

USDA Forest Service

URBANFOREST CONNECTIONS

webinar series

Second Wednesdays | 1:00 – 2:15 pm ET

www.fs.fed.us/research/urban-webinars



Forest Service
Urban Natural Resources Stewardship

USDA is an equal opportunity provider and employer.



NUCFAC HIGHLIGHTS: GROWING THE MANAGERS OF TOMORROW'S SUSTAINABLE URBAN FORESTS



Lisa Ortega

Interim Chair

*National Urban and
Community Forestry
Advisory Council*

lortega@forestry.nv.gov



Cindy Blain

Executive Director

California ReLeaf

cblain@californiareleaf.org



Susan Day

Associate Professor

Virginia Tech

sdd@vt.edu



**NUCFAC Highlights: Growing the managers of
tomorrow's sustainable urban forests**

Urban Forestry 2020

Dr. Susan D. Day

Department of Forest Resources & Environmental Conservation
Virginia Tech



Urban Forestry 2020

What is the future of Urban Forest Management

The future of Urban Forestry Education

Professional Image

Advancing the Urban Forestry Profession through research

OUR FINDINGS

Where is Urban Forestry Today?

The Urban Forestry 2020 team was tasked with

Where Do We Go from

What can urban forestry do to b

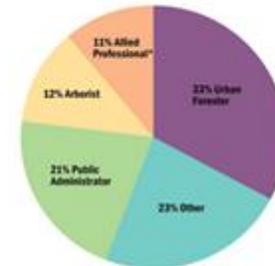
www.uf2020.frec.vt.edu

Research revealed structural challenges within urban forestry

Data Visualizations

(click the image to enlarge)

Professional Identity of Municipal Tree Managers in the U.S.



* Such as civil engineer, landscape architect, and urban planner

The self-ascribed professional identity of individuals who manage urban trees and greenspaces for local governments in the United States.

Breaking Down the Urban Forestry Career Ladder

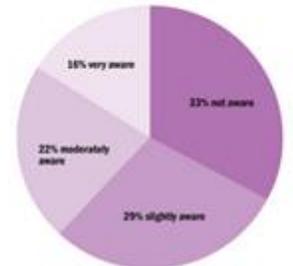


*Average annual income
*Entry level was defined requiring 1 year or less of experience. All positions that fell into this category required a degree.

Relative number of entry level (<1 year formal education), mid-level and administrative jobs found in an analysis of urban forestry job postings in the United States.

MORE DATA VISUALIZATIONS

U.S. College Student Awareness of Urban Forestry



Level of awareness of urban forestry as a career option among US college students enrolled in environmentally-related courses.

Who is Urban Forestry 2020?

