



SAMO YOUTH ALUMNI SURVEY 2014: FULL REPORT

Prepared by:

**Terry Westover,
Lisa Sullivan, and
Elizabeth Rael**

Table of Contents

List of Tables and Figures	3
Preface: Executive Summary	4
SAMO Youth Alumni Survey 2014: Full Report.....	6
Introduction	6
Methods.....	6
Survey Results.....	6
Respondent Characteristics.....	6
College-Going and Career Directions.....	8
Information Sources and Motivation for Applying to SAMO Youth Program.....	10
Value of Participating in SAMO Youth.....	11
Respondents' Reflections on the SAMO Youth Experience.....	15
Conclusions and Recommendations.....	28
Survey Revision Recommendations.....	28

List of Tables and Figures

Tables

Table 1: Respondent Gender and Age.....	6
Table 2: Ethnicity, Language, and Parental Education	7
Table 3: Program Participation.....	7
Table 4: College-Going Among SAMO Youth Alumni.....	8

Figures

Figure 1: Percent who considered careers in NPS or environmental fields.....	9
Figure 2: Through SAMO Youth I became more interested in pursuing a career in.....	9
Figure 3: How did you learn about SAMO Youth?.....	10
Figure 4: Why were you interested in applying to SAMO Youth?.....	10
Figure 5: Skills and knowledge gained in SAMO Youth.....	11
Figure 6: Beliefs, attitudes, and SAMO history.....	12
Figure 7: Job related experiences.....	13
Figure 8: SAMO Youth impact on outdoor recreation and conservation interests.....	14
Figure 9: Park visitation post-program.....	14
Figure 10: Most memorable moments.....	15
Figure 11: Most enjoyable work projects.....	17
Figure 12: Most challenging work projects.....	19
Figure 13: Work skills gained.....	20
Figure 14: Change in perspective through SAMO Youth.....	23
Figure 15: Change in career goals influenced by SMAO Youth participation.....	25

SAMO Youth Alumni Survey 2014: Executive Summary

Santa Monica Mountains National Recreation Area (SAMO) has been providing the SAMO Youth Program for the last fourteen years. SAMO Youth provides summer employment, mentoring, and job skills training to high school students from some of the highest-needs schools in the region. A small cohort of students is selected each summer to work in the park alongside park staff, gaining hands on experience in resource and visitor management as well as receiving mentoring in a variety of areas, including resume development. In 2014 SAMO conducted an intensive effort to contact past program participants with an invitation to respond to a web-based survey in order to gain feedback about how their SAMO Youth experience influenced their career and college choices, interests, and lives. Of the 124 participants from the past thirteen years, 78 responded (a 63% response rate).

Survey results are detailed in the full report. Highlights of the results are summarized below.

- Respondents were roughly evenly divided between male and females, with the majority (69%) under 24 years old. Most (72%) self-reported as Hispanic, followed by white (19%), and Asian (14%).
- The majority of respondents (63%) participated in SAMO Youth for one year and the respondents were about evenly divided between those who participated prior to 2009 (47%) and those who participated between 2009-2013 (53%).
- Most reported their first language as either English (45%) or Spanish (36%) and two-thirds indicated their parents had, at most, a high school level of education.
- In spite of having attended mostly high needs Los Angeles (LA) area schools and being predominantly from families with little exposure to college, nearly all the respondents (95%) report attending college after their SAMO Youth experience. Of these, most (61%) attended colleges in the LA region, with a little more than half (54%) attending four year universities.
- Most respondents indicated they had or were considering careers in the Park Service (91%) or other environmental management related careers (85%), although only 27% reported college majors that reflected this interest (note that only 73% of respondents named their college major, and some were still “undeclared” and/or just beginning their college studies). In an open-ended item, about two-thirds of the respondents indicated that their SAMO Youth experience influenced or reinforced their career interests toward resource management/environmental fields.
- When asked why they had applied for the SAMO youth program, most (80%) mentioned wanting to work outdoors, followed by an interest in outdoor recreation (77%) or nature and resource management (73%). Almost two-thirds (64%) said they needed a paying job.
- Respondents were asked a series of questions about the skills and knowledge they gained during their SAMO Youth experience. The top rated (“very true” from at least 85%) were how to work with other people, be an effective team member, and communication skills. These are all skills highly valued by employers in all fields. These results were reinforced in open-ended responses to a question about what work skills they gained: the most common skills mentioned were around communication and teamwork.

- Respondents also indicated that the SAMO Youth Program strengthened their beliefs and attitudes around the importance of protecting natural and cultural resources and the mission of the National Park Service (NPS).
- When asked about their job related experiences there was strong agreement (95% or more “agree/strongly agree”) with items around their enjoyment and understanding of habitat restoration work, that they felt valued by the NPS staff, learned about job safety, and that the SAMO Youth job provided an important income source.
- Participating in SAMO Youth provided nearly all the respondents opportunities to engage in outdoor recreation activities they had never or seldom done before (99% agreement) and most also indicated that they were now more active and interested in exploring natural areas, conservation activities, and outdoor recreation than they would have otherwise been (85% or more “agree/strongly agree”). Further most (80% or more) have visited other NPS sites and/or SAMO since their program participation.
- Respondents answered a number of open-ended items asking them about their SAMO Youth experience. Many wrote comments that reflected their appreciation for the opportunities to engage in new experiences (particularly the work trips to the Channel Islands and other NPS sites), the value they found in forming bonds and working within their SAMO Youth teams and mentors, and their appreciation for the opportunity to do meaningful work and to experience the natural environment. Responses to these items indicate that SAMO Youth was an important, and sometimes transformative, experience for many participants. They reflected pride in their work (often under challenging circumstances), in their teams, and appreciation for the experiences and skills they gained. Many comments reflected on what respondents had learned about the importance of conservation and a greater awareness of the value of the natural environment.
- Interestingly, when asked to provide recommendations for program improvement or what kinds of students would most benefit from participation, comments were primarily focused on expanding the program length, expanding recruitment to reach more students, and providing additional work projects to expand participants’ experiences and skills.

In summary, survey responses suggest that SAMO Youth alumni feel their program participation was both positive and of value to their career and college experiences and goals. The fact that such a large proportion of the participants (95%) went on to college, even those from families with little college experience, is a testament to both the effectiveness of targeted recruitment and the reinforcement, mentorship, and job experience provided by SAMO Youth. While not all participants went on to pursue environmental management related careers, most report at least considering it. Further, survey responses suggest that program participation provided them with widely relevant job skills (e.g. teamwork, communication, problem-solving) and an appreciation for the value of conserving natural and cultural resources. Responses to both open and closed ended items indicate that respondents both became more active, themselves, in conservation and outdoor recreation as a result of their program participation and that they have shared their perspectives and experiences with family and friends, expanding the impact of the program and building an informed constituency for the Park Service and conservation, in general. Reading respondents’ open-ended comments provides a glimpse into the sometimes transformative, and apparently unanimously positive, experience that SAMO Youth provided for many young people.

SAMO Youth Alumni Survey 2014: Full Report

Introduction

Commencing in 2010, evaluators at the University of California Davis' School of Education have collaborated with the staff at Santa Monica Mountains National Recreation Area (SAMO) to develop a set of surveys to solicit feedback from participants in several of the park's youth outreach and education programs. This report focuses on the SAMO Youth Program, a program targeting high school students from some of the highest-needs schools in the region, to work in the park and gain hands on experience in resource and visitor management as well as mentoring from NPS staff, usually during six weeks over the summer. A small cohort of students is selected each year from among many applicants for this opportunity. In 2014, SAMO conducted an intensive effort to contact past program participants (from 2000-2013) to gain their feedback about the impact of program participation on their careers, interests, and lives. The SAMO Youth program has engaged 124 participants during its thirteen years. Of these, 78 responded to the open invitation to participate in the survey (a 63% response rate).

Methods

Former SAMO Youth participants were invited to respond to an open web-link to an online survey asking about their experience in the program and their current job and/or education status. Former participants were contacted in numerous ways, including a link from a SAMO Youth Facebook page and other social media. The web-link to the survey was open for several months, closing at the end of September 2014. The UC Davis team cleaned (deleting duplicate entries, etc.) and analyzed the data discussed in this report.

Survey Results

Respondent Characteristics

Survey respondents were fairly evenly divided between males (48%) and females (52%) and most (69%) were under 24 years old (Table 1).

Table 1: Respondent Gender and Age (N=78)

Characteristics	Percent
<i>Gender</i>	
Male	48%
Female	52%
<i>Age</i>	
17-20 yrs.	34%
21-24 yrs.	35%
25-28 yrs.	23%
29-32 yrs.	8%

Respondents self-reported as predominantly Hispanic (72%), followed by White (19%), and Asian (14%), reflecting the demographics of the targeted high-needs schools (Table 2). The majority reported their first language as either English (45%) or Spanish (36%), or possibly both since respondents could check all

that apply. Two-thirds of the respondents reported that their parents had, at most, a high school education.

