

# URBAN FORESTRY 2020

## An Investigation of Student Perceptions, Career Opportunities, and Professional Practice

Wiseman\*, P.E.<sup>1</sup>, Gugercin, S.B.<sup>2</sup>,  
Day, S.D.<sup>3</sup>, and Koci, J.<sup>4</sup>

<sup>1</sup> Associate Professor and Extension Specialist, Department of Forest Resources and Environmental Conservation, Virginia Tech, Blacksburg, VA 24061.

<sup>2</sup> Research Associate, Department of Horticulture, Virginia Tech, Blacksburg, VA 24061.

<sup>3</sup> Associate Professor, Departments of Forest Resources and Environmental Conservation and Horticulture, Virginia Tech, Blacksburg, VA 24061.

<sup>4</sup> Associate Extension Specialist, Virginia State University, Petersburg, VA 23806.

Project funded by U.S. Forest Service (13-DG-11132544-414) on recommendation of the National Urban and Community Forestry Advisory Council. Further support from the Virginia Agricultural Experiment Station and the McIntire-Stennis Program of the Nat. Inst. of Food & Agriculture, U.S. Dept. of Agriculture.

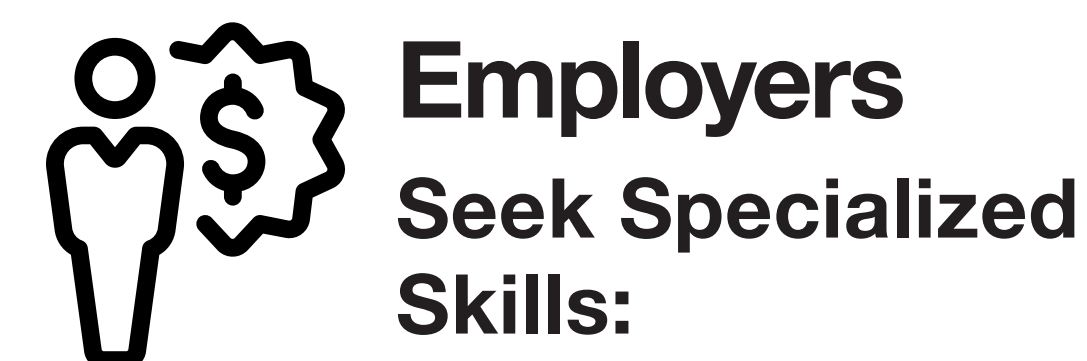


<http://urbanforestry.frec.vt.edu/2020/>

### Abstract

Urban forestry—the policy, planning, and management of trees and associated natural resources in areas of dense human settlement—is an emerging field that is increasingly important to the viability of communities across Virginia and beyond. Because urban forestry is highly interdisciplinary, professionals working in this field have diverse educational backgrounds and often identify primarily with an allied field such as engineering, architecture, environmental science, or public administration. The consequences of this professional dispersion are numerous. First, there is limited awareness of urban forestry as a profession amongst students and collegiate degree programs in urban forestry are few. Second, urban forestry professionals lack a distinct professional society and professional support mechanisms needed to promote and advance the profession are almost nonexistent. Third, there are substantial barriers for entering the profession due to the lack of entry-level positions and the emphasis on arboriculture (tree planting and maintenance) work experience as a pre-qualification for many urban forestry jobs. Urban Forestry 2020 is a multi-institutional project lead by Virginia Tech and funded by the U.S. Forest Service. Over the last four years, the project team has performed nationwide interviews, focus groups, and surveys seeking to understand student perceptions, career opportunities, and professional practice in urban forestry. In 2018, the team will release a comprehensive report on the project that will detail the research findings and lay out a series of recommendations and action items aimed at advancing the urban forestry profession with particular focus on student recruitment and early career advancement. In this poster, we provide highlights of our key research findings along with the recommendations we believe will lead to greater recognition of urban forestry as a profession essential to creating and sustaining livable communities.