University Partners

Agency Partners

National Steering Committee

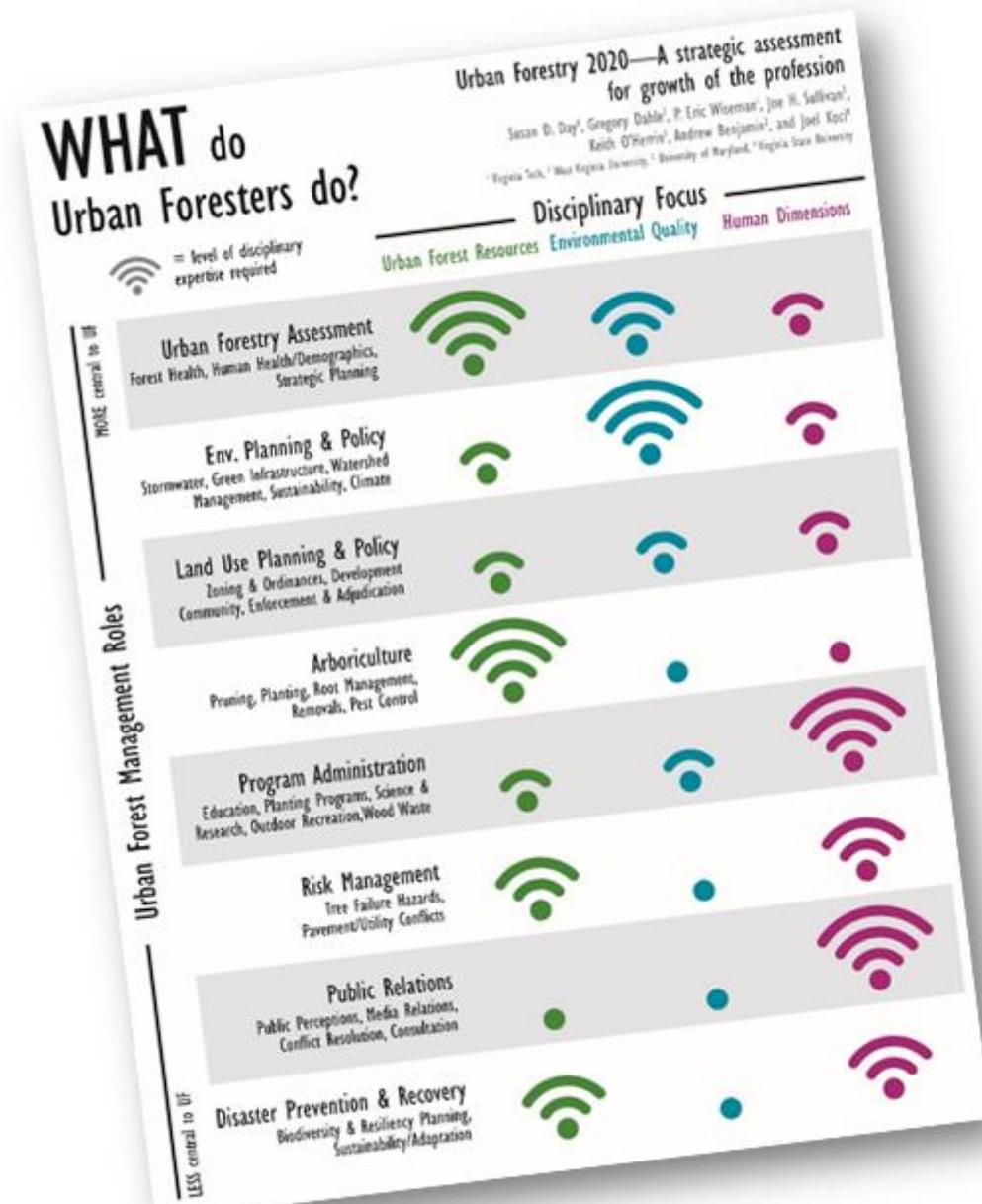
Supporting Organizations

Urban Forestry 2020



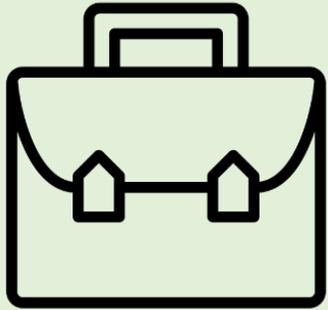
- Research on potential students, career paths, education and expertise, networks
- Networking—healthy profession
- Strategic Actions based on research to offer common goals

Who Practices Urban Forestry?

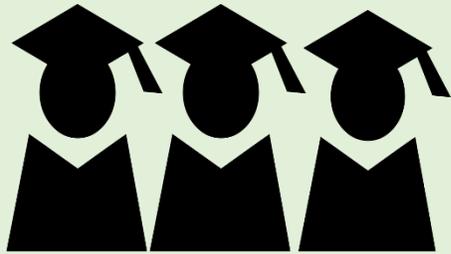


- Urban foresters
- Arborists-Certified Arborists
- Certified Municipal Specialists
- City Horticulturists
- “traditional” Foresters
- Citizen groups and NGOs
- Landscape Architects
- Urban Planners
- Ecologists
- Geographers
- Engineers

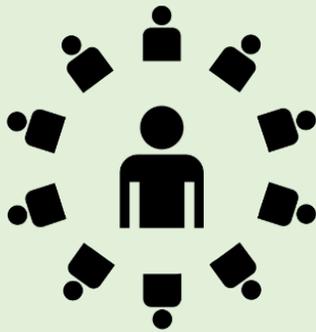
The Surveys



Jobs Analysis
Employers



University Students
Allied Professionals



Networking &
Career Path

Urban Forestry 2020 Recommendations for Strategic Actions

These strategic recommendations address the challenges uncovered by Urban Forestry 2020's nationwide research on the urban forestry profession. We have provided these recommendations to the National Urban and Community Forestry Advisory Council to assist in their efforts to support sustainable management of urban forests in the United States. Our recommendations are tied to strategic actions that the professional community within urban forestry can undertake to address the challenges we have discovered.