Table 2. Ethnicity, Language, and Parental Education (N=78)*

Characteristics	Percent
<i>Ethnicity/Race (check all that apply)</i>	
Hispanic	72%
White	19%
Asian	14%
Native American/Pacific Islander	6%
African American	3%
<i>First language (Check all that apply)</i>	
English	45%
Spanish	36%
Chinese	5%
Vietnamese/Hindi	4%
<i>Parental education</i>	
Not a high school graduate	53%
High school graduate	13%
Some college/college graduate	22%
Graduate school	4%

*Table percentages are based on the total N of respondents, including those who chose not to respond to individual demographic items (comprising 7 individuals, 9% of the total)

Most respondents (63%) only participated in SAMO Youth for one year (or one summer), although a little more than a quarter report participating for two years (Table 3). Not surprisingly, those who had participated within the last five years (since 2009) comprised the majority of respondents (53%).

Table 3. Program Participation (N=78)

Participation	Percent
<i>N of years of participation</i>	
One	63%
Two	26%
Three or more	11%
<i>First year of participation</i>	
2000-2005	19%
2006-2008	28%
2009-2010	23%
2011-2013	30%

Further, some students who had participated in the formal SAMO Youth program also returned to the park in subsequent years in other positions, although they may have still identified themselves as SAMO Youth. A little over a third (37%) of the respondents said they participated in SAMO Youth at the college level, although their open-ended responses on this item suggest that at least some were working at SAMO, but not necessarily in the SAMO Youth program. For example, one mentioned working in Cultural Resources at SAMO for two years during college.

College Going and Career Directions

In spite of having attended mostly high-needs schools and predominantly coming from families without college experience, nearly all the respondents (95%) attended college after their SAMO Youth experience. Although SAMO does specifically recruit youth with an interest in college, this is still an impressive outcome. It is possible that the rate is over-stated due to non-response bias – one could speculate that past participants who had not attended college might be less likely to respond to the survey. With this in mind, we calculated the most conservative estimate possible of college going. Of the 124 SAMO Youth participants over the 13 year period, 63% (n=78) responded to the survey and 74 (95%) report going to college. If we assume that all 46 of the participants who did not respond to the survey also did not go to college and add them to the 4 non-college going survey respondents (n=50), the resulting calculation reveals that, at a minimum, about 60% (59.7%) of all SAMO Youth report going to college. When you take into account that only 49% of Hispanic students, nationally, go to college (<http://www.pewresearch.org/fact-tank/2014/04/24/more-hispanics-blacks-enrolling-in-college-but-lag-in-bachelors-degrees/>), this is still a positive result. By even the most conservative (and likely unrealistic) estimate, SAMO Youth college going rates exceed the most recent national estimates for Hispanic youth (72% of survey respondents are Hispanic and analysis of the survey results finds no significant differences between Hispanic and non-Hispanic respondents in college-going, nor were there any significant differences in college going related to respondents’ parental education levels).

Most respondents (88.5%) of the respondents attend or attended California colleges, primarily in the LA region (Table 4). Among those who named their college, a little over half were four year universities – most commonly a University of California or California State University campus, about a quarter were attending a community college, and a few had earned or were in the process of earning a graduate degree. A little more than a quarter of those who mentioned their major reported a field aligned with resource management (e.g. environmental science, biology, tourism and recreation, etc.) and about half (46%) were pursuing other degrees (e.g. criminal justice, engineering, history, humanities, etc.). Note that some students were still early in their college careers and indicated no major or “undecided.”

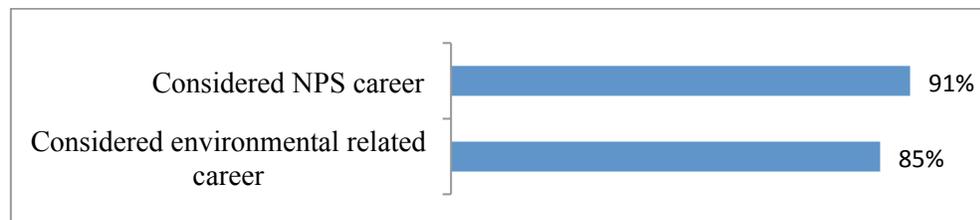
Table 4. College-Going Among SAMO Youth Alumni (95% report attending college)*

College Location	N	Percent
LA region	48	61%
Other California location	21	27%
Out of state	2	3%
College Level		
Community College	19	24%
Four Year University	42	54%
Graduate School	5	6%
Degree Area		
Environmental Science/Biology/Resource Management/Tourism	21	27%
Other degree	36	46%

*Note: Categories are derived from open-ended responses to the question: “Please tell us what college you attended, major and degree” – not all students completed this item or all components of the item; further some students had attended more than one college or earned more than one degree. Consequently, percentages do not always add to 100%.

In terms of career choices, respondents were asked if they had considered a career in the National Park Service (NPS) or an environmental career. The majority agreed they had considered each of these options (Figure 1). Respondents were also asked if their SAMO Youth participation made them realize that an NPS job was not for them. Eight respondents (10%) agreed with this statement. Examination of their open-ended comments on this survey item show that some decided they were more interested in other types of work, one became discouraged with the NPS application process and pursued a different career, and a few were keeping the NPS option open for future consideration.

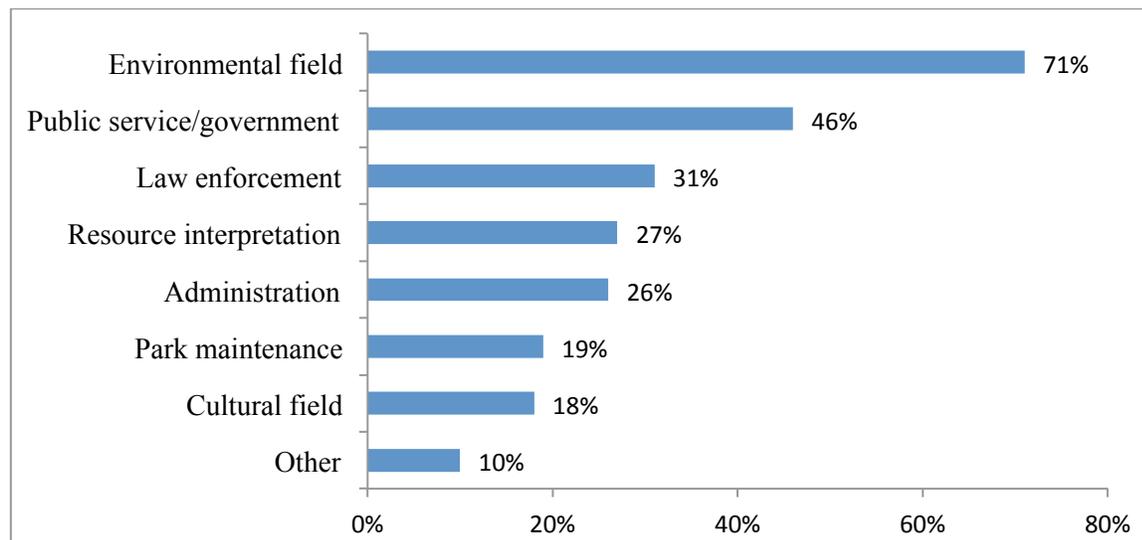
Figure 1: Percent who considered careers in NPS or environmental fields (N=78)



One third of the respondents (n=26) report having worked in another National Park, Recreation Area, or Seashore after their SAMO Youth experience. Nearly all the parks mentioned were in California (e.g. Yosemite, Pt. Reyes National Seashore, Channel Islands), although four respondents had worked in other states (Yellowstone, Acadia, Rocky Mountain, Zion, and Glen Canyon). About 22% (n=16) of the respondents were currently working for the National Park Service or another government agency at the time of the survey. Of these 16 respondents, ten were NPS employees at the time of the survey.

Respondents were asked in a separate section of the survey about additional career interests they had specifically as a result of their SAMO Youth participation (Figure 2). Most (71%) indicated an increased interest in environmental studies. About half (46%) became interested in public service or government jobs and about a quarter to a third gained an interest in law enforcement, interpretation, or administration.

