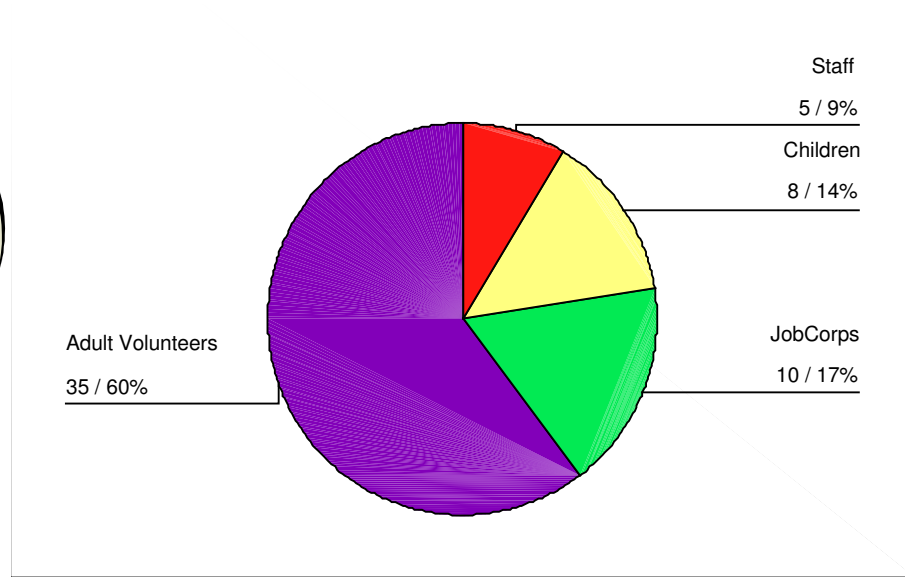


# Understanding the Volunteer Experience in the Edgewater Park Restoration Project

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## Introduction

In partnership with the Skagit Fisheries Enhancement Group and the City of Mount Vernon Parks Department, the Skagit Watershed Council (SWC) is currently implementing long-standing plans to restore fish and wildlife habitat in Edgewater Park, a highly visible public park bordering the Skagit River in central Mount Vernon. In addition to physically reconnecting historic sloughs and channels and planting native trees and shrubs along the park's shoreline, the project design includes a "social science" component, intended to develop an understanding of the "human dimension" of restoration. Specifically, the Skagit Watershed Council wants to learn more about participants in the two Edgewater Park Volunteer Planting Parties that took place in May, 2005. The chair of the SWC invited me to conduct this assessment of the Edgewater Park volunteer experience as I was already conducting related dissertation research on the social dimensions of salmon habitat restoration in the Skagit Valley this year, and I welcomed an opportunity to make my work more participatory and locally useful. In the spirit of participatory research, I have presented the results of this study here as comprehensively as possible in order to encourage readers to perform their own analyses and draw their own conclusions from the material.

According to organizers of the two planting parties, volunteers are critical to the success of restoration projects, not just for the physical labor they provide, but also because they likely constitute local, political support for the immediate project, as well as for restoration and conservation efforts in general. An assumption is that physical participation in restoration teaches people about the ecological complexities of salmon recovery, and creates emotional and moral commitments to a particular place and the principles of conservation. It is therefore in the best interest of restoration advocates to proactively expand a supportive and well educated network of local restoration volunteers. An overarching goal of the volunteer survey was thus to glean information about the Edgewater Park volunteer experience to improve recruitment of volunteers, especially from a broader spectrum of the local community: Who already volunteers to do restoration in the Skagit Valley? How did they hear about the events? Why did they decide to come? In addition, organizers were interested in questioning some of the assumptions underlying the rationales for volunteer involvement: How educational, in fact, is the volunteer restoration experience? How much do volunteers already know about the ecological rationales and social and political contexts for restoration in the Skagit? How does a volunteer experience (if at all) motivate people to support other restoration and conservation efforts? Organizers wanted to know what the volunteer experience was like, and whether it was an experience that volunteers would want to repeat: Were they comfortable? Did they feel like the work they were

doing was worthwhile and appreciated? Did they have the equipment and supplies they needed? Finally, we saw the study as an opportunity to test a survey tool that could be modified and used to assess restoration volunteer experiences in other contexts. These goals and questions were iteratively revised once research began, incorporating feedback from other organizers of the volunteer planting events and from volunteers and study participants themselves.

### *Research Goals*

1. To help maintain current volunteers
2. To inform recruitment of future volunteers, especially from a broader spectrum of the local community
3. To assist in tailoring the restoration experience to maximize benefit to the environment, the volunteers and the larger community.
4. To evaluate the educational potential of the restoration experience.
5. To assess whether and how the experience motivates people to support future restoration and conservation efforts.
6. To devise a method of assessing volunteer restoration experiences that is transferable to other volunteer restoration projects.

### *Preliminary Research Questions*

1. Who volunteers to do restoration work in the Skagit Valley?
2. What motivates these volunteers to do this work?
3. How do these volunteers explain and perceive both the ecological and social dimensions of restoration? Do they learn more about these issues during the course of their volunteer experience?
4. How does the restoration experience make the volunteers feel? Are there ways the organizers could improve the experience?
5. Does the restoration experience inspire volunteers to engage in future restoration and/or conservation efforts?

## Methods

The research consisted of four general stages: interviews with two of the main organizers of the volunteer planting event, focus groups held with volunteers at three previous restoration events, a survey administered during the two Edgewater Park planting events, and participant observation during all of the restoration events. The interviews and focus groups were primarily intended to provide material to inform the content of the questionnaire used in the survey. Together, the interviews, focus groups, survey and participant observation provided complimentary qualitative and quantitative information about the Edgewater Park volunteer experience.

### *Interviews*

In-depth interviews with the two main organizers of the event were intended to understand what motivated them to work in the field of restoration in general, and what motivated their engagement with this project in particular. In addition, I was interested to know what they hoped and expected to learn from this study of the volunteers' experience, both in order to make the study useful for their work, and also to compare their expectations with actual results. The interviews each lasted about an hour and a half. They were recorded and transcribed.

### *Focus Groups and Participant Observation*

In order to design a questionnaire that would be relevant within the local context of restoration in the lower Skagit Valley, I wanted to get a sense of what it is like to participate in a restoration event, who usually comes to the events, and how various groups of volunteers talk about restoration. Towards this end, I attended three restoration events that the Skagit Fisheries Enhancement Group (SFEG) held earlier in the year (February and March). I participated in each event as a volunteer, and at the end of each one held a focus group with a handful of other volunteers. The participant observation allowed me to physically and emotionally experience some of the rewards and challenges of doing restoration work here, as well as chat informally with other volunteers and organizers. The focus groups allowed me to more systematically elicit volunteers' own narratives, conceptual categories, and language regarding restoration, and to identify significant topics and concerns that the initial research design may have missed.

I held focus groups with each of the major groups of volunteers that I had distinguished by attending several other SFEG restoration events in the fall and by talking with the volunteer coordinator. The volunteer groups included

“regulars”, meaning they came fairly frequently to the SFEG events; “JobCorps” students, youth who came to earn community service credits for their job training program; and “seniors”, people living in the retirement community that was the site for one of the planting events.

The three restoration events that I attended consisted of a potting event, during which we planted saplings in pots in preparation for plantings; a planting on former grazing land along a large creek; and a planting along a small creek running through a new housing development. During the morning orientation for each planting event I made an announcement about the study and invited people to volunteer for the afternoon focus group (offering a free box lunch as incentive and compensation). While we worked, I asked people if they had any questions about the research project and encouraged them to participate. By the end of each morning I had a handful of willing participants. The first focus group consisted of 4 “regulars”; the second 5 JobCorps students; and the third 3 seniors and 3 regulars, combined. Each focus group lasted about an hour. I followed a similar question guide for each group but modified it slightly for improvement from one to the next. The questions were based in part on organizers' interests and in part on my own research interests (see “Focus Group Questions and Results”). Each focus group was recorded and transcribed, and an SFEG intern assisted by taking handwritten notes.

### *Survey*

The survey was conducted using a written questionnaire. Survey questions were developed based on organizers' interests, my own research interests, and themes that arose during the focus groups. Whenever applicable or feasible, I developed multiple response choices for questions so results could be more easily tabulated. In order to come up with these response choices I systematically combed through the focus group transcripts to identify the major categories of responses volunteers gave during their conversations. I also added some response choices that seemed relevant but were not mentioned by focus group participants. About 8 staff members at the SWC and SFEG filled out and/or reviewed a draft questionnaire and I incorporated their comments as much as possible into the final version (See Appendix A: Questionnaire).

During the morning orientations for the Edgewater Park planting events, I explained the purpose of the survey and encouraged volunteers to fill out questionnaires during the lunch break or before leaving. The SWC generously provided T-shirts commemorating the day that I was able to offer as

compensation to volunteers for filling out a questionnaire. These T-shirts were probably responsible for the excellent response rate to the survey. The questionnaires and T-shirts were available for volunteers to pick up on a table near the other orientation tables and lunch area. Most volunteers filled out the questionnaires during lunch, creating a somewhat studious atmosphere during the hour.

I entered the survey results into a Microsoft Access database, inputting the numbers of multiple choice responses, and typing in all open-ended responses for each respondent. I then looked through the open-ended responses and created categories of “open-response topics” based on recurrent themes and coded these with numbers. I then exported the Access database to SPSS to perform statistical and graphical analyses.

## Focus Group Questions and Results

These results suggest the range and depth of perspectives among volunteers who participated in the three focus groups. They were used to inform the design of the questionnaire. They should not be used for statistical analyses. These are not direct quotes; rather, they are paraphrases and aggregations of two or more individual responses. Questions are nearly identical to those asked during the focus groups. Responses are summarized according to the following categories:

Group A: Regulars – frequent local, adult SFEG volunteers

Group B: Seniors – senior residential community members relatively new to salmon recovery

Group C: JobCorps Students – regional disadvantaged youth and refugees from foreign countries in job training program, most new to salmon recovery

A total of 14 people, including 6 men and 8 women, were interviewed during these focus groups.

### Duration of Residence in the Skagit Valley

*“How long have you been in the Skagit Valley?”*

A	35 years
	18 years
	18 years
B	2 years
	2 years
C	3 months
	2 months
	3 weeks
	Whole life
	2 years

### Other restoration/conservation experiences

*“Is this your first time participating in a restoration planting or potting? And if not, what are some of the other experiences you’ve had doing this kind of volunteer work?”*

- A
- Other SFEG plantings – e.g. Baker View Park, Trumpeter Creek, Nookachamps
  - Salmon Survey
  - Culvert replacement
  - Skagit Stream Team
  - Skagit River Stewards
  - Watershed Masters
  - Planting on our property
  - Stream Stewards
  - Collected and tested clams
  - A lot of everything
  - Water sampling
  - Helping Set up fecal coliform test lab
  - Stream sampling
  - Water sampling
  - Shellfish monitoring (assigned a beach)
  - Skagit Land Trust planting
  - Volunteering with Skagit Conservation District
  - Volunteering with Skagit Parks Foundation
  - Doing this for 4-5 years
  - 2<sup>nd</sup> time planting; have done other things
  - Stream monitoring for four years
- B
- First time planting
  - Stream Stewards
  - Stream clean-up
  - Bivalve bash
  - Children’s Museum
  - Watershed Masters
- C
- All first time doing restoration work for salmon except one
  - Helping to restore historical farm – e.g. rebuilding fence
  - Was at 3-5 other SFEG events – planted trees, cleaned the river for fish, was at potting event
  - In home country, planted trees, built road and cleaned village as volunteer

## Motivations for doing volunteer restoration

*“What are some of the main reasons you came today to do this work?” /*

*\*“Why do you choose to do work in volunteer restoration?”*

A

- Nothing special going on today
- Already planned
- Enjoy this kind of work – it’s fun
- Fun to meet new people
- Fun to see people who were at other plantings
- No special reason why
- Just a good day
- Stream Stewards requires 40 hours volunteer time – so checking off the hours – an obligation
- Did potting because plantings are physically tough
- Put it on the calendar
- Enjoy playing in dirt
- Love native plants
- Good way to learn about the plants
- I’m retired and have time now
- Fun
- Personal satisfaction
- Feels good to get out there and work
- A good feeling
- \*Upset about development of a beautiful place near where I live so wanted to do something positive for the environment
- \*We’ re retired
- \*Enjoy being outside
- \*I/my husband is a fisherman and we saw salmon diminishing in streams; fisheries being degraded
- \*What we learned at Watershed Masters about water and soil quality and impacts on the environment in the Skagit Valley made us feel we had to be involved
- \*After fishing and hunting 50 years, time to give back
- \*Salmon are an indicator species, so things need to be improved
- \*Meeting and working with people that have the same attitude as me
- \*Enjoy volunteer work
- \*Enjoy the people

B

- \*Health of people is related to health of the environment, so to improve health of the environment
- \*Had creek on our property, so wanted to find out more about how to help salmon habitat

- \*After three notices, felt I should be involved, though at first didn’t feel I had enough time
- \*Selfish – because I live next to the stream and complain about how it looks
- \*A friend was also going to the classes inspired me to go
- \*The more I’m involved, the more I appreciate it
- \*I’m on our community’s creek committee
- \*Meeting people – e.g. SFEG staff members Lucy and Laura are inspiring and I learn a lot from them
- \*In part, to complete the 40 hours required volunteer time
- \*Have seen what a natural creek looks like and it was beautiful – I used to live in the country – so I’ve seen the potential
- \*The publicity – the newsletter – inspired other residents to come
- \*Last fall there were spawning salmon in our creek and people came out to see them. Residents were amazed and it generated a lot more interest in the creek.

