their work. Reconciling and distinguishing programmatic outcomes from impacts is a basic tenant of evaluation research (McDavid and Hawthorn 2019), and very relevant to municipal and regional urban forest assessment, planning, and sustainability (e.g. Kenney et al. 2011). Community participation is a key feature of urban tree committees, and most survey respondents cited the desire to "contribute to the community" as their primary motivation for participating. This ranked above respondents involved primarily "for environmental benefits" emphasizing that urban and community forestry is as much about the community as it is about trees. While contributing to the community was paramount to respondents' motivations for participating, past and future tree committee activities reflected a profound understanding of shifts in urban forest management needs. Pruning and invasive removal were two activities ranked as increasingly important in the future. This focus on proactive urban forest management activities is likely reflective of local observations of aging urban tree populations (Cowett et al. 2021) and increased intensity and frequency of storm events with global climate change (Foran et al. 2015). An increased focus on invasive species removal also signals an expanded understanding of the types of trees that comprise the urban forest, inclusive of forested natural areas where mature and regenerating trees face pressure from invasive plant species (Pregitzer et al. 2018).

4.4 Concluding Remarks: A Call for Regional Urban Forest Governance

In conclusion, the case for regional (subnational) urban forestry presents itself as an increasingly important way to describe and analyze interrelated socio-ecological dynamics of urban and community forests (Johnson et al. 2020). There remains a lack of information about sub regional organizational origins, partnerships, and volunteer networks of local urban tree committees (Hargrave et al. 2024) and how financial investment and project development creates momentum for continued activities, maintenance, and stewardship. Given the importance of spatial proximity

and connectivity to urban natural resource science and management (e.g. Forman 2008) and social responses that propel the stewardship of urban nature (e.g. Young 2011), we also expect that social and ecological interactions (and outcomes) of urban forestry will be shared by closely located, similar sized cities. This may be due to a number of factors including similar governance arrangements, land use and development histories, ecoregion characteristics, nursery stock/planting norms, and pest and disease pressures.

This study identifies the presence and prominence of urban tree committees throughout the New England region, elucidates the ongoing need for resident engagement in local natural resources management, and highlights the reliance on unpaid personnel in the municipal governance structure. Cities of similar sizes may share more in common than those of different sizes in the same state – and there is significant opportunity for cross-disciplinary research and practice to build within regional strengths.

APPENDIX 1. SURVEY INSTRUMENT

Exploring Urban Tree Committees

Start of Block: Introduction

Q0 **Urban Tree Committee Survey**
Urban Tree Committees (also known as shade tree committees, municipal tree boards) have been formed across the United States with various goals and objectives regarding supporting the management their community's urban trees. This preliminary investigation aims to better understand Urban Tree Committee activity in New England (i.e., where committees may be in operation and how they are established and structured) as a baseline for future studies. This survey will take approximately 20 minutes to complete. This survey is confidential, and your participation is voluntary; if you prefer not to answer a question, please skip it and go on to the next. This survey is to be completed by a sole representative of the committee – preferably the committee chair.

End of Block: Introduction

Start of Block: PART I: Urban Tree Committee Origin Story

Q1 What is the name of your Urban Tree Committee?

_____

_____

_____

_____

_____

Q2 What is your role with the Urban Tree Committee? Select all that apply.

1. Member
2. Chair
3. Municipal employee (e.g., department/division head)
4. Elected official (e.g., selectman, councilperson, mayor)
5. Forester
6. Tree warden
7. Volunteer
8. Other, describe

_____

_____

Q2a Are you a volunteer or paid staff?

- o volunteer (1)
- o paid staff (2)

Display This Question:

If Are you a volunteer or paid staff? = volunteer

Q2b Please describe your motivation for volunteering on your Urban Tree Committee. Select all that apply.

- o For personal fulfillment
- o For local aesthetic or functional improvements
- o For individual credit/recognition (e.g., part of a school project)
- o To contribute to the community
- o To learn new skills
- o For general educational or professional development
- o For interpersonal or social relationships
- o For physical activity or active recreation
- o For environmental benefits
- o To improve local economic conditions

Q3 Does your Urban Tree Committee have a website?

