National Park Service
U.S. Department of the Interior

Natural Resource Stewardship and Science

Climate Change Response Program
Internship Assessment





ON THIS PAGE
2017 alumnus Ivan Bermejo facilitates a community dialogue at Santa Monica Mountains National Recreation Area. (NPS)

ON THE COVER
2017 alumni visit the alpine tundra of Rocky Mountain National Park. (NPS)

Climate Change Response Program Internship Assessment

Ryan Roberts,[1] Larry Perez,[2] Melanie Wood[2]

[1]Colorado State University
Fort Collins, CO 80523

[2]National Park Service
Natural Resource Stewardship and Science
1201 Oakridge Dr.
Fort Collins, CO 80525

October 2019

U.S. Department of the Interior
National Park Service

Views, statements, findings, conclusions, recommendations, and data in this report do not necessarily reflect views and policies of the National Park Service, U.S. Department of the Interior. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the U.S. Government.

This report received informal peer review by subject-matter experts who were not directly involved in the collection, analysis, or reporting of the data.

This report is available in digital format from the Integrated Resource Management Applications website. To receive this report in a format that is optimized to be accessible using screen readers for the visually or cognitively impaired, please email irma@nps.gov.

Please cite this publication as:

Roberts, R., L. Perez, and M. Wood. 2019. Climate Change Response Program internship assessment. National Park Service, Fort Collins, Colorado.

Contents

Page

Figures v

Tables v

Appendices or Appendixes vi

Executive Summary vii

Background vii

Purpose vii

Methods viii

Conclusions and Recommendations viii

Acknowledgments xi

Acronyms xii

Introduction 13

Background 13

Methods 15

Pre-planning phase 15

Logic model 15

Assessment design 16

Data Collection 17

Analysis 18

Sharing Outcomes 19

Results 19

Outcomes and Impacts: Past Interns 19

Outcomes and Impacts: Host Parks 29

Outcomes and Impacts: Greater NPS Agency 33

Discussion 42

How has the internship program benefitted interns over time? 42

How has the internship program benefitted host parks over time? 44

How has the internship program benefitted agency response to future change beyond individual host parks? 45
Conclusions 48
Literature Cited 49
Appendix A: Intern Survey 50
Consent Form 50
Appendix B: Mentor Survey 60
Consent Form 60
Appendix C: Interview Guide 65
Project Blurb and Verbal Consent 65
Appendix D: Interview Codebook 69

Figures

Page

Figure 1. Fields of academic and work background 19
Figure 2. Skills applied during internship 20
Figure 3. Types of audiences with which project outcomes were shared 21
Figure 4. Number of reported networking opportunities 22
Figure 5. Types of networking opportunities 22
Figure 6. Number of years in current position 23
Figure 7. Type of current work 24
Figure 8. Focal areas of current work 25
Figure 9. Focal areas of desired future work 25
Figure 10. Number of reasons interns desire future work with the NPS 26
Figure 11. Types of audiences for communication of internship outcomes 29
Figure 12. Number of communication channels to share internship outcomes 30
Figure 13. Primary reasons projects did not continue post-internship 31
Figure 14. Perceptions of how well DHA alumni are advertised 36
Figure 15. Primary constraints to DHA utilization 38

Tables

Page

Table 1. Summary of various CCRP internship programs 13
Table 2. Logic model showing the various inputs, outputs, outcomes and impacts measured in the program assessment among the three stakeholder groups. 15
Table 3. Assessment matrix matching outcomes/impacts of interest to a sample of indicators .. 16
Table 4. Past intern program evaluations 26
Table 5. Current intern program evaluation by year 28
Table 6. Past mentor program evaluations 32
Table 7. Current mentor program evaluations 31

Appendices or Appendixes

Page

Appendix A: Intern Survey 50

Appendix B: Mentor Survey 60

Appendix C: Interview Guide 65

Appendix D: Interview Codebook 69

Executive Summary

Background

In 2010, the Climate Change Response Program (CCRP) initiated a climate change youth program. The goal was to provide a pathway for students in higher education to assist parks and programs in effectively responding to complex management challenges posed by climate change and other global drivers of large-landscape change. The initiative included fellowship and internship programs, which merged later into a single internship program. The primary objective of the internship program is to aid parks in addressing high priority management challenges while providing high-achieving students with valuable experience and leadership skills for a potential future career in the NPS.

Purpose

The purpose of this assessment was to determine if the 2010-2017 annual CCRP internship programs have met their intended outcomes. The analysis utilized the following three key research questions:

1. How has participation in the internship program benefitted interns over time?
2. How has participation in the internship program benefitted host parks over time?
3. How has work performed through the internship program benefitted agency response to future change over time beyond individual host parks?



2018 alumnus Malcolm Wells measures soil elevation in the mangrove forest of Biscayne National Park. (NPS)

Methods

The program assessment began with the creation of a logic model that defined various inputs, outputs, outcomes, and long-term impacts of the internship program across three primary stakeholder groups of interest (interns, project mentors, and the NPS agency). The team then matched the outcomes and impacts with specific indicators and survey methods. Survey instruments were developed to target individuals representing each of the stakeholder groups. This included electronic mixed method questionnaires and qualitative phone interviews. Descriptive statistics were applied to the quantitative data, while the qualitative data from the surveys were synthesized into themes, and then quantified to determine the frequency of specific responses mentioned under each theme. Codes generated from the phone interviews were also parsed out into common themes. The themes from all three datasets were applied to the outcomes and impacts of interest in the logic model for each of the three stakeholder groups. Conclusions were drawn as to which outcomes were achieved and which outcomes are not yet realized, and recommendations were generated based on these results.

Conclusions and Recommendations

Overall, many of the intended outcomes and long-term impacts of the CCRP internships met their objectives:

1. Interns: past program participants reported an increase in interpersonal skills and professional networking opportunities afforded during the program to prepare them for eventual work with the NPS and/or on projects related to climate change and public land management.

2. Host parks: Past program mentors reported an advancement of knowledge that either initiates and/or informs park management action on high priority climate change needs within the various NPS units.

A few intended outcomes of the internship program are not yet being fully achieved. These include the utilization of Direct Hire Authority (DHA), from the perspectives of the interns, project mentors, and NPS employees who participated in this assessment. Several recommendations for CCRP to increase DHA utilization include:

- Creating a webinar delivered bi-annually to eligible intern alumni, containing reminders of how to use the authority and a list of common questions and answers regarding DHA.

- Describing the DHA as a potential side benefit of the internship (as opposed to a primary advantage), acknowledging that suitable DHA-eligible positions may or may not be available to a student post-internship.

- Working alongside human resources personnel to increase awareness of the authority by sharing DHA success stories, create a short presentation on DHA for managers in a positon to hire, or develop training on the authority.

- Increasing the awareness of alumni eligible for hire by adding the alumni database to the external internship website and email blasting it through their networks.
- Facilitating the use of DHA by creating a webinar for mentors that is updated annually with the list of potential candidates.

Additionally, respondents felt the program should improve transfer of knowledge and methods among diverse operational divisions to better increase agency response to future change beyond the individual park units where the internships took place. Recommendations for increasing the transfer of internship outcomes includes

- Asking host parks how they will disseminate results through their networks.
- Creating a toolkit containing information and products from all past internships.
- Developing an interactive map with lessons learned from the projects.
- Utilizing all service-wide communication channels to disseminate the information above, and asking their academic partner institution to do the same.

Regardless of the few objectives not yet reached, the multiple benefits outlined in this assessment demonstrate that CCRP is clearly achieving the intended goal of increasing agency capacity to respond effectively to climate change management needs through the execution of their internship program.



2016 alumnus Carolyn Turkaly speaks with visitors to Scotts Bluff National Monument during the American Solar Challenge. (NPS)

Acknowledgments

The authors of this report would like to acknowledge all of the past interns, internship mentors, and National Park Service employees who kindly provided their time by participating in this assessment. The authors would also like to thank Kaylin Clements, Cat Hawkins Hoffman, Bret Meldrum, Lisa Norby, Phadrea Ponds, Danielle Ross-Winslow, and Natalie Sexton for generously sharing their thoughts, resources, and support towards this effort.



2017 alumnus Sophia Chau investigated the potential influence of thermal refugia at Devils Postpile National Monument. (NPS)

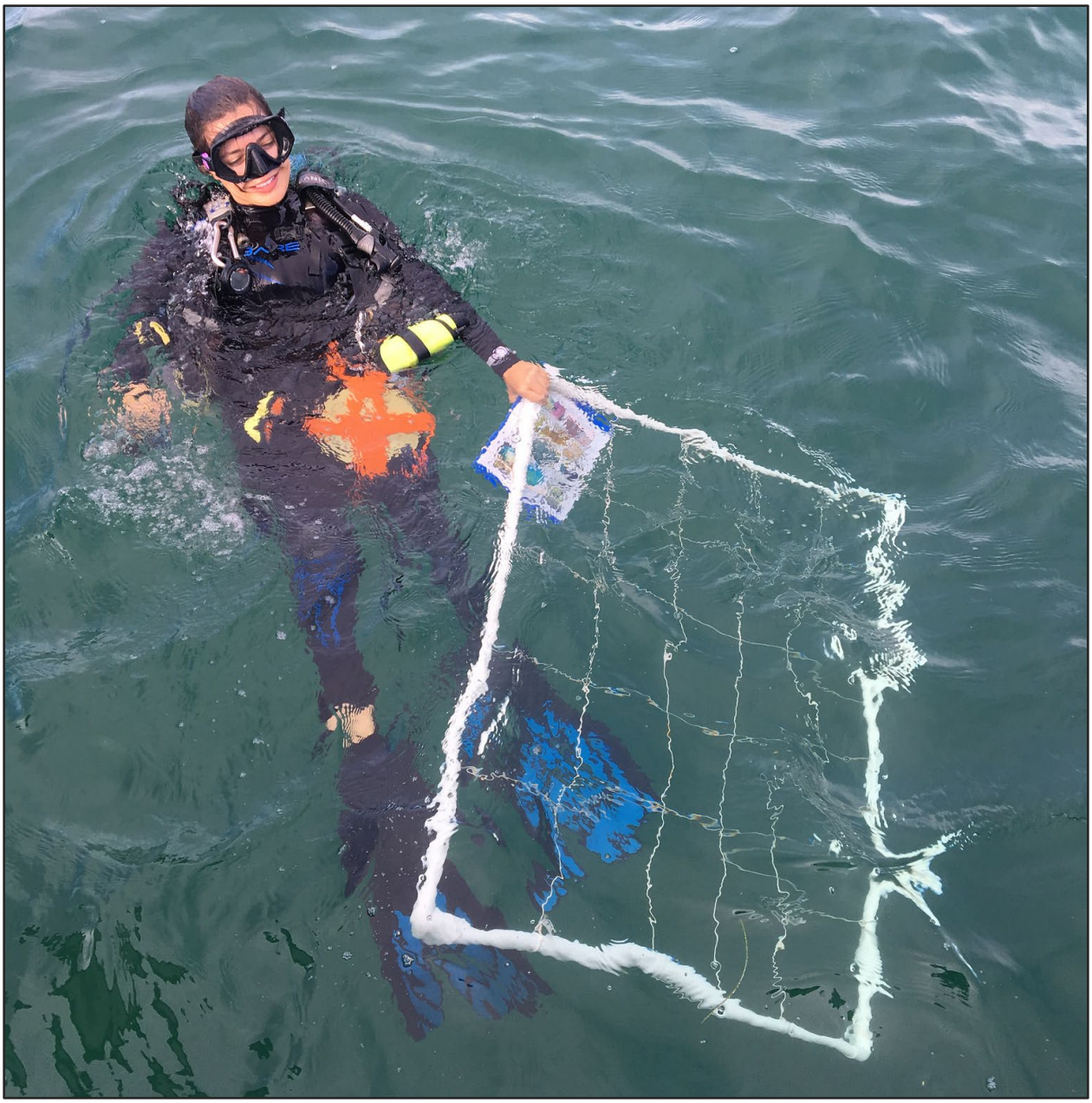
Acronyms

CCRP: Climate Change Response Program

DHA: Dire Hire Authority

NPS: National Park Service

NRSS: Natural Resource Stewardship and Science



2018 alumnus Juliette Verstaen prepares to measure coral cover on a reef of Biscayne National Park. (NPS)

Introduction

Background

In 2009, the Natural Resource Stewardship and Science (NRSS) Directorate of the National Park Service (NPS) established the Climate Change Response Program (CCRP) as an interdisciplinary approach to support the agency in understanding, communicating, mitigating and adapting to the adverse effects of climate change across the National Park System.

The CCRP initiated a climate change youth internship program (Table 1) with the purpose of providing a pathway for students in higher education to assist parks and programs in effectively responding to complex management challenges posed by climate change and other global drivers of large-landscape change. The primary objective of the program is to aid parks in addressing these challenges while providing high-achieving students with valuable experience and leadership skills for a potential future career in the NPS.

Table 1. Evolution of the CCRP internship program

Name of program	Year(s) implemented	Hiring authority	Included in this assessment
George Wright Climate Change Internship Program	2010-2013	No	Yes
George Melendez Wright Initiative for Young Leaders in Climate Change	2015-2017	Direct Hire Authority for Resource Assistant Internship Programs	Yes
Future Park Leaders of Emerging Change	2018	Direct Hire Authority for Resource Assistant Internship Programs	No

Problem Statement and Assessment Purpose

It is a priority for CCRP to ensure these initiatives meet their intended outcomes. Program assessments can aid in demonstrating the value of a program by highlighting stories of success and lessons learned to share with interested parties. More importantly, assessments can help to identify whether an existing program is meeting its intended outcomes. If an assessment reveals that some outcomes are not being realized, it is also possible to provide recommendations to aid program managers in more effectively reaching these goals. In this case, evaluating the George Wright Climate Change Internship Program and the George Melendez Wright Initiative for Young Leaders in Climate Change serves to inform administration of the Future Park Leaders of Emerging Change internships.