C

- To get community service hours in
- Enjoy community service
- Sounded fun
- Sounded like something that really does help the community
- To know more about the community
- Enjoy being outdoors
- To help out planting trees, cleaning up so I can enjoy hiking, fishing, etc. longer and for future generations, too
- I like working outdoors
- It adds to my community service needs but that is not my priority – what I’m doing out there is more important than what I get out of it
- Students chose this over: cleaning and preparing fairgrounds, helping people move, picking up litter
- I didn’t choose to do this, but I like it – it’s nice; I like helping people
- I like it because I understand what it means – i.e. to control erosion, trees use carbon dioxide and give us oxygen

## Influential memories or experiences

A

- Upset by nearby development
- Upset by development plans that will impact my land
- Excited about seeing redds in the river
- Amazed at seeing hundreds of 30-40 pound Chinook salmon in a holding pond and the creek they had to go up. I didn’t believe there were any more that big.



- Incredible to watch salmon building redds
- Re: a housing development: I remember when this was a beautiful place
- Not thrilled about a housing development – now a nice wooded area, has deer
- Got so tired of seeing other people’s trash when going fishing – unbelievable, sickening
- Trash duty seen as degrading

B

- Amazed by seeing spawning salmon

### Best part about the day’s experience

*“What would you say was the best part about today?”*

A

- The great weather
- Socialization
- Reconnecting with people you’ve seen at other outings
- Meeting new people – people you have a lot in common with
- Talking to the kids from Africa
- Being away from my kids for a while
- Having some quiet time
- It was very well organized and well directed; somebody really helps you – doesn’t do it for you, but helps you so you can contribute
- The high quality of the plants (i.e. they’re not dead). Joel made sure they were well taken care of
- Saw potential of another planting now grown after 10 years, so know potential of my efforts – makes you want to get out there and do it
- Gorgeous day

B

- Liked seeing so many of our residents here
- It was well organized
- Knowing you can make a difference just by putting something in the ground and letting it grow
- Seeing how our neighbors are beginning to understand the creek
- SFEG choosing to do a planting in our community with anybody who is interested, and with a grant taking care of expenses
- SFEG has been just wonderful

C

- Getting outside in the world and nature and dealing with things you can’t make, such as trees, dirt and natural things
- Knowing I helped do something for the environment
- Making the world a bit greener

- Having conversations with others and learning from each other
- Planting trees makes me happy
- Feeling a link with the Earth. It’s amazing. You feel you’re small.
- We did something useful
- Beautiful day

### Other comments about the volunteer restoration experiences

*Compiled from responses to other questions*

A

- Always very well organized
- They put effort into making everybody feel welcome
- They’ve all been routine
- Differing numbers of people at each event – first one a dozen people – we could have used 100; last one 50 people
- Wish I could see what happens to trees in 200 years
- Refreshing to meet people with same attitude as me

B

- There has been an attitude shift in me – for the better
- Kurt Buchanan taught us a lot and was very helpful

C

- Cool to see a bunch of people coming together, giving up a weekend to help out the environment

### Suggested Improvements

*“What would have made your experiences doing these volunteer plantings better, if anything?”*

A

- If a hundred people show up instead of a dozen
- Sharper clippers
- Back hurts – out of shape
- Everything was good
- Having a flag up so you know where to plant and having the spacing already done, like last week (others concur)
- Plant a larger area – it should go beyond the fence
- The enhancement needs to be extended to the lower part of the creek
- Adding to the people who come – get the word out more
- Provide information about the type of soil /site we will be digging so we can prepare with appropriate clothing, tools, etc.

B

- Goodness – even the weather cooperated
- Only thing I can think of is more plants – we ran out

- Having a flag up and the ground scraped bare where you are supposed to plant (others agree)
- Frustrating that upstream problems will affect this creek and it's beyond our power to take care of

C

- Sun
- If I wore a different pair of pants
- Some work boots

### Biological reasons for restoration

*“Let’s talk about why we’re doing restoration. First, how would you explain what the biological or ecological reasons are for restoration?”*

A

- I want to drink clean water
- It’s a losing battle but it needs to be fought
- To make up for declines in the environment
- To control erosion – important as land is developed
- Planting will help slow erosion and improve the environment
- For the aesthetic – I would rather see a stream with plants than bare ground and rocks
- To maintain a healthy riparian zone around a stream
- To cool the air
- For the stream to have shade
- Cool temperature – for fish, oxygen concentration, other creatures
- Current changes
- For meanders and riffles to reduce sediment – better than a ditch.
- Riffles and pools for fish to lay eggs in
- Riparian zone filters chemicals off of lawn’s
- Filters a lot of stuff
- Wildlife corridor
- Habitat for wildlife – e.g. amphibians
- Complex reasons for riparian zones
- Control streambed so not wandering
- A lot of intermeshed reasons
- To shade out the reed canary grass to have a stream instead of a meadow – hard for fish to swim through
- Keeps banks from sliding
- To put native plants back in to prevent spread of cultivated plants
- Fecal coliform tests – predicting what’s going on; pinning renegades in the system
- Macroinvertebrate collections – get sent to UW for identification; funding from Skagit Wild and Scenic designation; indicate stream health

- Macroinvertebrates – food needed for fry, juvenile salmonids
- If you know temperatures, oxygenation levels and flow and you map how much shade is there you can put all these different factors together and a lot of that is affected by the plantings to repair the riparian zone because the leaves fall in the stream and that’s what the macroinvertebrates feed on; it’s all a chain;
- Rocks in bank changes the ph
- If salmon/fish can’t survive in stream, it lacks oxygen, nutrients for the cycle of life – creates a slime-bath we have to live next to
- An ecological whole – not just to keep salmon alive, but for good water quality everywhere
- Improves the quality of life of not only fish but also humans and future generations
- Improving where you live
- To take care of where you live
- To put back in Earth what is being taken out – e.g. trees being cut
- Plants do a lot for air quality and stream quality for salmon
- Because of global warming and other world disasters we have to give back
- Salmon are an indicator species – if they cannot spawn or go into salt water, or into the estuaries and produce because they can’t survive in the streams, then everything – e.g. oysters – is impacted by that.

B

- Instead of digging into the soil, the stream should be made to broaden out
- Ecologically, all things in nature are connected and we are connected to nature, so if things are not going well in one part they are not going well in another part, too
- A lot of sea mammals and other things, such as birds, are declining because the fisheries is declining and the fish are they’re food source.
- It all ties into each other (many agree)

C

- For the water system: everything gets washed to the ocean and causes problems for fish and fishermen
- Trees provide more oxygen and if you plant them near the river they prevent erosion
- Trees rebuild the ozone layer by causing more rain which cleans the ozone from pollution
- It (trees or ozone?) can affect the temperature of the Earth; keeps it even
- It helps out with the salmon runs: gives them places to lay and bury their eggs, i.e. within the roots, and provide shade
- Trees provide oxygen and eradicate the desert; they prevent erosion

- To keep the environment clean
- With no trees there is no rain

### Sources of biological and ecological knowledge

*“How did you learn about these biological or ecological reasons for doing restoration?”*

A

- Plant Identification class in college
- Degrees in chemistry and zoology
- Environmental conservation class at Skagit Valley College
- Discovery Channel
- Bits and pieces through programs –
- Water monitoring program
- Watershed Masters
- From childhood – growing up in woods
- Degree in microbiology
- Watershed Masters – Skagit Conservation District
- Volunteer on Watershed Council – read a lot
- Earthwatch Expedition “Salmon Pacific Northwest”
- Stream Team
- Grew up with it – parents environmental-minded. A way of life.
- Reading a lot.
- Kurt Buchanan’s presentation on streams

B

- Lucy Applegate’s presentation on salmon
- Stream Stewards
- Picking up things along the way
- Grew up with it – was city kid but learned from siblings

C

- Elementary, junior high and highschool biology classes – e.g. testing ph of water
- Read science books
- Discovery Channel
- School field trips to hatcheries; we even planted trees once
- Books about nature, biology
- TV – international satellite geography channel
- Newspaper
- Radio – programs about the environment, planting, erosion, and how the environment is important for humans and for animals

### Most educational sources

*“Of all these experiences, which were the ones that you found most educational?”*

A

- All educational and interrelated but in different areas
- Skagit Valley College classes were broad, varied, very good
- Watershed Masters was broadest; survey course; good to be on mailing list because you get announcements about other plantings and enhancement events
- Stream Team out of Padilla Bay – water sampling, working with other people
- Everything is enjoyable and educational;
- River Stewards because I like collecting bugs
- Watershed Masters

B

*This question was not specifically asked of group B*

C

- Books – e.g. science books
- Hands-on stuff at school
- TV: “Modern Engineering” and the Discovery Channel; programs about the water system and fish; seeing other peoples’ point of view
- The power of spirit – you use not only your knowledge but also your spirit: the link from our brain to the whole complete system of the universe gives us power to explore
- Science and biology classes in home country, grades 4-7
- School is best because not everyone has TV and radio access

### Social and political reasons for doing restoration

*“Do you think there are social or political reasons for doing restoration work, and if so, what are those?” / \* “Do you think there are social reasons for doing restoration, and if so, what are some of those?” / # “How would you say restoration is related to current events in the region and in Skagit County and Washington State?”*

A

- City development – houses, roads – affecting my property, salmon-bearing stream
- Need for housing; needs to be denser
- Social obligation to keep our land healthy; we impact all the land around us
- My septic system could be point source of pollution, affects everything

- Don't know about the political reasons
- Love camping, hiking, hunting; sad and upsetting to see the impacts on the natural environment –
- Hikers who do not know proper trail etiquette,
- Upsetting to see litter: dumping refrigerator, washing machine, couch,
- Stoves used as target practice – bullets contaminate eagles, hawks, whole area
- These things give us reasons for doing this work.
- Fighting a losing battle: 10 people doing restoration work; a thousand clearing the forest and dumping trash; more people causing decline of natural environment
- \*To be able to show our grandchildren salmon
- \*Brings people like us together and that's enjoyable
- Re: a housing development: I remember when this was a beautiful place
- \*Not thrilled about a housing development – now a nice wooded area, has deer
- # It's a tough fight to educate our county and city leaders; here's a strong good old boys network here
- # To keep Mount Vernon a top place to want to live we need to make parks and enhance streams and not overdevelop as are in their hopes for creating businesses and places for 50 thousand more people to live
- # A valid thing is the money necessary to support this – everybody's struggling.
- # People don't want to be told what they can or can't to do with their land
- # Our current administration passed recent legislation that will stop funding for improving salmon streams. It disproportionately impacts the Northwest – frightening.
- # Locally, the Growth Management Act can be interpreted many different ways and is interpreted for whatever financially benefits the county rather than ecological benefits. Laws need to be written so they can be interpreted strictly.