### Research Findings



**Employers**  
Seek Specialized Skills:

#### Most Valued Majors:

- Urban Forestry
- Arboriculture
- Forestry

#### New hires need more skills in:

- Management: employee supervision
- Communication: conflict resolution, and public relations
- Technical Tasks: soil and root management, risk assessment, disorder diagnostics

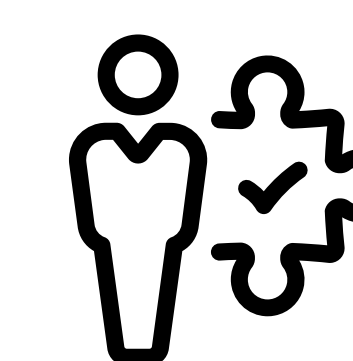
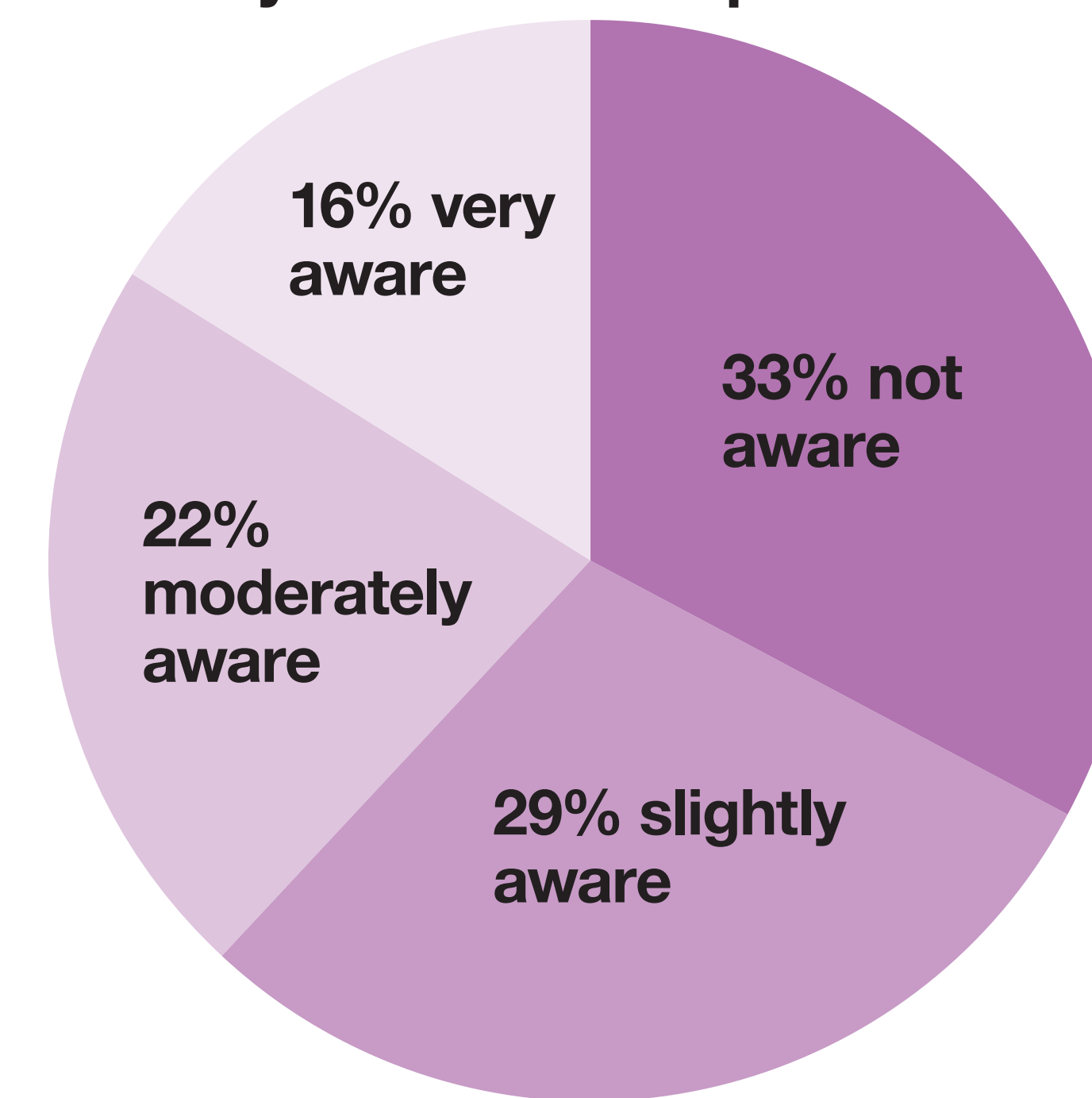
*This may be due to lateral movement from other professions (ex: arboriculture) into the profession of urban forestry because entry-level urban forestry jobs are few.*