Research Questions

The purpose of this assessment was to determine if the CCRP internship program met its intended outcomes. This assessment utilized the following three key research questions:

1. How has participation in the internship program benefitted interns over time?
2. How has participation in the internship program benefitted host parks over time?
3. How has work performed through the internship program benefitted agency response to future change over time beyond individual host parks?



2018 alumnus Casey Trout worked with project mentor Amy Muraca at George Washington Birthplace National Monument. (NPS)

Methods

This program assessment involved six major steps as characterized below (adapted from Lavinghouze and Jernigan, 2011):

Pre-planning phase

The assessment team met several times in August-September 2017 to brainstorm general goals of the assessment and to generate a timeline of dates for achieving specific objectives.

Logic model

The assessment team developed a logic model (Table 2) in September of 2017 that defined the inputs, outputs, outcomes, and long-term impacts of the internships. In this assessment, we developed a logic model across three primary stakeholder groups of interest: interns, host parks, and the NPS agency.

Table 2. Logic model showing the inputs, outputs, outcomes and impacts measured in the program assessment among the three stakeholder groups.

Stakeholders	Inputs	Outputs	Outcomes	Impacts
Interns	Skills and experience relevant to a high-priority climate change park management need	12 weeks of in-park, full-time work involving a high level of autonomy Opportunities for the intern to present findings in a professional setting	Increased experience in applying critical and creative thinking abilities, leadership skills, and problem-solving capability Professional networking opportunities & DHA for DOI career placement	Intern prepared for work with the NPS and/or on projects related to climate change and public land management
Host Parks	Development of achievable, well-structured project proposals Supervision and mentorship to foster the intern's professional development	Receive full funding of proposed projects Placement of highly qualified interns with relevant skills and knowledge	Advance knowledge and understanding about local high-priority climate change park management needs among the NPS units	Project results either initiate, inform, or otherwise support park management action on high priority climate change needs
Agency	Agency priority & funding Program partner engagement Overall program administration	A well-structured, perennial program that responds to high priority climate change park management needs across operational foci	Park projects generate potentially transferable knowledge and methods for diverse operational divisions Availability of personnel capable of addressing climate change needs through DHA	Increased agency capacity to respond effectively to climate change management needs

Assessment design

The team incorporated the outcomes and impacts from the logic model into an assessment matrix, according to each of the three stakeholder groups (Table 3). The goal was to match each outcome/impact with one or more specific indicators for measurement. The team also identified which type of methodology (quantitative/qualitative electronic surveys or qualitative phone interviews) would best assess each indicator.

Table 3. Assessment matrix matching outcomes/impacts of interest to a sample of indicators

Stakeholder	Outcomes and Impacts	Indicator	Methodology
Interns	Increased experience in applying critical and creative thinking abilities, leadership skills, and problem-solving capability	Application of skills during internship	Electronic survey
Interns	Professional networking opportunities & Direct Hire Authority for DOI career placement	Participation in and satisfaction with training, workshop, or networking opportunities during internship Use of Direct Hire Authority while job seeking	Electronic Survey
Interns	Intern prepared for work with the NPS and/or on projects related to climate change and public land management	Current employment status Impact of internship on current position Desired future work with NPS Desired focus areas of future work	Electronic Survey
Host Parks	Advance knowledge and understanding about local high-priority climate change park management needs among the NPS units	Communication of internship outcomes among NPS units Utilization of internship outcomes to inform long-term management among NPS units	Electronic survey
Host Parks	Project results either initiate, inform, or otherwise support park management action on high priority climate change needs	Awareness and application of internship outcomes among NPS units Continuation of project(s) post-internship	Electronic survey
Agency	Park projects generate potentially transferable knowledge and methods for diverse operational divisions	Distribution and use of internship outcomes to NPS parks, programs, and offices Potential to reproduce methods of previous internships at other NPS units	Phone interview
Agency	Availability of personnel capable of addressing climate change	NPS parks, programs and offices awareness of the Direct Hire Authority and internship alumni eligible for hire	Phone interview

Stakeholder	Outcomes and Impacts	Indicator	Methodology
Agency	Increased agency capacity to respond effectively to climate change management needs	Value of internship investment to agency efforts of managing climate change Value of internship investment to CCRP staff time and funding	Phone interview

Data Collection

During the project, the assessment team developed original survey instruments to engage individuals representing each of the stakeholder groups. Three distinct instruments were developed for use with past interns (participants), project mentors (host parks), and senior-level NPS employees with knowledge of—or involvement with—the CCRP internship program (agency).

The team generated open-ended survey questions based on indicators identified in the assessment matrix. Two electronic pre-test surveys were created for internship participants and mentors via Qualtrics software. A subset of 9 past interns and 14 past project mentors participated in the mainly qualitative pre-test to aid in informing the content of the final survey questionnaires.

Intern Survey

Due to the necessity of the intern survey being sent to non-federal employees, the draft paper version was submitted to the Office of Management and Budget (OMB) for approval. Upon receipt of OMB approval, the final intern survey was distributed to the entire population of past interns for which CCRP had up-to-date contact information (n=87). Interns received a reminder to complete the questionnaire once a week for three weeks. In total, 44 past interns (23 from the George Wright Climate Change Internship Program and 21 from the George Melendez Wright Initiative for Young Leaders in Climate Change) completed and returned the survey, resulting in a 51% response rate. To determine variations in perspectives of the program over time, we compared portions of this data to program evaluation data collected between 2015-2017 from 44 past interns.

Although the number of interns who responded from each internship year were representative of the larger intern population broken down by year, CCRP does not have intern demographic information sufficient to compare characteristics of non-respondents to respondents. Therefore, a potential limitation of this study is the presence of non-response bias.

Project Mentor Survey

The team finalized the mentor survey and distributed an electronic link to the entire population of past internship mentors (n=77). The project mentors had three weeks to complete the questionnaire and were sent weekly reminder emails. In total, 46 mentors completed and submitted the survey, resulting in a 60% response rate. The combined mentor survey data were downloaded from Qualtrics into a master Excel spreadsheet to utilize for analysis. Some of this data was compared to program evaluation data collected between 2015-2017 from 34 past project mentors to determine if perspectives on the program changed over time.

Employee Interviews

Finally, the assessment team generated a list of semi-structured qualitative interview questions, from which 15 questions were used to create an interview guide, along with a project description and verbal consent form. The assessment team developed a list of NPS agency employees to interview, including either team members of the CCRP or general NPS employees having varying levels of involvement with the internship program over the years. The lead author implemented the initial outreach to these individuals by describing the purpose of the assessment and requesting that they participate in a phone interview. Of the 21 NPS employees contacted, 12 agreed to be interviewed (57% response rate). The lead author scheduled phone interviews via '10to8' appointment scheduling software. The interviews were conducted, recorded and later transcribed using Google Drive's voice dictation tool, which converted the playback of the recordings into written transcriptions. The author then created a codebook using emergent themes discovered from the interviews, and coded the transcripts using NVivo qualitative data analysis software. Evaluation coding was the specific method implemented, where the specific nodes assigned to each code were tagged with a plus sign (positive statement about theme), a minus sign (negative statement), or a 'REC' abbreviation, which was a recommendation provided by the interviewee for a given theme (Saldana, 2009).

Analysis

The lead author analyzed the three sets of data through the following process:

1. Applied descriptive statistics to the quantitative data from both surveys.

2. Synthesized the qualitative data from the surveys into themes (i.e. types of training opportunities granted during the internship) and subthemes (i.e. public communication, species identification and monitoring) related to each outcome of interest in the logic model. The subthemes were then quantified to determine their frequency within each theme.

3. Parsed out the codes generated from the phone interviews into common themes (i.e. DHA utilization, the application of internship outcomes) related to the logic model outcomes.

4. Compared data found within each theme from all three datasets to the specific outcomes and impacts of interest in the logic model for the three stakeholder groups: past interns, host parks, and the NPS agency.

5. Drew conclusions as to which outcomes are achieved to date and which are not being realized, from the perspective of the interviewees and survey participants.

6. Generated recommendations based on these results, which provide suggestions for reaching these outcomes in the future.

Sharing Outcomes

1. The results from the internship assessment will be shared in the following ways: A final program assessment report disseminated among survey participants, interviewees, and CCRP,

2. A PowerPoint presentation shared with the CCRP staff, and

3. A journal article targeted for publication in Park Science, or other relevant journal.

Results

This section describes characteristics of participants, host parks, and the NPS agency, and relates experience with—and perspectives on—the internship program, satisfaction with the experiences offered, and benefits received over time related to the outcomes and impacts outlined in the logic model.

Outcomes and Impacts: Past Interns

Participant Characteristics

Of the 44 past interns who completed the survey, 73% identified as female and the other 27% as male. The average participant was 29 years old at the time they took the survey, while 30 was the most common age listed (n=7). Nearly 80% of interns identified as Caucasian, 14% as Asian, 4% as American Indian or Alaska Native, and 2% as African American. Over half of the interns had an academic background in only one field (n=23), with 59% listing environmental studies as their primary major (Figure 1). This was followed by arts and humanities (18%), geography (16%),

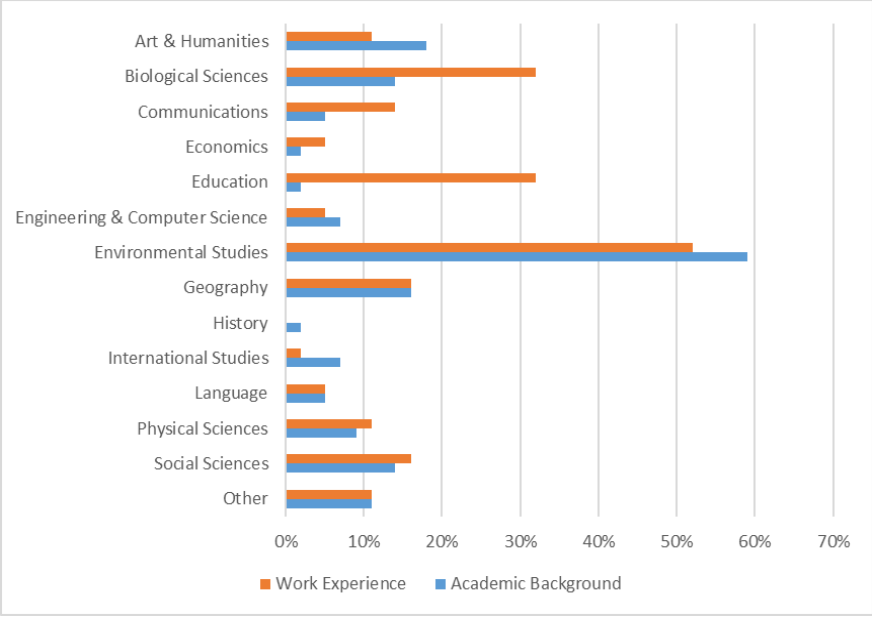
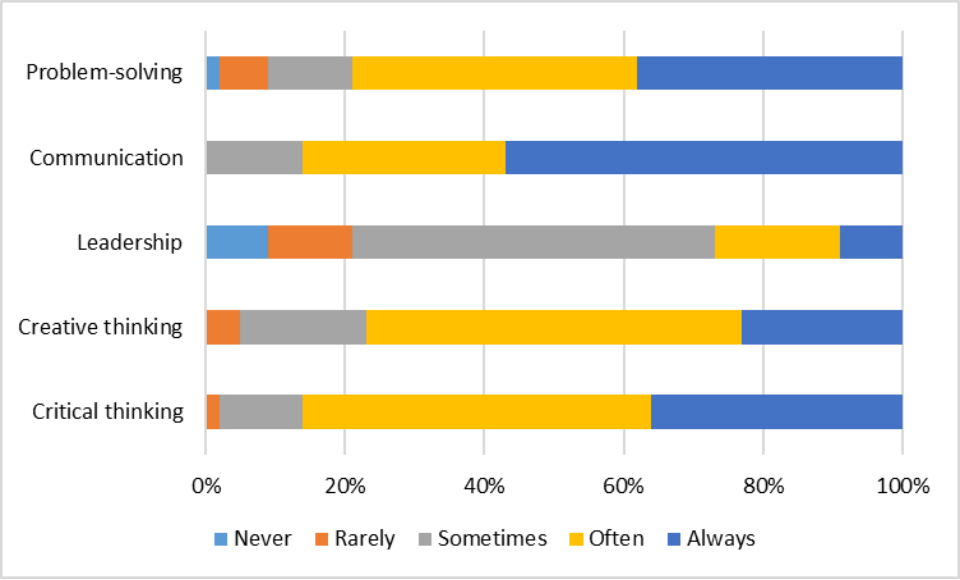


Figure 1. Fields of academic and work background

biological sciences (14%), and social sciences (14%). Their work experience followed a similar trend, with 52% stating that they focused on environmental studies post-academic career. Many also pursued careers in biological sciences (32%) and education (32%).

Outcome #1: Increased experience in applying critical and creative thinking abilities, leadership and communication skills, and problem-solving capability

As shown in Figure 2, past interns stated varying levels of opportunities to increase their experience in applying skills during their internship. Employing some form of communication skills was the most commonly listed ability that was always used (57%). Problem-solving, creative thinking and critical thinking skills were also highly cited as being applied often or always. Leadership capabilities were cited as being the lowest skill utilized during the summer internships, with 12% of past interns stating they rarely used any form of leadership and 9% claiming never.