- o Yes (1)
- o No (2)

Display This Question:

If Does the Urban Tree Committee have a website? = Yes

Q3a If Yes, please provide the website's URL

_____

Q4 What year was your Urban Tree Committee formed?

_____

Q5 Does your Urban Tree Committee have a mission statement?

- o Yes (1)
- o No (2)

Display This Question:

If Does your Urban Tree Committee have a mission statement? = Yes

Q5a If yes, what is that mission statement?

_____

_____

_____

_____

_____

Q6 Why was your Urban Tree Committee formed? Select all that apply.

- To advocate for funding (1)
- To extend and enhance limited municipal resources (2)
- To improve Urban Tree Canopy Cover (3)
- To combat climate change (4)
- To improve and beautify one or more community neighborhoods (5)
- In response to an emergent or acute event (i.e. weather, invasive pest) (6)
- Other, describe (7) _____

Q7 How engaged (if at all) were the following stakeholders in forming your Urban Tree Committee?

	Always (1)	Usually (2)	Occasionally (3)	Rarely (4)	Never (5)
Federal Agency (i.e., USDA Forest Service) (1)	o	o	o	o	o
State Agency (2)	o	o	o	o	o
National/State/Regional NGO (3)	o	o	o	o	o
University Cooperative Extension System (4)	o	o	o	o	o
Public University (5)	o	o	o	o	o
Private University (6)	o	o	o	o	o
Local Mayor's/Municipal Manager's Office (7)	o	o	o	o	o
Local Forestry/Urban Forestry Department (8)	o	o	o	o	o
Local Public Works/Streets/Transportation Department (9)	o	o	o	o	o
Local Parks Department (10)	o	o	o	o	o
Local Planning/Community Development Department (11)	o	o	o	o	o
Local NGO (12)	o	o	o	o	o
Corporation(s) (13)	o	o	o	o	o
Civic Organization(s) (14)	o	o	o	o	o
Neighborhood Organization(s) (15)	o	o	o	o	o
Private Resident(s) (16)	o	o	o	o	o
Private Arborist(s)/Contractor(s) (17)	o	o	o	o	o
Other (18) _____	o	o	o	o	o
Other (19) _____	o	o	o	o	o

End of Block: PART I: Urban Tree Committee Origin Story

Start of Block: PART II: Organizational Structure

Q8 How many individual seats are on your Urban Tree Committee?

_____

Q9 What is the tenure of seats on your Urban Tree Committee?

_____

Q10 How many seats on your Urban Tree Committee are for employees of your municipality (i.e., tree warden, highway superintendent, DPW manager, the mayor)?

_____

Q11 Currently, is there an individual that is a certified arborist (ISA or state equivalent) on your Urban Tree Committee?

- o Yes (1)
- o No (2)

Q12 How many seats on your Urban Tree Committee are for volunteers?

_____

Q13 Typically, how frequently does your Urban Tree Committee meet?

- o More than once a month (1)
- o Once a month (2)
- o Quarterly (3)
- o Once a year (4)
- o Other, please describe (5)

Q14 Are you a registered non-profit organization (e.g., 501(c)(3))?

- o Yes (1)
- o No (2)
- o Not yet, but working on obtaining non-profit status (3)

Q15 Currently, does your Urban Tree Committee have paid staff?

- o No (1)
- o Yes (2)

Display This Question:

If Does your Urban Tree Committee have a paid staff? = Yes

Q15a If yes, how many paid staff are employed?

_____

Display This Question:

If Does your Urban Tree Committee have a paid staff? = Yes

Q15b Please describe staff members' positions and hours worked per week.

_____

_____

_____

_____

_____

Q16 Currently, does your Urban Tree Committee utilize volunteers?

- o Yes (1)
- o No (2)

Display This Question:

If Does your Urban Tree Committee utilize volunteers? = Yes

Q16a. If yes, how many volunteers?