B

- \*Making our place better for our children and future generations
- # It's a matter of money – where will it come from, other than volunteer labor?
- # It's a matter of education
- # It is a political issue here – at senior community – too. Some people think this is our property so why can't we do what we want with it? That's the extreme.
- # Here, some folks don't want to learn, but it's improving

C

- \*Brings us together and we learn about each other
- \*Learning to work as a team and have the same goal even though we're different
- \*Showing people a different side of you: not many people know me; to show I do care
- \*Socializing
- \*To communicate to a larger community that we want to be a part; to show we have a purpose
- \*Helping salmon is a social reason because it gives us fish to eat
- \*To restore what should never have been taken out – i.e. the trees
- \*To get to know each other; this helps unite people
- \*To show we are cooperating for the environment to people around the country and the world
- \*To show that someday it could be like a chain reaction: people from other communities see us and they will want to clean up their communities and pretty soon everybody is going to do it
- \*For it to be, instead of community service, maybe one day it will become a language; something that will come naturally to everybody and become part of our daily routine
- #I think there is a relationship between the environment and voting
- #Leaders want to show their knowledge and encourage people to do something about the environment
- #The State government is giving the environment more attention: reserving more for future generations; coming up with ideas to prepare for an increase in population without putting us out of food, water, salmon or energy.
- #Salmon are something we want to profit off of
- #In this part we're known for salmon
- #In my father's generation that was a lot of ignorance about pollution, garbage, recycling, erosion, gasoline, farming practices. In my generation there is more going toward the environment.
- #In Skagit County the laws have gotten stricter towards game and wildlife. I.e. the number of catches per day is limited, and the license tags you have to get
- #The government is trying to crack down more in preserving the environment; e.g. a company is responsible for replanting a clear-cut
- #I don't know much about salmon because I haven't been here long
- As a Christian, I believe that the world was created by God and we should take care of it because it is like His artwork: we are His masterpieces and we need to take care of his creation

## Sources of social and political knowledge

*“How do you know about the social and political reasons? How did you learn some of these? Where do your ideas for these come from?”*

A

- Reading newspapers, magazines
- Do a little research
- Don't depend on TV
- National Geographic magazine
- In various classes
- In volunteer experiences
- Having conversations and listening to others who do not share my same values and viewpoints, with people just trying to earn a living to feed their family – e.g. farmers, developers, construction workers, loggers – people who are blamed for a lot of stuff that they may or may not be responsible for. Learning from them.
- Expressing your own thoughts; learning from each other.
- Conversations at church social
- Conversations with my family/relatives
- Conversations with people educated differently from me
- Conversations with conservative farmers
- Conversations with neighbors

*Question not asked of groups B or C*

## Volunteers' conservation-related behaviors

*“Besides volunteering to do restoration and plantings like this, are there other things that you do that are good for the environment?”*

A

- Don't use chemicals; use limited chemicals
- Don't water my lawn
- Dig out weeds by hand
- Maintain septic system
- Use low-water, low-soap washer
- Shifting lights to fluorescent
- Use electrical instead of gas appliances
- Cut back on driving
- Used to ride the bus; hard not to have a car in Skagit Valley
- Only wash vehicle twice per year
- Recycle \*everything\* - every scrap of tin, plastic, etc.
- Drive economical car when possible
- Replacing exotic plants (e.g. blackberries) with native plants

- Take care of, monitor stream in backyard
- Suggest things my neighbor could do, but I think it upsets them
- Volunteer our hours
- Use garbage disposal less because food particles will plug up septic system
- Paint house by hand instead of using sprayer
- Mow lawn less
- Tolerate bats because they eat mosquitoes
- Pick up trash
- Recycle everything
- Try to get co-workers to recycle by starting recycling program at work
- Picking up behind people – bags of garbage
- Put together educational/promotional video about local environment
- Going out and enjoying life in nature
- Organic gardening
- Use mulching techniques
- Use natural herbicides
- Don't kill bugs
- Learn about composting

B

- Pick up trash
- Feed the birds
- Recycle
- Whatever we can
- Catch spiders, take them outside
- Use materials that are less harmful to the environment – e.g. laundry detergents, cleaning products

C

- Recycle
- Don't use too much of anything – e.g. dish soap; don't make too much food so it has to be thrown away
- Pick up trash
- Don't litter

## Ideas for recruiting a more diverse volunteer base

*“A goal of the research is to help the organizers of planting events to reach a broader and more diverse group of volunteers. So, are there people you don't see at the restoration events who you think would like to come, and if so, who are they? How would you encourage them to come?”*

A

- I've invited everyone I know

- A lot of people my age feel it is too much physical work – let them know there are physically easier jobs they could do
- I don't know.
- Word of mouth – personal invitation is best.
- Can't think of specific group that would be perfect
- Everyone who works in an office – let them know this is a chance to get outside and do something besides watching TV
- I talked to highschool horticultural and agricultural groups
- Access boy scouts and girl scouts
- Kids
- Seniors
- Padilla Bay program – 8<sup>th</sup> graders monitor birds
- Follow up with 6<sup>th</sup> graders who go to Camp Orkila
- 5<sup>th</sup> graders study salmon
- The younger you get them the better – in order to change opinions and superstitions formed by their parents. Kids can work on older relatives, more apt to be listened to than us do-gooders. Kids have a lot of power. Change them from running four-wheelers in streams to saving streams.
- If parents are anti-environmental then the kids will likely be that way, too.
- Sometimes if you hook a kid you can drag in the parent.
- My children
- That's a tough one. Everybody is so busy – hard to get them to take the time.
- Encourage parents to go to classes, field trips with children
- Get parents and teenagers together to do an activity
- We've tried to tell our friends – some join, some too busy doing other things
- Flyers from different organizations are helpful so you can be subtle and no pushy when inviting friends to come
- Better to make it sound like it's fun – “come out and have a good time” rather than good for the environment
- Taking schoolkids on field trip to pick up trash
- Suggest a picnic that includes restoration planting
- Entice people with another activity – e.g. Skagit Symphony
- Make this a project for Boys and Girls Club
- Involve highschool students
- Get ahold of coaches – track or cross county, etc. – this could be a recreational activity
- Highschool service clubs
- 4-H

B

- A semester requirement in schools where all they do is learn about the environment, plant trees, go on field trips, go out and help (one said it shouldn't be mandatory)
- Make it an event with friends

C

- There were already a bunch of people from all over
- Maybe invite more people from outside Skagit Valley – e.g. Spokane, Colville, Minneapolis; they could come over here and see a small farm town rebuild and then take the same values back home
- Make a video and put it in schools
- Make it a weekend trip
- Use the internet to reach more people – give people facts and ideas about how the system works
- We don't need to worry about reaching more people – the organizers provide advertisement about this activity
- Share this experience with a girlfriend or boyfriend
- Tell our friends, relatives, and neighbors – and they will tell theirs, so it's a good system
- Print up flyers – encourage people to do something good for themselves and for their community and for their country
- Already a diverse group, from young kids to teenagers, to elderly – so I'm not worried
- Put notices in the newspaper
- Families were there – a good sign. That small generation will grow up and communicate this with their family

#### Other questions for the questionnaire?

*“As you know, we are planning to develop a questionnaire about the experience of restoration volunteers. So, in addition to the questions that we talked about today, what other questions do you think should be on that questionnaire?”*

A

- “If you were emperor of the world, what changes would you make to make the environment a better place?”
- “What can you personally do to help change environmental destruction?”
- This would get at some of their personal beliefs – there are a lot of ways to do things out there. A lot of different opinions of what should and could be done.
- Good to get diverse opinions and look at how feasible they are.
- Focus on all kinds of environmental/conservation practices instead of just restoration plantings.

- Ask how else are we volunteering.
- Ask how else have we participated in the conservation movement.
- More about people's cultural background – where they're coming from
- A question about where they were raised – in the city, suburb, rural... you could look at the correlation with that.
- Ask if they are a hunter or fisher
- "Do you hunt with a camera or a gun?"
- Their political identity
- Their occupation
- Where they grew up
- Their educational background
- The amount of money they make – because you don't have time to volunteer if you and your kids are hungry; this isn't for everybody.
- Are they more interested in educational programs like Discovery Channel, or re-runs, like Friends?
- A question about what's your favorite TV show, or channel, or whether you have a TV
- What newspapers do you read? What magazines do you read?
- Do you know anybody in the neighborhood or friends or relatives that would want to come out to go with you / be willing to participate?
- How would you initiate an invitation for an outing? What would you include with that activity, such as a picnic, dinner afterwards, or? Is there another activity that could be included with the volunteer work? Helpful to hear other creative, inventive ideas.

B

- Can't think of any
- Provide a question so you can answer that I'm setting an example for my children. E.g.: "Is there a personal reason that explains why you're here today?"

C

- "How do you feel this will affect your future?"
- "How did you come to want to volunteer your time?"
- "What's the benefit for you? Why do you want to do this?"
- "Why is this important – e.g. planting a tree?"
- Do they know of other areas that could use some help with restoration?

## Survey Results

### *Summary of Survey Results*

The group of 58 respondents could be very generally characterized as “local”, well-educated, professional, and urban. However, respondents were *not* “local” if local means your family is from the Skagit Valley. On the whole, respondents were an even mix of gender and ages. Most indicated that they currently reside in the Skagit Valley and live in urban or suburban areas. Most do not own land. About half of the volunteers grew up in Washington State but only 10 said they grew up in the Skagit Valley. Most read local newspapers, such as the Skagit Valley Herald, as their main source of news. Nearly all adult volunteers and staff had college experience, and most adult volunteers and staff had professional employment experience. Fewer than half of all volunteers indicated membership in an organized group; of those that did, the overwhelming majority listed membership in an environmental organization, particularly the Skagit Fisheries Enhancement Group (not surprisingly, as this was the major avenue for volunteer recruitment). Less than half of respondents said they volunteer in other ways besides doing restoration.

This was, largely, “the choir”, in that volunteers came with a wealth of previous experiences in environmental conservation. About half of all respondents demonstrated significant previous interest in environmental issues, with either college or employment experiences directly related to environmental fields, and/or membership in environmental organizations. Nearly all respondents said they don’t litter and over half said they vote for conservation measures (but only 7 – mostly children and JobCorps students – said they usually use public transportation, not surprising for a rural county.) Nearly all respondents indicated that they engaged in outdoor recreational activities more than once last year, most notably by hiking and gardening, and notably *least* by hunting. Almost everybody, including all of the children, had already learned in some way about ecological restoration and how to protect salmon. The large majority had already participated in salmon recovery-related restoration, most likely as volunteers at another SFEG event. About half of respondents had participated in local conservation education programs, such as the Stream Stewards, Skagit River Stewards, and Watershed Masters programs.

Overall, most Edgewater volunteers considered the Skagit Valley environment to be somewhat – but not severely – degraded, and believe increasing population and development are the major threats to the local environment. More than half of all respondents were also concerned about water pollution and farming practices. Respondents were most hopeful that “community

awareness” and efforts by local conservation organizations such as SFEG would positively benefit the local environment. About half of all respondents felt that there had been a major decrease in salmon populations over the last century. Notably, seven respondents, mostly JobCorps students, indicated that they did not know the status of local salmon populations. Most respondents marked “development” and “diking and drainage in the floodplains and delta” as the major factors negatively influencing Skagit salmon populations; notably, the latter was the only factor marked by all five staff members. Respondents suggested a wide variety of things that positively impact local salmon populations. Most popular were public awareness and education about salmon, and habitat restoration projects.

Unfortunately, questions intended to elicit volunteers’ knowledge about the ecological and social contexts and rationales for restoration were poorly constructed and resulted in vague responses. However, an attempt to analyze these responses suggests that only about half of respondents were aware of ecologically specific ways in which restoration benefits the natural environment. Many suggested more general ways, such as it is “important for the circle of life.” Respondents volunteered a wide range of ideas for the social rationales for restoration, the most popular of which was that it directly benefits human health or quality of life. Of the government agreements, laws and policies related to local salmon recovery and restoration, respondents were most familiar with the Endangered Species Act and the Clean Water Act, and least familiar with the Critical Areas Ordinance and the Conservation Reserve Enhancement Program. Most respondents said they had learned about their local natural environment primarily from volunteer experiences.

The single most effective volunteer recruitment tool was the SFEG newsletter. Respondents had many ideas for other recruitment strategies. The overwhelming majority of respondents said they came to the planting day both to “give something back to the environment” and because they “enjoy being and working outdoors.” Helping the environment, planting plants, getting dirty, working outside and feeling a sense of accomplishment were most frequently listed as the best things about the day. Few respondents felt there was anything worst about the day, and if they did, it was an ailment or something else that staff had little control over. Very few suggested anything to make the day go better. In general, volunteers’ comments suggested that the day was very comfortable – even plush – and that they had a good time. People noted that the Edgewater Park planting event was unique, as it was located on the river, in town, seemed more organized, and offered food and



music. On the whole, however, respondents indicated that they did *not* learn things during the day that they did not already know, and that the Edgewater experience did not necessarily inspire them to engage in conservation actions beyond what they were already doing (which, given their responses to other questions, was a lot!).

### ***Understanding the Survey Results***

My goal in presenting the Edgewater Park restoration project volunteer survey results is to make as much information available as possible, and in a readable way, but also maintain the confidentiality of individual participants. Thus, I have not presented the database of raw results in its entirety because it is possible to identify individual participants from each complete set of responses to the questionnaire. Rather, I have summarized results while maintaining enough specificity to give the reader a sense of the breadth and idiosyncrasies of individual responses. The database contains more information and possibilities for interesting analyses than I am able to present here. Please let me know if you have any questions that require querying the original database and I will do my best to provide the results for you.

I divided respondents into four categories: Edgewater Park planting staff, children, JobCorps students and staff, and adult volunteers. I chose these categories because they seemed to make sense – i.e. I hypothesized that each group likely came to the Edgewater planting for somewhat different reasons, would likely have different experiences with respect to restoration, and would likely respond to questions differently. I assumed that readers would probably want to be able to distinguish the responses of adult volunteers, in particular, from other respondents. I determined which respondents were in which groups based on a combination of age (under 18 and not JobCorps were coded as “children”), whether they listed “JobCorps” as how they heard about the planting (“JobCorps” students or staff), and whether they listed “helping set up or take down site” as a major activity for the day as well as “daily” participation in restoration activities (“staff”). If over 18, not JobCorps, and not likely staff, then respondents were coded as “adult volunteers”. Keep in mind that these are categories for informational purposes only and are not based on an analysis of statistical differences between these groups (although there may in fact be statistically significant differences in their responses).