The majority of past interns (73%) stated that they had the opportunity to share outcomes of their internship projects with an audience. Of those interns that presented to an audience, 81% shared their results multiple times. As seen in figure 3, the most common audience type was NPS staff (81%), followed by partners of the agency (53%), NPS visitors (38%), and professional organizations (38%). K-12 students and educators were rarely audiences to which the interns presented (9% and 6% respectively). Audiences listed in the 'Other' category typically included informal global audiences as a result of writing blog posts, creating YouTube videos, or publishing papers. Of those that published papers (25%), eight interns published peer-reviewed articles and six wrote non-peer-reviewed papers on their internship findings at least once. Almost all interns (94%) reported being

either satisfied or very satisfied with opportunities offered to them to share their project outcomes, with 6% being neither satisfied nor dissatisfied.

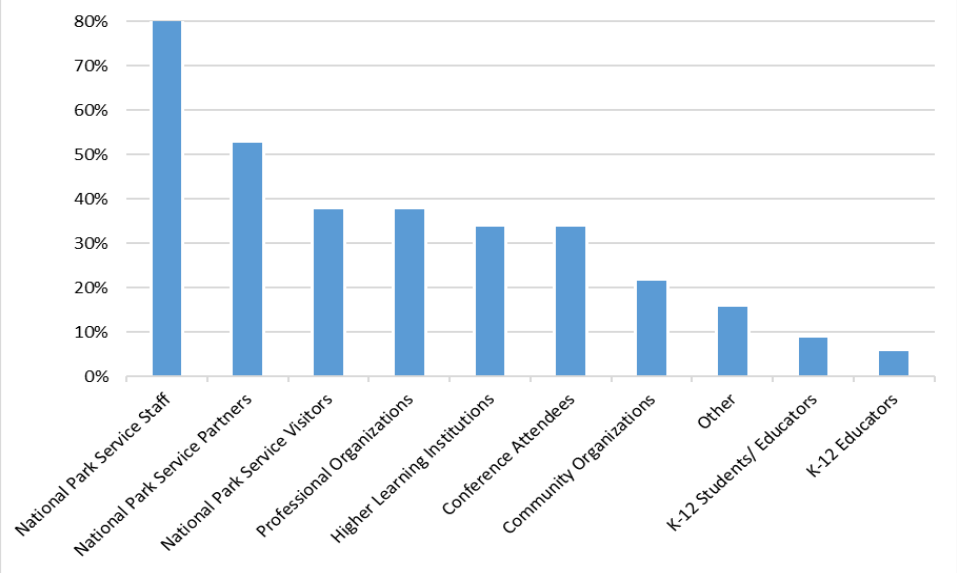


Figure 3. Types of audiences with which project outcomes were shared

Outcome #2: Professional networking opportunities & DHA for DOI career placement

Three quarters of the interns reported having opportunities for professional networking during their internship, the majority of whom took advantage of multiple chances to network (Figure 4).

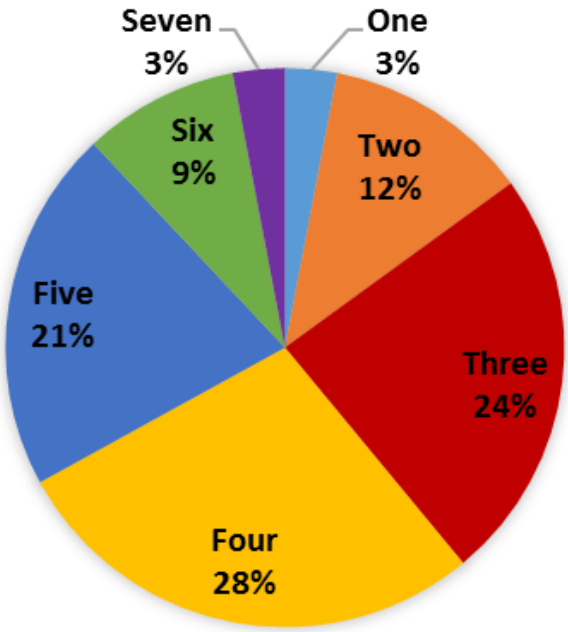


Figure 4. Number of reported networking opportunities

Most interns stated that personal introductions, in-park events, and informal gatherings were the best avenues to network professionally (Figure 5). Overall, 97% of interns were either satisfied or very satisfied with networking opportunities afforded to them during their internships.

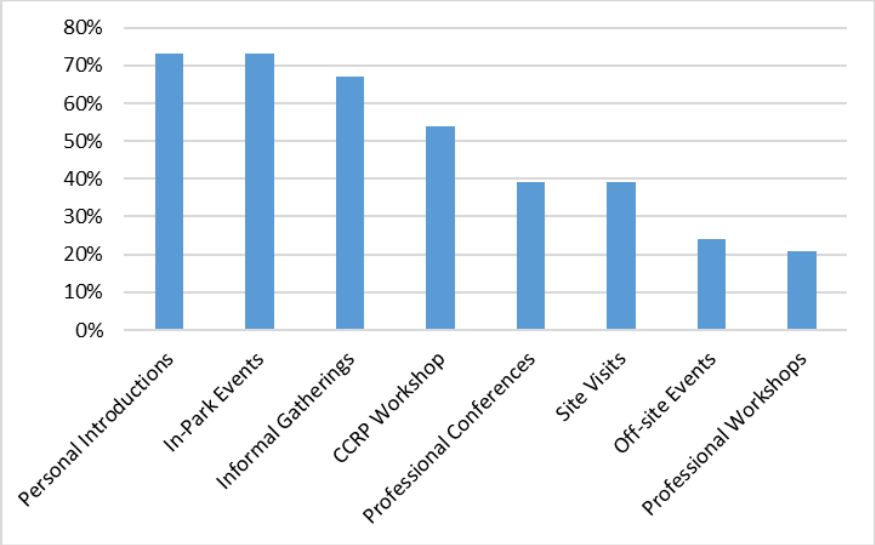


Figure 5. Types of networking opportunities

Post-internship, 77% of interns stated that they are now employed for wages, while 23% are still students. Figure 6 highlights the number of years the interns have been in their current position, with 94% starting four years ago or less. Nearly 70% of interns stated that their internship experience directly aided in being hired in their current job, or accepted into their academic program.

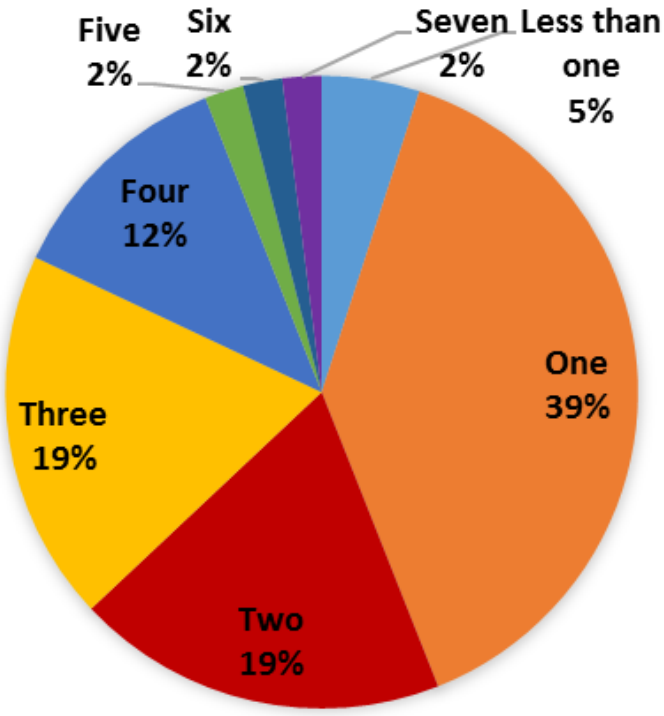


Figure 6. Number of years in current position

In terms of utilizing DHA while seeking job placement, 67% of interns who have DHA eligibility stated that they had never attempted to take advantage of this authority. Of the 33% that did try to utilize DHA, the majority were not successful at securing employment, despite a strong interest in DOI career placement. The main barriers reported included:

1. A lack of funding for permanent positons among many agencies, which resulted in a few only being able to offer term positons through DHA.

2. Among those opportunities with secure funding, practical constraints further hindered the use of the authority (i.e. academic degrees or experience not aligning with a funded positon, or an inability to utilize DHA once an opportunity had been posted to the USAJOBS website.)

The one intern who was offered a positon via DHA mentioned that utilizing the authority was time consuming but was personally worth the effort.

Long-term Impact: Intern prepared for work with the NPS and/or on projects related to climate change and public land management

Three quarters of the interns reported that they participated in training and workshops during their internship to further their skills and ability to work on climate change or public land management issues. These opportunities primarily came in the form of public communication workshops (n=11), followed by trainings on general science techniques (n=6), species identification and monitoring (n=4), bear/backcountry safety (n=3), and basic aviation, first aid/CPR, or career preparedness training (n=2 for all). Only 6% of interns reported that they were dissatisfied with the trainings or workshops afforded to them. The majority were either satisfied (33%) or very satisfied (58%) with these opportunities.

Figure 7 demonstrates the sector of employment in which past interns are currently working. The majority are state or federal government employees (18% each), followed by for-profit businesses or not-for-profit organization (15% each) and academic or research institutions (13%).

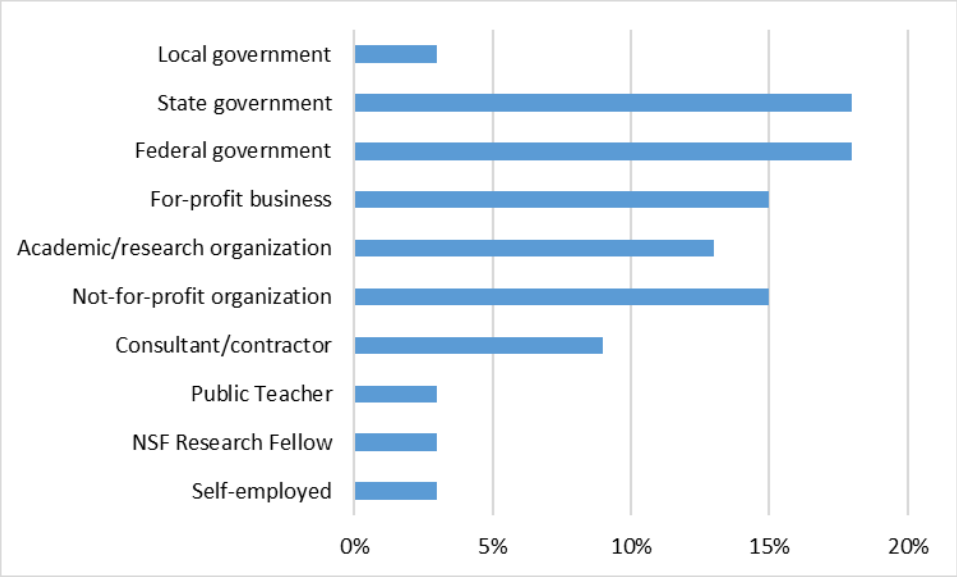


Figure 7. Type of current work

Among these diverse sectors, the interns report that their work primarily focuses on environmental change (39%), public education (30%), or sustainability (24%) (Figure 8).

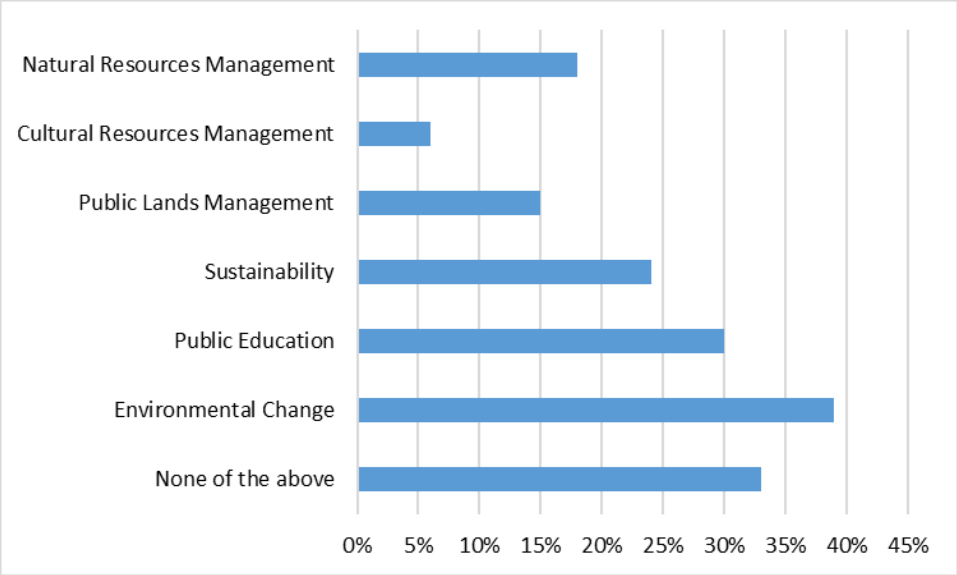


Figure 8. Focal areas of current work

When asked what focal areas they hoped to concentrate on in the future, the most common responses from interns were science (71%), natural resources management (68%), outreach and communication (59%), and education (55%). Only 7% of respondents chose facilities management and 2% law enforcement as a desired career path (Figure 9). The majority of interns (68%) reported a desire to

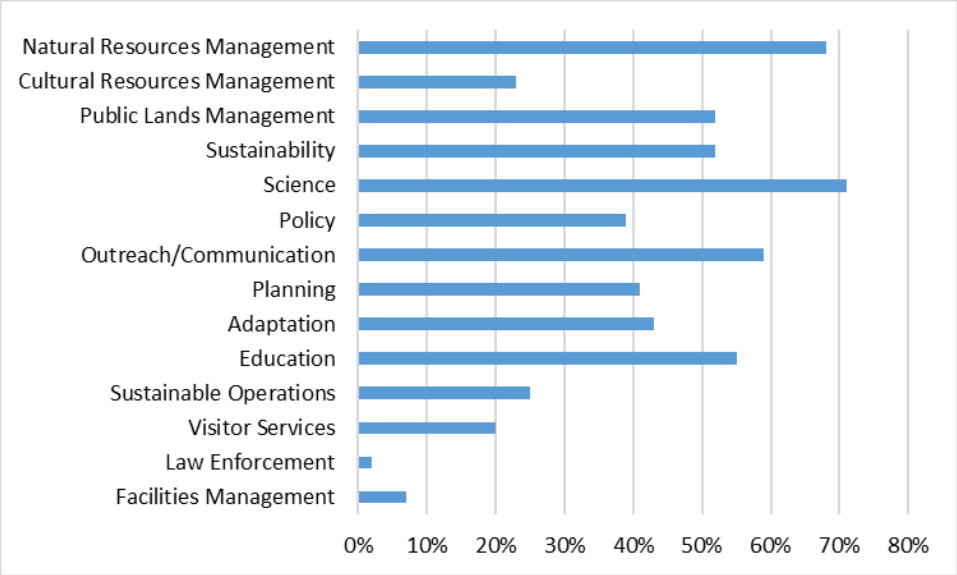


Figure 9. Focal areas of desired future work

work in five or more different focal areas. After their projects were completed, 68% of interns went on to do similar work related to their internship topics. Many decided to pursue graduate school and write a Master's thesis or PhD dissertation either directly related or similar to their internship topic of focus (n=10). Others pursued careers in climate change advocacy and outreach (n=7), general climate change research (n=5), or climate change planning (n=3). Three past interns were actually hired by their host parks to develop their projects further, while another two are currently working on environmental education projects utilizing the skills they learned during their internships. One intern is currently an NPS employee whose permanent positon directly relates to their internship topic. A few of these interns published peer-reviewed (n=3) or non-peer-reviewed (n=2) papers on the outcomes of their follow-up work.