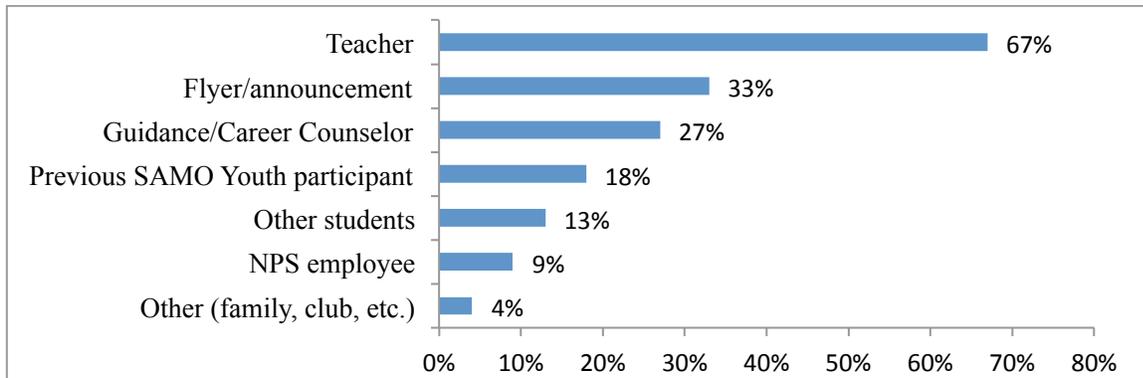
Figure 2: Through SAMO Youth I became more interested in pursuing a career in: (Check all that apply) (N=78)



Information Sources and Motivation for Applying to SAMO Youth Program

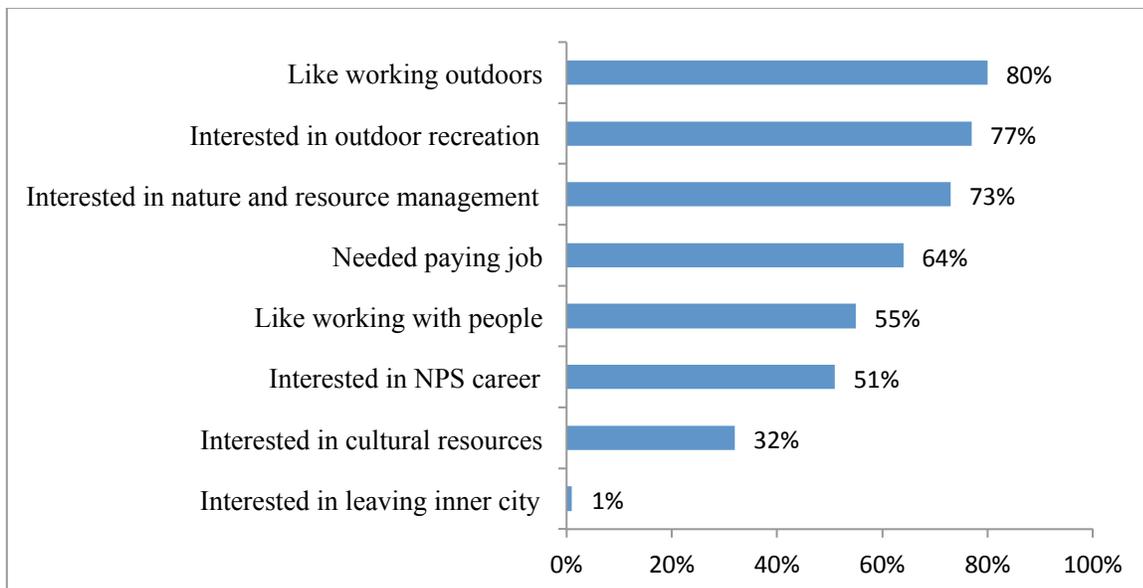
Respondents were asked how they initially heard about the SAMO Youth Program and why they chose to apply. As Figure 3 demonstrates, the majority of respondents heard about the program from a teacher (67%), followed by an information flyer or announcement (33%) or information from a counselor (27%). In both cases, respondents could choose as many sources as applied.

Figure 3: How did you learn about SAMO Youth? (N=78)



The most frequently checked reasons for applying to the program were “working outdoors” (80%), “interested in outdoor recreation” (77%), and/or “interested in nature and resource management” (73%). Almost two-thirds (64%) mentioned needing a paying job (Figure 4). The one respondent who checked “other” wrote in that they wanted to work somewhere other than inner city LA.

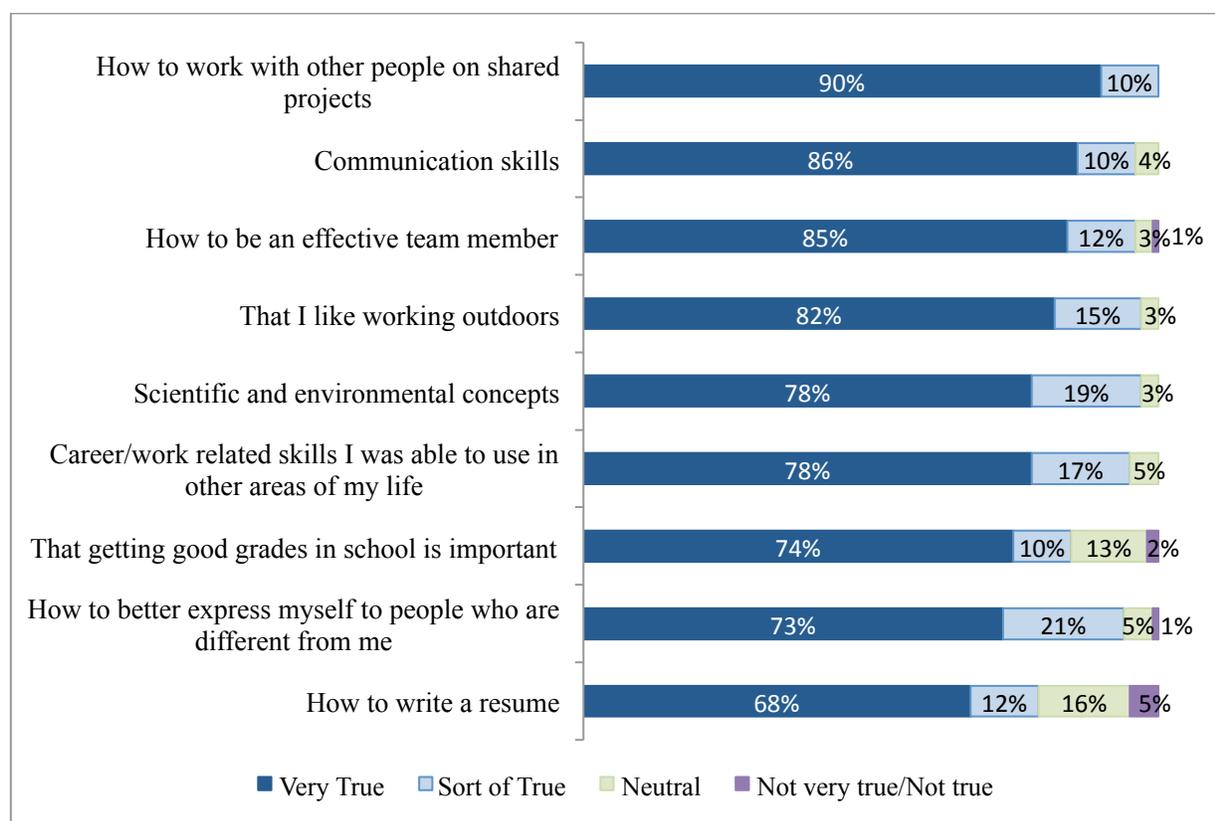
Figure 4: Why were you interested in applying to SAMO Youth? (N=78)



Value of Participating in SAMO Youth

Respondents were asked a series of closed-ended questions regarding the outcomes of their experience in SAMO Youth. One set of these items were rated from “very true” to “not true” on a five point scale. While the majority of respondents indicated that they gained skills and knowledge in each of the nine relevant items, most highly rated was “how to work with other people on shared projects,” with 90% saying this was “very true” (Figure 5). Next most highly rated were “communication skills” (90% “very true”) and “how to be an effective team member” (86% “very true”). This is significant, particularly in the current educational climate that emphasizes the importance of 21st century skills such as teamwork and effective communication. Respondents also indicated that they gained knowledge related to scientific and environmental concepts and career or work related skills they found useful in other areas of their lives (78% “very true” for each).

Figure 5: Skills and knowledge gained in SAMO Youth (N=78)