Shaping Professional Identity and Public Perception of Urban Forestry

Public awareness of the urban forestry profession is low, and even among practicing professionals and their employers, "urban forester" is not clearly defined or differentiated from its allied professions.

STRATEGIC ACTIONS

1. Identify what differentiates an urban forester from allied professions working with urban greenspace planning and management.
2. Continue to formalize descriptions of the specialized expertise of urban foresters and align these with qualifications to communicate that expertise to employers.
3. Initiate national conversations and systems that foster ongoing professionalization and public awareness.
4. Communicate professional identity with new stakeholders in higher education both within and beyond land-grant institutions.
5. Build connections with a wider array of urban stakeholders to foster awareness of professional identity of urban foresters.

Building Career Networks for Advancing, Promoting, and Communicating Expertise in Urban Forestry

Networking and professional development at a national level are challenging because urban foresters and managers of urban greenspaces are found in many employment sectors and have a wide variety of disciplinary affiliations. Many urban forest management networks operate at local, state, or regional levels.

STRATEGIC ACTIONS

1. Invest in national networks that focus on career professionals in urban forestry and their development, particularly early-career professionals from under-represented groups.
2. Strengthen links between national networks and regional and local networks.
3. Continue to rigorously assess networking opportunities and how they support meaningful professional development and career advancement for urban foresters.
4. Create multiple career development paths from high school to university to both public and private sector employers.
5. Explore ways to expand private sector opportunities (both profit and non-profit) to create a more resilient job market for the urban forestry profession.

Linking the Urban Forestry Profession with Higher Education

Hiring and recruitment links between employers of urban foresters and universities are inconsistent and insufficient to create a sustainable professional pipeline that can foster diverse career opportunities.

STRATEGIC ACTIONS

1. Facilitate a periodic national summit of urban forestry educators for networking, curriculum dialogue, and professional development.
2. Facilitate mechanisms for ongoing alignment of urban forestry and related curricula with agreed upon specialized expertise that is widely recognized by employers.
3. Facilitate ongoing conversations between higher education and employers to create diverse career pathways for new graduates and facilitate inclusive student recruitment, mentoring, and placement.
4. Conduct facilitated systematic review of professional urban foresters to develop multiple and more specific education needs, including consideration of graduate programs (e.g., use a DACUM process or a gap analysis).
5. Creatively expand reach of urban forestry curricula beyond the traditional stakeholders of natural resources and forestry programs.
6. Identify and address the structural roadblocks in the job market that limit entry-level positions.

Increasing Student Recruitment and Awareness of Urban Forestry

Students have low awareness of urban forestry as a career and do not readily visualize a career path for the profession.

STRATEGIC ACTIONS

1. Develop and communicate to the public and potential students consistent and recognized mechanisms of professional preparation for a career in urban forestry.
2. Consistently communicate to university and high school students the specialized expertise required for a career in urban forestry.
3. Develop extensive internship links and meaningful mentorship opportunities.
4. Create networks that reach broader audiences and new demographics, well beyond traditional natural resources stakeholders and specifically addressing urban institutions, underrepresented groups, and youth.
5. Expand awareness of the range of specializations within the broader urban forest management profession so that students can pursue diverse career paths into urban forestry.



