Exploring Careers at Public Gardens: A Long-term Evaluation of The Morton Arboretum Public Horticulture Internship

Matthew S. Lobdell¹

ADDITIONAL INDEX WORDS. botanic gardens, college students, professional development, teaching

SUMMARY. A long-term evaluation of The Morton Arboretum's Public Horticulture Internship Program was conducted. Of the 33 alumni of the internship between 2003 and 2019, 22 were contacted and asked to complete a survey and semistructured interview. Fourteen responded, representing interns who completed the program since 2003 though skewed somewhat toward more recent graduates. Results portrayed a well-received program that was generally effective in its goals. Forty-six percent of respondents were currently working in public gardens, including several in high-level administrative and leadership positions. Some that were not currently in the field pursued employment at public gardens, but were unsuccessful due to residing too far from a public garden, lack of available positions, failure to meet credential requirements of entry-level positions, or inability to earn a starting salary meeting their expectations. Others pursued adjacent green industry careers including environmental journalism or consulting. All respondents commented that the program provided effective exposure to public horticulture and careers at public gardens, although could be somewhat fast paced and overwhelming.

Through the integration of structured educational experiences with on-the-job learning, internships are valuable tools to expose early career professionals to a field of employment, specific job types, and functions. In addition to providing practical experience and professional networking opportunities, an internship also allows one to start clarifying career goals, sculpt a vision of their future professional life, and take the first steps toward its realization. An internship program is also beneficial to the employer as a positive experience can result in an advocate for organization and perhaps even a future skilled worker seeking employment.

Internships have long been a common component of horticulture degree-granting programs and related disciplines, often offering college credit for working during the summer break. These can be effective partnerships as employers benefit from supplemental labor, whereas students who may only have academic experience are able to benefit from training by highly skilled professionals (Rogers, 1993).

Public gardens are one potential source for horticulture internship opportunities. Though public garden internships are often only loosely characterized or defined (Hird et al., 2007), intern responsibilities generally differ from other staff to include participation in workshops, field trips, and staff meetings; ability to rotate around specific garden areas to learn a variety of tasks; assignment of an independent project; and/or significant involvement in direct teaching/training activities comprising up to 50% of their time (Meyer and Michener, 2013). Though some college advisors consider public garden internships beneficial and capable of providing a broad range of hands-on experiences, few college advisors have established relationships with public gardens, and thus are not presumed to recommend

public garden internships to a significant extent (Hird et al., 2007). Furthermore, some advisors are aware of internship programs at public gardens, but are reluctant to encourage them, viewing them as less rigorous than those in the commercial sector (Meyer and Michener, 2013).

Since these programs require a significant amount of time and effort from both the intern and employer, it benefits both parties to ensure these programs meet their goals via a structured method of evaluation. Methods to evaluate internships have ranged from program satisfaction surveys from the perspective of the intern (Dommeier et al., 2016), from the intern and supervisor (Rogers, 1993; Zehr and Korte, 2020), or the intern, supervisor, and faculty mentor (Karji et al., 2020). Other studies have focused less on program development per se, instead determining skills and credentials desired for entry-level positions with the goal of training more qualified graduates (Chase and Masberg, 2008). Considering the results of these studies, internships are generally highly rated (Dommeier et al., 2016), but intern experiences can be marred by unclear expectations, lack of context, insufficient onboarding (Rogers, 1993), inexperienced supervisors (Zehr and Korte, 2020), or lack of supervisor's availability (Karji et al., 2020; Rogers, 1993). McCarroll (2017) echoes much of these same sentiments; encouraging supervisors to be prepared, welcoming, communicative, set a positive example, and assume nothing when taking on interns, helping to support them as they begin the first step in their career.

The Morton Arboretum (Lisle, IL) is a public garden renowned for its diverse tree collections, research activities, and educational programming. Since the early 2000s, The Morton Arboretum has offered a public horticulture internship with the purpose of introducing early career professionals to the multitude of career options available at public gardens. It is designed as an exploratory program, akin to a "survey course," in which interns rotate throughout a variety of departments including horticulture, collections management, plant records, research, plant breeding, natural resources, and landscape architecture. A total of 21 departments were represented by full or partial week rotations from

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¹The Morton Arboretum, 4100 Illinois Route 53, Lisle, IL 60532

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M.S.L. is the corresponding author. E-mail: mlobdell@mortonarb.org.

