

Identifying a Career Ladder in Urban Forestry by Analyzing Job Postings

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Funded by the National Urban and Community Forestry Advisory Council, USDA Forest Service

Purpose

To identify a career ladder in urban forestry!

Justification

- The world is looking to tree-based solutions to solve critical problems
- Urban trees need to be managed by specialized professionals
- Recent graduates struggle to find entry-level employment in urban forestry

Research Questions

1. What types of positions, at varying levels of responsibility or seniority, are present within urban forestry and can a career ladder (possible/normal career path) be identified?
2. What are the minimum qualifications for these positions in terms of education, credentials, knowledge, and skills?
3. Are there gaps in this career ladder that might impede career progress?

Methods

- Content analysis of 151 job postings collected from the internet from January 2014 to July 2015
- Interviewed 17 people who successfully interviewed for those positions and were working in those positions for at least one year
- Arboriculture and utility line clearance positions were intentionally excluded. Positions were all urban forestry defined as an occupation concerned with the management of a population of urban trees
- Compared written job postings against the reality experienced by 17 interviewees
- Criteria/variables included salary, minimum requirements of education and certifications, and job duties as outlined by the 43 areas of knowledge areas identified by the Body of Knowledge for urban forestry developed by the Society of American Foresters in 2014
- Two-step cluster analysis which considered all the criteria/variables resulted in the career ladder below (Figure 1)

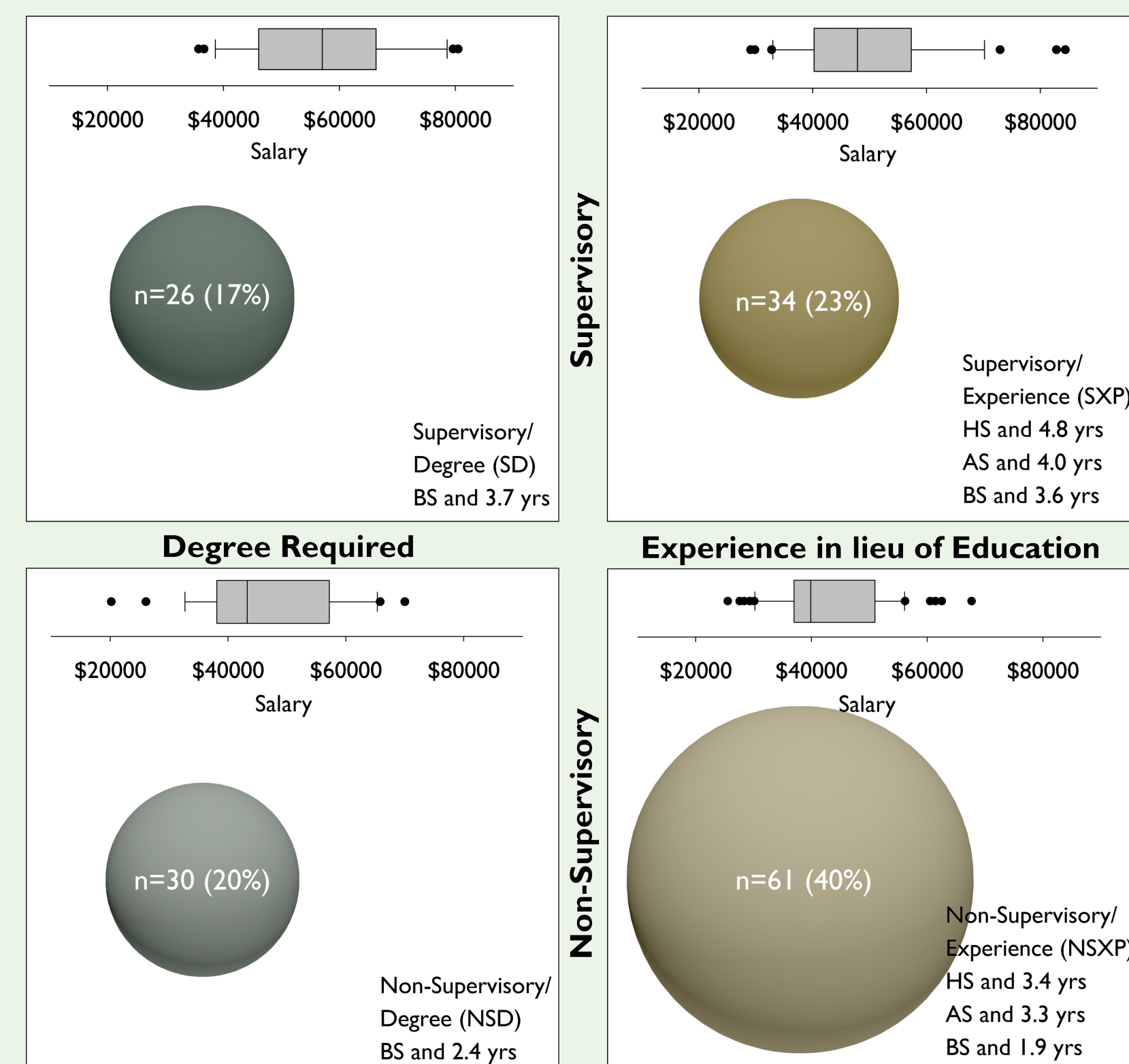


Figure 1. Results of cluster analysis (n=151) displaying those variables deciding cluster membership which were 1) whether the position was supervisory or not, and 2) the minimum level of education allowable. Also displayed is the standardized salary and the average number of years of experience required associated with each level of education.

Results

Question 1: What types of positions, at varying levels of responsibility or seniority, are present within urban forestry and can a career ladder (possible/normal career path) be identified?

See Figure 1. Cluster analysis sorted positions horizontally (two tracks) by minimum level of education acceptable (4-year degree exclusively or willing to accept experience in lieu of education) and vertically (mid-career vs managerial) based on supervisory responsibilities (yes or no).

Question 2: What are the minimum requirements of eligibility for these positions in terms of education, credentials, knowledge, and skills?

About one-third of positions strictly required a 4-year degree and the duties and responsibilities leaned slightly more toward management of information, technology, and people. The other two-thirds allowed for experience in lieu of education and leaned slightly more toward management of trees (arboriculture duties), though were still firmly urban forester positions.

Question 3: Are there gaps in this career ladder that might impede career progress?

- Only 6.5% of all postings allowed for a 4-year degree and less than one year of experience (e.g., summer internship), suggesting a near total lack of entry-level urban forestry positions.
- Ather issue: there is no urban forestry-specific credential being used consistently.
- About 40% of the duties being performed by urban foresters are consistently under-reported in postings as found by comparing the 151 written postings against the 17 interviews (what candidates are actually experiencing).

Conclusions

- There is a career ladder in urban forestry, but the lack of entry-level positions is concerning and needs to be examined further.
- It seems that students exiting 4-year degree programs must be getting their first position after college in arboriculture or elsewhere, which is an issue because not everyone who wants to be an urban forester is willing to work as an arborist first.
- Interviews showed that competition for entry-level positions is likely stiff; arborists (with or without related post-secondary education) with years or even decades of experience are also competing for urban forestry positions at all levels. The only exception is those positions with the highest salaries still strictly required 4-year degrees.
- The path from 4-year degree to mid-level professional is unclear and confusing, which may hamper recruitment into the profession.