**Students**  
Career Priorities:

- ✓ To have PASSION and ENTHUSIASM for the work
- ✓ For the work to be MEANINGFUL
- ✓ To have OPPORTUNITIES or new challenges
- ✓ To have a definable CAREER LADDER

Students lack awareness of urban forestry as a career option.



**Current Urban Forestry Workforce**

#### Strengths

- 76% agree that they are well paid
- 94% are satisfied with their career

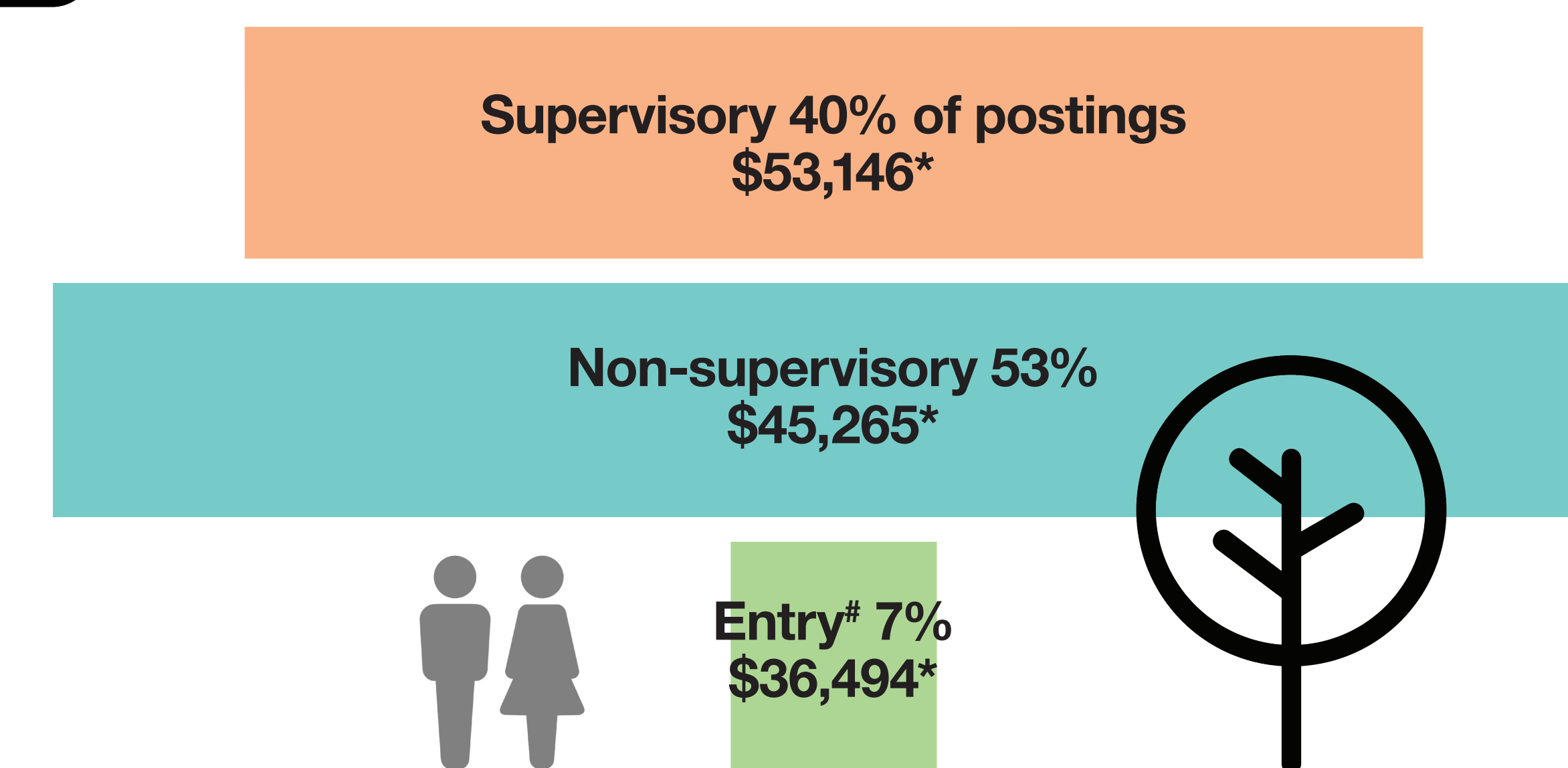
#### Weaknesses

- Lack of diversity:
  - 91% white
  - 78% male
- Aging- median age 52
- Workforce turnover



**Current Job Opportunities**

Jobs pay well, BUT very few entry-level positions exist.



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

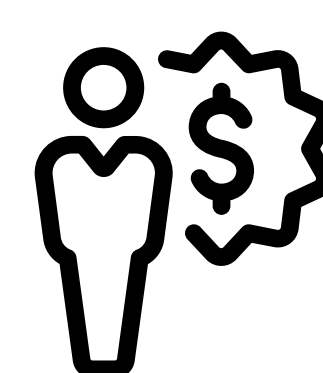
### Urban Forestry Quick Facts

- There are 3.8 billion trees in urban areas of the U.S.<sup>1</sup>. Virginia's urban areas have 85 million trees<sup>2</sup>.
- Over 75% of Virginia's population lives in urban areas<sup>3</sup>, relying on urban forests for shade, clean air, flood control, and outdoor recreation.
- Tree canopy covers about 35% of urban lands in the U.S.<sup>1</sup>, about 23.7 million acres. Studies indicate that U.S. urban areas are losing nearly 20 thousand acres of tree cover annually<sup>4</sup>, about 4 million trees.
- Virginia has over 440 thousand acres of urban tree canopy, which provides nearly \$117 million in pollution removal benefits annually<sup>2</sup>.
- Only 25% of U.S. communities have a tree canopy cover goal in place or under development<sup>5</sup>. Only 50% of U.S. communities have a written strategic plan for managing urban trees<sup>5</sup>.

View citations at: <http://tiny.cc/ufcite>