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internship years 2008–19 (Table 1). Though occupations in public horticulture can also include teachers, extension agents, garden writers, photojournalists, editors, and horticulture therapists (Hamilton, 1999), these functions are not covered in the internship curriculum due to time constraints and limitations in staff expertise. Interns also complete a short, independent project. In some years, the project topic has been assigned based on program needs, in others, interns have been encouraged to select a project in an area of their interest. The arboretum's curator serves as the internship coordinator and is responsible for the selection, onboarding, and general supervision of the interns. With some exceptions, two interns are selected each year and are generally rising seniors or recent graduates of BS degree programs in horticulture, biology, environmental sciences, or similar disciplines.

Interns are paid a modest \$900 biweekly stipend (\$12/h based on a 37.5-h work week) and provided with housing on arboretum grounds. Two houses are typically available for intern use: one smaller house with a capacity for two people and a larger house with a capacity for four people. Depending on needs of other programs, public horticulture interns may be sharing the houses with interns from other

arboretum programs, short-term researchers, or other affiliates. Houses are fully furnished and include amenities such as air conditioning, a washer/dryer, and full kitchen. Interns are encouraged to reside on-site at the arboretum to broaden their exposure and benefit from an immersive experience, though some interns with family or friends residing locally instead choose to reside offsite and commute. The internship is intended to be an ongoing institutional program, though has been on hiatus for 2020–21 due to budgetary and site access challenges during the COVID-19 pandemic. It is planned to resume when conditions allow.

Internship programs at comparable public gardens differ from The Morton Arboretum Public Horticulture Internship in terms of size, scope, benefits, and accommodations. The Isabella Welles Hunnewell Internship at the Arnold Arboretum (Jamaica Plain, MA) supports ca 10 interns each year and lacks a rotational component, though education sessions and field trips are integrated to support learning (Arnold Arboretum, 2021). Chicago Botanic Garden (Glencoe, IL) typically hosts about seven horticulture interns per year, with one rotational intern and others assigned to the horticulture department (P. Douglas, personal communication). In both

programs, interns are paid \$15/h but do not receive housing assistance (P. Douglas, personal communication; A. Gapinski, personal communication). The Morton Arboretum Public Horticulture Internship is thus contrasted from these programs by smaller size, fully rotational design, and full housing assistance albeit with lower pay.

At the conclusion of the internship, interns complete a short evaluation of the program and are generally quite satisfied. However, though this method of evaluation can certainly reveal short-term program satisfaction, it does little to reveal how effective the program was in shaping career goals, providing access to a professional network, or guiding job placement. This study piloted a long-term evaluation of The Morton Arboretum's Public Horticulture Internship through surveys and interviews of former interns with the goals of informing future program development and understanding the opportunities and challenges former interns have experienced while seeking careers in public horticulture.

Methods

The Morton Arboretum provided names of 33 interns who participated in the program from 2003–19. Partial contact information was available,

Table 1. Consolidated rotational schedule for The Morton Arboretum Public Horticulture Internship, representing years 2008–19. Full rotations (●) represent a 5-day work week, partial rotations (○) represent assignments lasting 1–3 workdays.

Assignment	2008	2009	2010	2011	2013	2014	2015	2016	2017	2018	2019
Collections management	○				○		●	●	●	●	●
Living collections	●	●	●	●	●	●	●	●	●	●	●
Display horticulture	●	●	●	●	●	●	●	●	●	●	●
Natural resources	●	●	●	●	●	●	●	●	●	●	●
Plant production	●	●	●	●	●	●	●	●	●	●	●
Plant records	●	●	●	●	●	●	●	●	●	●	●
Landscape architecture	●		○	●	●	●	●	●	●	●	●
Research	●	○	●	●			●	○	●	●	●
Herbarium	●	●	●	●	●			○	●	●	●
Science camp	○	●	●	○	○	●	●	●	○	○	○
Plant clinic	○	○	○	○	○		○	○	○	○	○
Library	○		○	○	○	○	○	○	○	○	○
Children's garden	○	●	○	○	○	○	○		○	○	
Interpretation	○	○	●		○				●	○	○
Marketing		○	○		●						
Development		●	○						○		
Visitor services		●	○	○	○						
Community trees		○		○			○				
Plant breeding					●	●	●		●	●	●
Science communication									○	○	○
Education						●					●

though it was often outdated especially for those who completed the program longer than 10 years ago. Contact was attempted with 23 interns via direct e-mail in 17 instances and via LinkedIn (Sunnyvale, CA), a social media service focusing on professional networking, in six cases where e-mail addresses were unknown. The remaining 10 former interns were not contacted due to a lack of contact information.