_____

Display This Question:

If Does your Urban Tree Committee utilize volunteers? = Yes

Q16b. If yes, about how many cumulative hours do volunteers contribute annually?

_____

_____

_____

_____

_____

Display This Question:

If Does your Urban Tree Committee utilize volunteers? = Yes

Q16c. Please describe the positions/duties of volunteers.

_____

_____

_____

Q16d How do you recruit new volunteers for your Urban Tree Committee? Select all that apply.

- ▢ Public events (e.g. Arbor Day, Earth Day) (1)
- ▢ Farmers markets (2)
- ▢ Word of mouth (3)
- ▢ Social media (4)
- ▢ Newsletter (5)
- ▢ Press release (6)
- ▢ Other, describe (7) _____

Q16e What is the annual budget for recruiting new volunteers for your Urban Tree Committee?

_____

Q16f How do you integrate/onboard volunteers?

- o Formal- with training and/or orientation (1)
- o Informal- individuals gain familiarity over time (2)

Q17 Who tends to participate in your Urban Tree Committee's initiative(s)? Select all that apply

- ▢ Individual residents (1)
- ▢ Neighborhood associations (2)
- ▢ Corporate volunteer groups (3)
- ▢ Public Schools (4)
- ▢ Private Schools (5)
- ▢ Other non-profits (6)
- ▢ Other, describe: (7) _____
- ▢ Other, describe: (8) _____

Q18 Who would you like to participate in your Urban Tree Committee's initiative(s)? Select all that apply

- o Individual residents (1)
- o Neighborhood associations (2)
- o Corporate volunteer groups (3)
- o School (4)
- o Other non-profits (5)
- o Other, describe: (6) _____
- o Other, describe: (7) _____

Q19 When conducting a program that aligns with your mission, where do you typically focus efforts within your community? Select all that apply.

- ▢ Across residential neighborhoods (1)
- ▢ Private landscapes/properties (2)
- ▢ Commercial areas (3)
- ▢ Street trees (4)
- ▢ Landscaped city parks (5)
- ▢ Woodlands/ natural areas (6)
- ▢ Environmental justice areas (7)
- ▢ Other, describe: (8) _____

Q20 What sort of operational guidance (i.e., annual work plan, budget) does your Urban Tree Committee have? Select all that apply.

- ▢ Strategic plan (1)
- ▢ Annual plan of work (2)
- ▢ Budget (3)
- ▢ Direction from board of directors (4)
- ▢ Local Forestry division (5)
- ▢ State agency (i.e. DCR, EPA) (6)
- ▢ Other, describe: (7) _____

Q21 What organization(s) or individual(s) provide advice and information to your Urban Tree Committee? Select all that apply.

Federal agency (1)
State agency (2)
Local/Municipal department (3)
International Society of Arboriculture (4)
State/Regional arboriculture association (5)
Arbor Day Foundation (6)
American Forests (7)
The Nature Conservancy (8)
Audubon (9)
Botanical gardens (10)
Cooperative Extension (11)
Agricultural research station (12)
Corporations(s)/Private business (13)
Civic organization(s) (14)
Private resident(s) (15)
Private arborist(s)/Contractor(s) (16)
Other: (17) describe _____

End of Block: PART II: Organizational Structure

Start of Block: PART III: Funding

Q22 What is your annual budget?

- o $0 (1)
- o $1- $500 (2)
- o $501 - $1,000 (3)
- o $1,001 - $5,000 (4)
- o More than $5,000 (5)

Q22a Historically, how important are the following in relation to funding for your Urban Tree Committee?

