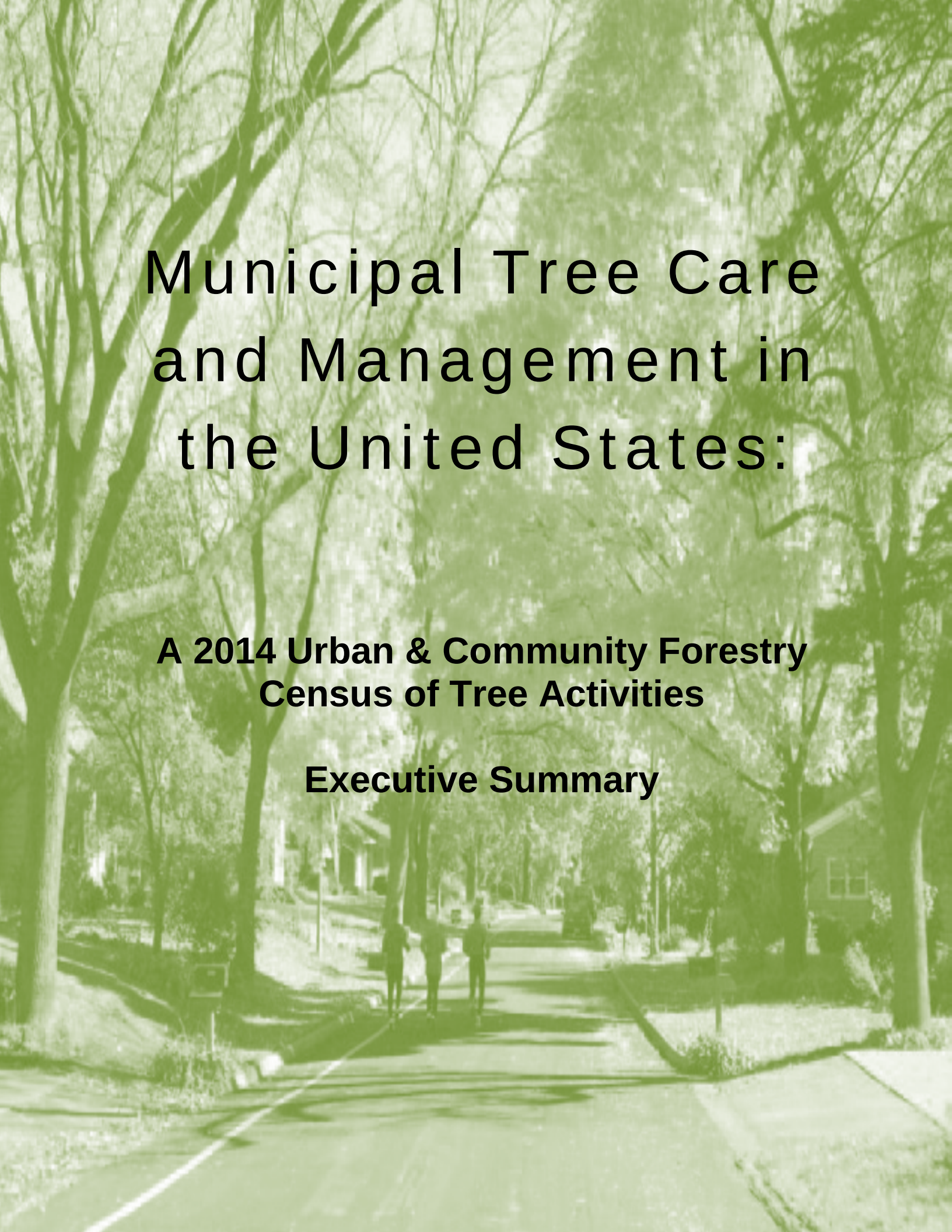

Municipal Tree Care and Management in the United States:

A 2014 Urban & Community Forestry Census of Tree Activities

Executive Summary

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Trees are a recognized and significant asset to communities. For community trees to remain an asset and to increase in value they need care and regular maintenance. *The Municipal Tree Care and Management in the United States: A 2014 Urban & Community Forestry Census of Tree Activities* is the fifth report over 40 years that addresses the many approaches communities take to manage public trees. It has been over 20 years since the last rendition in 1993. We are grateful to the 667 communities that provided data for this project.

This report shows how communities are managing their trees on average, and how their municipal urban forestry operations are organized and funded. Comparing a community's current configuration with national averages will give an idea of how they are doing, possibly ways to improve the urban forest, or even reduce costs. A companion publication will compare the recent findings with previous versions to see the ways that urban forestry is changing.

The results suggest that Municipal Urban Forestry is maturing and becoming a rooted part of community infrastructure. People that make their careers in urban forestry are more professional, paid better, use recognized standards of work and are more systematic in their management. Communities continue to diversify how programs get funded in addition to general funding monies. A variety of policy tactics and plans that include trees are used to manage the urban forest.

There are challenges also such as emerald ash borer affecting municipal budgets and the reallocation of money from maintenance to tree removal and replanting. Deferred tree maintenance will likely led to future tree structural issues. Some communities report challenges to adequately fund a program to identified needs. In some places the rate of tree removal exceeds tree planting, especially in places that currently have emerald ash borer. A lack of tree diversity is also common in many locations. However, identifying challenges provide a baseline to improve upon.