Although the majority of interns (80%) have not worked for the NPS since their internship, 98% stated that they would like to work for the agency again. Figure 10 shows that the majority of past interns listed multiple reasons for their desire to work with the Service in the future.

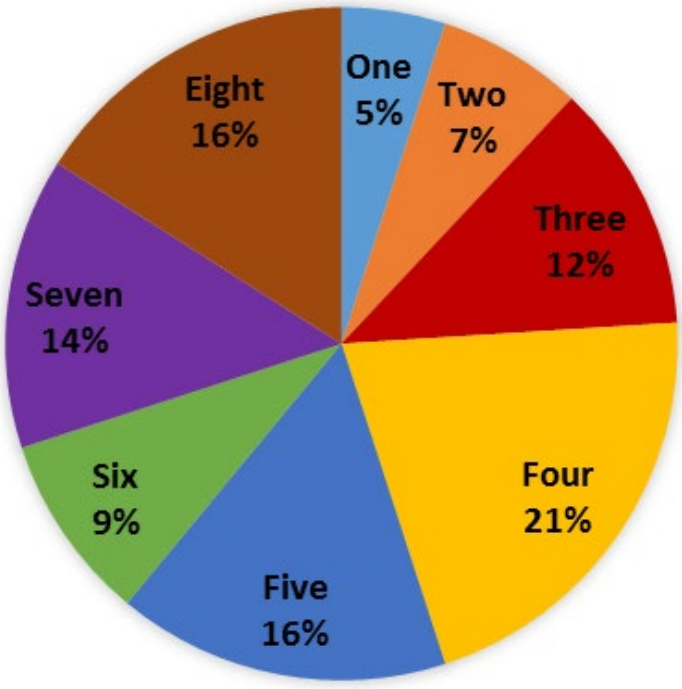


Figure 10. Number of reasons interns desire future work with the NPS

The primary motivations reported include a belief in the NPS mission (84%), a belief in the potential for good work to take place on public lands (84%), an interest in a government career focused on the natural world (72%) and a general enjoyment of the NPS work atmosphere during the internship experience (72%). Additional motivations included favorable memories from their earlier experience (70%), benefits derived from federal positions (51%), the stability of federal positions (44%), and the possibility to work in other areas of federal service (21%).

One of the respondents who listed 'Other' mentioned that they would consider working for the agency because, "The National Park Service is the best example of government done well." Another intern wanted to take advantage of the opportunities a career with the NPS could bring by stating, "I've always dreamed of working for the NPS. I like the opportunity to move around our beautiful country and experience different environments through the NPS." Only one intern mentioned that they would not consider working for the NPS again in the future, the primary reason being job insecurity in the federal government for public land management positions.

At the end of the questionnaire, the interns had the chance to share how the internship impacted them professionally in any additional ways. Over 20% of the past interns mentioned that various project management, communication, and research skills gained have all been extremely useful in follow-up endeavors. Another 14% reported that the internship allowed them to form lasting professional relationships with their mentors and other contacts developed while they were in the field, and 13% mentioned that gaining experience working in a national park aided in clarifying their future career goals. Over 41% of past interns stated that they were able to directly leverage their internship experience to secure their current positions.

General internship program evaluation

Upon completion of the internship seasons in 2015, 2016, and 2017, the CCRP collected data from 44 interns and 34 project mentors using a standardized program evaluation survey (Table 4). Four of the primary survey statements that the interns were asked to rank on the evaluation were:

1. My mentor and I were successful at accomplishing the goals we set at the beginning of the internship,
2. The internship design was of high quality,
3. My mentor and I were successful at building a mentoring relationship, and
4. My experience with the CCRP internship program was an overall success.

Table 4. Past intern program evaluations

Year of Internship	My mentor and I were successful at accomplishing the goals we set	The internship design was of high quality	My mentor and I were successful at building a mentoring relationship	My experience with the CCRP internship program was an overall success
2015	Strongly Agree: 50% Agree: 42% Disagree: 8%	Strongly Agree: 25% Agree: 42% Neither: 33%	Strongly Agree: 58% Agree: 17% Neither: 25%	Strongly Agree: 67% Agree: 25% Neither: 8%
2016	Strongly Agree: 50% Agree: 50%	Strongly Agree: 33% Agree: 58% Disagree: 8%	Strongly Agree: 75% Agree: 25%	Strongly Agree: 92% Agree: 8%
2017	Strongly Agree: 50% Agree: 40% Neither: 10%	Strongly Agree: 50% Agree: 50%	Strongly Agree: 90% Agree: 10%	Strongly Agree: 90% Agree: 10%

The assessment team asked the survey participants to rank the same four statements in this questionnaire, as well as the year they completed their internship. Table 5 presents the responses to each of these statements by year. On average it appears that starting in 2015, when the program was rebranded as the Young Leaders in Climate Change internship, there was much less disagreement regarding each statement. The same trend can be seen when comparing the 2015/16/17 results from the past evaluations to the current survey, with the exception being 'My mentor and I were successful at building a mentoring relationship' for the 2015 interns, although only 14% disagreed with this statement. The statement 'My experience with the CCRP internship program was an overall success' had the most amount of agreement across all years.

Table 5. Current intern program evaluation by year

Year of Internship	My mentor and I were successful at accomplishing the goals we set	The internship design was of high quality	My mentor and I were successful at building a mentoring relationship	My experience with the CCRP internship program was an overall success
2010	Strongly Agree: 20% Agree: 60% Disagree: 20%	Strongly Agree: 40% Agree: 20% Neither: 20% Disagree: 20%	Strongly Agree: 60% Agree: 20% Disagree: 20%	Strongly Agree: 40% Agree: 20% Neither: 40%
2011	Strongly Agree: 80% Agree: 20%	Strongly Agree: 60% Agree: 20% Neither: 20%	Strongly Agree: 80% Agree: 20%	Strongly Agree: 60% Agree: 20% Neither: 20%
2012	Strongly Agree: 20% Agree: 60% Disagree: 20%	Strongly Agree: 20% Agree: 40% Neither: 20% Disagree: 20%	Strongly Agree: 40% Neither: 20% Disagree: 40%	Strongly Agree: 20% Agree: 80%
2013	Strongly Agree: 37.5% Agree: 37.5% Disagree: 25%	Strongly Agree: 37.5% Agree: 25% Neither: 12.5% Disagree: 25%	Strongly Agree: 25% Agree: 37.5% Neither: 25% Disagree: 12.5%	Strongly Agree: 37.5% Agree: 37.5% Disagree: 25%
2015	Strongly Agree: 43% Agree: 57%	Strongly Agree: 28.5% Agree: 43% Neither: 28.5%	Strongly Agree: 86% Disagree: 14%	Strongly Agree: 43% Agree: 57%
2016	Strongly Agree: 80% Agree: 20%	Strongly Agree: 60% Agree: 40%	Strongly Agree: 100%	Strongly Agree: 100%
2017	Strongly Agree: 66.6% Agree: 33.4%	Strongly Agree: 66.6% Agree: 33.4%	Strongly Agree: 78% Agree: 22%	Strongly Agree: 89% Agree: 11%

Outcomes and Impacts: Host Parks

Outcome: Advance knowledge and understanding about local high-priority climate change park management needs among the NPS units

In order to assess the advancement of knowledge about park management needs, the survey asked project mentors to whom the outcomes of the internship were communicated. Figure 11 shows that outcomes were overwhelmingly shared within the same division (interpretation, resources, etc.) (78%), as well as with non-federal partners (63%), with staff in other NPS parks, programs, and offices (61%), and with other divisions within the same park (54%).

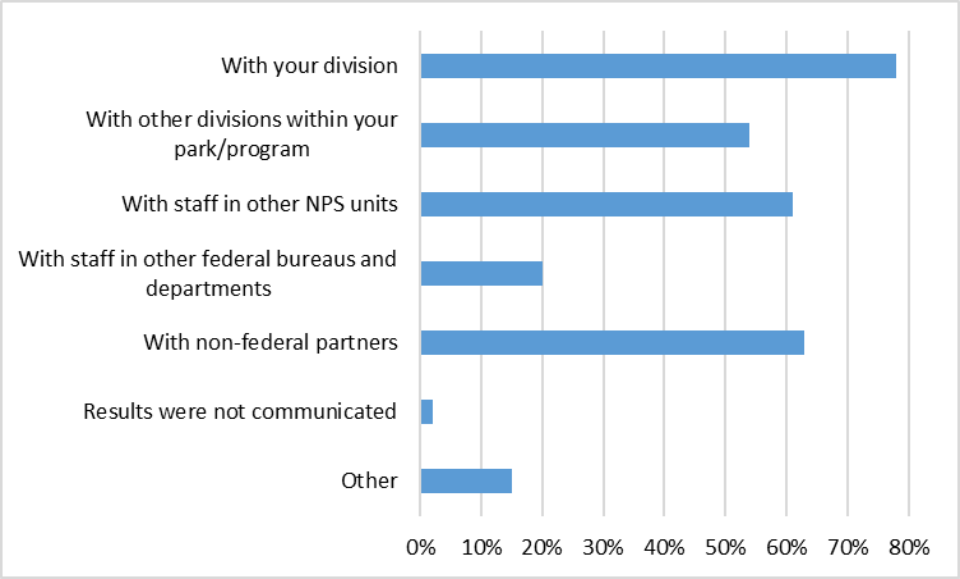


Figure 11. Types of audiences for communication of internship outcomes

The majority of parks utilized multiple communication channels to share internship outcomes (Figure 12). Only 2% of past mentors reported that outcomes were not communicated. Of the 15% that listed 'Other' communication venues, they reported sharing internship outcomes with the media, park volunteers, visiting students, the global public via the web, the general public during presentations, other science professionals at conferences, or via the writing of scientific and technical articles. When the project mentors were asked if their parks were aware of outcomes produced from internships among the other park units, 37% said they were aware, 46% said no, and the remaining 17% were unsure.

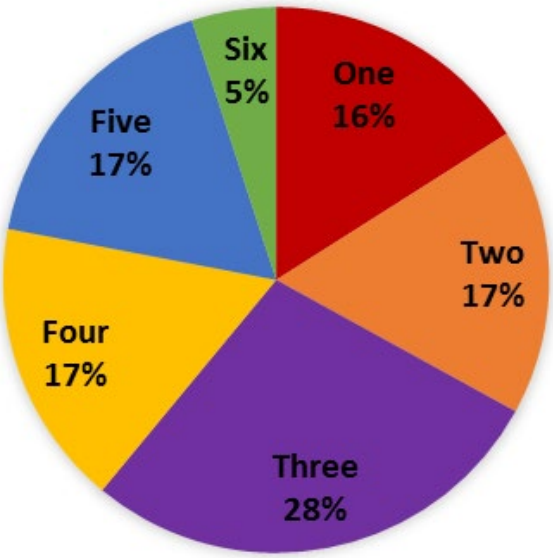


Figure 12. Number of communication channels to share internship outcomes

Long-term Impact: Project outcomes either initiate, inform, or otherwise support park management action on high priority climate change needs

To assess the potential for the internship projects to support climate change initiatives, project mentors were asked how strongly they felt regarding the potential to reproduce the same internship methods and utilize project outcomes to inform long-term management within the host park. Most mentors (93%) agree that past methods could be replicated, while slightly less (80%) agreed that project outcomes could help inform park management. The 7% of mentors that disagreed with that statement felt that due to the time limitations of each internship season, the outcomes of the projects could not be developed fully enough for the parks to realistically utilize. Still, roughly two thirds (63%) of mentors stated that their parks were able to apply internship outcomes to management concerns. This application came in the form of scientific data to inform outputs such as new databases, models, research proposals and methodologies, inventory and monitoring plans, study area reprioritization, and general recommendations for natural resource management within the park. Outreach information was also generated with the purpose of educating park staff and the public, informing citizen science protocols and school climate change curriculum, and the development of videos, web content, fact sheets, and other interpretive materials that are still currently being used.

When asked if the internship projects continued after the summer season, 30/46 project mentors stated that they had. The 16 mentors who did not have projects continue mentioned that the reason was typically due to a lack of funding to continue the study (44%), or that the project was simply a standalone effort (44%), so there was no need to conduct follow-up work (Figure 13). Very few mentors (6%) stated that the project focus was no longer a park/program priority to address.