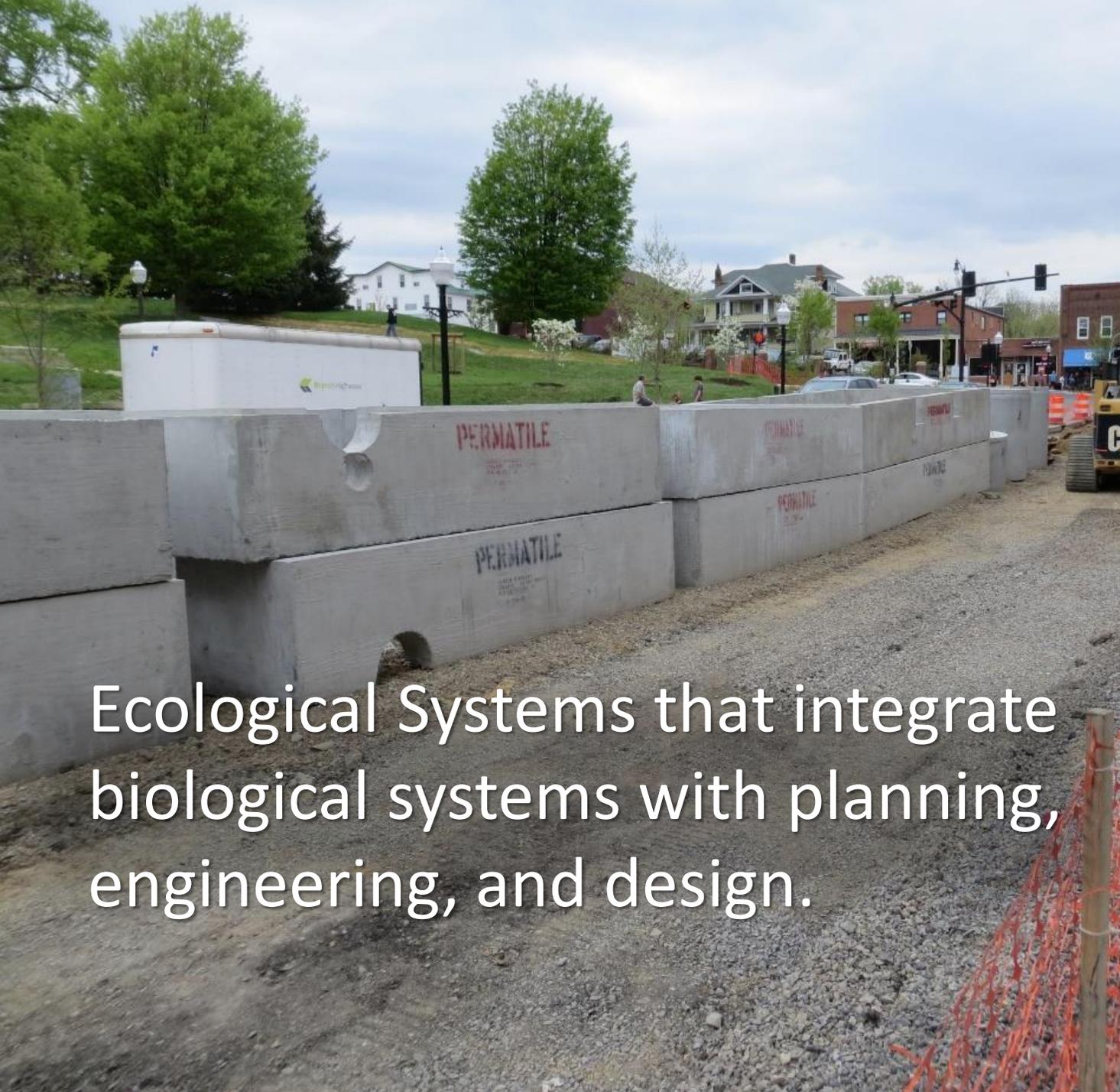
Urban Forestry 2020 project is supported by U.S. Forest Service, National Urban and Community Forestry, Virginia Tech, University of Maryland, University of Wisconsin, and Virginia State.

www.uf2020.frec.vt.edu



The future of Urban Forest Management

- **Complex and highly technical in areas**
- **Many players**
- **Specializations and niches**