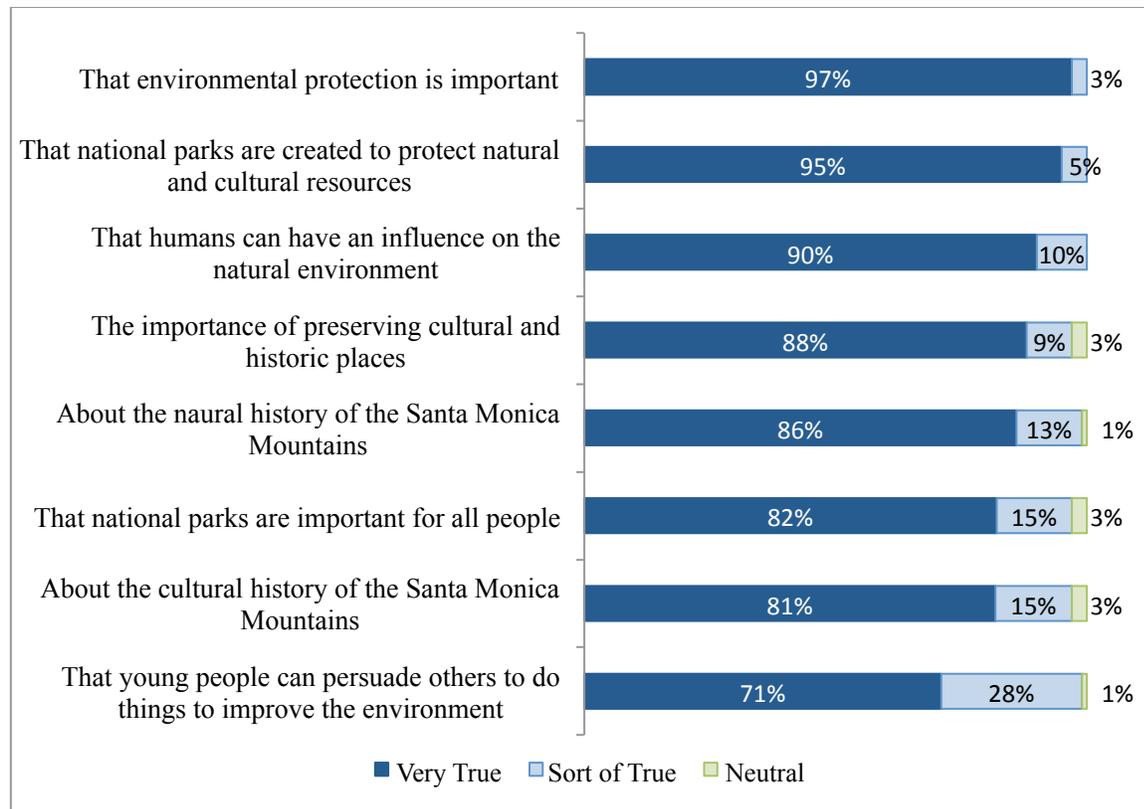


Other relevant areas of gain include appreciation for environmental protection, the mission of the Park Service, and knowledge of the cultural and natural history of the Santa Monica Mountains. Survey responses indicate that the SAMO Youth experience successfully instilled or reinforced these values and areas of knowledge among program participants (Figure 6). Over 90% of respondents agree that through their participation they learned about the value of environmental protection, the NPS goal to protect natural and cultural resources, and the impact of human activity on the natural environment. None of these items received a “not very true/not true” rating.

A few of these responses were significantly ($p < .05$) correlated with the respondents' first year of participation in SAMO Youth. Respondents from earlier cohorts were somewhat less likely to find the statement "that young people can persuade others to do things to improve the environment" to be true than those from later cohorts ($r = -.29$), that they had gained communication skills ($r = -.23$), or had learned how to write a resume ($r = -.21$) [For those unfamiliar with correlation statistics, the p value indicates the level of statistical significance (smaller numbers indicate a smaller probability of the results being due to chance) and r values measure the strength of the association (ranging from -1 to +1 where values closest to 0 are the weakest)]. Whether these associations are related to the content of the SAMO Youth program in earlier years or simply a reflection of subsequent accumulated experience for those earlier participants is unknown. Interestingly, respondents who reported their parents had attended no, or only "some" college, were somewhat more likely to report that they learned to write resumes than was true of respondents who reported one or more parent having a college education ($r = .26$).

Female respondents were slightly less likely to find the statement that they learned "How to better express myself to people who are different from me" to be true/very true than were their male counterparts ($r = .21$), or that they learned that national parks are created to protect resources ($r = .23$). Whether this is because they did not feel they gained the skills/knowledge in the program or because they felt they entered the program with those skills/knowledge is unknown. Respondents who self-identified as Hispanic/Latino were somewhat more likely than their non-Hispanic counterparts to feel SAMO helped them "learn to be an effective team member" ($r = .28$) and "that getting good grades in school is important" ($r = .29$).

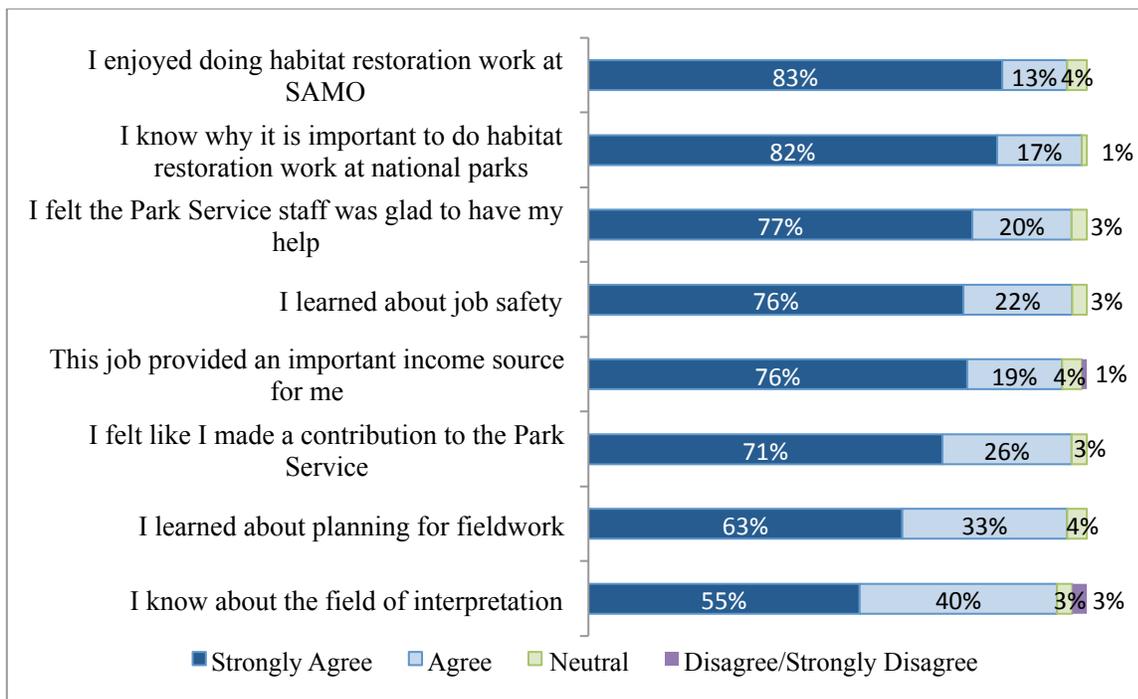
Figure 6: Beliefs, attitudes and SAMO history (N=78)



Similar concepts were explored using a set of items with a five point Likert-like scale from “strongly agree” to “strongly disagree” with the question stem “Thinking about your experiences as a SAMO Youth participant, to what extent do you agree with each of the following statements?” Some items asked about job skills and related attitudes or values (Figure 7). Respondents nearly all agreed/strongly agreed that they learned about habitat restoration and enjoyed doing it as part of the SAMO Youth experience. Most felt like their work was valued by the Park Service (that they were appreciated by the NPS staff and that they made a contribution to the park) and reported learning about job safety, fieldwork planning and the field of interpretation (interpreting the natural and cultural park resources to visitors). Their SAMO Youth job also provided an important source of income for the majority (95%) of participants.

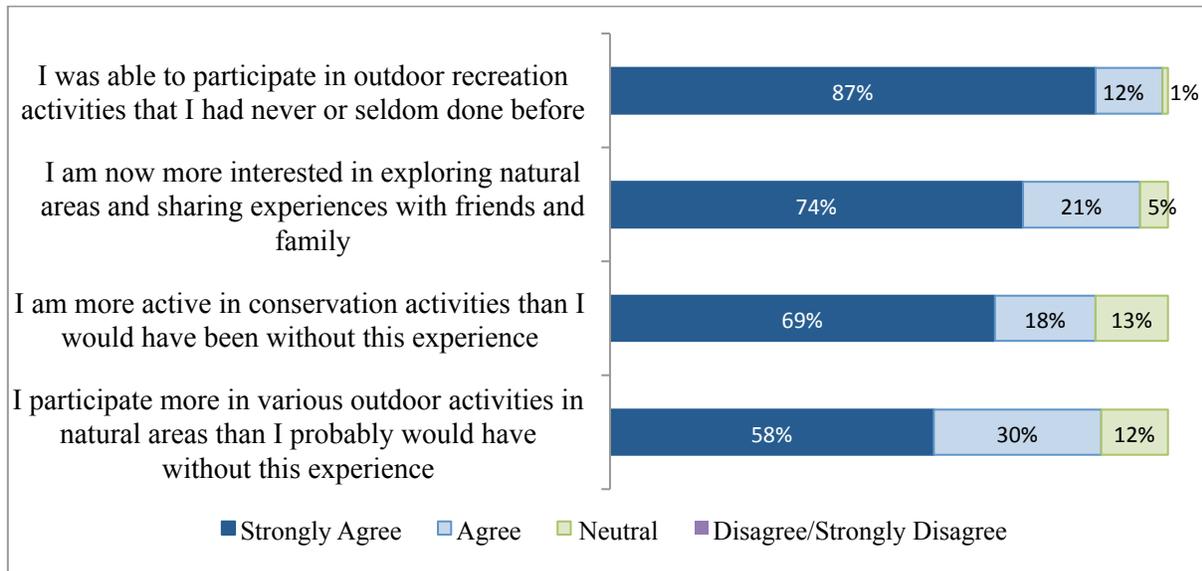
Responses to these items were not statistically associated with when respondents entered the program. However, male respondents were slightly more likely than females to agree with “I know about the field of interpretation” ($r = .25$). Hispanic respondents were more likely than their non-Hispanic counterparts to agree that the SAMO Youth job provided an important income source ($r = .31$).