For each survey question there are generally two types of information presented: a table showing the actual number of responses, broken down by group, and a bar graph showing responses as percentages of all respondents. For example, take Figure 33: “What were your main reasons for coming to this planting today?” With a quick glance at the bar graph on the right, you can see

that the two reasons marked by the most respondents are “Enjoy being and working outdoors” and “To give something back to the environment”. Drawing an imaginary line from the top of those bars to the vertical axis on the left, you can see that a little over 75%, or about three-quarters of respondents selected these as reasons. If you look at the table on the left, across from “Enjoy being and working outdoors” and down from “Total”, you can see the actual number of respondents marking those reasons was 46. (Since you know the total number of respondents was 58, you can calculate the exact percentage by dividing 46 by 58 to get 79.3%.) By glancing again at the bar graph, you can see that individuals from all four groups selected both of those reasons, and by looking at the table, you can see exactly how many from each group selected those reasons: e.g. 2 staff people, 4 children, 8 JobCorps students and 32 adult volunteers marked “Enjoy being and working outdoors” as a reason.

Be careful you do not deduce percentages of groups from the bar graphs; they represent only percentages of all respondents. For example, you should NOT interpret the blue portion of the bar over “Enjoys being and working outdoors” to mean that “over 50% of adult volunteers” marked this as a reason. Instead, you could say that a portion of adult volunteers, representing over 50% of all volunteers, chose this as a reason. Or, by carefully eyeballing the proportion of the bar that is blue, you could say that about two thirds of those who chose “Enjoy being and working outdoors” as a reason were adult volunteers. In order to figure out the actual percentage of adult volunteers as a group who chose this as a reason, you need to calculate it from the numbers in the table: 32 out of a total of 35, or 91% of adult volunteers chose this as a reason. (Note that the total number of respondents in each group is listed in the bottom “Total” row of each table.)

Note that categories along the horizontal axes of the bar graphs represent either “response choices” – the multiple choice answers listed on the questionnaire – or “open response topics” – categories I made up from similar answers offered in response to open-ended questions. In addition I included individual responses that were written next to the “other” option in multiple choice questions, or that did not fall into any open response topics. I also included responses to the small open-ended questions associated with other questions, and noted their frequencies. For example, on page 10 I noted that five people wrote in “Skagit Valley Herald” as the newspaper in which they saw an ad about the planting day, by listing it as “Skagit Valley Herald X 5”.

## ***Survey Results in Detail***

### *Who came to the planting day?*

Of the 64 of people who came to the two plantings, 58 people filled out questionnaires: 35 adult volunteers, 10 JobCorps students, 8 children and 5 staff people who helped organize and set up the day (Fig. 1), resulting in a 91% response rate. There were a fairly even number of males and females, with 3 more JobCorps women than men and 4 more adult volunteer men than women (Fig. 2). Respondents ranged in age from 11 to 79 (but there were a handful of younger children present at the planting who did not fill out a questionnaire). Although there were more people representing younger generations (especially teenagers), 15 people were over 50 and 4 people were over 70 (Fig. 3).

*Most respondents were from the Skagit Valley, although it is interesting to note that a full third were not from the area, and most do not own property beyond a house and yard here. Most respondents live in an urban or suburban area rather than in a rural area, and most also grew up in a town or suburbs. Two thirds (66%) of respondents (or families of respondents) currently live in the Skagit Valley (including the Samish basin) (Fig. 4). Those who do not live in the Skagit came from King, Snohomish and Whatcom Counties, the farthest location probably being Federal Way, south of Seattle (Fig. 7). Five sixths (83%) of adult volunteers or their families live in the Skagit area, while less than half of the staff (representing only 2 people) said they live here. JobCorps students were mostly from outside the Skagit Valley (Fig. 4).*

Skagitonian respondents and their families have lived in the area an average of 19 years, with the longest tenure being 88 years (Fig. 5). Sixteen percent of all respondents and 23 % of adult volunteers indicated that they own land, such as forest or farm land, in the Skagit area; only 1 staff person indicated that they own land here. This translates to 24% of all respondents and 28% of the adult volunteers who *live* in the Skagit that own land here (Fig. 6). Seventy-nine percent of all respondents and 77% of all adult volunteers said they currently live in a town or suburbs. Of these, 20 people came from Mount Vernon, 5 from Seattle, 4 from Anacortes, 2 from Bellingham and 2 from Mill Creek (among others) (Fig. 7). Ten respondents said they currently live in a rural area, with an average of 7 miles from the nearest town (Fig. 7). From Fig. 8a you can compare location of current residence to where people grew up to get a sense of possible childhood influence or migration. Interestingly, for example, about half of the people who said they grew up in a rural area now live in town, and an equal number (7) who grew up in a town said they now live in a rural area. About 30 people said they grew up in Washington State; others

came from around the country and three people said they grew up outside the country (Fig. 8).

*This was a highly informed, educated and professional crowd, with moderate involvement in organized groups and local community service. A majority of respondents (67%) and adult volunteers (80%) said that a main way they found out about the news was by reading the newspaper, most notably the Skagit Valley Herald (20 readers) and the Seattle Times (11 readers). The second most popular source of news among all respondents was television, with KING 5 (11 viewers), CNN (6 viewers) and KIRO 7 (5 viewers) being the most watched stations, but nearly half (44%) of those choosing TV were children and JobCorps students. Radio was the second preferred source of news for adult volunteers (54%) and public radio stations (KUOW, KPLU and others) were most popular, with 16 listeners in the crowd (Fig. 9).*

All of the adult volunteers who responded to the question except one said they had some college experience. And not surprisingly, 9 of the 11 respondents who said they did not have college experience were children or JobCorps students (Fig. 10). In addition, 8 respondents said they were currently students, and 6 said they worked now or at some time in the past as educators. Over half (52%) of all respondents and nearly three quarters (74%) of adult volunteers said they had some professional employment experience, ranging from air traffic controller to seamstress. Interestingly, three respondents had experience working as commercial fishermen (Figs 11 and 11a).

Less than half (40%) of all respondents and just over half (54%) of adult volunteers said they belonged to an organized group, such as a professional society, civic club, religious or spiritual community (Fig. 12). It is impossible to know, however, whether the 17 people who did not respond to this question missed the question or were not involved in a group. Of the 18 people who definitely said they were not members of any organized group, 13 were children or JobCorps students, and only 5 were adult volunteers. Of those who did indicate membership in a group, the overwhelming majority (19 or 82%) listed membership in environmental organizations (33% of all respondents; 43% of all adult volunteers). Membership in religious organizations, such as church groups, was second most common among respondents, followed by political (Democratic and Republican) and recreational groups (Fig. 12). Less than half of the respondents (25) indicated that, in addition to doing restoration work, there are other ways that they volunteer their time in their communities, including other activities related to the environment, and also education, health, the arts and culture (Fig. 13). Yet another 25 did not respond to the question. Eight respondents firmly indicated that they do not do other volunteer activities.

# Edgewater Survey Respondents

Total = 58

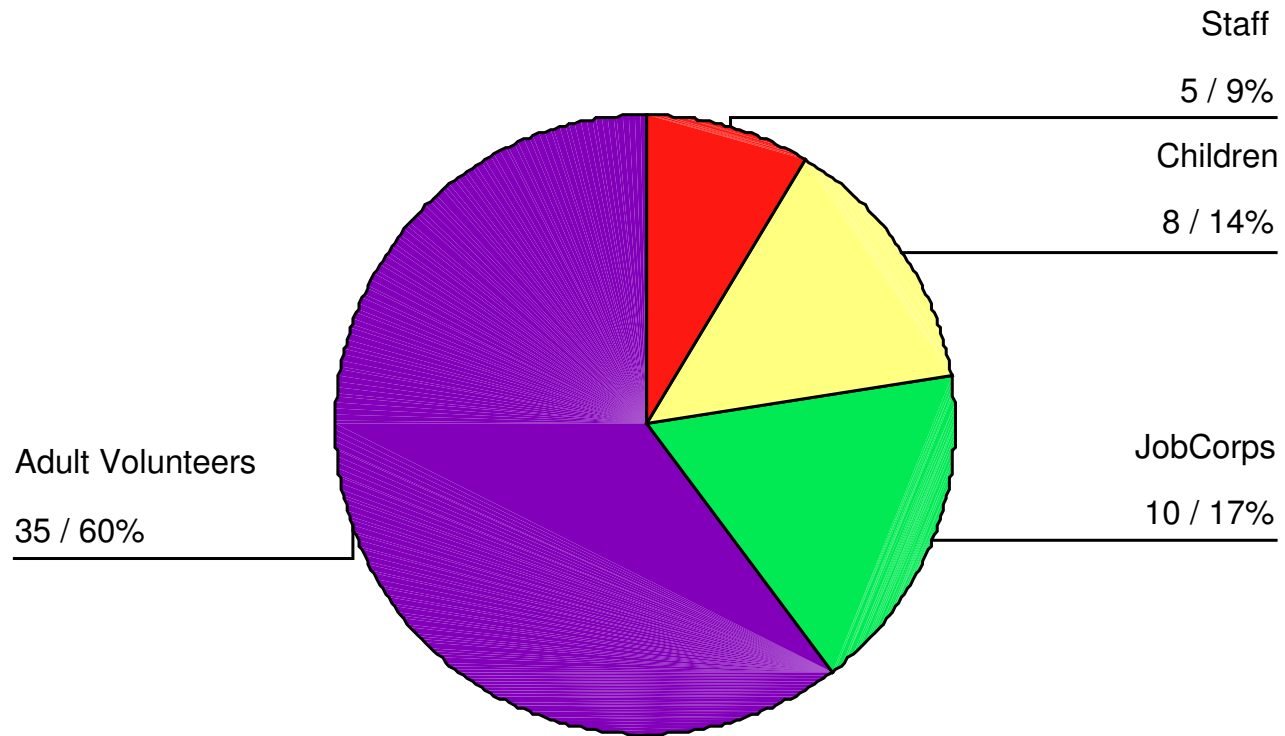


Fig. 1.) Edgewater Survey Respondents.

Fig. 2.) Are you male or female ?

		Gender		
		Male	Female	No response
Group	Staff	2	2	1
	Children	4	4	0
	JobCorps	3	6	1
	Adult Volunteers	19	15	1
Total		28	27	3

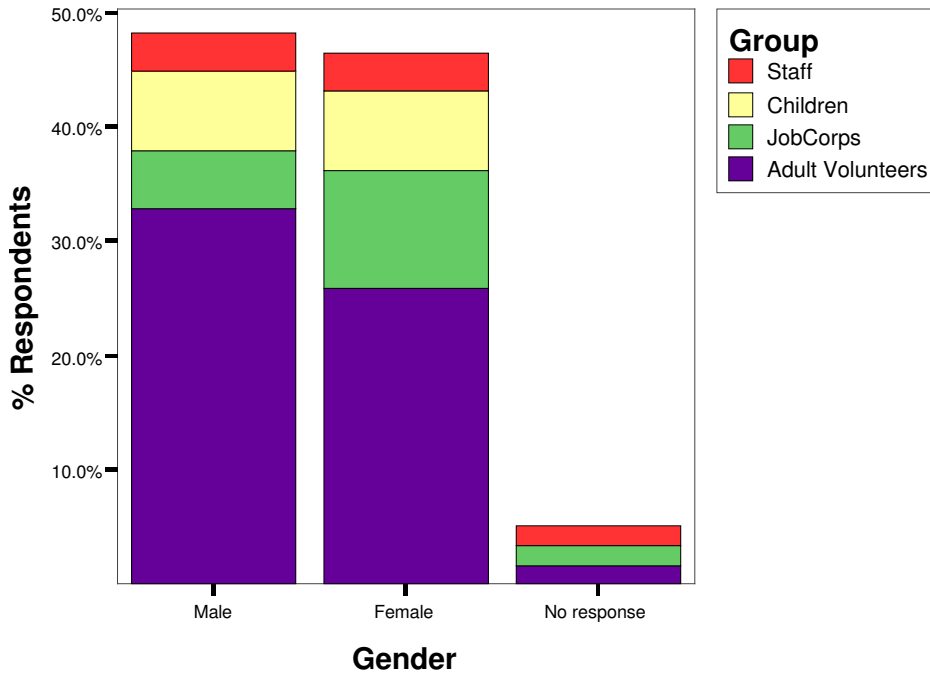


Fig. 3.) In what year were you born?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Age	11 - 19	0	8	3	0	11
Categories	20 - 29	0	0	4	6	10
	30 - 39	2	0	1	7	10
	40 - 49	1	0	0	7	8
	50 - 59	0	0	0	6	6
	60 - 69	0	0	0	5	5
	70 - 79	1	0	0	3	4
	No response	1	0	2	1	4
Total		5	8	10	35	58

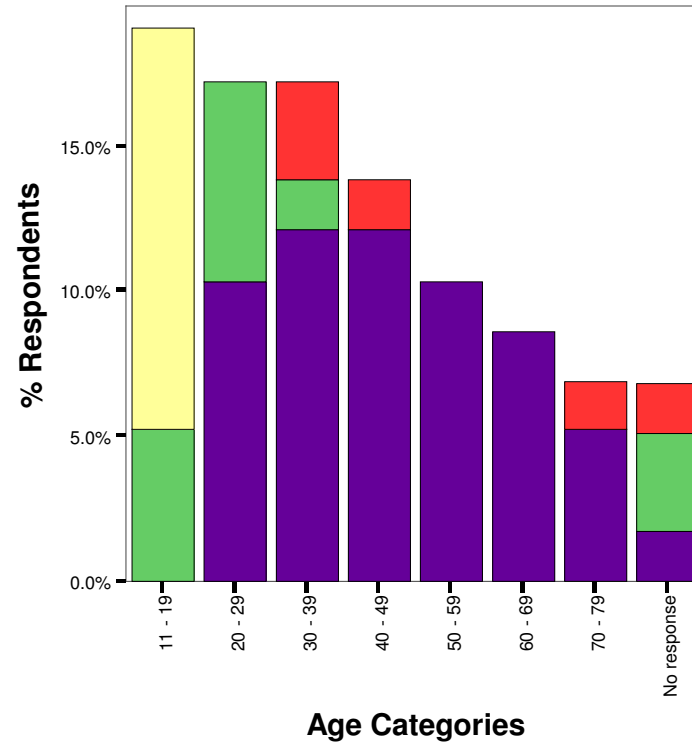


Fig. 4.) Do you OR your family (including extended family) currently live in the Skagit area – (including Skagit County and Samish basin)?