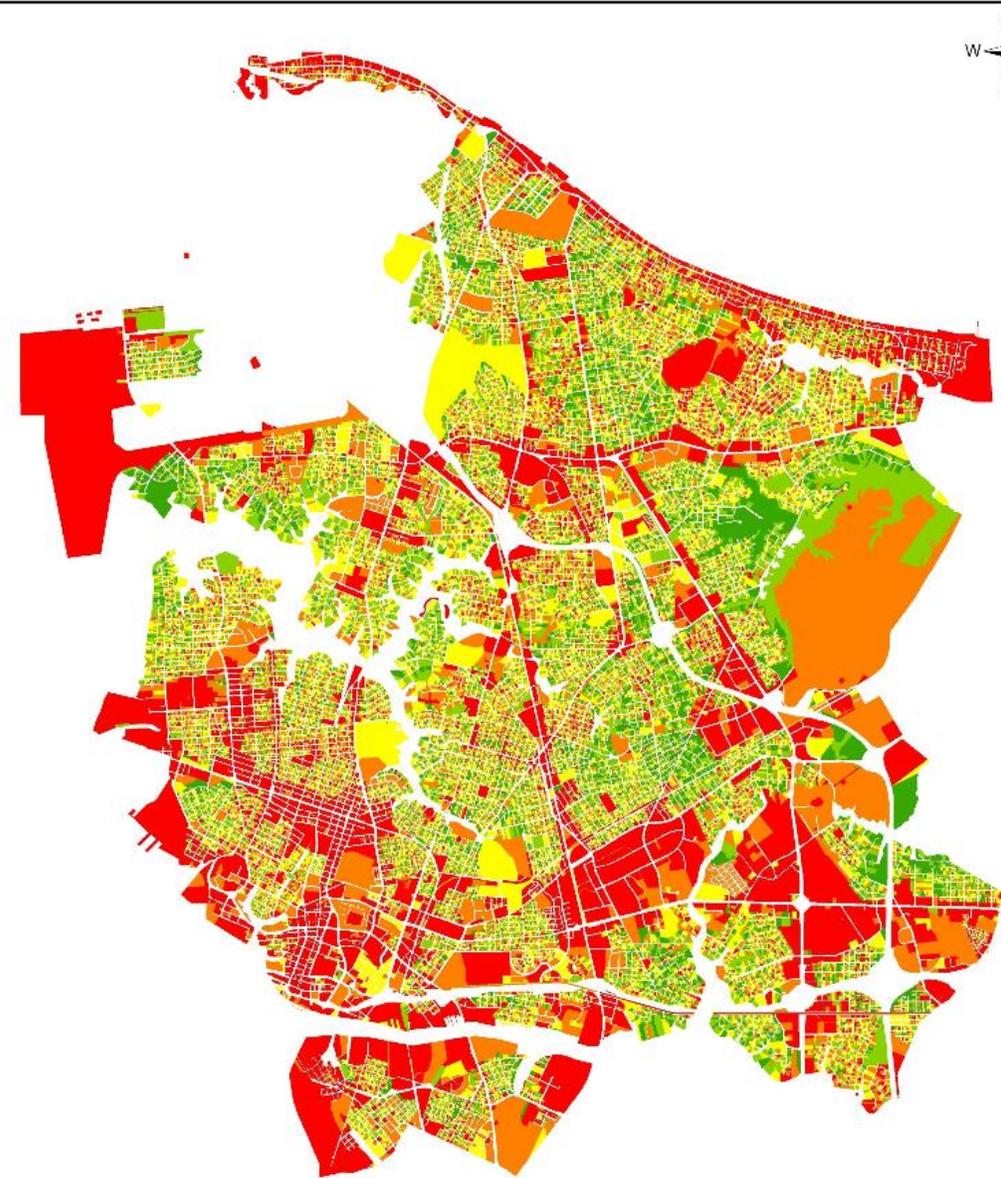


Ecological Systems that integrate biological systems with planning, engineering, and design.