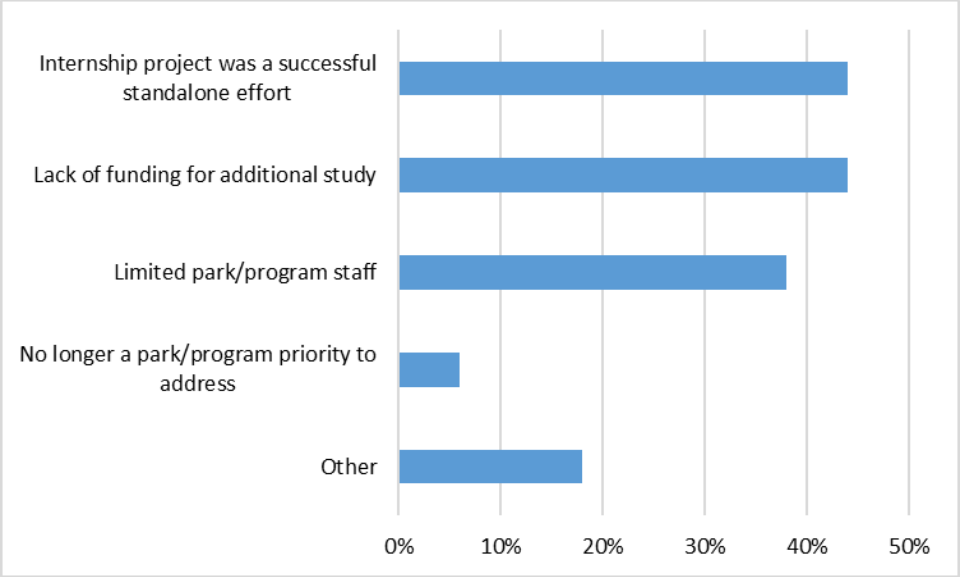


Figure 13. Primary reasons projects did not continue post-internship

Past mentors were also asked if the internship program benefitted their park or region in any additional ways. In terms of regional benefits, roughly a quarter of respondents stated that the projects helped contribute to climate change communication tools dispersed widely throughout the park and surrounding region. Over 15% of mentors also stated that the internship aided in building new relationships and spurring coordination between parks, programs, and surrounding local organizations. Regarding benefits to the park specifically, another 15% of mentors said that the internship served as a pilot project that helped to initiate a larger study or additional programs, most of which are still ongoing. Other respondents perceived the CCRP internship opportunity as a tool to complete a project that either was considered a low priority for their park's daily operations or was a priority that they did not have park funding to implement. The majority of mentors stated they were happy to have a high-quality intern available that could help with field work on side projects during their stay at the park, which also allowed park employees more freedom to focus on other tasks. Several mentors were able to sustain beneficial long-term relationship with their intern, one of whom still provides technical expertise to their host park. One mentor reported that a personal benefit came in the form of gaining supervisory experience, which later aided them in other park projects.

General internship program evaluation

Past mentors were asked the same four 2015-2017 program evaluation questions as the interns (Table 6). The combined results from mentors can be seen in Table 6 below. The first two statements have some levels of disagreement, but there are general feelings of agreement for the last two statements. The generalized results from the questionnaire in this assessment (Table 7) show some small levels of disagreement or neutral feelings across statements. As some project mentors hosted interns at their park for multiple field seasons, they were not asked to list a specific internship year during this survey.

Table 6. Past mentor program evaluations

Year of Internship	My intern and I were successful at accomplishing the goals we set	The internship design was of high quality	My intern and I were successful at building a mentoring relationship	My experience with the CCRP internship program was an overall success
2015	Strongly Agree: 58% Agree: 34% Disagree: 8%	Strongly Agree: 50% Agree: 42% Neither: 8%	Strongly Agree: 50% Agree: 50%	Strongly Agree: 92% Agree: 8%
2016	Strongly Agree: 64% Agree: 36%	Strongly Agree: 45% Agree: 55%	Strongly Agree: 91% Agree: 9%	Strongly Agree: 82% Agree: 18%
2017	Strongly Agree: 45% Agree: 45% Disagree: 10%	Strongly Agree: 45% Agree: 45% Neither: 10%	Strongly Agree: 27% Agree: 73%	Strongly Agree: 100%

Table 7. Current mentor program evaluations

Year of Internship	My intern and I were successful at accomplishing the goals we set	The internship design was of high quality	My intern and I were successful at building a mentoring relationship	My experience with the CCRP internship program was an overall success
N/A	Strongly Agree: 50% Agree: 42% Neither: 4% Disagree: 2% Strongly Disagree: 2%	Strongly Agree: 48% Agree: 46% Neither: 4% Strongly Disagree: 2%	Strongly Agree: 52% Agree: 39% Neither: 7% Strongly Disagree: 2%	Strongly Agree: 54% Agree: 42% Neither: 2% Strongly Disagree: 2%

Outcomes and Impacts: Agency

Participant Characteristics

Of the 12 NPS agency employees who participated in the phone interviewees, five are current CCRP staff. The remaining interviewees are either past staff members of CCRP or have previously been—or are still currently—involved in some aspect of the internship program (park proposal paneling, intern application evaluation, symposium development, etc.). They were selected because they were most likely to have the best perspective on the program to provide. These NPS employees hold various scientist (n=3), coordinator (n=4), and managerial (n=5) roles.



2018 alumnus Josh Conver studies the growth of Saguaro cacti at Saguaro National Park. (NPS)

Outcome #1: Park projects generate potentially transferable knowledge and methods for diverse operational divisions

Interviewees generally agreed (n=9) that it was possible to replicate the methods of previous internships in other park units beyond the host park where the project took place, especially considering that most of the internship proposals develop clear methodologies on the front-end. Past mentors typically hold strong agreement (94%) about replicability as well. One interviewee stated that some of the communication and citizen science projects are actually set up to have wide reaching applications that can be replicated. A second interviewee believes that project methods can more readily be reproduced among groups of parks with similar biophysical features and management issues. The interviewee stated,

> *"I don't think there's anything about these projects for the most part that says gosh it's a one-off and there's no generalizability. That just doesn't seem to be how we work. If you go to a study that is looking at sea level rise, there're plenty of other parks that what you're looking at could be relevant to them."*

Another interviewee mentioned,

> *"The issues a lot of the projects are working on, those are issues that are being seen across the park service. So they're working in park specific projects, but definitely some of the larger issues that they are tackling are definitely things that are being experienced in some shape or form by other parks."*

One interview participant who was also a past mentor asserted that although they no longer work at the park where they mentored an intern, they have applied the same project-based learning methodology at other parks since.

Another interviewee had mixed feelings about methodology replication, stating that not every procedure would be applicable everywhere, but that an effort has been made to communicate some project processes so that they could be adapted to other locations. Only one other interviewee believed that methodologies are not and should not be replicable, asserting that a site-specific process is necessary for each individual project.

The interviewees tended to have more mixed opinions regarding the sharing of internship outcomes among park units to date. Those who felt that outcomes have been shared across the NPS reference the CCRP newsletter (n=2) or outreach webinar series (n=5) which typically highlight selected internship project outcomes each year. Several interviewees stated that outcomes are available to NPS employees who are 'tuned in' to CCRP media, but it was necessary to know where to look to find them. One mentioned that if it wasn't for the project articles added to the newsletter, they would not have any information regarding what actually resulted from the internships. Others agree that internships located in a regional office or general inventory and monitoring divisions typically generate more overarching park-to-park communication products.

Other interviewees argue that outcomes of the projects are hardly ever distributed widely. When they are produced, it is rarely in a useful or digestible format, such as incorporated into an annual report that often goes unread. This is not to say that the potential for distribution does not exist, but that it is rather difficult to achieve due to the short time-frame of the internships. There is typically not enough time for an intern to complete a project and then package it in a form where it can be readily accessible to a wide audience. Once the internship season comes to an end, it becomes the responsibility of either the host park or the CCRP to synthesize and communicate the information. One interviewee confesses that this is synonymous with a much larger issue of information dissemination within the agency, and is not necessarily to responsibility of the internship program to solve.

Outcome #2: Availability of personnel capable of addressing climate change needs through the DOI Direct Hire Authority

Regarding the DHA opportunity associated with these internships, seven interviewees felt that NPS parks, programs, and offices who know of the internship program are generally aware that the authority exists. One interviewee stated,

> *"Every time I'm on a panel or I hear a park service person talking about the internship, they always talk about the direct hire."*

A description for the DHA opportunity is listed on the first page of the internship announcement, so parks can learn about the authority before submitting a proposal. Once parks are awarded funding, CCRP provides more information on DHA to educate the internship mentors on the opportunity. This targeted information sharing can be viewed as a success, as 87% of mentors stated in the online survey that they were aware of DHA during the internship. Beyond those involved with the internship program, it seems that awareness is commensurate with experience working for the NPS. Employees who have been a part of the agency for longer typically have a greater awareness of the hiring authority and its associated benefits, while those who are relatively new may not have as great of an awareness. Two interviewees believed that the average park is absolutely not aware of DHA, mostly due to a lack of funding and vacancies to utilize the authority.

> *"I'm constantly being told, there's all these creative hires for interns, for veterans, for disabled people, for many other types of people. All of which is great if I had a vacancy I could afford to fill. So I'm not up to speed on all of these authorities because I'm realizing I have no jobs to fill."*

Interviewees overwhelmingly agreed that most NPS employees who are in a position to hire are not aware of the list of internship alumni who are eligible to take advantage of the DHA. There was general agreement that parks are only aware of alumni with DHA eligibility if they conducted their internships at that exact park. As one interviewee states:

> *"Unless a Resource Manager, Superintendent, or somebody with that hiring authority had heard of or directly worked with that intern, there's a pretty good likelihood that they wouldn't know. Even if they saw that study or the outputs from that interns work, I'm not sure*

they would make that connection to reach out and say, 'Hey, you might be a great addition to our park'."

Several interviewees mentioned the barrier of not being able to find a list or database of DHA ready applicants. One stated,

"About a year ago, I had an opportunity to fill a permanent positon, and I asked, 'who are our eligible candidates'? And there was no central point that I could go to find out that information."

A CCRP employee reported that a database was in fact created in 2017. It is located on the CCRP internal Google site and has a list of current alumni with links to their CV's, their experience, and what positions would match their eligibility. This shows that the issue of awareness is not due to a lack of an alumni database, but rather the distribution of this information. This finding is complemented by the survey of past mentors, 30% of which feel that the advertising of eligible alumni occurs only slightly well, and 20% feel that they are not advertised at all (Figure 14).

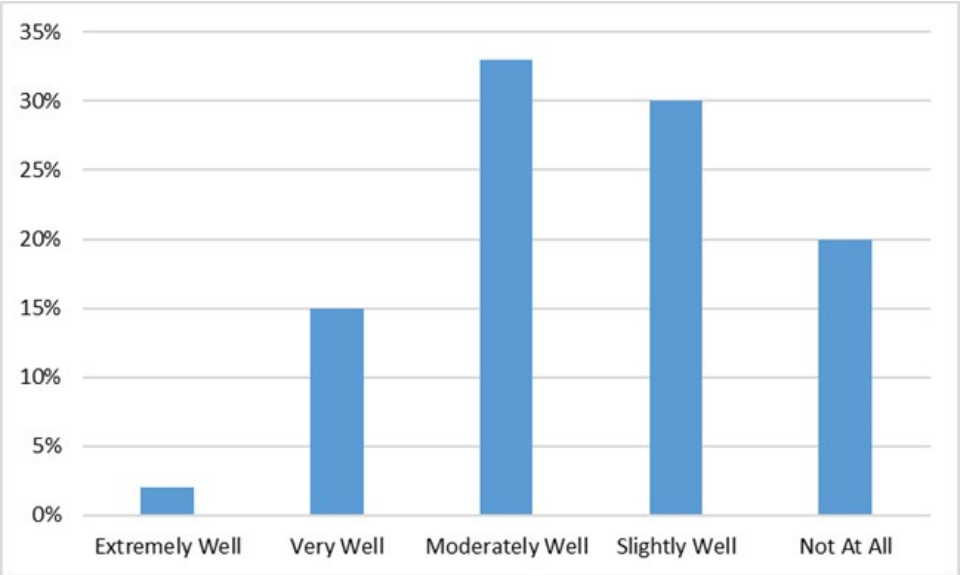


Figure 14. Perceptions of how well DHA alumni are advertised

In terms of actually utilizing DHA, interviewees unanimously agreed that several barriers exist which hamper the successful application of the authority. Out of the 12 NPS employees interviewed, nine mentioned a lack of funding to create open vacancies as the largest obstacle. Although many parks are aware of the authority and would love to use it, the reality is that they are often not able to take advantage of it. They provided examples for this barrier such as,

"Parks have fewer and fewer permanent positons. They may have a really great intern that they would love to hire but they don't have the ability to bring on a new permanent person."