Figure 7: Job related experiences (N=78)



Other items in this section asked about more personal behaviors and interests as they relate to recreation, conservation, and stewardship (Figure 8). The majority of respondents (99%) indicated that their SAMO Youth experience exposed them to new outdoor recreation activities that they had seldom or never experienced. Most also indicated they gained an interest in exploring natural areas (95%), are more active in conservation activities (87%), and participate more in outdoor recreation (88%) than would likely have been true without their SAMO Youth experience.

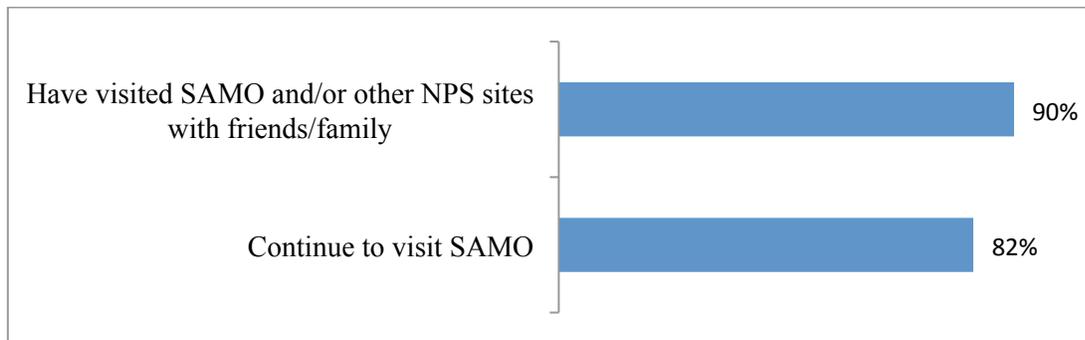
Figure 8: SAMO Youth impact on outdoor recreation and conservation interests



Respondents from homes where their parents had not attended college, compared to those who had one or more parents with college experience, were significantly more likely to report (a) that their SAMO Youth participation exposed them to new outdoor recreation activities ($r = .33$), (b) that it influenced them to be more active in conservation activities ($r = .29$), (c) that they felt they made a contribution to the Park Service ($r = .32$), (d) that they learned about planning for fieldwork ($r = .24$), and (e) that they know why it is important to do habitat restoration work in the national parks ($r = .30$).

Another goal of the SAMO Youth program is to build an informed constituency for the SAMO and the NPS, in general. Respondents were asked if they continued to visit SAMO and other NPS sites after completing the SAMO Youth program. Overwhelmingly, they agreed they did: 82% continue to visit SAMO and 90% have visited either SAMO or other NPS sites with their friends and/or family (Figure 9).

Figure 9. Park visitation post-program (N=78)

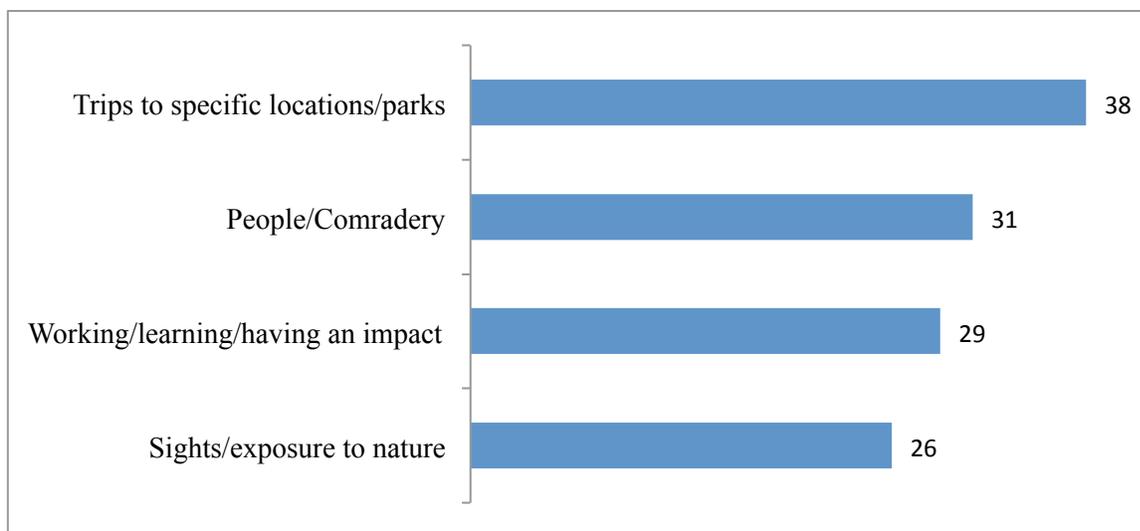


Respondents' Reflections on the SAMO Youth Experience

Survey respondents were asked a series of open-ended questions about their experiences in SAMO Youth. Note that an individual respondent's comments often contained references to more than one "moment" and could be "counted" in more than one category. Further, considerable discretion is applied when categorizing the responses; a different reviewer might see entirely different categories or place comments differently within the categories.

Most memorable moments. The first open-ended question was "What are your most memorable moments?" Responses were many and varied and were classified into four categories: field trips, people/comradery, working/learning/having an impact, and being in the natural world (Figure 10).

Figure 10: Most memorable moments (N of mentions)



Many of the comments mentioned specific field trips – notably going to the Channel Islands National Park/Santa Cruz Island, which was mentioned by 22 different respondents, and (less frequently) Cesar Chavez National Monument (note that many more participants had visited the Channel Islands, Cesar Chavez was only visited by one cohort of participants). For example (please note that quotes throughout this section of the report are sometimes paraphrased or otherwise lightly edited):

“Enjoying the work trip out to the Channel Islands... It was an awesome experience.”

“Going to Santa Cruz Island, hiking and stargazing at night.”

“In 2013 we visited Cesar Chavez National Monument and I think I will forever remember that one week trip as the one that changed my perspective on what activism is all about. It was truly unforgettable.”

“I also remember going to Sequoia National Park and sleeping outside for the first time.”

The next most frequently mentioned memories dealt with the people they met and the comradery they enjoyed. For example:

“I also made some long term relationships with many of the people I had the privilege to work with and am very thankful for that.”

“Working as a team and sharing ideas.”

“I was able to realize how much I had in common with people that I would have otherwise never met.”

“The non-stop smiles from the various people you would interact with on a daily basis.”

“Above all my co-workers and bosses made the experience valuable. I enjoyed the excellent passion that my supervisors portrayed in their job.”

“The program was most memorable thanks to [Park Ranger] Antonio Solorio, he was probably the first really positive male role model in my life.... He made every single interaction really memorable and really helped set a good example for me that until then I didn't know existed in the world.”

Many respondents also mentioned aspects of the work and feeling that they were having an impact. Some mentioned specific work projects (e.g. “building the fence in the middle of nowhere” or “removing mustard and thistle”) and others had more general comments, for example:

“Becoming more educated about my environment.”

“Exploring different job options within the park.”

“Managing my own project.”

“Researching and tagging.... lizards and conducting heavy restoration work in the mountains.”

“The sense of excitement for each day's project.”

For many, simply being outdoors and experiencing the natural environment was very memorable. For example:

“Being able to explore and enjoy nature while doing something to help preserve it.”

“Going to places that I would never have gone to on my own.”

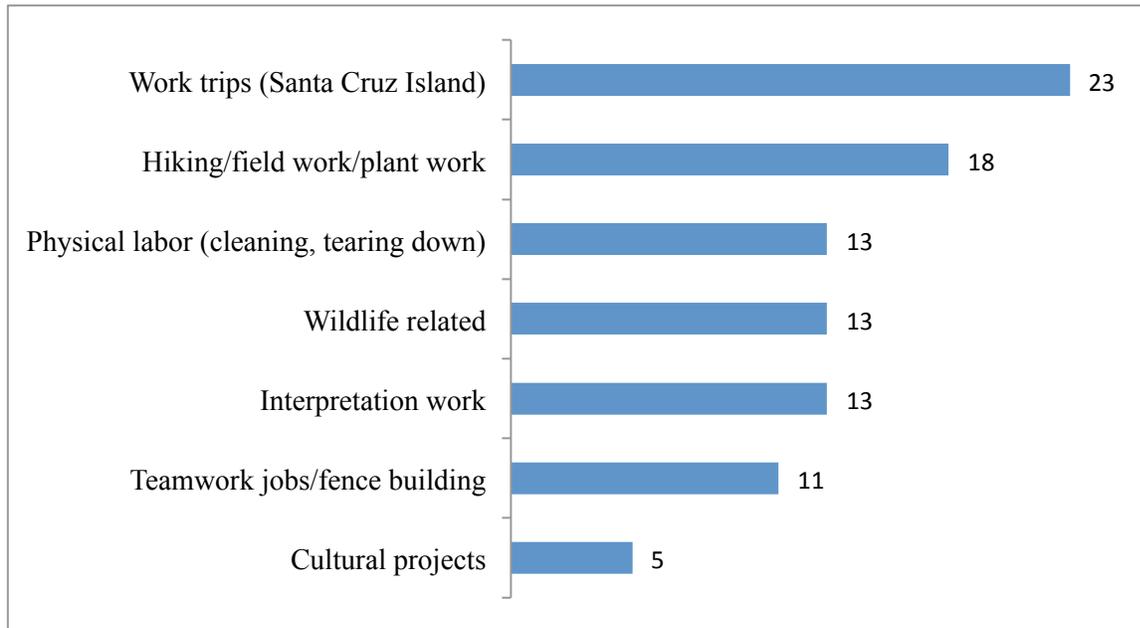
“Camping trips because I have never had the opportunity to camp.”