### Research Methods

**What do Employers Want?**



We surveyed 416 employers (municipal, and private sector) in the United States on what skills set they expect when they hired entry level urban foresters and whether their recent hires meet their expectations.

**Who Currently Works in Urban Forestry?**



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

**What do Students Want?**



We surveyed over 1,000 U.S. college students enrolled in courses focused on the environment to determine what they seek in a career, and to assess their awareness of urban forestry as a career.

**What are the Current Job Opportunities?**



We analyzed 18 months of urban forestry job postings (151 jobs) across the U.S. We then interviewed a selection of those who filled the jobs at least 12 months after their hire date.

### Take Home Messages

- Urban forests provide their greatest benefits when professionally managed by urban foresters who possess specialized knowledge and skills.
- Urban forestry provides well-paying jobs with a high degree of professional satisfaction, but the current workforce is aging and lacks diversity necessary to sustain the profession in a rapidly-changing society.
- College students seek careers that are challenging, rewarding, and meaningful, but also want a defined career ladder that shows where they are headed professionally.
- Urban forestry employers seek entry-level employees with specialized degrees and skill sets, but report that new hires are often lacking in soft skills such as supervision, communication, and project management.
- Advancing the urban forestry profession requires greater outreach to young people about career opportunities and creative solutions to expanding entry-level employment opportunities, particularly for under-represented groups.