Or,

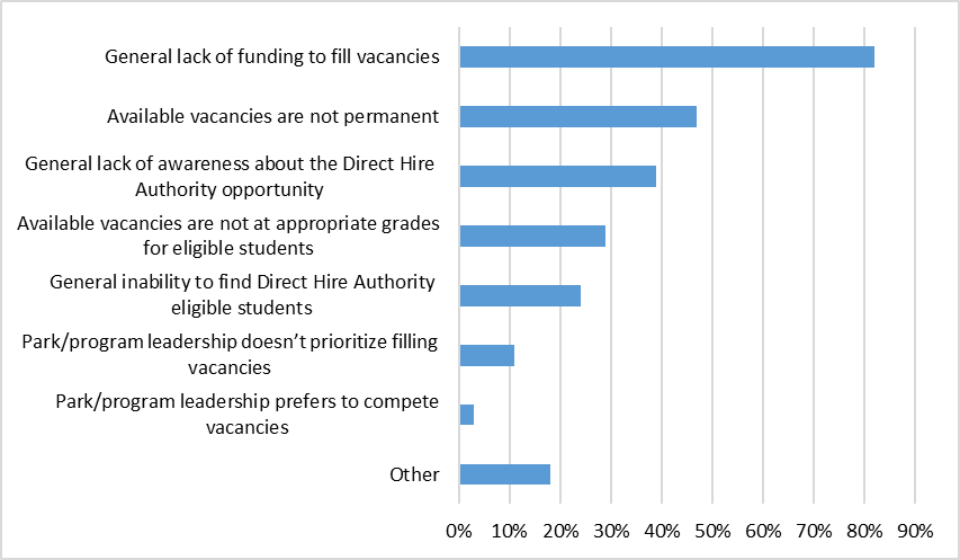
> *"It's not a, so if I only had an intern that was CCRP paid for I could hire this person permanently. I have no hope right now of being able to hire more permanent staff. That is a huge capacity issue and it's going to get worse before it gets better."*

This inability to utilize the authority has reportedly exasperated some internship alumni hoping to take advantage of DHA. As one interviewee described:

> *"It's a pretty sweet carrot but if there's no guarantee of a job coming up behind it then I think that's kind of a disincentive to use it. It's no good for the park service to dangle those opportunities in front of somebody and then say, 'oh well sorry there aren't actually any hiring opportunities.'"*

Many interviewees believed that this is synonymous with larger human resource issues within the agency regarding confusion as to how the multiple hiring authorities that exist actually function and who is qualified. One other barrier cited is the logistical constraints of the authority; DHA only applies to certain agencies, and cannot be used for available positions in certain divisions or departments.

Similar results were collected from the past mentor questionnaire, where only one out of the 40 mentors who had heard of the authority actually attempted to utilize it. They felt that it was a great hiring tool, but "the most significant challenge was understanding the authority, working with HR to invoke and apply the authority, and translating the benefits of working with the NPS to interns that could get jobs in other locations easily." The remaining mentors agreed with the other NPS employees interviewed that a lack of funding to fill vacancies was the largest constraint to utilizing DHA (82%), followed by vacancies not being permanent (47%), and general lack of awareness about the authority (39%) (Figure 15). Of the 18% of mentors who listed other constraints, they again mentioned confusion about using DHA along with other hiring authorities, as well as a desire for the authority to last longer than two years.



Long-term Impact: Increased agency capacity to respond effectively to climate change management needs

Three quarters of past mentors (76%) believe project outcomes can be utilized among other NPS units beyond the host park where the internship took place. This is complemented by the fact that 35% of mentors state their parks have actually applied outcomes from other unit's internships. Another 41% stated that they have never used other outcomes, and the remaining 24% were unsure if their parks had. When NPS staff were asked during the interviews why outcomes are applied or not applied across parks, five mentioned reasons similar to those stated regarding general sharing of outcomes; the resource and management issues that each park deals with are so place-based, and the work that interns accomplish are so tightly linked to that particular context, it is often impossible to generalize internship outcomes to other geographies.

Seven other interviewees disagreed with the sentiment above, believing that very high potential exists to utilize outcomes across park units. This is due to a recent observed trend of parks reaching out to collaborate with other units that are observing similar issues. The fact was stated that scientific research is naturally meant to build upon itself. However, there seems to be consensus that the potential to utilize internship results from scientific research specifically is only possible if another park is facing an identical or at least similar resources management issue. For example:

> *"This year Saguaro National Park is having somebody examine saguaros and climate change. So obviously other parks that have saguaros… I participated in the selection of an intern at Hot Springs National Park. It was about the hydrologic of the spring and climate change. I guess that is theoretically applicable to other places, other parks with geothermal resources. So it really depends on the projects."*

There was also agreement that communication, interpretation and education products have a broader scope and appeal, and so it is often more feasible to share these products beyond an individual park

unit than results from scientific research. One example described a series of "hope for the future" videos that were created as an outcome of an internship project. The interviewee stated that they still use those videos in their virtual interpretation training courses. As another interviewee articulated,

> *"They may be interpreting climate change in reference to a particular park's unique resources, but there's no reason that some other intern at another park can't use the same basic principles and approaches to interpret climate change in the same way using that other park's unique resources."*

Interviewees were also asked whether or not they felt the internship program had been a worthwhile investment for CCRP and for the NPS agency in regards to increasing the agency's capacity to respond effectively to climate change management needs. From the CCRP perspective, staff members of the program hold strong feelings that although the program takes a lot of time to run well, the payoff of finding highly qualified candidates creates many positive returns for the Climate Change Response Program. One current CCRP employee felt that the internship program is probably the most worthwhile project that they work on, while a past CCRP employee expressed,

> *"It's been a signature program of CCRP, and I think the youth program has been one of the ways that CCRP has most benefited parks and programs across the NPS agency in meeting their needs."*

The only potential concern of the CCRP investment came up regarding potential opportunity costs of devoting funding and staff time to a program that only lasts one field season per year. As the problems parks are facing require dedicated individuals who can work on issues for longer than three months, there is an inherent trade-off for CCRP investing in the internship program as opposed to alternative climate change initiatives. One employee warned that although it is a good solution to help tackle park management issues regarding climate change, it should not be viewed as the only solution. Another stated that the use of CCRP staff time as efficiently as possible helps to alleviate concerns over potential resources being squandered.

The interviewees shared similar statements when questions were asked regarding the greater agency's investment in the program. The only potential issue for the investment was described as the trade-off for parks devoting staff time and energy to this initiative instead of other projects. Although there are several benefits of hosting an intern with a funded study, a cost still incurs as to the time it takes to train the individual and get them familiar with the park environment. Afterward, the project needs to be small enough in scope to fit into whatever time remains in the field season. As one NPS employee explained,

> *"On the one hand an intern is useful, but not as useful as if we could actually get some longer terms or term employees or a few more staff actually trained up."*

Still, the same interviewee admitted that given the current hiring situation, the internships are probably the best solution currently available to help solve climate change management issues within the parks. The cost of running the entire internship program is undoubtedly lower than the effort of

pursuing a larger multi-regional partnership project. Most felt that the internships were the best way to get maximum impact across a wide range of values with a limited pot of money. As one interviewee stated, "[the interns] are paid very little*, and so the value per dollar of NPS investment is astronomically high."

Beyond potential opportunity cost tradeoffs, employees unanimously agreed that the internship program has overall been a worthwhile investment for the agency. In terms of park benefits, several interviewees stated that the internships give the parks a chance to conceptualize and initiate a project by thinking about climate change in their parks and getting a proposal written. One interviewee articulated this point:

> *"So I'll be going down and really working with the park staff on figuring out how we create this project. The intern will work on this for three months, but we will continue to work on this after the intern leaves and keep going. But that internship project was the kick to get something down on paper and get this thing moving. Sometimes you just need that deadline to push that forward."*

*The rate for 2016-2017 interns work is $16/hour plus housing

Another described this trend as follows:

> *"During that summer we had one of the climate change interns that worked here. She split her time half between resources and half of her time was in interpretation. At the time when she came on there was no climate change information on our website. There really had never been a climate change program developed and presented at the park here. Our local community has done quite a bit but the park itself had not. I think just by having her here and having her establish a couple of different programs, she did an evening program and she did like a table talk program that was very informal, kind of out on the trail where she would just talk with everyone who walked by. I think she kind of built a foundation for us here to launch from. Even though we weren't able to hire her or have her here permanently, I think she kind of helped initiative something. I think that has lastly value and lasting benefit regardless so whether she goes on to work for the park service or not."*

Parks have seen a huge benefit of having an intern available that could dedicate fulltime work to accelerate a project forward.

> *"We were actually able to get something done that I think would have taken, I don't know, that fulltime summer work would have probably been the equivalent of at least a year's worth of work with all of us on random biweekly one hour conference calls. So yeah, it was a huge help."*

In addition to gaining supervisory experience for the mentoring staff, a common trend resulting from these internships is the potential to kick-start larger projects and collaborations between parks facing

similar climate change management concerns, and relationships between parks and the CCRP that may not have existed previously.

Another return on investment for the agency comes in the form of professional development benefits described previously by the interns. Giving students the chance to work on climate change projects from a park perspective starts to create an influx of talented professionals entering the workforce. Beyond being a great experience, the internships provide an opportunity to work within the National Park System that would ideally inspire them to be a part of the agency again in the future. A similar benefit comes from helping to fulfill the NPS mission through these internships. One interviewee articulated this point as follows:

> *"In terms of capacity building, even if they're not coming directly back to the parks, that sense of planting the seeds in young people who now have seen climate change through the lens of parks, through the lens of resource management, and then giving them this field-based, park-based experience often in places that they have never been before. I don't know what dividends that will pay, but it is that sense of planting seeds and sending this cohort of stewards out into the world. Go forth, do good things. Could there be a better reflection with the mission of the Service? Train, educate and give people experiences and send them on out into the world?"*



2017 alumnus Shanasia Sylman evaluated the potential exposure of historic structures at Salem Maritime/Saugus Iron Works. (NPS)

Discussion

The three primary questions this assessment set out to address were:

1. How the internship program benefitted interns over time?
2. How has the internship program benefitted host parks over time?
3. How has the internship program benefitted agency response to future change beyond individual host parks?

This discussion will answer each of these questions based on the data presented in the results section of this assessment for each of the outcomes and impacts identified in the logic model. Of the outcomes that are not currently being met, recommendations are provided to aid in effectively achieving all of the intended impacts of the internship program moving forward. These recommendations are meant for the NPS at large, with no specific responsibilities implied for any particular programs.

How has the internship program benefitted interns over time?

The first intended outcome of the internship program is an increased experience applying critical and creative thinking abilities, leadership and communication skills, and problem-solving capabilities. According to the interns, this objective is almost entirely being met. Communication was the most frequently cited skill applied during the internship. High levels of creative thinking, critical thinking, and problem solving were also very commonly utilized during the course of the internships. The one skill that had low levels of reported use in the program was leadership, with a significant portion of interns stating that they never or rarely had leadership development training or employed any sort of leadership during their internship experiences.

Recommendation:

- Implement on-site leadership development workshops during the internships, which can be made available by the mentors at each park. Workshops can help to instill confidence in the intern to apply new leadership skills in their summer projects and additional ventures afterward. The continued development of the other skills could be incorporated into a mandatory skillset building workshop as well that takes course over a day or multiple days, depending on the project mentor. The addition of this workshop to the internship program can be outlined in the call for proposals during the application process.

The second outcome of the internship was to supply opportunities for professional development and the DHA for eventual DOI career placement. Interns were generally highly satisfied with the professional networking opportunities afforded to them during their internships, and nearly 70% stated that their internship experience directly aided in the hiring of their current job or acceptance into their academic program. During and shortly after the internships, the students shared many of their project outcomes internally with NPS staff, or visitors who traveled to the park. Outside of the

park, they experienced fewer options to expand their professional network by sharing the products they created during the internships. For example, conference attendees were reported as being one of the audiences they had few chances to present their findings to, despite a desire by many interns to do so.

Recommendations:

- In the initial call for proposals, list potential opportunities to attend and present at local conferences or other events where the intern can present their work to audiences outside of the park community at the end of the field season.
- Incorporate additional training into the program on resume building and application writing to become more competitive for DOI vacancies.

Regarding the DHA opportunity, only 33% of interns who took the survey and were eligible attempted to utilize the hiring opportunity. This low number of attempts generally stems from a lack of understanding of how to use the authority.

Recommendation:

- Create a webinar that is sent out bi-annually to eligible intern alumni, which would contain reminders of how to use the authority and a list of common questions and answers regarding DHA.

Of the 33% of interns that did attempt to utilize the authority, very few were successful at actually securing employment. The most common hindrance to DHA's utilization is a lack of funding for permanent vacancies among public land management agencies. This was followed by practical constraints imbedded in the authority, such as the inability to access DHA benefits during certain times or with specific agencies/postings.

Recommendation:

- Alter the framing of DHA advertising from it being one of the primary advantages of the internship to a side benefit where the potential exists of it being of value to a student post-internship. Lessening the focus on DHA for the parks and interns will help to avoid false expectations of direct job placement with the authority as a result of the internship program.

The overall long-term impact the internship program attempts to create for the interns is that they are prepared to work for the NPS and/or on projects related to climate change and public land management. In this regard, the program is achieving its intended objective. The most highly cited employment sector among the internship alumni was the federal government, and over half of the interns are now doing work similar to their internship topics (i.e. climate change advocacy and outreach, planning, or general research). Several interns were hired on by their host-parks to develop their projects further, and one individual is currently an NPS employee whose work is directly related with their initial project focus. Overall, 98% of all survey participants stated that they had a strong

desire to work for the NPS again because they believed in the agency's mission and they feel that potential exists for a lot of good work to be carried out on public lands.

Recommendations:

- Create a more connected network among the cohorts post-internship. This could occur at no cost via virtual 'anniversaries' with whomever would like to attend from all past cohorts. The first half of the event could be run by a CCRP employee sharing updates on the internship program, and the remaining time can be spent checking in with the attendees. Whoever is present could briefly discuss their current job placement, tips for current job seekers, their thoughts on the direction of the internship program, etc. with time at the end for a question and answer session with CCRP.

- Host a 10 year reunion for the first cohort to conceptualize the impact that the program has had on their career path a decade later.

Lastly, in terms of the general program evaluation questions that were compared to the 2015 and 2016 survey work completed, there were a few levels of disagreement across the years regarding the statements 'My mentor and I were successful at accomplishing the goals we set', 'The internship design was of high quality' and 'My mentor and I were successful at building a mentoring relationship'.

Recommendation:

- Have a second park employee work alongside the internship mentor to set clearer goals and plans prior to the internship start date, as well as mandatory weekly check-ins between interns and mentors to foster their relationships and ensure that their projects remain on track to accomplish their goals.

How has the internship program benefitted host parks over time?