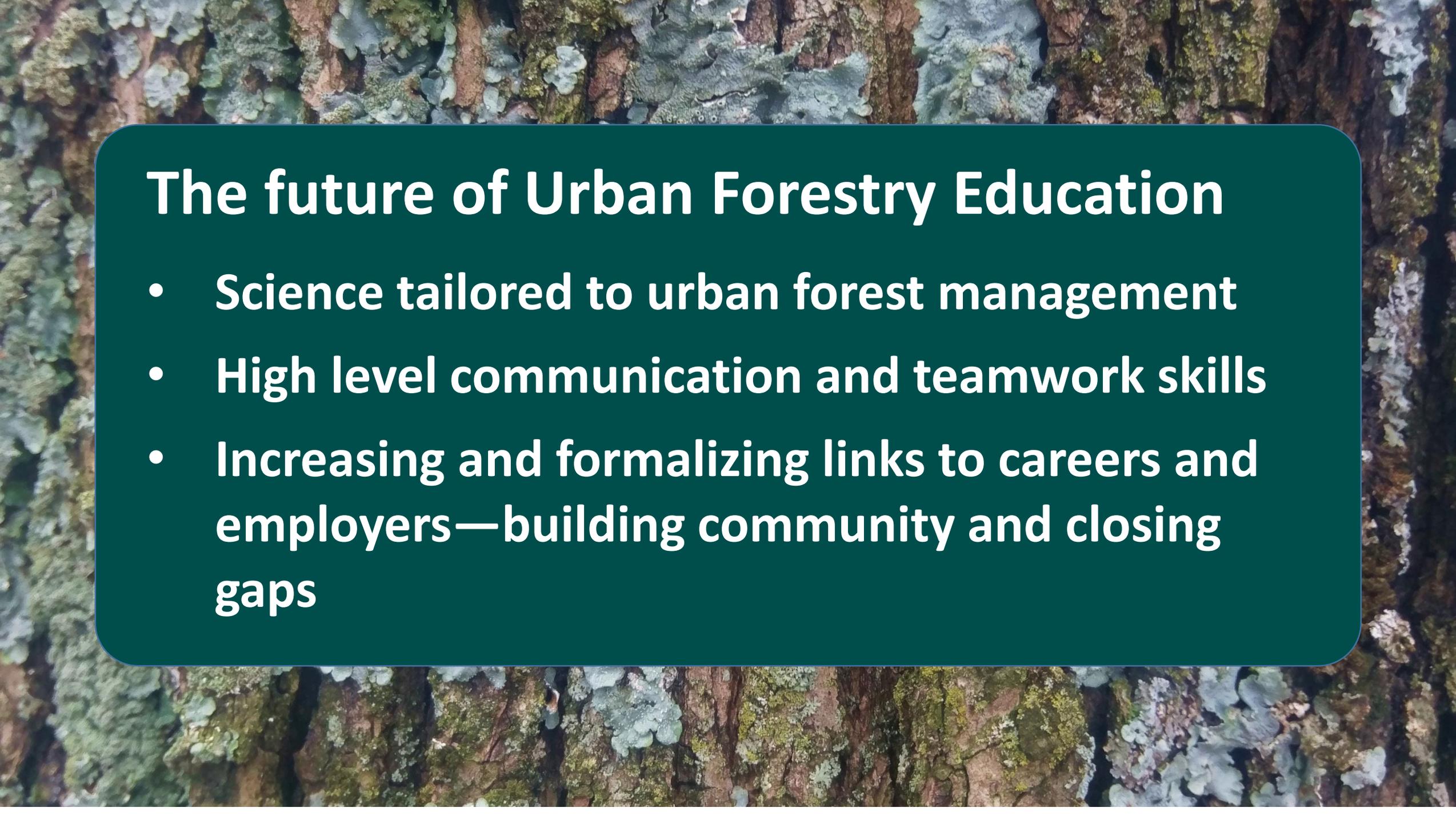
Data Analysis and Strategic Planning

- Technical expertise to both generate and interpret data
- Integrated Teams for problem solving



From: A Report on the City of Norfolk's Existing and Possible Urban Tree Canopy

0 0.5 1 2 Miles



The future of Urban Forestry Education

- **Science tailored to urban forest management**
- **High level communication and teamwork skills**
- **Increasing and formalizing links to careers and employers—building community and closing gaps**

Curricular Strategies

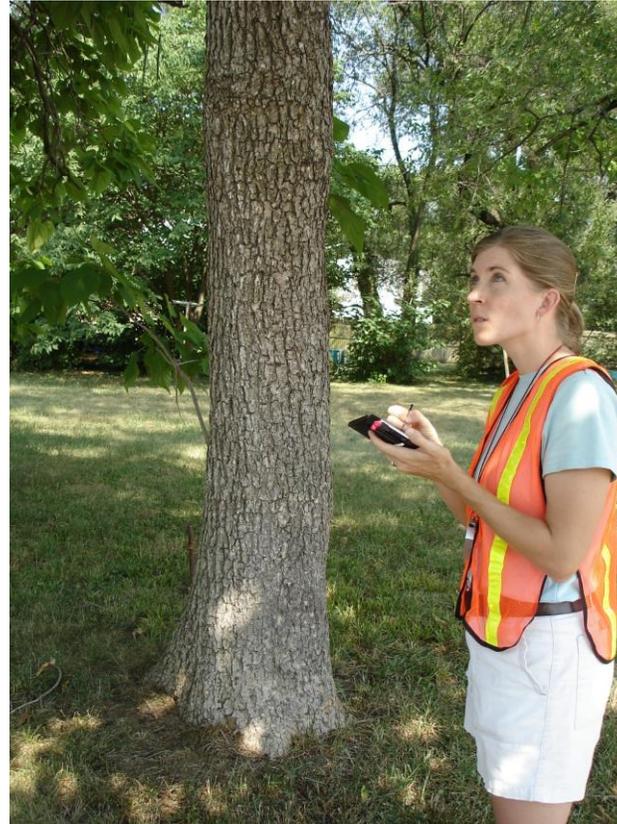
Explicitly address interdisciplinary problem solving—hands-on, real-life.