	Very important (1)	Moderately important (2)	Neutral (3)	Slightly important (4)	Not at all important (5)
Federal Agency (i.e. USDA Forest Service) (1)	o	o	o	o	o
State Agency (2)	o	o	o	o	o
National/State NGO (3)	o	o	o	o	o
Local Mayor's/Municipal Manager's Budget (4)	o	o	o	o	o
Local Forestry/Urban Forestry Department Budget (5)	o	o	o	o	o
Local Public Works/Streets/Transportation Department Budget (6)	o	o	o	o	o
Local Parks Department Budget (7)	o	o	o	o	o
Local Planning/Community Development Department Budget (8)	o	o	o	o	o
Local NGO Budget (9)	o	o	o	o	o
Local Urban Tree Committee/Board Budget (10)	o	o	o	o	o
Corporation(s) (11)	o	o	o	o	o
Civic Organization(s) (12)	o	o	o	o	o
Private Foundation (13)	o	o	o	o	o
Private Citizen(s) (14)	o	o	o	o	o
Private Arborists(s)/Contractor(s) (15)	o	o	o	o	o
Other: (16)	o	o	o	o	o

Q22b In the future, how important are the following in relation to funding for your Urban Tree Committee?

	Very important (1)	Moderately important (2)	Neutral (3)	Slightly important (4)	Not at all important (5)
Federal Agency (i.e. USDA Forest Service) (1)	o	o	o	o	o
State Agency (2)	o	o	o	o	o
National/State NGO (3)	o	o	o	o	o
Local Mayor's/Municipal Manager's Budget (4)	o	o	o	o	o
Local Forestry/Urban Forestry Department Budget (5)	o	o	o	o	o
Local Public Works/Streets/Transportation Department Budget (6)	o	o	o	o	o
Local Parks Department Budget (7)	o	o	o	o	o
Local Planning/Community Development Department Budget (8)	o	o	o	o	o
Local NGO Budget (9)	o	o	o	o	o
Local Urban Tree Committee/Board Budget (10)	o	o	o	o	o
Corporation(s) (11)	o	o	o	o	o
Civic Organization(s) (12)	o	o	o	o	o
Private Foundation (13)	o	o	o	o	o
Private Citizen(s) (14)	o	o	o	o	o
Private Arborists(s)/Contractor(s) (15)	o	o	o	o	o
Other: (16)	o	o	o	o	o

End of Block: PART III: Funding

Start of Block: PART IV: Programming

Q23a Historically, what is the frequency with which your Urban Tree Committee carries out or participates in the following programs or initiatives?

	Always (1)	Usually (2)	Occasionally (3)	Rarely (4)	Never (5)
Tree planting	o	o	o	o	o
Tree inventory	o	o	o	o	o
Tree pruning	o	o	o	o	o
Tree watering	o	o	o	o	o
Tree removal	o	o	o	o	o
Land protection	o	o	o	o	o
Invasive species removal/ restoration	o	o	o	o	o
Adult educational classes	o	o	o	o	o
Youth education classes	o	o	o	o	o
Educate decision makers about urban forest management	o	o	o	o	o
	o	o	o	o	o
Public events (i.e., Arbor Day, Earth Day)	o	o	o	o	o
Farmers Markets	o	o	o	o	o
Fundraisers	o	o	o	o	o
Other, describe:	o	o	o	o	o

Q23b In the future, what is the frequency with which your Urban Tree Committee hopes to carry out or participate in the following programs or initiatives?

	Always (1)	Usually (2)	Occasionally (3)	Rarely (4)	Never (5)
Tree planting	o	o	o	o	o
Tree inventory	o	o	o	o	o
Tree pruning	o	o	o	o	o
Tree watering	o	o	o	o	o
Tree removal	o	o	o	o	o
Land protection	o	o	o	o	o
Invasive species removal/ restoration	o	o	o	o	o
Adult educational classes	o	o	o	o	o
Youth education classes	o	o	o	o	o
Educate decision makers about urban forest management	o	o	o	o	o
	o	o	o	o	o
Public events (i.e., Arbor Day, Earth Day)	o	o	o	o	o
Farmers Markets	o	o	o	o	o
Fundraise	o	o	o	o	o
Other, describe:	o	o	o	o	o

Q24 Is there a means of formally evaluating the success of a program or initiative?

- o No (1)
- o Yes, describe (2) _____

Q25 Which of the following methods do you utilize for the marketing/public engagement of programs or initiatives? Please check all that apply.