In regards to benefits to host parks, the outcome of interest is the advancement of knowledge and understanding about local high-priority climate change park management needs among the various NPS units. This outcome is being achieved, as only 2% of project mentors reported that outcomes of the internships they oversaw were not shared in their parks. The products generated from the internship projects are overwhelmingly being distributed within the same division and with other divisions within the same park unit. Many project mentors listed multiple communication channels to share the products of the internships they supervised.

The long-term impact that results from the above outcome is that the internship projects either initiate, inform, or otherwise support park management action on high priority climate change needs, which is absolutely being achieved as well. There was a high level of agreement among project mentors that methods from previous internships could be reproduced within the same park. There was also high (although slightly less) agreement that the outcomes of the internship could be applied to respond to management needs. Those that disagreed stated that their opinions were primarily due

to the short time-frame of the projects; it is difficult to complete a project and package it in a way that is useful to a park within a three month span. Rather, the utility of the internships comes in the form of them being pilot projects that initiate larger follow-up studies beneficial to the host parks. Roughly 65% of project mentors reported that the projects had continued or evolved in some way post-internship. The two most highly cited reasons as to why the others did not continue was due to the studies being standalone projects, or simply a lack of additional funding to continue the initiatives.

In the general program evaluation compared to previous years for the mentors, there was slight disagreement that 'My intern and I were successful at accomplishing the goals we set'. This again was often cited as being due to the short timeframe of the internships to achieve all of their intended project objectives and long-term impact of supporting park management. The mentors overwhelmingly stated that they would prefer a longer program, as a lot of time is invested in hiring, onboarding, and training for a three-month intern. Several requested that the program be extended to six months to a year duration in order to see projects that are more complex through to completion, and even offered to provide funding to retain students past the initial three months if a simple mechanism were in place to enact that option.

Recommendations:

- Provide the option above to extend the program from the initial three month timeframe if the park is willing to provide partial or full funding
- Break a larger project into two parts and have the same intern return for a second summer using the pot of funding for year two that would be used for new interns
- Provide the option for parks to host interns in the offseason instead or in addition to peak season. Summer for many parks are busy, and having an option to host interns in the winter would allow project mentors to have more time to work with them.

How has the internship program benefitted agency response to future change beyond individual host parks?

The first outcome of the internship program that aims to benefit the entire agency is partially being accomplished, which states that projects have the potential to generate transferable knowledge and methods for diverse operational divisions beyond the park units where the internships took place. There is general agreement among project mentors and NPS employees that it is possible to transfer methods used and apply outcomes generated in one internship to different park units. However, many feel that it is much easier to transfer interpretation and outreach procedures or products that have broad utility, rather than scientific research methodologies or results that are more site and resource-specific.

There was general consensus that all parks dealing with specific concerns want to know if anyone else has been able to identify solutions to similar questions. Given that the internship program has been operational for multiple years, one interviewee suggested that CCRP now has the potential to

begin to connect current management issues that parks face to methodologies and outcomes from completed projects.

Recommendations:

- Create an internship toolkit, which would contain information and products from all past internships (databases, reports, peer-reviewed journal articles, etc.).
- Create an interactive map with lessons learned regarding methods used and results/products the internships helped to generate at each park.
- Use all of the service wide communication channels to report on the internship project methodologies and outcomes generated (green and gray reports, various NRSS newsletters, etc.) beyond the CCRP newsletter.
- List summaries of all the past internships and a link to the internship toolkit on academic partner institution. The academic institution could then annually share all of the new outcomes generated among their own networks.

The second outcome of the internship tailored toward the greater agency is the availability of personnel capable of addressing climate change needs through the DHA. Although the program is producing qualified alumni who are capable of entering this sector of governance, the successful application of DHA is not being achieved as intended. Project mentors involved with the CCRP internships know of the hiring authority, but NPS employees at other parks are at best vaguely aware of it, depending on how long they have been a part of the agency.

Recommendations:

- Share success stories of DHA in a widespread communication outlet.
- Create a short presentation on the basic tenants of DHA to share with resource managers across the NPS who are in a position to hire, so they are aware that potential candidates exist for open positions.
- Get the attention of the National Leadership Council to send a nationwide memorandum out to superintendents regarding the authority.

Another issue regarding DHA is a lack of awareness of internship alumni. Nearly half of the mentors stated a need for an up-to-date list or database of past interns eligible for hire under the authority. However, this database of alumni does exist on the CCRP's internal Google site.

Recommendation:

- Add alumni database to the external Future Park Leaders of Emerging Change website and keep it updated annually with eligible students, as well as email blasting it through the communication channels mentioned above.

To reiterate, the primary barrier with DHA comes with its actual utilization as opposed to its general awareness. Besides the much larger issue of lack of funding for vacancies, the internship mentors mentioned that a better understanding of DHA processes would help facilitate their use of the authority.

Recommendation:

- Create a webinar similar to that suggested for internship alumni that could be sent out to past mentors. Update annually and include a link to the database of eligible alumni with clear instructions on how to utilize the authority.

Beyond the project mentors' understanding of how DHA works, many NPS employees feel that its lack of application is primarily a Human Resources issue. If the HR professional that works with any park or region has knowledge on the authority, they could present DHA along with the pool of eligible candidates to the hiring manager as a potential option to explore before posting a position to USAJobs.

Recommendations:

- Create some type of HR training on DHA and its connection to the NPS internship programs.
- Provide HR professionals and hiring managers with a list of DHA eligible interns. Continue to send them an updated list each year.

The last long-term impact meant to be realized from the outcomes listed above is an increased agency capacity to respond effectively to climate change management needs. Overall, there was very high agreement among those participants surveyed and interviewed that the internship program is a worthwhile investment to aid in climate change management among the parks. The question that was brought up through this assessment was how effective the program is at achieving this impact, as opposed to other agency initiatives that could have alternatively been funded and implemented. It is apparent that in addition to value of the program to host parks and the NPS agency, the long-term benefits of the internships to the interns makes it one of the best solutions for responding to NPS climate change management issues. There is consensus among those surveyed that internships pays dividends beyond the initial investment when interns go on to pursue careers in climate change, public lands management, or work in the NPS. One intern adequately summarized this final point on the survey:

> *"It is really hard for me to put into words how my internship experience has impacted me professionally. Probably the best I can do is to say that I am in a successful career that I love directly because of my internship. The experiences, connections, and mentorship I received have molded me into the professional I am today. My continued relationship with my supervisor and now close friend and mentor continues to help me shape myself and my future, both professionally and personally."*

Conclusions

Overall, many of the intended outcomes and long-term impacts of the CCRP internship program are meeting their objectives. For the interns, these included an increase in interpersonal skills and professional networking opportunities afforded during the program to prepare them for eventual work with the NPS and/or on projects related to climate change and public land management. For the host parks, outcomes being achieved include the advancement of knowledge to initiate or inform park management action on high priority climate change needs within the various NPS units. The outcomes of the internship program that are not yet fully realized primarily focus on utilization of DHA. Another area for improvement is the transfer of knowledge and methods among diverse parks and regions to better increase agency response to future change beyond the individual park units where the internships took place. This report offers suggestions for reaching these outcomes in future internship cohorts. Regardless of these few objectives not yet reached, the multiple benefits described in this assessment demonstrate that CCRP is clearly achieving its intended long-term impact of increasing agency capacity to respond effectively to climate change management needs through the execution of the internship program.



2017 alumnus Minh Phan developed a series of innovative communication efforts at Fire Island National Seashore. (NPS)

Literature Cited

Lavinghouze, S.R. and Jernigan, J. 2011. Developing an Effective Evaluation Plan: Setting the Course for Effective Program Evaluation. Atlanta, Georgia: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; Division of Nutrition, Physical Activity and Obesity, 2011.

Saldaña, J. 2009. The Coding Manual for Qualitative Researchers. SAGE Publications Led, London, UK.

Appendix A: Intern Survey

Consent Form

OMB Control Number 1090-0011

As a past participant in the NRSS internship program, we are reaching out to you to help us with an assessment of the program. This survey is a part of a study supported by the National Park Service that will allow us to understand the impacts of the program from the perspective of previous interns.

This survey should take approximately 20 minutes to complete and is it important that you know that your participation is completely voluntary. We do not collect personally identifiable information and your responses will be anonymous. Therefore we are asking that you complete as much of the survey as you can and provide answers to the questions to the best of your recollection.

Clicking the 'I give my consent' response below will indicate that you are willingly agreeing to participate, and that you may discontinue participation at any time without penalty.

Feel free to contact the primary investigators on this project, Ryan Roberts at ryan_roberts@contractor.nps.gov, Larry Perez at larry_perez@nps.gov, or Melanie Wood at melanie_wood@nps.gov, with any questions or concerns you may have about this study.

We would be happy to send you a copy of the final results. Please check the box below and we will send the results to this email address upon completion of the study. Thank you again for your participation.

- o I give my consent
- o I do not give my consent
- o Please send me a copy of the results

PAPERWORK REDUCTION and PRIVACY ACT STATEMENT: The Paperwork Reduction Act requires us to tell you why we are collecting this information, how we will use it, and whether or not you have to respond. We are authorized by the National Park Service Protection Interpretation and research in System (54 USC §100702) to collect this information. The routine uses of this information will be for the benefit of NPS to identify whether or not the NRSS internship program is meeting its intended outcomes, as well as provide recommendations to more effectively reach these goals. Your responses to this collection are completely voluntary and will remain anonymous. You can end the process at any time and will not be penalized in any way for choosing to do so. All versions of the information collected will be destroyed at the end of the collection period and NO personal identifiable records will be maintained or stored for any purposes. The resulting data will only be reported in aggregates and NO individually identifiable responses will be reported. A Federal agency may not conduct or sponsor, and you are not required to respond to, a collection of information unless it displays a currently valid OMB Control Number (1090-0011). We estimate that it will take about 20 minutes to complete and return this questionnaire. You may send comments

concerning any aspect of this information collection to: Ryan Roberts: ryan_roberts@contractor.nps.gov (email); or Phadrea Ponds, NPS Information Collection Coordinator at pponds@nps.gov (email).

Survey

Block One: This first set of questions asks you to provide some demographic information about yourself.

Question 1. What is your age?

Question 2. What is your gender?

Question 3. Which of these categories best indicates your race? (Please select all that apply)

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- White

Question 4. Please select the fields(s) below that best describes your academic background. (Please select all that apply)

- Art & Humanities
- Biological Sciences
- Business
- Communications
- Economics
- Education
- Environmental Studies
- Engineering & Computer Science Geography
- History
- International Studies
- Language
- Law
- Mathematics

- Physical Sciences
- Social Sciences
- Other (please specify)

Question 5. Please select the fields(s) below that best describes your work experience. (Please select all that apply)

- Art & Humanities
- Biological Sciences
- Business
- Communications
- Economics
- Education
- Environmental Studies
- Engineering & Computer Science Geography
- History
- International Studies
- Language
- Law
- Mathematics
- Physical Sciences
- Social Sciences
- Other (please specify)

Question 6. Employment Status: Are you currently…? (Please select only one)

- Employed for wages (go to Question 6a)
- Self-employed (go to Question 6a)
- Military (go to Question 6c)
- Student (go to Question 6c)
- Out of work and looking for work (skips to question 7)
- Out of work but not currently looking for work (skips to question 7)

- Homemaker (skips to question 7)
- Retired (skips to question 7)
- Unable to work
- Other (Please specify)

Question 6a. Please select only one

- Employee of a for-profit business
- Employee of a not-for-profit, tax-exempt, or charitable organization
- Local government employee (city, county, etc.)
- State government employee
- Federal government employees
- Employee of an academic or research organization
- Consultant/contractor
- Self-employed
- Other (please specify)_____

Question 6b. Does your current work fall under any of the following focus areas?

Cultural Resources Management

- Environmental Change
- Facilities Management
- Natural Resources Management
- Public Education
- Public Lands Management
- Sustainability
- None of the above

Question 6c. How long have you been in your current position? Please round to the nearest year.

Question 6d. Did your internship experience aid in you being hired for your current position?

- YES
- NO

Question 7. When did you complete your internship?

- 2010
- 2011
- 2012
- 2013
- 2015
- 2016
- 2017

Block Two: The next set of questions are focused on your assessment of the internship experience.

Question 8. How often did you apply the following sets of skills during your internship?

Skills	Never	Rarely	Sometimes	Often	Always
Critical thinking	1	2	3	4	5
Creative thinking	1	2	3	4	5
Leadership	1	2	3	4	5
Communication	1	2	3	4	5
Problem-solving	1	2	3	4	5

Question 9. During your internship, were you able to participate in any type of training or workshop opportunities?

- NO (go to Question 10)
- YES

If YES, can you please list the type of training/workshop opportunities you participated in during your internship? _____

If YES, how satisfied were you with the training/workshop opportunities afforded during your internship?

- Very Satisfied
- Satisfied
- Neither
- Dissatisfied
- Very Dissatisfied

Question 10. During your internship, were you able to participate in any type of networking opportunities?

- NO (go to Question 11)
- YES

If YES, please select the choice(s) below that best describe the type of networking opportunities you participated in during your internship.

- Professional Workshops
- Professional Conferences
- YLCC Workshop
- Personal Introductions
- In-Park Events
- Off-site Events
- Site Visits
- Informal Gatherings
- Other (please specify)

How satisfied were you with the networking opportunities afforded during your internship?

- Very Satisfied
- Satisfied
- Neither
- Dissatisfied
- Very Dissatisfied

Question 11. After you completed your internship, did you have the opportunity to share the outcomes of your internship to an audience?

- NO (go to Question 12)
- YES

If YES, Approximately how many times have you shared the outcomes of your internship?

If YES, What type of audience(s) have been present for you to share the outcomes of your internship? (Please check all that apply)

- National Park Service Staff
- National Park Service Partners
- National Park Service Visitors
- Professional Organizations
- Community Organizations
- Conference Attendees
- Higher Learning Institutions
- K-12 Educators
- K-12 Students
- Other (please specify)

If YES, how satisfied were you with the opportunities afforded to share the outcomes of your internship?