		Lives in Skagit Area			Total
		No	Yes	No response	
Group	Staff	2	2	1	5
	Children	3	5	0	8
	JobCorps	7	2	1	10
	Adult Volunteers	6	29	0	35
Total		18	38	2	58

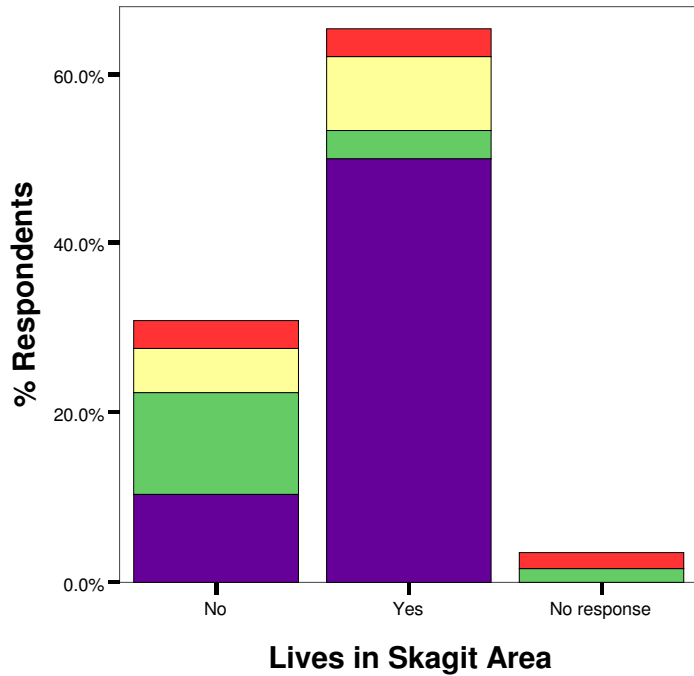


Fig. 5.) If so, about how many years ago did you or your family first come to the Skagit area?

		Years in Skagit Area		
		Maximum	Mean	Valid N
Group	Staff	30	19	N=2
	Children	16	6	N=5
	JobCorps	13	7	N=2
	Adult Volunteers	88	21	N=29
Total		88	19	N=38

Fig. 6.) Do you or your family own land (besides a house and lawn) such as forest or farm land, in the area?

		Owns Land in Skagit Area			Total
		No	Yes	No response	
Group	Staff	3	1	1	5
	Children	8	0	0	8
	JobCorps	9	0	1	10
	Adult Volunteers	27	8	0	35
Total		47	9	2	58

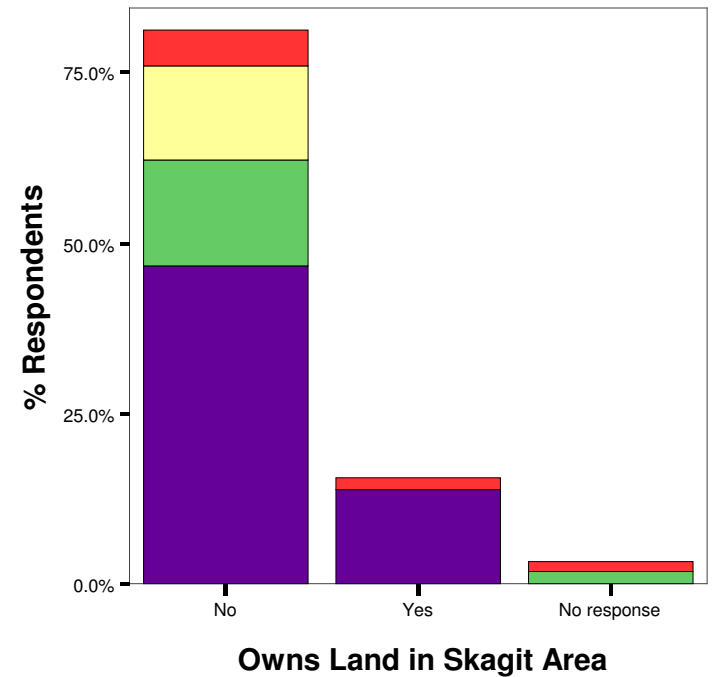
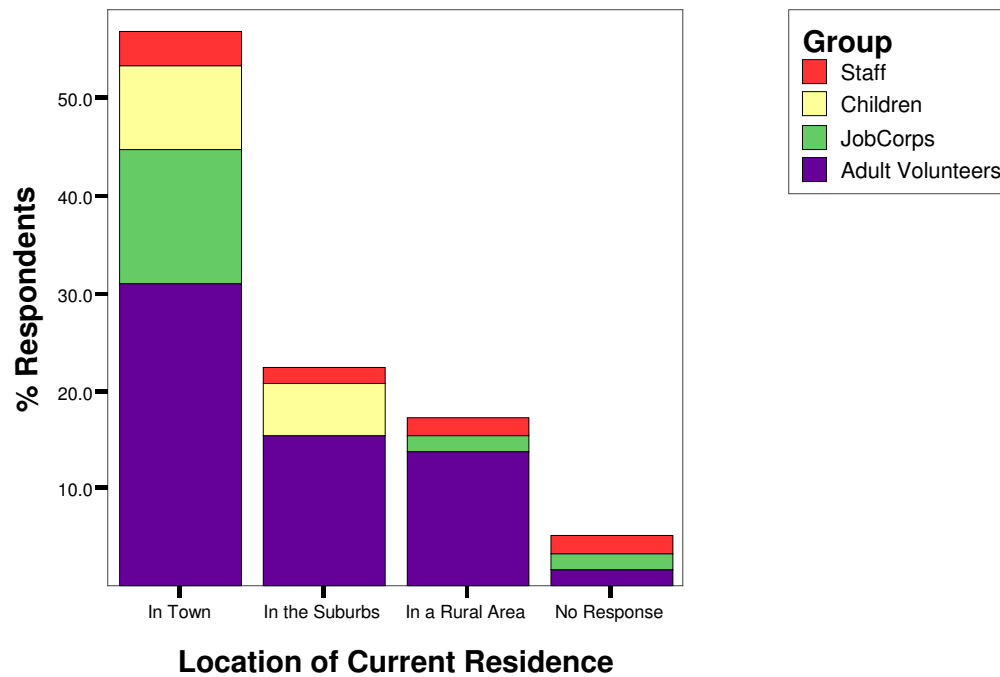


Fig. 7.) How would you best describe where you live now?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Location of Current Residence	In Town	2	5	8	18	33
	In the Suburbs	1	3	0	9	13
	In a Rural Area	1	0	1	8	10
	No Response	1	0	1	1	3
Total		5	8	10	35	58



**Currently lives in:**

- Anacortes X 2
- Bellingham X 2
- Everson
- Federal Way
- LaConner
- Mount Vernon X 17
- Oak Harbor
- Seattle X 5

**Currently lives in suburbs of:**

- Anacortes X 2
- Bellingham
- Mill Creek X 2
- Mount Vernon X 3
- Mukilteo
- Snohomish

**Currently lives in a rural area, closest to:**

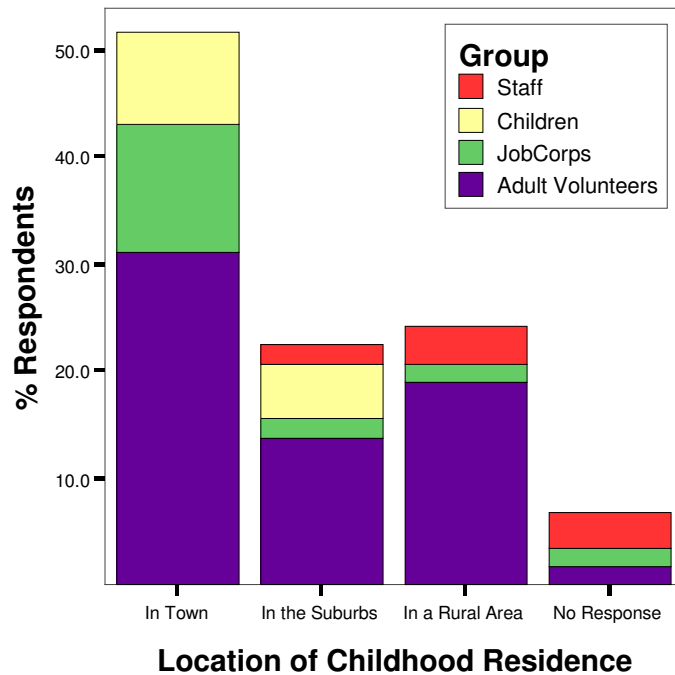
- Bayview X 2
- Burlington X 3
- Mount Vernon X 3
- Sedro Wolley

**Currently lives in a rural area, distance from town:**

- Min: 1 mile
- Max: 13 miles
- Avg: 7 miles

Fig. 8.) How would you best describe where you grew up?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Location of Childhood Residence	In Town	0	5	7	18	30
	In the Suburbs	1	3	1	8	13
	In a Rural Area	2	0	1	11	14
	No Response	2	0	1	1	4
Total		5	8	10	35	58



**Grew up in:**

- Anacortes and Sedro Woolley
- Bellingham
- Columbus, OH
- Addis Ababa, Ethiopia
- Everett X 2
- Island of Guam
- Kremenchung[?]
- Manet, Bremerton
- Mount Vernon X 6
- Pensacola, FL
- Petaluma, CA
- Port Angeles, WA
- Seattle X 3
- Several
- Tacoma X 2
- Topeka, Kansas
- Torrance, CA
- Various - WI and MN

**Grew up in suburbs of:**

- Cincinnati, OH
- Fremont, CA
- Greenwich, CT
- Mill Creek
- Sacramento
- Seattle X 2
- Spokane X 2
- Various locations

**Grew up in rural area, closest to:**

- Bremerton
- Colchester
- Issaquah, WA
- Kettle Falls, WA
- Mendon, NY
- Mount Baker ski area
- Mount Vernon X 2
- On an island
- Reading, PA
- Springbrook, ND
- Bellingham
- Stanwood

**Grew up in rural area, distance from town:**

- Min: 1
- Max: 45
- Avg: 11

Fig. 8a.) How does location of current residence compare to where people grew up? (A cross-tabulation of questions 7 and 8).