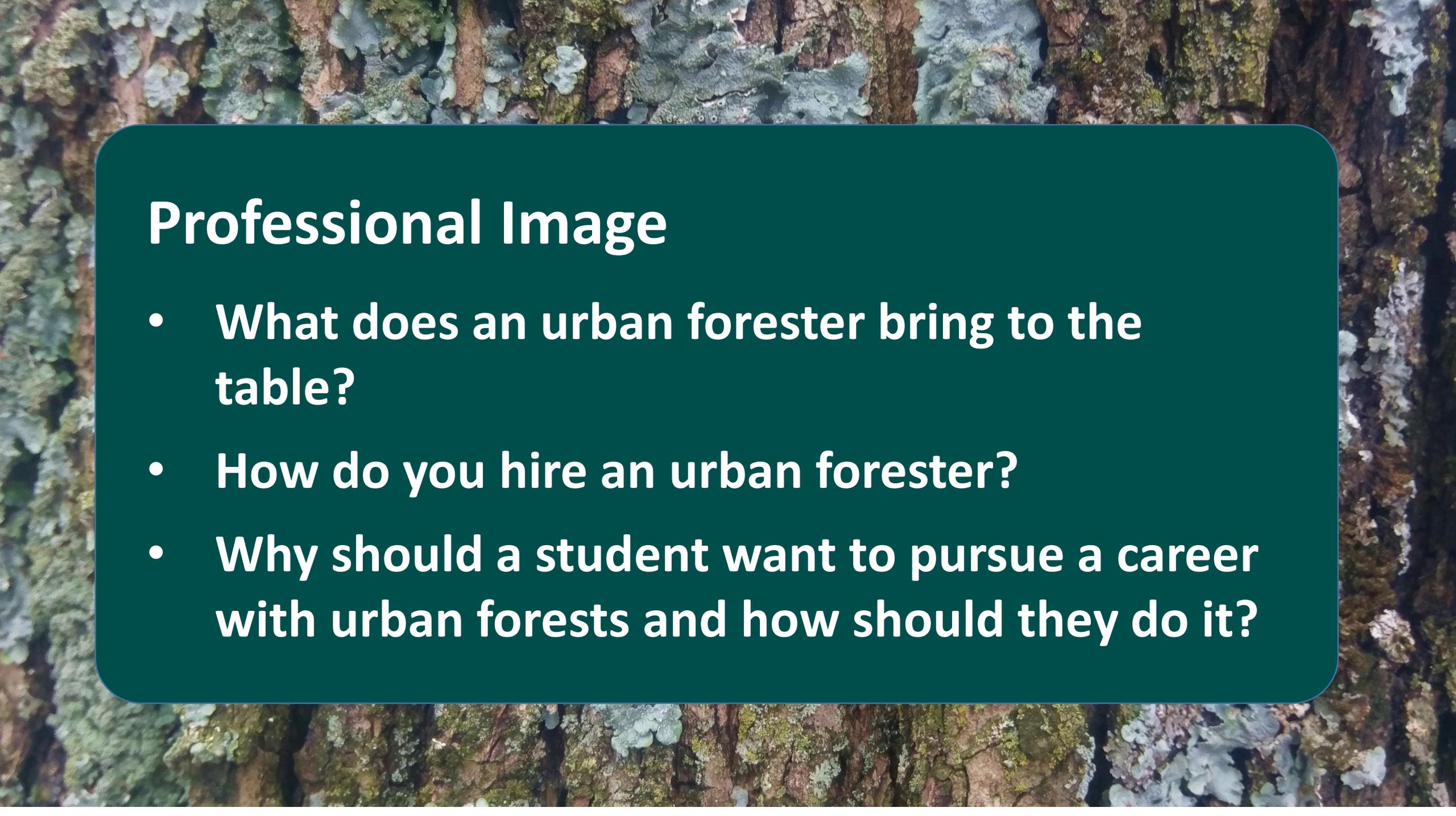
Use proven techniques to align learning objectives with career needs