Former interns were asked to complete a short survey via Google Forms (Google, Mountain View, CA), a web-based survey administration program (Table 2), and further invited to schedule a 30-min semistructured interview if their time permitted. Interviews were conducted using Zoom Cloud Meetings (Zoom Video Communications, San Jose, CA), a video teleconferencing software program. Interviews were considered semistructured as an open dialogue was encouraged on the topics of key experiences and impacts on career development, though six questions were used to help guide the conversation (Table 3).

Results

SURVEY RESPONSES. Thirteen former interns responded to the survey for a response rate of 57%. Eight (62%) identified as female and the remaining five (38%) as male. Twelve (92%) identified as white, whereas one respondent (8%) identified as Hispanic or Latino. When identifying their highest level of education, five respondents (38%) held a Master's degree, seven (54%) held a Bachelor's degree, and one (8%) held an Associate's degree. Responses were somewhat skewed toward more recent interns, with six (46%) having completed the program less than 5 years ago. Respondents ranged from 1 to 18 years of experience in public horticulture. The mean value of 6 years is likely skewed by the maximum value of 18, and the median of 3 years is likely a better measure of central tendency.

Six former interns (46%) are currently employed at a public garden. Of the remaining seven, two (29%) report being otherwise employed in public horticulture. Of the five that did not define their current occupation as within public horticulture,

three (60%) report being otherwise employed in the green industry.

Overall, respondents had positive recollections of the internship. Twelve respondents (92%) claimed the internship was "very" effective in exposing the intern to the field of public horticulture, whereas one (8%) rated as "somewhat." Former interns responded that the public horticulture internship helped clarify their career goals, with six (46%) stating the internship was "very" influential and seven (54%) stating "somewhat" influential.

Eight respondents (62%) currently teach or otherwise interact with early career professionals (i.e., students, trainees with <2 years of professional experience), and all eight stated they would recommend The Morton Arboretum Public Horticulture Internship. Of these eight, five specifically mentioned the rotational nature of the internship as a strength as it could help provide a broad exposure. However, one clarified they were unlikely to recommend to a student who had very clear career goals as it may not be sufficiently in depth in any one particular area.

Nine respondents referenced broad exposure to public horticulture through varied departmental rotations as the program's greatest strength, including, "Interacting with so many departments was a really unique opportunity. I learned a ton and gained some really diverse perspectives on the public garden world. At no point did I feel like I was just there to provide labor or that my education wasn't being prioritized. I also enjoyed the opportunity to conduct a research project."

For an additional strength, four respondents cited respectful treatment from staff, including accessibility and willing to speak about challenges. For example, "The staff that the Morton has hired is full of top-notch horticulturalists who love what they do. Their passion for their craft translated into many great teaching experiences and a very healthy work culture/environment. Even though I was only a temporary employee, I was treated with the utmost respect and the employees took the time to explain the importance of everything task that we did, from weeding all the way up to the science that is being conducted."

Other aspects respondents provided as key strengths included a positive workplace culture, open access to arboretum grounds, having an independent project, and supplemental experiences including field trips. "[The greatest strength was] the exposure to the administrative aspects of the public garden, and how important it is for different departments to communicate and collaborate with one another. Interdepartmental collaboration is something I've pushed hard for in my current position."

Based on survey responses, the most significant limitation of the program is that it does not provide extensive focus in any one area. Five respondents mentioned this, including "The lack of depth in any one department was definitely a drawback. I would have liked to work with fewer departments for a longer amount of time. I didn't get to build much of a rapport or camaraderie with anyone which is a drawback given how important networking can be in horticulture."