- ▢ Newsletter (1)
- ▢ Listserv (2)
- ▢ Public lectures (3)
- ▢ Press releases (4)
- ▢ Neighborhood association meetings (5)
- ▢ Farmers markets (6)
- ▢ Social media, describe: (7) _____
- ▢ Community fairs/events, describe: (8) _____
- ▢ Other, describe: (9) _____

Q26 How does your Urban Tree Committee stay updated on urban forestry practices and research? Select all that apply.

- ▢ Conferences (1)
- ▢ Workshops (2)
- ▢ Webinars (3)
- ▢ Scientific articles (4)
- ▢ Cooperative Extension/land grant university programs (5)
- ▢ Other, describe: (6) _____

End of Block: PART IV: Programming

Start of Block: PART V: Partnerships

Q27 How important would you rate the following stakeholders as partners/collaborators?

	Very important (1)	Moderately important (2)	Neutral (3)	Slightly important (4)	Not important (5)
Federal agency (1)					
State agency (2)					
Local/Municipal department (3)					
International Society of Arboriculture (4)					
State/Regional arboriculture association (5)					
Arbor Day Foundation (6)					
American Forests (7)					
The Nature Conservancy (8)					
Audubon (9)					
Forestry organizations (e.g., NGOs like the Mass. Forest Alliance; New England Forestry Foundation) (10)					
Land Trust (11)					
Community gardens (12)					
Botanical gardens (13)					
Arboreta (14)					
Cooperative Extension (15)					
Agricultural research station (16)					
Corporations(s)/Private business (17)					
Civic organization(s) (18)					
Private resident (s) (19)					
Private arborist(s)/Contractor(s) (20)					
Other: (21)					

Q28 How would you describe the quality of your Urban Tree Committees' interaction with the state urban and community forestry program?

- o Excellent (1)
- o Good (2)
- o Fair (3)
- o Poor (4)
- o No interaction (5)

Q29 How would you describe the quality of your Urban Tree Committee's interaction with the local Tree Warden/Municipal forester?

- o Excellent (1)
- o Good (2)
- o Average (3)
- o Poor (4)
- o No interaction (5)

Q30 How would you describe the quality of your Urban Tree Committee's interaction with local municipal officials (i.e., mayor's office, select board, councilors)?

- o Excellent (1)
- o Good (2)
- o Average (3)
- o Poor (4)
- o No interaction (5)

Q31 Has your Urban Tree Committee helped develop, shape, or implement policy in your community?

- o Yes (1)
- o No (2)

Display This Question:

If Has your Tree Committee helped to develop, shape, or implement policy in your community? = Yes

Q31a. If yes, please describe.

_____

_____

_____

_____

_____

End of Block: PART V: Partnerships

Start of Block: PART VI: Demographic Information

Q32 Please specify your gender

- o Male
- o Female
- o Non-binary/third gender
- o Other (please specify):

Q33 How do you identify in terms of race and ethnicity (select all that apply)?

- o White
- o Black or African American
- o Hispanic or Latino
- o American Indian or Alaska Native
- o Asian
- o Native Hawaiian or Pacific Islander
- o Another Race

Q34 Which category includes your age?

- o Under 18
- o 18-24
- o 25-34
- o 35-44
- o 45-54
- o 55-64
- o 65-74
- o 75-84
- o 85 or older

Q35 What is the highest level of education you have received?

- o Less than high school
- o High school diploma or GED
- o Some college
- o 2 year degree
- o 4 year degree
- o Master's degree
- o Professional degree
- o Doctorate

End of Block: PART VI: Demographic Questions

Start of Block: PART VII: Other

Q36 How has COVID-19 impacted your Urban Tree Committee?

_____

_____

_____

_____

_____

Q37 Are you aware of any other Urban Tree Committees that you think should participate in this research? Please list the committee's name and any contact information (email preferred) if available.

_____

_____

_____

Q38 Is there anything else you would like to add about your Urban Tree Committee not covered by this survey?

_____

_____

_____

End of Block: PART VII: Other

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