“[The trip] showed me what a true star-lit sky looks like.”

Most enjoyable work projects. The next open-ended item was “What work projects did you most enjoy and why?” Responses were roughly categorized into seven different types: interpretation, wildlife

management, hiking/field work, work trips (e.g. to Santa Cruz Island), teamwork related jobs, physical labor jobs, and cultural projects (Figure 11). Obviously, there is considerable overlap among these categories, the context of the remarks often influenced how it was categorized and comments could be “counted” in more than one category.

Figure 11: Most enjoyable work projects (N of mentions)



Examples of the work trips comments include:

“Refurbishing the plant nursery on Santa Cruz Island.”

“The restoration of the wetlands at Santa Cruz Island, it was something that I never thought I would experience.”

Comments in the hiking/fieldwork/plant work category include:

“I enjoyed creating hiking trails.”

“Planting new native plants.”

“Stream surveys because it gave me a chance to see a change and make connections from past years of doing stream surveys which was very satisfying.”

Mentions of physical labor as “most enjoyable” include:

“Building the hut near the visitor center at Saddle Ranch.”

“Demolishing a restroom and installing trash cans. It was something I have never done before plus learning how to work safely in those types of jobs.”

“Helping chop down trees because I’ve never seen a tree get cut down.”

Wildlife projects that were mentioned include:

“Evaluating the animals caught in the drop buckets.”

“I enjoyed the wildlife projects like the pitfall traps.... It was fun handling live animals and reptiles.”

“Reptile/amphibian monitoring ... it made me interested in wildlife.”

Interpretation activities mentioned include:

“Doing interpretation at the Summer Star Festival in Paramount Ranch. It was an amazing opportunity to be able to share with others everything I have learned in the SAMO Youth program”

“I really enjoyed days when we would talk to the public about the parks.”

Examples of teamwork related comments include:

“Building the fence with my teammates. We all had a role and divided ourselves into groups to get it done faster.”

“I enjoyed the team projects the best... we had to work together to work things out.”

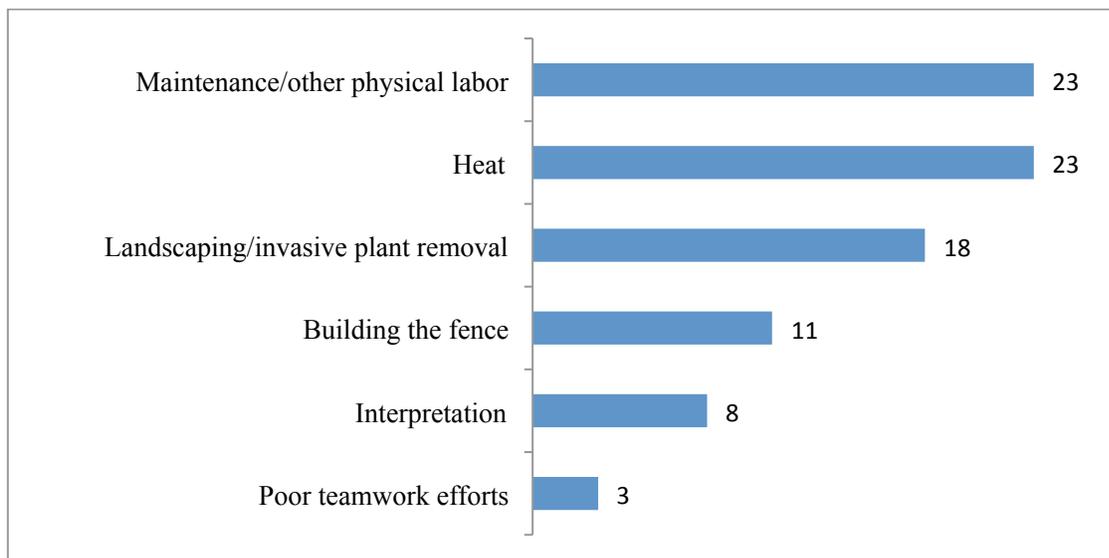
Cultural activities mentioned include:

“I liked ... the work involving the cultural history of the region.”

“I was unaware of the ranches existing [in the park] or their history. It was fun to learn about the areas.”

Most challenging work projects. The next open-ended item asked “What work projects were the most challenging and why?” Responses were categorized, again, roughly and with considerable overlap, into six categories: Landscaping/invasive plant removal, building the fence, withstanding the high temperatures, interpretation, poor teamwork efforts, and maintenance/other physical labor (Figure 12). While most respondents did recall a specific task as the most challenging, many also mentioned the benefit of such work.

Figure 12: Most challenging work projects (N of mentions)



Maintenance/other physical labor tasks were one of two most mentioned challenges to the SAMO youth. Examples of such comments include:

“Sometimes the most challenging projects are the most enjoyable. Habitat restoration was certainly the most physically challenging work... but that challenge also made it the most memorable and gratifying.”

“Working on the hiking and trails team was the toughest. The task included lifting heavy boulders, clearing [debris].”

“One of the most challenging was when we worked on the white barn at Satwiwa...having to clear out and throw away all the trash that was in there. At the end all of our hard work paid off because we turned that barn from being old to a brand new storage facility.”

The other of the two most mentioned challenges faced by participants was the heat. Comments include:

“...some days it got really hot and it was a bit difficult, but still better than ordinary jobs.”

“All of them were [challenging] in a way because I was new to all the projects, but mainly the heat.”

“Working under the hot sun out in Paramount Ranch.”

“Outdoor hot labor work was extremely exhausting although I performed my duty with plenty of enthusiasm because I had help.”

Landscaping/invasive planet removal was the third most mentioned item. Comments about such work efforts include:

“The invasive species removal was always a challenge to get through mentally because it was more tedious than other tasks, but perhaps one of the most important items of work we were doing.”

“The weeding of the mustard seeds was always the challeng[ing] project...”

“Working on maintenance projects such as erosion prevention projects were challenging but a great experience, fun and we always had a great team.”

Comments mentioning building the fence include:

“Building the fence would have to be the most challenging...but we were all so proud of our results in the end.”

“We had to build a fence to protect the Pentachatea [Lyon’s Pygmy daisy] and it was really the most challenging physically but so rewarding!”

“Fence restoration...I had bruises and scratches but I enjoyed it!”

Comments regarding interpretation work included:

“The interpretive Saturdays were not my favorite days...I prefer to be the student, rather than the teacher.”

“The most challenging projects for me were the ones involving interpretation because it forced me out of my comfort zone, but helped me share my knowledge and experience of the mountains with others.”

“Interactions with park visitors. I have a hard time being able to talk to strangers.”

“Interpretation ... because I’m not naturally talkative.”

Only three participants mentioned difficulty working with others as a challenge to completing tasks. Their comments are as follows:

“There were not challenging projects, the only challenge was adapting to other people’s thoughts.”

“Some days were challenging when the crew would not fully participate in a work project.”

“Projects where not everyone participated. It was challenging because they were not motivated to do their share.”

Work Skills Gained: The next question asked “What were the most important work/career related skills you gained during your SAMO Youth experience?” Seven general categories, with considerable overlap, resulted. These included skills in: communication, teamwork/cooperation, resume building, responsibility/professionalism, confidence, general work-oriented skills (i.e. working hard, listening, attention to detail, etc.), and skills related to specific project tasks (Figure 13).

Figure 13: Work skills gained (N of mentions)



Many stated that interpretation work was difficult for them due to its requirement that they speak with strangers. The fact that communication skills were listed as the most important skill gained implies that many of these students benefitted from the challenge of professional public speaking. Comments include:

“As much as I didn’t prefer the interpretation, it did help my communication skills...talking in public [became] much easier.”

“All the communication skills with everyone really came in handy.”

“Learning how to approach strangers and educate them about the park.”

“I was really shy when I started the program and did not really want to talk... Thanks to the program I was able to communicate with people that visited the park.”

The next most common response was regarding an increase in teamwork and cooperative skills:

“Teamwork, teamwork, teamwork, and teamwork”

“Working as a group or with a partner to do the job better”

“...it was a big group, [no one] was left to do one task by themselves, we had to learn how to help each other effectively carry out the task.”

Respondents’ comments regarding improving their job skills overall include:

“I learned [that] working hard in whatever job you have is important.”

“I learned so much that made me [an] all around skilled worker.”

“I learned how to... fill out W2 forms, interview,...and make money transactions.”

“Immersion to [an] office environment... Immersion into a government agency.”

Comments regarding the development of professionalism and gaining a sense of responsibility included:

“I learned how to be a responsible employee [and] accountability...”

“How important it is to be responsible and act professional.”