		Grew Up In Town		Grew Up In the Suburbs		Grew Up In a Rural Area	
		No	Yes	No	Yes	No	Yes
		Lives Now In Town		Lives Now In the Suburbs		Lives Now In a Rural Area	
Lives Now In Town	No	17	8	17	8	18	7
	Yes	11	22	28	5	26	7
Lives Now In the Suburbs	No	19	26	40	5	33	12
	Yes	9	4	5	8	11	2
Lives Now In a Rural Area	No	23	25	36	12	39	9
	Yes	5	5	9	1	5	5

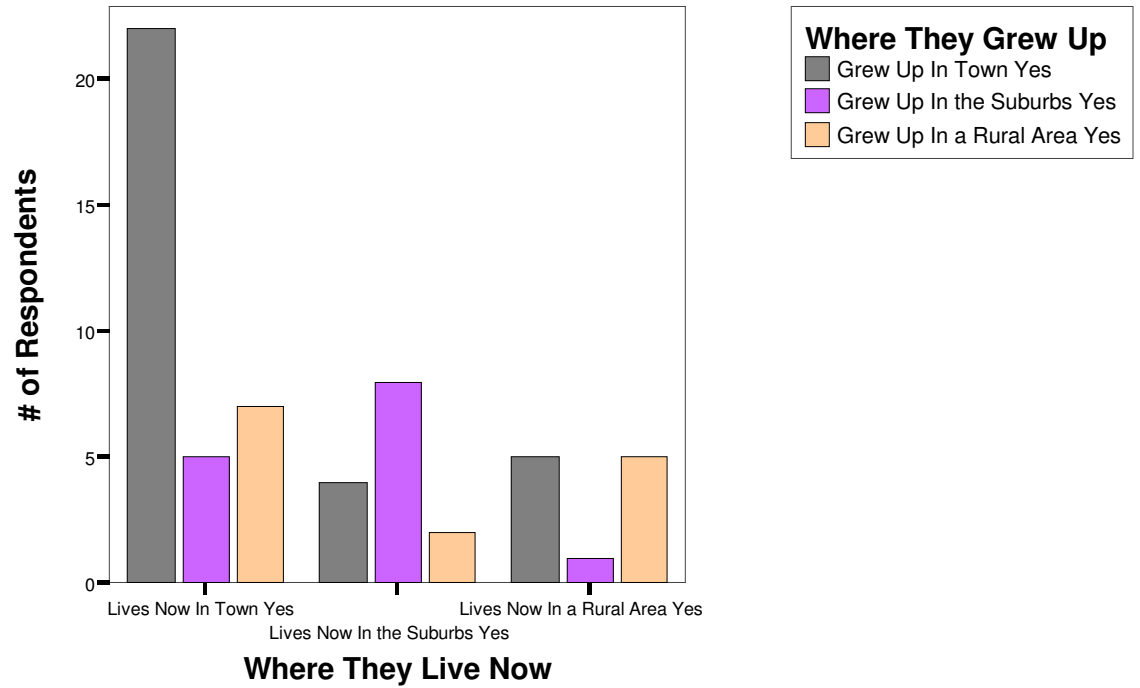
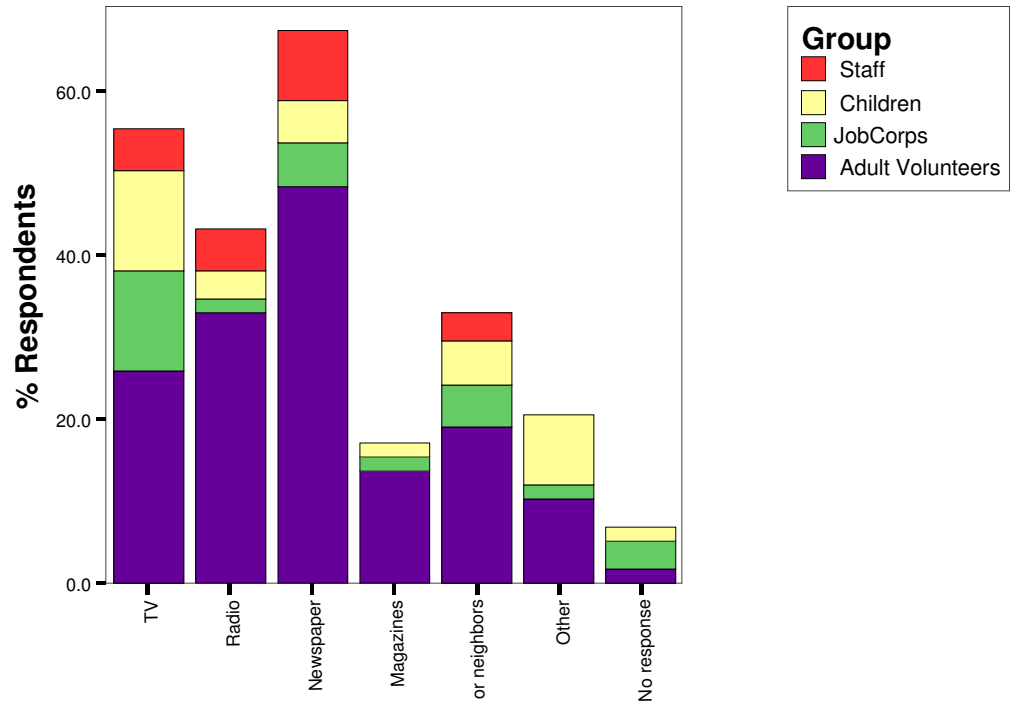




Fig. 9.) What are the main ways you find out about the news in general?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Main Sources of News	TV	3	7	7	15	32
	Radio	3	2	1	19	25
	Newspaper	5	3	3	28	39
	Magazines	0	1	1	8	10
	Friends, family members or neighbors	2	3	3	11	19
	Other	0	5	1	6	12
	No response	0	1	2	1	4
Total		5	8	10	35	58



**TV Stations:**

- KING 5 X 11
- CNN X 6
- KIRO 7 X 5
- KOMO 4 X 3
- FOX NEWS X 3
- PBS/9 X 2
- Local stations X 2
- Channel 6
- Channel 11
- Channel 13
- Channel 14
- CNBC
- CTV-Canada
- David Letterman
- Discovery Channel
- NWCN
- Varies
- I don't know

**Radio Stations:**

- NPR (KUOW, KPLU, and others) X 15
- KAFE 104.3 X 2
- KOMO X 2
- CBC
- KISW
- KSVR
- KAPS
- 107.7
- 710 AM
- 790 AM
- 1170 AM
- Anything left of 92 mhz FM (public radio)

**Newspapers:**

- Skagit Valley Herald X 20
- Seattle Times X 11
- Seattle PI X 3
- Everett Herald X 3
- Bellingham Herald X 2
- Bellingham Weekly X 2
- Anacortes American
- Whatcom Independent
- The Guardian
- The Stranger
- Argus

**Magazines:**

- Audubon X 2
- Newsweek X 2
- AARP
- Nature Conservancy
- High Country News
- Sprig
- Time

**Other:**

- Internet X 4
- School X 2
- Newsletters X 2
- Email
- Evergreen Freedom Foundation Newsletter
- Skagit County Republican Party Newsletter

**Main Sources of News**  
- response choices -

Fig. 10.) What are your current and/or past major fields of study in college, if any?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
College Experience	Environment related	3	0	0	14	17
	Other college experience	0	0	1	15	16
	No college experience	1	5	4	1	11
	No response	1	3	5	5	14
Total		5	8	10	35	58

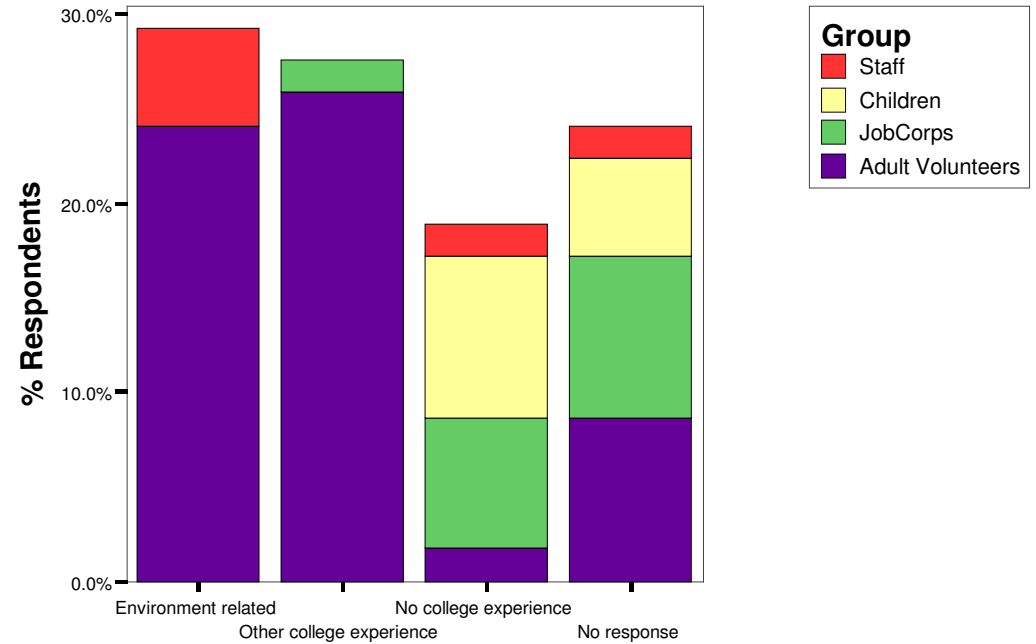


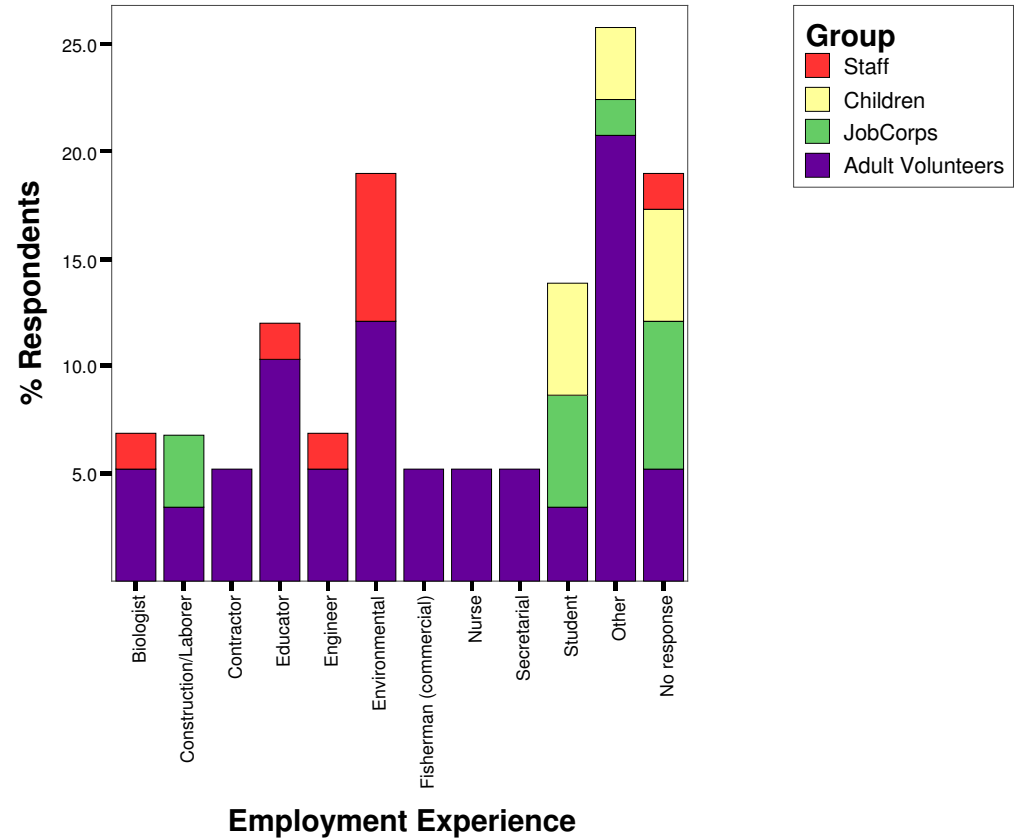
Fig. 10a.) Respondents with college or employment experience in an environmental field, or membership in an environmental organization. (From figures 10, 11, 12).

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Previous Environmental Interest	No	0	4	5	10	19
	Yes	4	1	1	22	28
	No response	1	3	4	3	11
Total		5	8	10	35	58

**College Experience**  
 - open response topics -  
 - environment-related and "other" may be added for total percent with college experience -

Fig. 11.) What are your current and past major occupation(s)?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Employment Experience	Biologist	1	0	0	3	4
	Construction/Laborer	0	0	2	2	4
	Contractor	0	0	0	3	3
	Educator	1	0	0	6	7
	Engineer	1	0	0	3	4
	Environmental	4	0	0	7	11
	Fisherman (commercial)	0	0	0	3	3
	Nurse	0	0	0	3	3
	Secretarial	0	0	0	3	3
	Student	0	3	3	2	8
	Other	0	2	1	12	15
	No response	1	3	4	3	11
Total		5	8	10	35	58



- 'environmental' includes also 'biologists' and 'environmental engineers', e.g. -  
 - 'no response' includes also 'none' -

Fig 11a.) Employment Experience, cont'd. (Categorization of open response topics)

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Professional Experience	Professional	4	0	0	26	30
	Labor/Assistant	0	1	2	5	8
	Student	0	3	3	1	7
	None	0	1	2	0	3
	No Response	1	3	3	3	10
Total		5	8	10	35	58