Relatedly, two respondents stated some rotations were too short. One clarified "While the overview of all the different departments is what the internship is all about, it moves quite fast and it can be difficult to get a hold on what each department actually does. I think the internship could benefit by being longer, or by being divided into several, more focused internships."

Other reported disadvantages included a lack of meaningful work to complete or disinterest in one of the assigned rotations. For example, one intern considered exposure to the education department only borderline relevant. "For myself, the week spent with the education programing [was a drawback]. It felt a little out of place and I knew that wasn't a route I was interested in. It was good exposure to see how the arboretum is used as a teaching tool, but maybe instead of a full week it could be one of those rotations that was only a couple of days."

Three respondents provided no examples of limitations or drawbacks.

INTERVIEW RESPONSES. A total of 14 former interns completed a semistructured interview (response rate 61%). Considering the slight difference in response rates it seems likely that one respondent completed an

Table 2. Online survey for evaluation of The Morton Arboretum Public Horticulture Internship. Sent electronically to former interns in May 2021. Developed in Google Forms, a web-based survey administration program (Google, Mountain View, CA). Questions 4–5 summarized from raw numbers into ranges, Questions 14–16 summarized from open ended responses into categories (n = 13).

Question no.	Question	Responses	
		(no.)	(%)
1	Gender		
	Male	5	38
	Female	8	62
	Prefer not to say	0	0
	Other	0	0
2	Race/ethnicity		
	White	12	92
	Black or African American	0	0
	American Indian	0	0
	Alaska Native	0	0
	Asian	0	0
	Native Hawaiian	0	0
	Pacific Islander	0	0
	Two or More	0	0
	Hispanic or Latino	1	8
	Prefer not to say	0	0
3	Highest level of education		
	Associates degree	1	8
	Bachelor's degree	7	54
	Master's degree	5	38
	Doctoral degree	0	0
	Prefer not to say	0	0
4	Which year did you complete the public horticulture internship?		
	2016–2019	6	46
	2011–2015	2	15
	2006–2010	3	23
	2001–2005	2	15
5	How many years of experience do you have in public horticulture?		
	<1	2	15
	1–5	8	62
	6–10	0	0
	11–15	1	8
	16–20	2	15
6	Are you currently employed by a public garden?		
	Yes	6	46
	No	7	54
7	If no, are you otherwise employed in the field of public horticulture?		
	Yes	2	29
	No	5	71
8	If no, are you otherwise employed in the green industry?		
	Yes	3	0
	No	2	40
9	Knowing what you know now, how effective was the internship in exposing you to the field of public horticulture?		
	Very	12	92
	Somewhat	1	8
	Neutral	0	0
	Only slightly	0	0

(Continued on next page)

Table 2. (Continued)

Question no.	Question	Responses	
		(no.)	(%)
11	Not at all	0	0
	How influential was The Morton Arboretum's Public Horticulture Internship in helping clarify your career goals?		
	Very	6	46
	Somewhat	7	54
	Neutral	0	0
	Only slightly	0	0
12	Not at all	0	0
	Do you currently teach or otherwise interact with early career professionals? (e.g., students, trainees with <2 years of professional experience, etc.)		
	Yes	8	62
13	No	5	38
	If yes, would you recommend The Morton Arboretum's Public Horticulture Internship to an early career professional?		
	Yes	8	100
14	No	0	0
	Why or why not?		
	Provides broad exposure	5	63
15	Positive personal experience	2	25
	Quality of staff and plant collections	1	13
	What, in your opinion, was the greatest strength of the program?		
16	Broad exposure	9	69
	Accessibility of staff	4	31
	Independent project	3	23
	Positive workplace culture	3	23
	Site access	2	15
	Education classes	1	8
	Field trips	1	8
	Quality of staff	1	8
16	What, in your opinion, was the most significant drawback?		
	Too many or irrelevant rotations	5	38
	None	3	23
	Rotations too short	2	15
	Lack of acknowledgment compared with research interns	1	8
	Lack of meaningful work	1	8
	Limited networking	1	8
	Minimal time with program coordinator	1	8
	No peer intern	1	8

interview but did not complete the survey.