“I learned the responsibility of having a job.”

“It is great in that it allows a glimpse into professional work life; waking up early, having responsibilities, daily goals, etc.”

Some respondents mentioned the skills they gained from performing a variety of particular tasks as their greatest gains:

“Law enforcement and fire crew.”

“Safety.”

“Getting certified for CPR/first aid training will definitely help in the future.”

“We did a small project [with] invasive plant dispersal, was a great notch in the resume.”

Some respondents mentioned the confidence they gained through participation in the program, in some cases noting its association with increased public speaking skills. Their comments include:

“I learned how to be myself.”

“The most important work skill I gained during my SAMO Youth program, was to speak up for myself...”

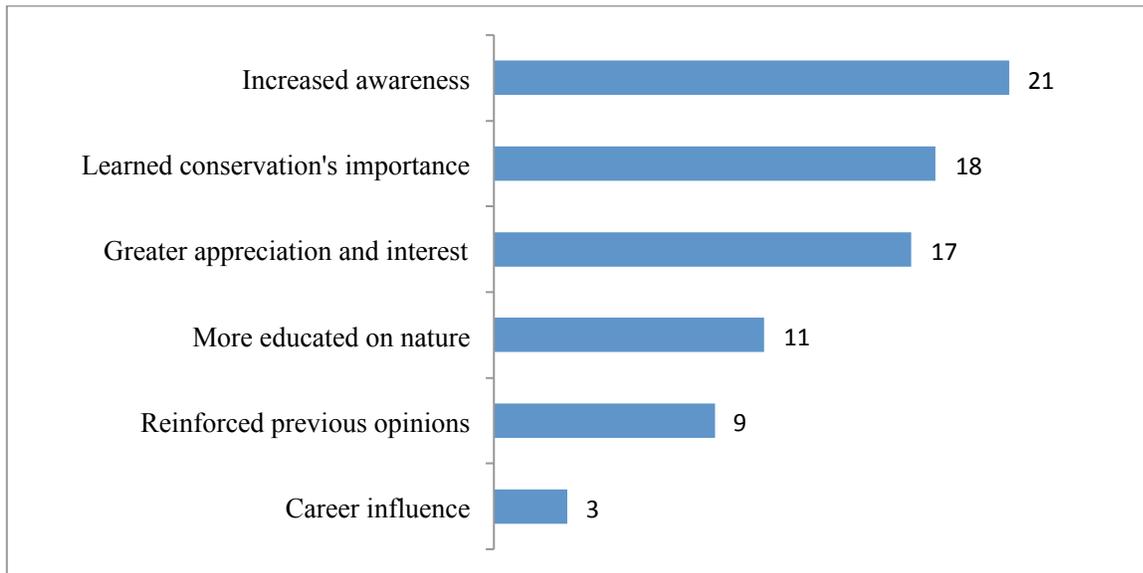
“SAMO Youth gave me the courage to take on full time public speaking at high school graduation.”

“...the courage to leave my comfort zone...being able to meet new people and have confidence while public speaking.”

A small group of participants (8) mentioned gaining resume-building skills from participating in SAMO Youth.

Change in Perspective: The next question asked “How did SAMO Youth change your perspective on natural and/or historic conservation?” Responses fell roughly into six main categories, stating that the SAMO Youth program: taught them conservation’s importance, reinforced their previous opinions and ideas, educated them better about nature/natural processes in general, increased their awareness of environmental conservation, increased their appreciation and interest in nature, and influenced their career goals (Figure 14).

Figure 14: Change in perspective through SAMO Youth (N of mentions)



An increased awareness was the most cited perspective change from SAMO Youth participants. Comments include:

“It exposed me to the good in conserving and how it benefits future visitors of these parks.”

“I am more aware of natural and/or historic conservation.”

“Changed my perspective by knowing that there are places like SAMO that are available to the public.”

“Before SAMO Youth, I did not have a perspective. It actually gave me a perspective. It showed me that everything we do has consequences.”

Comments regarding learning more about the importance of conservation include:

“I learned that natural and historic conservation is very important, because the NPS works to preserve those aspects [in] the parks for all people.”

“I understand the importance of preserving the natural environment and its history.”

“Opened my eyes to why it’s important.”

“I have learned the importance of preserving nature because I was part of that process.”

Comments about increased interest in and appreciation for natural conservation include:

“Working with your own hands for something makes you care and value it more.”

“It made me look at nature in a good way and appreciate it more.”

“I learned to appreciate the outdoors much more than I did before. The outdoors is just a whole different world and I feel as if everyone should be a part and take care and conserve it for our future.”

“I feel like I enjoy the outdoors more...I feel that if I hadn’t had this experience I wouldn’t be as intrigued and curious to visit and learn about different parks.”

Comments about an increased education in conservation and nature in general included:

“SAMO Youth changed my perspective on natural and/or historic conservation by just allowing me to think about it more.”

“SAMO Youth immersed me and my team into the resource. It gave our team a hands-on approach and a better understanding on park operations and field research and restoration.”

“It helped educate me on the peoples and cultures [and] enforcing my view of conserving these things.”

Some respondents stated that SAMO reinforced their earlier opinions and ideas of conservation. These comments typically were paired with an increased interest in or appreciation for conservation, and include:

“I have always been interested in conservation from a young age but working for the NPS increased my...interest in all aspects of the NPS mission statement to protect and preserve.”

“I always knew and called the importance of cultural and natural preservation and working in SAMO made me appreciate it even more.”

“I had a pretty strong knowledge as to why we should save and conserve the natural beauty [of] our country, and the history in which it was built.”

Though there were few responses related to career influence to this question, three participants mentioned the impact SAMO youth had in influencing their goals:

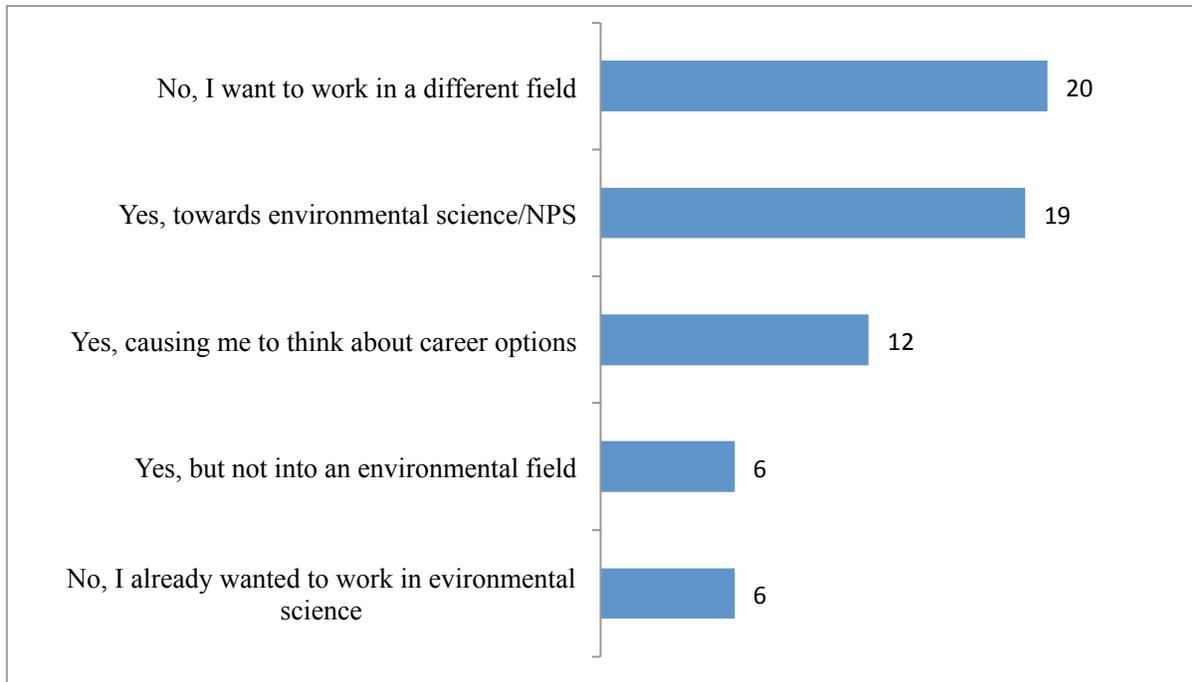
“After my experience, I gained a fascination in ecological/environmental restoration and made it my career path.”

“The program made me realize there were an array of careers to choose from.”

“It just made me want a career in conservation.”

Change in Career Goals: One question asked participants “Did your participation change your career goals?” Responses fell into five main categories (Figure 15). The “yes” categories included: yes - towards environmental science/NPS work, yes - but not into an environmental field, yes - by making them think about career options more. The “no” categories included: no - I already wanted to work in environmental science, and no - I want to work in a different field.

Figure 15: Change in career goals influenced by SAMO Youth participation (N of mentions)



“Yes” response examples included:

“Yes, I changed from environmental science to wildlife because I got some great field experience and some great supervisors.”

“Yes, it made me realize that I enjoy working with and serving people.”