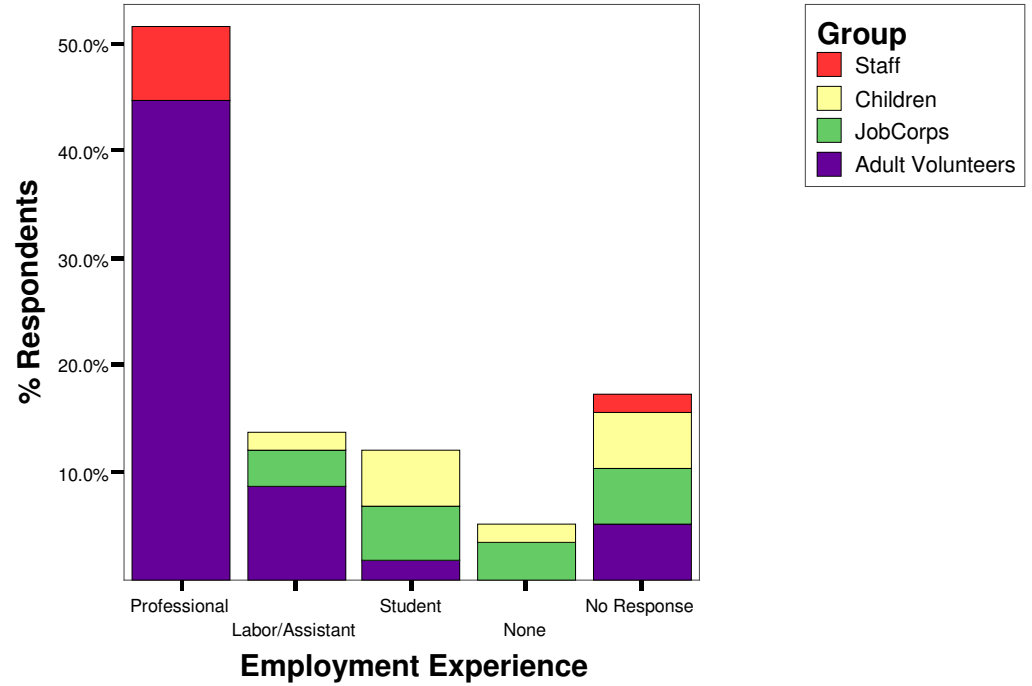
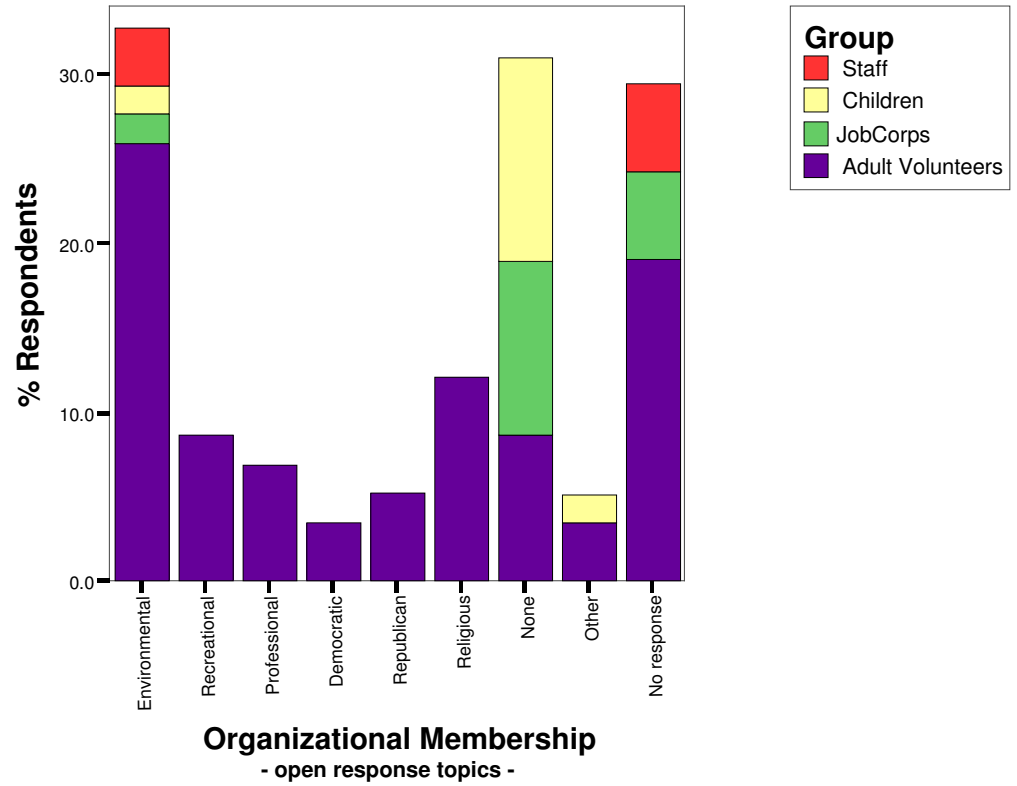


Fig. 12.) Are you a member or participant in any organized group, such as a professional society, civic club, religious or spiritual community, political party, or environmental organization? If so, what are these?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Organizational Membership	Environmental	2	1	1	15	19
	Recreational	0	0	0	5	5
	Professional	0	0	0	4	4
	Democratic	0	0	0	2	2
	Republican	0	0	0	3	3
	Religious	0	0	0	7	7
	None	0	7	6	5	18
	Other	0	1	0	2	3
	No response	3	0	3	11	17
<b>Total</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>	



**Fig. 12, Cont'd.) Environmental Organizations Respondents are Members of:**

- American Fisheries Society
- Audubon X 2
- Carkeek Park and Seattle Parks and Rec
- Earth Ministry X 2
- Friends of Skagit County X 2
- Futurewise
- People for Puget Sound X 2
- Peta 2 Street Team
- Population Connection
- Regional Fisheries Enhancement Group
- Shoreline C.C. Environmental Club
- Sierra Club
- Skagit Audubon Hiking Society
- Skagit Conservation District
- Skagit Conservation Education Alliance X 2
- Skagit Fisheries Enhancement Group X 8
- Skagit Land Trust X 2
- Skagit Watershed Council X 3
- Society for Conservation Biology
- Stream Stewards – Nookachamps
- Stream Stewards – Skagit
- The Nature Conservancy X 2

**Fig. 13.) Besides doing restoration work, are there other ways that you volunteer your time in your community? If so, what are these?**

- Arthritis Walk
- Bellingham Co-op
- Big Brothers, Big Sisters
- Cancer Walk
- Church
- Church choir
- Coach X 2
- Community club
- Environmental education
- Government committees
- Health-related projects
- Healthy Communities Project,
- Heritage Flight Museum
- Highschools X 2
- Honor Society
- Lincoln Theater X 2
- Master Composters and Recyclers
- Mount Vernon Parks/Recreation
- Mount Vernon Stream Stewards
- Political
- River Song Farm
- Schools X 2
- Skagit Literacy X 2
- Skagit Oncology
- Swinomish Reservation
- Teach conversational Spanish
- Therapy
- Tutor math
- Tutoring elementary children
- YMCA

						Total
		Staff	Children	JobCorps	Adult Volunteers	
Other volunteering	Yes	2	2	2	19	25
	No	1	3	3	1	8
	No response	2	3	5	15	25
Total		5	8	10	35	58

### *Was this “the choir”?*

*A relatively large number of respondents, and not just staff members, had educational, work, and/or other volunteer experience in an environment or natural resource related field.* Of the 29 adult volunteers listing some college experience, 14 (48%; or 40% of all adult volunteers) studied environment-related fields, such as biology or environmental studies (Fig. 10). Seven adult volunteers (20%), in addition to 4 staff members identified employment experience in an environmental field (Fig. 11). I noted earlier that one third of all respondents and 43% of all adult volunteers listed membership in an environmental organization (Fig. 12), with the highest membership (8 respondents) in the Skagit Fisheries Enhancement Group, not surprisingly. Respondents who demonstrated significant previous interest in environmental topics, with either college or employment experiences related to environmental fields, and/or membership in an environmental organization accounted for about half (28) of all respondents and about two-thirds (22) of all adult volunteers (Fig 10a). In addition, a full 56 out of 58 respondents checked at least one “environmental activity” that they do besides volunteering to do restoration (Fig. 14). The five most frequently checked activities were “I don’t litter” (at 51/88%), followed by “I recycle” (49/84%), “I reuse things...” (48), “I pick up trash” (46) and “I avoid using toxic chemicals...” (39). Still over half of respondents marked “I vote for conservation measures” (33) and “I sign petitions supporting conservation” (30). Lower scoring activities were those that take more time, money or effort or that limit use of a personal vehicle – difficult in a rural area - yet each of the following still accounts for about a third of all respondents : “I limit use of my car or truck” (23), “I usually buy organic and eco-friendly products” (21), “I write letters to ... support conservation” (19), “I organize people to ... support conservation” (19). The lowest scoring activity, at 12% of respondents, again difficult for a sparsely populated area, was “I usually use public transportation” (7); 5 of these respondents were, not surprisingly, children or JobCorps students. Finally, this was an active, outdoor crowd: 54

people indicated that they did one of the listed outdoor things in their spare time more than once in the last year (Fig. 15). Most popular (indicated by more than 50% of respondents) were: hiking (47/81%), gardening (39), camping (35), boating (33) and playing sports outside (32). Still popular among more than a third of respondents were outdoor art (25) and fishing (23). Noticeably least popular was hunting (5/9%).

More specifically, I asked if people had previously participated in salmon habitat restoration-related activities. Almost everybody, except half the JobCorps students and 2 adult volunteers, had already learned in some way about how to protect salmon and ecological restoration. This included all of the children (Figs. 16 and 17). It was the first time doing work to protect salmon and doing ecological restoration for only 6 adult volunteers, 2-3 children, and all the JobCorps students except one. That means that about 70% of all respondents, and about 80% of adult volunteers had already participated in some kind of salmon protection and restoration activities. Forty-one (70% of all respondents; 86% of adult volunteers) had volunteered or worked for at least one of several local conservation organizations, overwhelmingly with SFEG (Fig. 18). Nearly half of all respondents (28 / 48%) and more than half the adult volunteers (57%) had participated in local conservation education programs, most notably the Stream Stewards (16 participants), Skagit River Stewards (12), and Watershed Masters (8) programs.

Respondents that had experience in restoration and salmon protection had been involved in these activities for an average of roughly 5.5 years; adult volunteers had an average of 6.6 years of experience among them, with one volunteer having been involved for over 30 years (Figs. 19 and 19a). Most people (about two thirds of respondents) had participated in restoration or salmon protection activities more than once per year (Fig. 20): 3 adult volunteers likely worked in the field, indicating, with all staff, daily participation. In addition, adult volunteers participated in restoration or salmon protection activities an average of roughly 40 times per year, or a little over three times per month (Fig. 20a).

Fig. 14.) Besides volunteering to do restoration, do you participate in other environmental activities? If so, what kinds of things do you do?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Other	I recycle	4	7	8	30	49
Environmentally Friendly Activities	I reuse things as much as possible	5	6	6	31	48
	I don't litter	5	7	5	34	51
	I pick up trash	5	5	8	28	46
	I avoid using toxic chemicals in my home or garden	4	6	6	23	39
	I usually buy organic food and eco-friendly products	4	4	3	10	21
	I limit use of my (gas-powered) car or truck	1	4	1	17	23
	I usually use public transportation	0	2	3	2	7
	I vote for conservation measures	5	2	1	25	33
	I write letters to elected officials urging them to support conservation	4	2	0	13	19
	I sign petitions supporting conservation	3	3	2	22	30
	I organize people to do environmental work or to support conservation	4	2	1	12	19
	Other	1	0	1	4	6
	No response	0	0	1	1	2
<b>Total</b>		<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