Interviews allowed a conversation in which the interviewee's personal experience in the internship could be described in more detail, with elaboration prompted by follow-up questions. Interviews lasted 18–33 min with a mean of 26 min. Three of the four longest interviews were those in which the interviewer had no prior relationship

with the interviewee, necessitating additional time for introductions.

Former interns are currently employed in various sectors. At public gardens, three hold positions in horticulture/general administration or curation. Two currently hold or recently have held seasonal positions in grounds maintenance or natural areas management. Four former interns are currently working at colleges/universities, either

as faculty, graduate students, or grounds workers. Other career paths have included private landscape design, environmental consulting, and environmental journalism. One former intern is not currently pursuing a path in public horticulture and has recently enrolled in a medical coding and billing program. However, this person is still somewhat involved in the field, volunteering at a local public garden in

Table 3. List of interview questions used as prompts during semistructured interviews with former interns of The Morton Arboretum Public Horticulture Internship in May 2021. Conducted over Zoom Cloud Meetings, video teleconferencing software program (Zoom Video Communications, San Jose, CA).

1. What is your current role and employer?
2. What is your general satisfaction with the program?
3. How did The Morton Arboretum internship program help influence your career goals?
4. Do you have any specific positive or negative recollections?
5. Do you have any recommendations for improvement?
6. What are your overall thoughts on the field of public horticulture?

support of inclusion, diversity, equity, accessibility (IDEA) initiatives. Those not working in public gardens were asked why they chose other career paths. Stated reasons included difficulty competing for job openings due to insufficient academic credentials or experience, lack of job openings, low pay rates for entry-level jobs (in some cases insufficient to fulfil living expenses), and residing a long distance away from large botanical gardens likely to have open positions. In some cases, these factors are correlated (i.e., if one cannot afford to work an entry-level position to gain relevant experience, they may have difficulty competing for higher level positions). As one stated, “I always keep my eyes open for what is out there, it’s I think hard for me because I have to have a certain income and the jobs I would be qualified for at a public garden wouldn’t pay enough, and it’s just because I am older, and without that extra schooling I don’t have what it takes to do some of those bigger jobs.”

Comments on satisfaction with the program and recommendations for improvement were similar to the survey results. High levels of satisfaction were reported overall, with the design of the internship and the workplace culture given as specific strengths, though difficulties related to feeling “rudderless” due to lack of an assigned work group or keeping up with the overall pace of the program were cited as negatives. As one intern stated, “On the positive side, the work environment at the arboretum was amazing ... I didn’t feel like I was an intern, I felt like I had been there for years. The staff there just really welcomed us in and really took the time to explain the importance behind each task that we were doing, which for an internship experience is fantastic to know you are not there just as extra labor, but you are there and you’re actually learning. On the negative side, sometimes it felt like we were bouncing from one thing

to another because there is so much that the arboretum offers, and we couldn’t stay in one place for too long.”

Several former interns claimed the internship exposed them to public horticulture as a desirable employment field, stating they knew public gardens were where they wanted to work after completing the internship. “Once I took the internship I could feel it was exactly what I need to be doing for my career, it’s very satisfying.”

Two interviewees stated that despite being in horticulture undergraduate programs, before the internship they were unaware of public horticulture as a career path and assumed their future employment would be in golf course or nursery management. This was the case even when public gardens were located near their undergraduate institution, “With all the richness of botanical gardens near us, never did we talk working in botanic gardens as a career path. What it came down to was do you want to do business in horticulture? Production in horticulture? Or natural resources in horticulture? ... I took business in horticulture and focused on turfgrass management, seeing the potential of actually making a living wage at golf courses.”

In some cases, interns were drawn to a specific rotation (e.g., natural areas management), which informed their immediate career goals. However, five interviewees stated they enjoyed the broad range of experiences and were pursuing jobs that would allow them a similar diversity of job tasks. Two interviewees mentioned mentorship and the ability to shadow staff members as particularly important. One clarified “The mentorship that we could gain from working around people was amazing ... being able to look at [staff members] and seeing what I want to achieve in my career. It was a very exciting time to come to that

realization that this is a fit and I could see myself being in their shoes someday.”