“Participating in the program taught me to appreciate our environment and know that in the long run I want to be a part of a team that works hard to conserve it.”

“Yes. I chose law enforcement because I wanted to help give back in some way; knowing that I prefer more to be outdoors and doing something.”

“Having the experience from SAMO Youth has changed my career goals to want to explore the world more and find a career in a place that is not so urban.”

“It made me open my mind and see that there are many careers out there.”

“No” response examples included:

“No. I always wanted to go into the animal science field.”

“It further encouraged and motivated me to continue with the major I had in mind. I was able to confidently declare Environmental Science because this job made me realize that this really is what I love to do.”

“Participation did not change my career goals, the program gave me another reason to pursue my goals as a wildlife and fisheries conservationist.”

“Not really so much, I really love the program and being a seasonal park guide but I have always had my heart set on being an artist. It is what I have always done as a child and what I still pursue today.”

“My career goal is to [pursue] Animation or Drawing, all that changed was my appreciation of the outdoors and trying to capture the beauty of nature. I still want to pursue a career in the Arts.”

Recommendations for Improvement: One of the final questions asked participants what, if any, recommendations they had for improving the SAMO Youth program. While a number of respondents believed no changes were necessary, changes that were mentioned focused on: increasing the length of the program, extending the program to reach a wider audience, including more interpersonal work in the program, and allowing each participant a greater variety of work experiences during their participation. Some of their comments are as follows:

“Extend the program to more weeks because 6 weeks goes by way too fast when you are having fun.”

“More opportunities to work at different parks.”

“Breaking up the students into smaller groups and rotating their jobs/ duty every week. This way the students can experience different job positions within the park service, which can expand their resume. Also, it will allow them to be mentored by different youth leaders, park rangers, and office staffs.”

“I think the program should hire students who are not just looking to go to school for just an environmental career. Because maybe the experience at SAMO Youth can assist [in having] a career.”

“I would like for the program to reach out to more teenagers. I would also like for the team to be more diverse. I think it would be great to form partnerships with other National Parks, like send previous SAMO Youth students out to start something similar at other parks. Other than that, I think the program is great.”

“What SAMO Youth does for the inner city (urban) youth is a perfect combination of exposure to a different culture and immersion to the natural world. I would want to see more funding to the program for more off site trips to other national parks, more funding for a longer summer (work days), and hopefully more funding for intermittent work through the year.”

“Extend the program so that the students can have more time learning more about the importance of cultural and environmental conservation so they can pass that on especially during interpretation to hikers, other adults, and children.”

Recipients of Greatest Gains: The final open-ended question of the survey asked participants what type of students they believed would/did receive the greatest benefit from participating in the SAMO Youth program and “who [they would] recommend it to.” Participants frequently responded by saying they would recommend it to “any and all students.” Some of the specific populations mentioned include: those with minimal awareness and opportunity to enjoy natural parks on their own, those with a prior interest in the environment and conservation efforts, and any student who is curious about various careers or looking for work experience. Specific comments include:

“Students who would gain the most by participating in the program would be responsible young people interested in conservation and working with people and natural resources.”

“I would keep it open to everyone. Of course those following an environmental career will probably gain a lot out of it, but also even those who are not looking to the same career but can learn to appreciate nature and all that SAMO represents is just as valuable.”

“I feel that students who came from the inner city with little experience in the forest came away with the best experience. Even if they did not choose a career with the Park Service, they gained an understanding and appreciation for the natural world.”

“Lower income students because they do not have the opportunity to go out of the city and visit national parks.”

“Students that don't know what direction they want to go in because they can find [their] way by participating in this program. Or students who have an interest in the National Park Service because then they can figure out what exactly they want to do when they grow up.”

“Students who already have an interest in the outdoors and earth's natural processes. I consider myself one of those types, but recruiting from the inner city you definitely do have those types who really hate nature and are just concerned with the money as I remember, there were a few.”

“In my opinion, the students that get the most from their participation are students who do not or have not gone to a national park before. It is all very new and at least to me, was very exciting. I would recommend it to everyone because I feel students need exposure to the body of work in this field.”

Conclusions and Recommendations

Overall, survey responses suggest that SAMO Youth alumni feel their program participation provided memorable experiences and was of value to their career and college experience. The fact that such a large proportion of the participants (95%) went on to college, even those from families with little college experience, is a testament to both the effectiveness of targeted recruitment and the reinforcement, mentorship, and job experience provided by SAMO Youth. While not all participants went on to pursue environmental management related careers, most report at least considering this option. Further, survey responses suggest that even if participants chose a different career direction, their program participation provided them with widely relevant job skills (e.g. teamwork, communication, problem-solving) and an appreciation for the value of conserving natural and cultural resources and the National Parks.

Many respondents also indicated that they appreciated the exposure to not only the work experience, but the opportunities to engage in new outdoor recreation activities and to experience the natural environment in ways that had never been available to them previously. Responses to both open and closed ended items indicate that respondents both became more active, themselves, in conservation and outdoor recreation as a result of their program participation and that they have shared their perspectives and experiences with family and friends, expanding the impact of the program and building an informed constituency for the Park Service and conservation in general. Reading respondents' open-ended comments provides a glimpse into the sometimes transformative, and apparently unanimously positive, experience that SAMO Youth provided for many young people. While the possibility of non-response bias cannot be discounted, it seems unlikely that the 37% of past participants (n=46) who failed to respond to the survey invitation had wildly different and largely negative experiences in the program.

Survey Revision Recommendations

Participating SAMO Youth are currently being surveyed prior to beginning and at the end of their work term, effectively capturing the immediate impact of their participation. Consequently, a repeat of the SAMO Youth Alumni survey should be delayed until the most recent cohorts of participants have had some time to reflect on their experiences and the opportunity to pursue their educational and career goals. It is recommended that NPS continue its outreach efforts via social media to maintain contact with past participants and re-issue a revised version of the survey every 3-4 years. The invitation should be

extended to all past participants, including respondents to this round of the survey, in order to capture longer term program impacts.

Specific suggestions to modify the next version of the survey include:

- Consider revising the college going question rather than using one multi-pronged open-ended item. At the least, it would be useful to have at two separate open-ended items to gather information about (a) whether they are or have attended college, and if so, the name of the college and (b) their major or degree area. If location and/or level of the college is important those can be easily captured via closed, “check one” types of survey items (see Table 4 above). It might be useful to also have a closed question that asks where they are in their college career, for example:
 - Are you currently attending or have you previously attended college? (response set “no” or “yes” – a skip pattern can be used to lead the “no” respondent to the next non-college related item). Those that respond “yes” could be directed to 2 other items which ask how many years of college they have attended (response set of 1-2 yrs, 3-4 yrs, 5 or more) and what degree they have attained or are pursuing (AA/AS, BA/BS, MA/MS, Ph.D, and other – please specify).
 - Some discussion of the purpose of asking if they have considered working for the NPS (and the specific types of Park Service jobs considered) or in environmental field could help determine the best placement and wording of these items. It might be useful to have a set of items asking what their career goals were prior to and after participating in SAMO Youth – or it may be more useful to gather that information in the annual current participant surveys rather than the alumni survey. The alumni survey might, instead, ask a more open-ended item about “How, if at all, do you think your SAMO Youth experience influenced your current job or educational trajectory?”
- Similarly, if the questions about how they heard about SAMO Youth and why they applied are in the current participant survey, they may not be needed in the Alumni survey.
- Consider consolidating the items about skill and knowledge gained – for example, “how to work with other people” is very similar to “how to be an effective team member” and both may not be necessary.
- Similarly, some of the items addressing beliefs and attitudes (Figure 6) are a bit redundant – it may be desirable to choose a subset of these items that best meet program goals, particularly since responses did not vary dramatically among these questions.
- It might be useful to parse out the post program visitation questions (Figure 9) – possibly asking, for example:
 - I continue to visit SAMO
 - I encourage my friends and family to visit SAMO
 - I was inspired to visit more National Parks as a result of my participation in SAMO Youth (maybe with a follow-up open-ended item asking which parks they have visited)
 - I encourage others (friends, family, co-workers) to visit the National Parks
 - I continue to pursue outdoor recreation activities that I was introduced to in SAMO Youth (e.g. hiking, camping, citizen science)
- Responses to the open-ended items were somewhat redundant and asking multiple open-ended items can sometimes depress response rates due to respondent fatigue (respondents abandon the

survey without submitting). For example, the “most memorable moments” elicited similar comments as the “most enjoyable work projects.” It might be useful to ask fewer open-ended items and/or to alternate some open-ends from one survey administration to another. One approach could be to mine the open-ended comments for ideas about capturing some of this information in closed-ended items. For example, a closed ended set of items might be to rate the “enjoy-ability” or “learning value” of specific activities that are nearly always a program component (e.g. overnight work trips, eradicating invasive species, biological studies - wildlife or plant species inventories, planting or cultivating native vegetation, hiking to and from work sites, construction/structure rehabilitation projects, visitor contact activities (presentations, providing interpretive services), etc). In any event, it is worth SAMO staff having a conversation about which open-ended items provided the most and least useful information when re-designing the survey for re-administration.