Ecological Cities: A Pathways Minor Designed to Bridge Disciplinary Divides to Create a Sustainable Future

A Unique Approach to Building Community and Collaborative Skills for Future Professionals





Professional Image

- **What does an urban forester bring to the table?**
- **How do you hire an urban forester?**
- **Why should a student want to pursue a career with urban forests and how should they do it?**

Who Manages Urban Trees and Greenspaces for Local Governments?

In 2017, we asked professionals who manage urban trees and greenspaces for 1,577 U.S. localities to complete a survey about their careers.

OF THE 524 RESPONDENTS,

- 91% white, 78% male, median age: 52
- Only 15% had seriously considered a career in urban trees and greenspaces in high school or earlier
- 75% in a supervisory role (mid to upper management)
- 82% in profession for 10+ years and 47% for 21+ years (mid to late career)
- Top memberships: International Society of Arboriculture (59%), Local urban forestry group (38%), Society of Municipal Arborists (28%), National Recreation and Park Association (22%)
- 17% didn't belong to any of the 25 professional organizations we asked about.

WORKPLACE PERCEPTIONS

Percent that somewhat or strongly agreed that...

87% ... they were satisfied with their level of decision-making authority.

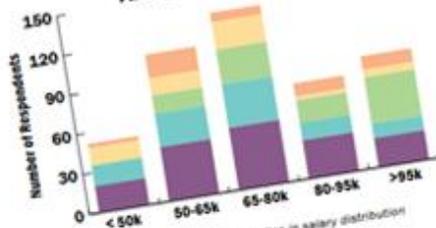
77% ... their coworkers understood their job.
- Arborists felt a little less understood than urban foresters and Public administrators felt very well understood.

83% ... their coworkers appreciated them.

74% ... their co-workers were making full use of their expertise.

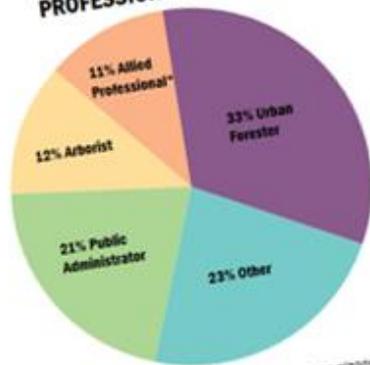
88% ... their opinion was considered on urban trees or greenspace issues.

ANNUAL SALARY (US \$)



Chi-square analysis revealed no anomalies in salary distribution across professional identities at $\alpha = .05$ or $\alpha = .10$.

PROFESSIONAL IDENTITY



* Such as civil engineer, landscape architect, and urban planner

JOB SATISFACTION

Percent that somewhat or strongly agreed that...

94% ... they were satisfied with their career thus far.

76% ... they were well paid.
- Arborists somewhat disagreed with this statement (28%) at a higher than expected frequency ($p < .05$).

84% ... there were opportunities for career advancement in the profession

55% ... there were opportunities for career advancement with their current employer
- This suggests that career advancement would require a change of employer in many cases.

83% ... they knew where to find mentoring and resources to advance their career.
- Arborists strongly disagreed with this statement (12%) at a higher than expected frequency ($p < .05$).

Data taken from Surveys, "Professionals Working with Urban Trees and Greenspaces", conducted as part of the Urban Forestry 2020 project, funded by the US Forest Service through the National Urban and Community Forestry Advisory Council. <http://www.uf2020.frec.vt.edu/>. Send inquiries to 100@uf2020.frec.vt.edu. Release date: June 1, 2017.

Website has Study Summaries and graphics for downloading

www.uf2020.frec.vt.edu