Four interns were recommended to seek higher education (generally MS degrees in public horticulture) by The Morton Arboretum staff, and three did so. One intern met their future graduate advisor on a field trip during the internship and cited the ability to make that personal connection as an important factor in admittance to that program: “The world of horticulture is so small and tight-knit that who you know really helps ... [the internship] helped set me up for where I am currently, so it gave me that introduction, that little in, that big networking opportunity to then pursue graduate school working with woody plants.”

Three former interns would later continue employment at The Morton Arboretum working in a full-time or term-limit capacity in the horticulture or research departments, though have since moved on to positions at other institutions.

When asked about specific key experiences from the internship, five interviewees mentioned the availability of staff, staff willingness to serve as mentors, and the effort made to explain the context of assigned work as strengths of the internship or high points. Context, in particular, made all the difference in whether a task such as weeding was viewed as undesirable “busy work” or an important aspect of grounds management integral to the program. One interviewee described a horticulture staff member whose extra efforts to instruct interns were much appreciated: “Most of the horticulturists just wanted you to pull weeds or water, but he actually engaged you at a different level. He’d have a curriculum set up for the days you worked with him. One day he did chainsaw safety and had saved trees that had to come down in the collection so that he could show us how to

use chainsaws on the days we were working with him.”

Conversely, a communication issue regarding one supervisor being unaware they were assigned interns for the week was awkward for both parties and recalled as a low point: “They had no idea we were going to be working with them, and it worked out OK, it was just really uncomfortable at first.”

Former interns who were offered on-site housing discussed such as a key positive experience. In some cases, this was a critical component as to whether they could accept the internship: “It made it so I could take the internship. The housing was more than adequate. Additionally, it was made the internship more immersive and gave us time afterwards to be able to experience the arboretum from a different point of view.”

Four other interviewees also mentioned the benefits of independent learning through exploration of the arboretum’s diverse plant collections, for example: “You’d walk the grounds and see a species you never heard of and think what is this? I never even knew there was so much diversity out there, and I was a pretty good plantsperson by the time I took the internship.”

Discussion

Survey and interview results reveal the program is well received by former interns, exposed them to a new facet of horticulture and potential field of employment, helped shape their career goals, and provided mentorship and professional networking to assist in further success. Mentorship emerged as an important factor, in particular, with numerous interns stating a connection with a particular staff member helped to clarify their career goals. Former interns cited accessibility and availability of staff as a key factor for program success, and this component should be further supported in the future.

As a large public garden spanning 1780 acres (720.3 ha) with 350 full or part-time employees, The Morton Arboretum can appear as an overwhelming site and organization to a student embarking on a brief 13-week internship. Public gardens should strive to minimize this learning curve by strong personal connections with staff

and good communication between interns and staff.

Arboretum-provided onsite housing was also a factor for program satisfaction. Living on site helped to provide an immersive experience and support supplemental, independent learning during the program. However, though former interns frequently cited housing as important in both surveys and interviews, none cited the intern pay rate as either a positive or negative. Both the survey and interview lacked questions on this topic. It is unclear whether pay was considered adequate at the time of the internship, though this absence of comments may indicate pay is perceived as less significant when recalling a long since completed internship.

Since feedback for The Morton Arboretum Public Horticulture Internship is overwhelmingly positive, focus should be maintaining the overall structure of the program while perhaps making minor modifications to mitigate those few program weaknesses. As the mentorship factor was cited as quite important, assigned supervisors should be acutely aware of this to support this positive culture. Similarly, The Morton Arboretum should endeavor to provide onsite housing for this program to whatever extent possible, as this immersive component supports important supplemental learning. Based on feedback regarding the fast-paced nature of the program, a review of the assigned rotations for relevance should be initiated. For example, though rotations through the education and marketing departments can help provide a varied experience, no former interns appear to have pursued this as a career path. However, given the importance of engagement and communication to public gardens, exposure to these programs is still important, albeit perhaps better structured as partial as opposed to full-week assignments.