- Very Satisfied
- Satisfied
- Neither
- Dissatisfied
- Very Dissatisfied

Question 12. Were you able to publish on the outcomes of your internship?

- NO (go to Question 13)
- YES

If YES, how many times have you published on the outcomes of your internship?

- Number of peer-reviewed publications?
- Number of non peer-reviewed publications?

Question 13. Did your internship experience inspire additional (non-internship) studies/projects that you have published?

- NO
- YES

If YES, how many times have you published on additional studies/projects?

- Number of peer-reviewed publications?
- Number of non peer-reviewed publications?

Question 14. Please indicate how strongly you agree or disagree with the following aspects of the internship:

Internship Aspects	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
My mentor and I were successful at accomplishing the goals we set at the beginning of the internship	1	2	3	4	5
The internship design was of high quality	1	2	3	4	5
My mentor and I were successful at building a mentoring relationship	1	2	3	4	5
My experience with the internship program was an overall success	1	2	3	4	5

Block Three: The last set of questions are focused on the impacts of the internship in relation to your interest in professional advancement opportunities.

Question 15. Have you attempted to use the Direct Hire Authority option while job seeking?

- Not applicable - Internship was between 2010-2013 (go to Question 16)
- NO (go to Question 16)
- YES

If YES, can you please briefly describe your experience attempting to use the Direct Hire Authority?

Question 16. Since your internship, have you pursued any additional work *related* to your internship topic of focus?

- NO
- YES

If YES, can you please briefly describe this additional work?

Question 17. Since your internship, do you currently or did you ever work for the National Park System?

- NO
- YES

18) Would you consider working for the National Park Service again in the future?

- NO
- YES

If YES, why would you consider working for the National Park Service again in the future? (Please select all that apply)

- A government career focused on the natural world interests me
- I believe in the National Park Service mission
- I believe potential exists for a lot of good work to be carried out on public lands
- I like the staff and general atmosphere at the National Park Service
- I seek the benefits of a job in federal service
- I seek the stability of a job in federal service
- My time as a National Park Service intern was memorable and enjoyable
- It would provide additional opportunities to work in other areas of federal service
- Other (please specify)

If NO, please explain why you would not consider working for the National Park Service again.

Question 19. What focus areas would you consider working on in the future? (Please select all that apply)

- Adaptation
- Cultural Resources Management
- Education
- Facilities Management
- Land Management
- Law Enforcement
- Natural Resources Management

- Outreach/Communication
- Policy
- Planning
- Science
- Sustainability
- Sustainable Operations
- Visitor Services
- None of the above

Question 20. Has your internship experience impacted you professionally in any additional ways? If so, can you please describe how?

Question 21. Are there any other aspects you believe the internship program is missing that would have benefited you professionally over time? If so, can you please describe them here?

Thank you for taking the time to complete this survey!

Appendix B: Mentor Survey

Consent Form

OMB Control Number 1090-0011

Thank you for agreeing to take this survey. We are conducting this survey as part of a study supported by the National Park Service Climate Change Response Program (CCRP). The purpose of this study is to carry out a program assessment of CCRP internship programs, including the Climate Change Internship Program (2010-2013) and the Young Leaders in Climate Change program (2015-2017). This survey will allow us to gain insight into the various impacts of the CCRP internship programs from your perspective. We would be happy to share the final results with you upon completion of the research project.

This survey should take approximately 15 minutes to complete. Your participation is voluntary and the questionnaire is completely confidential, as we will not request any personally identifiable information. Please provide answers to the questions to the best of your recollection. If you have previously supervised more than one CCRP internship, please answer all survey questions in light of your aggregate experience.

Clicking 'I give my consent' below indicates that you understand the information provided above, that you willingly agree to participate, and that you may withdraw your consent at any time and discontinue participation without penalty.

Feel free to contact the primary investigators on this project, Ryan Roberts at ryan_roberts@contractor.nps.gov, Larry Perez at larry_perez@nps.gov, or Melanie Wood at melanie_wood@nps.gov, with any questions or concerns you may have about this study.

Thank you again for your participation.

- o I give my consent
- o I do not give my consent

Block One: *This first set of survey questions are focused on the utility of CCRP internship results.*

Question 1. In your opinion, did the work of the intern(s) in ***your*** park/program have a direct impact on the goals of the CCRP internship project(s)?

- Yes
- No
- I don't know

Question 2. How were the results of the CCRP internship(s) that took place in your park/program ***communicated***? (Please check all that apply)

- With your division
- With other divisions within your park/program
- With staff in other National Park Service parks/programs, regions, and central offices
- With staff in other federal bureaus and departments
- With non-federal partners
- Results were not communicated
- Other (please specify)

Question 3. Were the results of the CCRP internship(s) that took place in your park/program applied to respond to a management issue or concern?

- Yes
- No
- I don't know

(If yes) Can you please describe how the results of the CCRP internship(s) were applied?

Question 4. Did the internship project(s) continue after the completion of the CCRP internship(s)?

- Yes
- No

(If no) Why has this project(s) not continued? (Please check all that apply)

- Internship project was a successful standalone effort
- Lack of funding for additional study
- Lack of available partners

- Limited park/program staff
- Limited volunteers
- Unable to use internship data
- No longer a park/program priority to address
- Other (please specify)

Question 5. Is your park/program aware of the results from other CCRP internships that took place among ***different*** National Park Service units (not your own park/program's CCRP internships)?

- Yes
- No
- I don't know

(If yes) Has your park/program had the opportunity to utilize results from CCRP internships that took place among ***different*** National Park Service units (not your own park/program's CCRP internships)?

- Yes
- No
- I don't know

Block Two: *The next set of questions are focused on your personal perspective of the CCRP internship(s).*

Question 6. Please indicate how strongly you agree or disagree with the following statements about the transferability of the CCRP internship methods/results.

Statement	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**
Project methods can be reproduced at your park	1	2	3	4	5
Project results can inform the long-term management of your park	1	2	3	4	5
Project methods can be reproduced at other National Park Service units	1	2	3	4	5
Project results can inform the long-term management of other National Park Service units	1	2	3	4	5

Question 7. Please indicate how strongly you agree or disagree with the following aspects of the CCRP internship(s).

Internship Aspects	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
The intern(s) and I were successful at accomplishing the goals we set at the beginning of the CCRP internship(s)	1	2	3	4	5
The CCRP internship project design(s) was of high quality	1	2	3	4	5
The intern(s) and I were successful at building a mentoring relationship	1	2	3	4	5
My experience(s) with the CCRP internship program was an overall success	1	2	3	4	5

Question 8. Are you aware of the Direct Hire Authority opportunity granted to some of the interns who have completed a CCRP internship?

- Yes
- No

(If yes) In your opinion, how well has the Direct Hire Authority opportunity been advertised for previous CCRP interns available for hire?

- Extremely well
- Very well
- Moderately well
- Slightly well
- Not at all

(If yes) Have you attempted to use the Direct Hire Authority to hire qualified applicants who had previously completed a CCRP internship?

- Yes
- No

(If yes) Can you please share your experience with utilizing the Direct Hire Authority to hire applicants?

(If no) What do you feel are the primary constraints to utilizing the Direct Hire Authority? (Please check all that apply)

- General lack of awareness about the Direct Hire Authority opportunity
- General inability to find Direct Hire Authority eligible students
- General lack of funding to fill vacancies
- Available vacancies are not permanent
- Available vacancies are not at appropriate grades for eligible students
- Park/program leadership doesn't prioritize filling vacancies
- Park/program leadership prefers to compete vacancies
- Other (please specify)

(If yes) What would help to facilitate your use of the Direct Hire Authority opportunity in the future?

Question 9. Has the CCRP internship program benefited your park/program in any additional ways? If so, can you please describe how?

Question 10. Are there any other aspects you believe the CCRP internship program is missing that would have benefited your park/program over time? If so, can you please describe them here?

Appendix C: Interview Guide

Project Blurb and Verbal Consent

Thank you again for agreeing to be interviewed. As mentioned in the outreach email, we are conducting this interview as part of a study supported by the National Park Service Climate Change Response Program. The purpose of this study is to carry out a program assessment of CCRP internship programs. This interview will allow us to gain insight into the various impacts of the CCRP internship programs to the greater NPS agency from the perspective of NPS employees who are familiar with the programs. We would be happy to share the final results with you upon completion of the research project.

This interview should take approximately 25 minutes to complete. Your participation is completely voluntary and we will remove any personally identifiable information from the final analysis to ensure confidentiality of your responses. Please provide answers to the questions to the best of your knowledge.

By giving your verbal consent, you are indicating that you understand the information I just described, that you willingly agree to participate, and that you may withdraw your consent at any time and discontinue participation without penalty. Do I have your consent to continue?

I would also like to record this interview so I can listen to it again later. Recording will help to avoid misinterpretations during interview analysis. Do I have your permission to record this interview?

Additionally, feel free to contact the primary investigators on this project, myself, Larry Perez, or Melanie Wood with any questions or concerns you may have about this study. Thank you again for your participation.

Awareness of CCRP internship programs

Question 1. Before we begin, would it be useful for you to hear some brief background information on the CCRP internship programs?

(If yes): The CCRP has funded over 100 student internships since 2010. These internships were administered under programs previously known as the Climate Change Internship Program (2010-2013) and the George Melendez Wright Initiative for Young Leaders in Climate Change (2015-2017). Project proposals are solicited through a service wide call every fall, and selected internships are funded for the following summer. These internships are fully paid and intended to help parks, programs, and offices advance climate change-related projects of management importance.

(If no): Proceed directly to question #2

Question 2. In your experience, how aware are NPS parks, programs, and offices that these CCRP internship programs exist?

Question 3. How well are the internship opportunities advertised to NPS parks, programs, and offices?

Question 4. From your perspective, what barriers exist to the awareness of CCRP internship opportunities by NPS parks, programs, and offices? (If barriers mentioned) What are some potential solutions to overcome these barriers?

Internship projects generate potentially transferable knowledge and methods for diverse operational divisions

Question 5. From your perspective, are the outcomes of CCRP internships communicated and made available to the NPS parks, programs, and offices?
(If yes): How are they communicated and made available?

(If no): In your opinion, why are NPS parks, programs, and offices not aware of CCRP internship outcomes?

(If yes): From your perspective, do NPS parks, programs, and offices have the opportunity to apply outcomes from CCRP internships that took place among the different NPS units?

(If yes): In what way?

(If no): In your opinion, why have NPS parks, programs, and offices not had the opportunity to apply any CCRP internship outcomes?

Question 6. From your perspective, what barriers exist to sharing of CCRP internship outcomes throughout NPS parks, programs, and offices?
(If barriers mentioned): What are some potential solutions to overcome these barriers?

Question 7. Do you feel that the methods of previous CCRP internships can be reproduced at other NPS units?
(If yes): How can methods be reproduced?

(If no): What barriers exist to reproducing methods?

Question 8. Do you feel that the outcomes of previous CCRP internships can inform long-term management of other NPS units?
(If yes): How can outcomes inform management?

(If no): What barriers exist to outcomes informing management?

Availability of personnel capable of addressing climate change needs

Question 9. Are you aware of the Direct Hire Authority opportunity granted to some of the interns who have completed a CCRP internship? (Prompt if needed: DHA is a DOI authority awarded to interns for successfully completing internship and graduating from academic program. Upon graduation, students are granted a 2-year non-competitive window for hire for DOI land management agencies- NPS, FWS, BLM, BIA, and Reclamation. Goal is to provide a pathway to pair relevant skills and knowledge with pressing management needs.)

(If yes): How well are NPS parks, programs, and offices aware of the benefits and opportunities afforded by the Direct Hire Authority? Why do you feel that they are/are not aware?

(If yes): How aware are NPS parks, programs, and offices of internship alumni currently eligible for hire through Direct Hire Authority? Why do you feel that they are/are not aware?

(If yes): What do you feel are the primary constraints to NPS parks, programs, and offices utilizing the Direct Hire Authority?

(If yes): What would help facilitate the awareness and use of Direct Hire Authority in the placement of alumni?

Increased agency capacity to respond effectively to climate change management needs

Question 10. In your opinion, has the internship program been a worthwhile investment of overall agency effort in terms of increasing the agency's capacity to respond to climate change management needs? Any specific reasons why it has or has not been a worthwhile investment?

Question 11. (*Refer to list of NPS employees with CCRP involvement prior to asking): In your own personal experience as a team member of the Climate Change Response Program, has the internship program been a worthwhile investment of your time, CCRP staff time as a whole, and CCRP funding? Why or why not?

Question 12. From your perspective, is the call for proposals conducive to participation from NPS parks, programs, and offices?

(If yes): Are there improvements that can be made to encourage greater participation from NPS parks, programs and offices?

(If no): What are some potential solutions to overcome these barriers?

Additional recommendations

Question 13. Are there any other aspects of the CCRP internship program that we haven't discussed, which you feel may have benefited NPS parks, programs, and offices over time?

(If yes): Can you please describe these aspects?

Question 14. Are there any other aspects of the CCRP internship program that you believe are missing that we haven't discussed, which you feel should have been included because they would have benefited NPS parks, programs, and offices over time?

(If yes): Can you please describe these aspects?

Question 15. Do you have any additional questions or comments that I can address?

Appendix D: Interview Codebook

*Pos(+), Neg(-), and REC

General Awareness

- Program awareness
- Program advertising

Transferable Knowledge and Methods

- Outcomes shared
- Outcomes applied
- Methods reproduced

Availability of Personnel

- DHA awareness
- Alumni awareness
- DHA utilization

Increasing Agency Capacity

- Agency investment
- CCRP investment
- Call for proposals

Additional Recommendations

- Program aspects
- Additional comments