The report includes communities with populations from 2,500 to more than one million people across the entire United States. It provides results organized by the entire country, community population and geographic regions. The report and data are extensive and can be overwhelming. To help navigate to a section that you might find important, the Table of Contents is organized and is hyperlinked for easier navigation.

Highlights from the study:

- **Community and Staff Profile**
  - Most (55%) communities are using systematic management compared with 39% in 1986 and 63% schedule the tree work continuously over the year.
  - A mean of 382.5 miles of road, 45.7 square miles of land area and 1010.1 acres of park land was reported per community across the US. Of these 82% of the streets had trees and 80% of the land in a community was developed.
  - Communities have had a person responsible for tree management for over 30 years with the current person having 10.7 years in their current position, and 20.0 years of total professional experience. The department responsible for trees varied by population.
  - There are 4.1 decision steps between the staff doing the tree work and the highest level of administration. This varied from 2.6 in the smallest to 6.7 in the largest communities.
  - A mean 2.7 departments were involved with trees, ranging from 2.0 in the smallest to 3.7 in the largest communities.
  - Cooperation between departments decreased as the populations increased.
  - Professionalism was demonstrated with 61% of responding communities having an ISA Certified Arborist on staff. This became the norm in locations with ≥ 50,000 people.

- **Tree Care Funding**
  - Tree activities had a mean annual budget of $801,595. This worked out to an average of $42.59 per street tree, $8.76 per capita, and 0.52% of the total municipal budget.
  - 72% of the funding came from the general fund. Over half (53%) of respondents thought the budget was adequate. Those inadequately funded said it was 45% of an identified need.
  - Two-thirds of funding went to tree planting (14.2%), tree pruning (23.3%) and tree removal (24.5%) or stump removal (3.6%).
  - The mean wage for a municipal field arborist is $47,837. This compares well to the 2014 mean annual $47,230 wage for all occupations in the United States. Mean wages increase as a municipal urban forester climbs the career ladder with a city forester making $71,219.

- **Tree Management Policy and Planning**
  - Two-thirds of responding communities have a government-authorized group helping with developing and/or administering policy. They were active in 80% that have such a group.
  - 90% had tree ordinances of some kind. Defining authority (80%), regulating removal of dead and diseased trees (77%), having an approved tree list for public tree planting (70%), requiring tree planting in new developments (68%), and requiring tree planting around new parking lots (60%) were the five most common ordinances.
  - Half of responding communities had written strategic plans pertaining to urban trees.
  - Over half of the respondents incorporated industry standards (e.g., A300, Z60.1, Z133) in tree procedures.

- **Volunteers and Partnerships**
  - 65% of the communities have volunteers taking part in tree activities with averages of 205 people working 852 hours a year. This translates into a national estimate of 1.5 million hours (714 FTE, 2080 hour base year) of municipal tree volunteering.
  - Volunteers completed 4.8% of total time for tree care activities in a community.
  - Tree planting (85%), watering (40%), and public education (39%) were the most common.

Contracting Tree Care Activities

- 88% hired contractors for some work that involved 40.8 % of all time with tree activities.
- 72% used industry standards or credentials for contractor hiring decisions.
- Communities regularly used tree removal (88%), tree pruning (68%), and tree planting (58%) contracting for a portion or all of these areas.

Community Tree Populations

- Tree inventories were used by 67% of the communities for some part of the tree population with 83% of these computerized. The inventory was last updated 2.7 years ago on average.
- Tree inventories regularly included information about tree species (98%), tree diameter (89%), and tree location (88%).
- Inventories were used for directing work for identifying tree planting locations (72%), tree species selection (62%), tree removal (60%), and scheduling tree pruning (53%).
- Canopy goals were in place or being developed by 25% of respondents. The average goal was to go from 32% to 44% canopy cover over the next 13 years.
- A mean of 55,332 public trees per municipality were found. This works out to 0.55 trees per capita, 4,821 trees per full time equivalent employee, or 76.1 trees per street mile.
- Public trees in a community were worth a total $68,665,110 on average or $1698 per tree.

Tree Operations and Management Profile

- 7.1 trees were planted and 6.0 removed per 1,000 residents with 54% of the communities planting more trees than they removed.
- Trees were pruned on average every 6.6 years, the desired pruning cycle was 4.8 years.
- 55% of communities were rated as having a systematic tree program.

Assistance Programs

- 65% of communities were aware of the state U&CF program. They received technical assistance (41%), financial assistance (48%), and educational/training programs (54%).
- Over half (53%) of responding communities provided technical assistance to community members and 59% gave education programs with Arbor Day (81%), tree planting (59%), tree selection (52%), benefits of trees (51%), and tree pruning (49%) most common.

A complementary study presents a more complete trend analysis. An urban forest planning model is proposed for development to help communities compare their operations to the national or regional averages and to help them measure progress over time. The data in this study should be updated on a more frequent basis, such as a 5 year cycle for accuracy and relevance. This could be done efficiently by basing the updates on this study. Results from this recent update and future versions will help to identify the ideal Urban Forest and create Best Management Practices to build it.

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