This study was able to gain feedback from 14 of the 33 documented program alumni, representing a small sample, though a reasonable percentage. Female respondents were twice as common as male respondents, and 92% of respondents identified as white. This does not appear diverse in the overall demographic sense, though it is unclear how reflective this is of the program’s historic applicant, candidate, and intern pool. The sample is further skewed toward recent graduates and established

professionals in the field. Interns who had negative or neutral experiences may have chosen not to go through the effort of responding to a survey regarding an internship program they completed over a decade ago. This was mitigated in part through the effort to interview those former interns who had pursued other career opportunities. Although such interns had positive perceptions of the internship and the field at large, they were also able to share their experiences relating to employment difficulty and barriers to entry following conclusion of the program.

This long-term evaluation of the public horticulture internship revealed perceptions of the program far after completion of the program and allowed for documentation of a former intern’s career trajectory and placement. Interns were able to shadow staff to clarify their career goals, with some benefitting from access to a professional network. Slightly less than half (46%) of survey respondents are currently employed at public gardens. Does this reflect an effective program? Long-term evaluations of similar programs are generally absent from the literature, so this is a difficult metric to use without a frame of reference. However, the goal of the public horticulture internship is not to ensure job placement, it is to provide exposure. Since all survey respondents responded positively when asked if the program was effective in providing exposure, survey results support the program is effective in achieving this goal. One interviewee specifically mentioned that although they were no longer actively seeking employment in public horticulture, the internship instilled a respect and admiration for public gardens, and they were now a regular volunteer at their local public garden and a frequent visitor to public gardens worldwide: “After that summer, I appreciate and value botanical gardens anywhere I go. Anytime I travel, I make sure to hit up whatever is nearby. Knoxville, Asheville, even when I went international to Puerto Vallarta and Nicaragua. I don’t think I would have made a point to do this if it wasn’t for the internship.”

One need not be a staff member to appreciate public gardens or serve as an advocate. Visitors, volunteers, members, and donors can all be

important public garden stakeholders. Whether by training future staff, leaders, or supporters and advocates, programs such as The Morton Arboretum Public Horticulture Internship can provide exposure and foster appreciation for public gardens and horticulture at large, helping support these organizations achieve their mission.

Literature cited

- Arnold Arboretum. 2021. Isabella Welles Hunnewell Internship Program. 6 Aug. 2021. <<https://arboretum.harvard.edu/about/jobs-and-opportunities/isabella-welles-hunnewell-internship-program/>>.
- Chase, D.M. and B.A. Masberg. 2008. Partnering for skill development: Park and recreation agencies and university programs. *Managing Leisure* 13(2):74–91, <https://doi.org/10.1080/13606710801933438>.
- Dommeyer, C.J., B.L. Gross, and D.S. Ackerman. 2016. An exploratory investigation of college students' views of marketing internships. *J. Educ. Bus.* 91(8):412–419, <https://doi.org/10.1080/08832323.2016.1251388>.
- Hamilton, S.L. 1999. The roles of the University of Tennessee gardens in a public horticulture teaching program. *HortTechnology* 9(4):552–556, <https://doi.org/10.21273/horttech.9.4.552>.
- Hird, A., G. Chapman, A. Hoffman, K. Leymaster, T. Boudreau, J. Gagliardi, C. Prestowitz, C. Sharber, A. Steil, S. Westervelt, and R. Lyons. 2007. The college horticulture internship experience: Promoting, growing, & learning with students. *Public Garden* 22:34–37.
- Karji, A., S. Bernstein, M. Tafazzoli, A. Taghinezhad, and A. Mohammadi. 2020. Evaluation of an interview-based internship class in the construction management curriculum: A case study of the University of Nebraska-Lincoln. *Educ. Sci.* 10(4):109, <https://doi.org/10.3390/educsci10040109>.
- McCarroll, J. 2017. Working with Future Leaders. *NZBusiness* 31(5):M16–M17.
- Meyer, M.H. and D. Michener. 2013. Academic, internship, and cooperative extension programs at botanic gardens. *HortTechnology* 23(5):635–641, doi: <https://doi.org/10.21273/horttech.23.5.635>.
- Rogers, J.N. 1993. Surveys to assess student learning during internship. *J. Nat. Resour. Life Sci. Educ.* 22(2):116–120, <https://doi.org/10.2134/jnrlse.1993.0116>.
- Zehr, S.M. and R. Korte. 2020. Student internship experiences: Learning about the workplace. *Educ. Train.* 62(3):311–324, <https://doi.org/10.1108/et-11-2018-0236>.