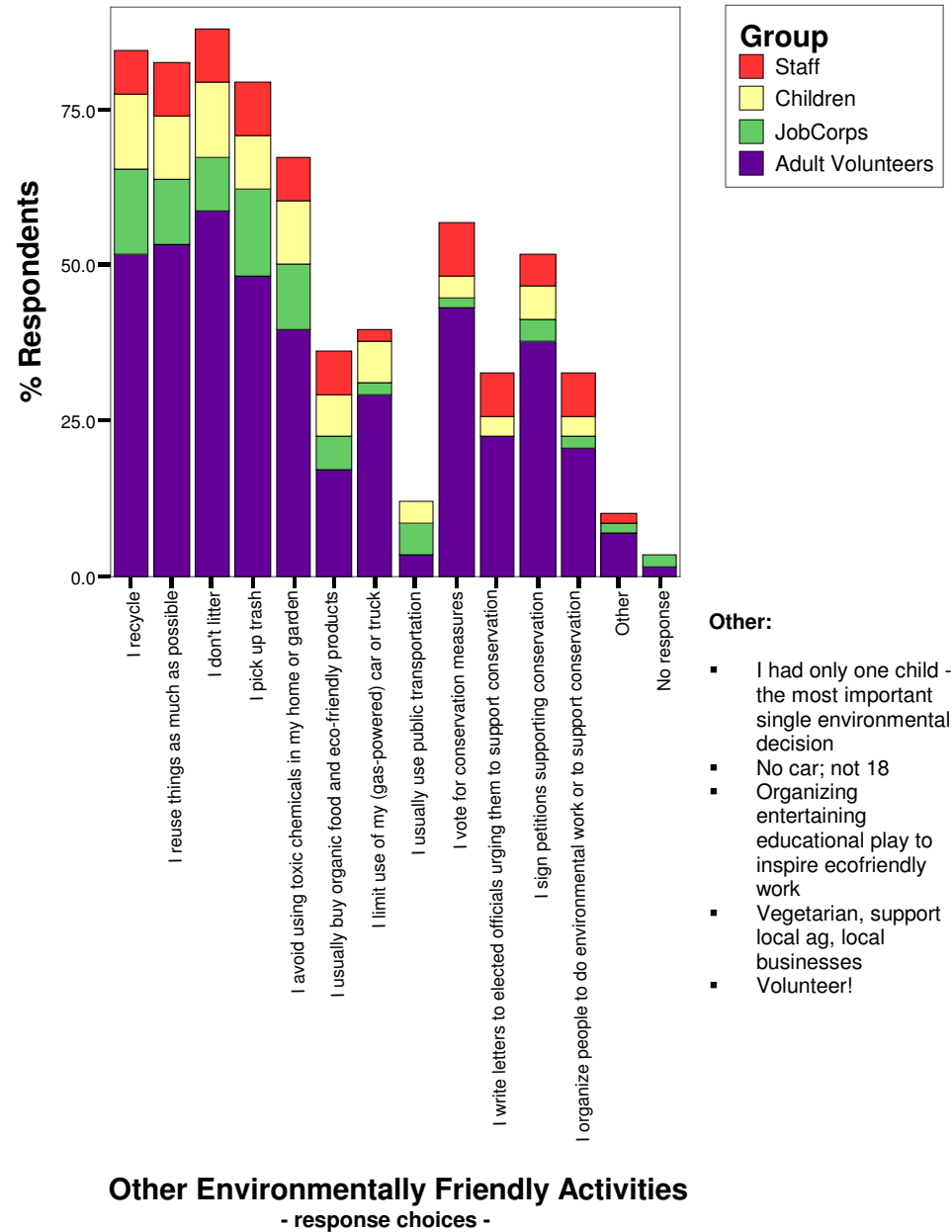


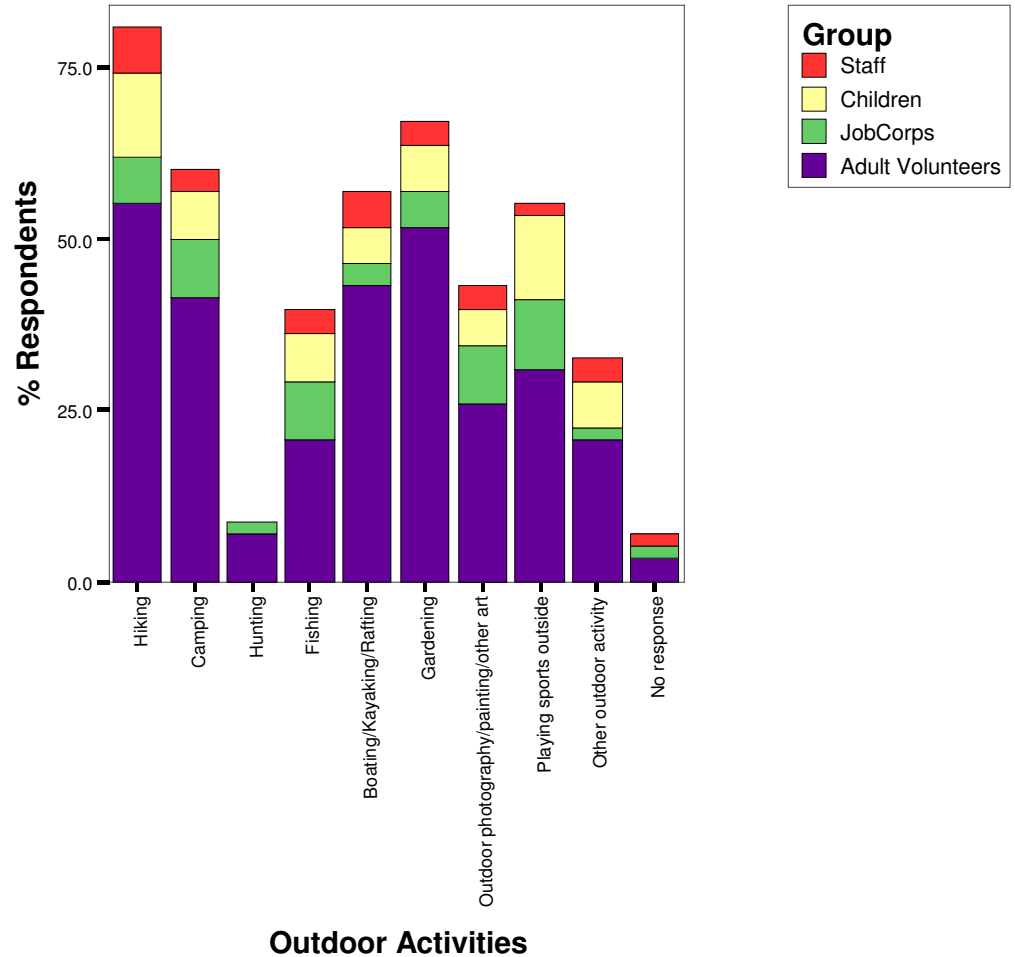


Fig. 15.) In the past year, did you do any of the following outdoor things in your spare time more than once?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Outdoor Activities	Hiking	4	7	4	32	47
	Camping	2	4	5	24	35
	Hunting	0	0	1	4	5
	Fishing	2	4	5	12	23
	Boating/Kayaking/Rafting	3	3	2	25	33
	Gardening	2	4	3	30	39
	Outdoor photography/painting/other art	2	3	5	15	25
	Playing sports outside	1	7	6	18	32
	Other outdoor activity	2	4	1	12	19
	No response	1	0	1	2	4
	<b>Total</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

**Other:**

- A little sex
- Bicycling X 2
- Bird watching
- Golf
- Husky fever
- Lots of outdoorsy friends
- Restoration
- Rock climbing
- Snowboarding
- Snowshoe, hot springs!!
- Sports
- Walking on beach
- Watching squirrels
- Wildcrafting
- Work outdoors X 2



Questions for Fig. 16, First Timers and Fig. 17, Old Hats:  
 Is this your first time doing ecological restoration?  
 Is this your first time learning about ecological restoration?  
 Is this your first time doing work to protect salmon?  
 Is this your first time learning about how to protect salmon?

		First time doing ecological restoration			First time learning about ecological restoration			First time doing work to protect salmon		First time learning about how to protect salmon		
		NO	YES	No Response	NO	YES	No Response	NO	YES	NO	YES	No Response
Group	Staff	5	0	0	5	0	0	5	0	5	0	0
	Children	6	2	0	7	0	1	5	3	7	0	1
	JobCorps	1	9	0	5	5	0	1	9	5	5	0
	Adult Volunteers	28	6	1	32	2	1	29	6	33	2	0
Total		40	17	1	49	7	2	40	18	50	7	1

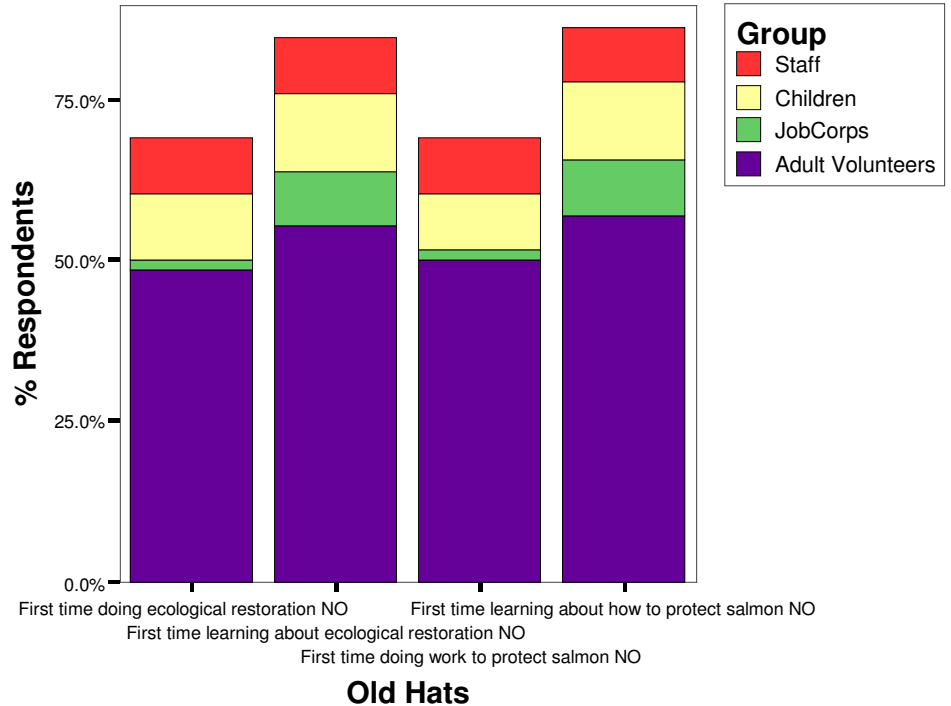
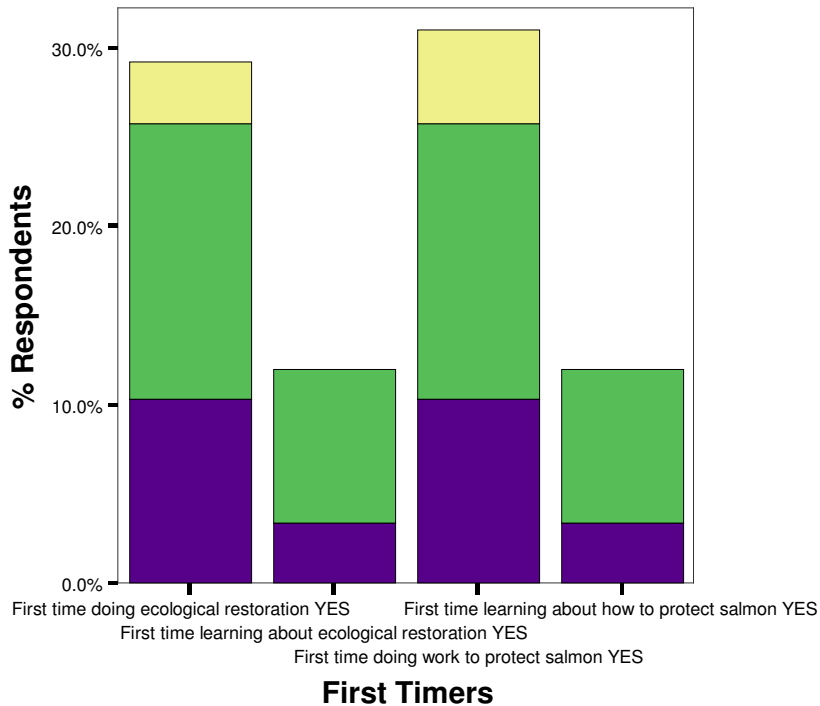
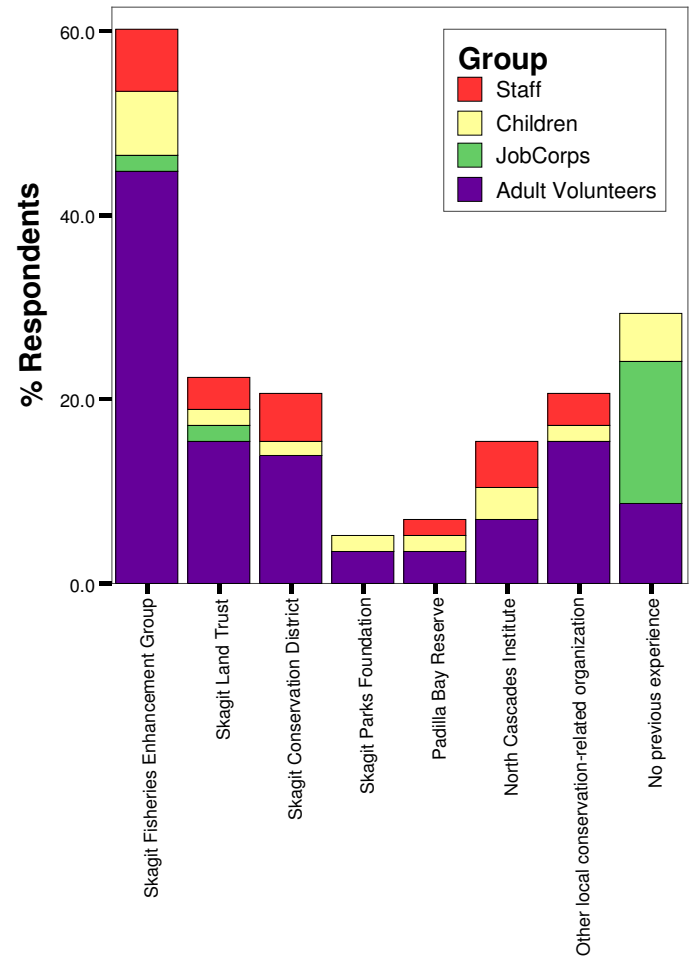


Fig. 18.) Have you ever volunteered or worked for any of the following organizations?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Experience with Local Conservation Organizations	Skagit Fisheries Enhancement Group	4	4	1	26	35
	Skagit Land Trust	2	1	1	9	13
	Skagit Conservation District	3	1	0	8	12
	Skagit Parks Foundation	0	1	0	2	3
	Padilla Bay Reserve	1	1	0	2	4
	North Cascades Institute	3	2	0	4	9
	Other local conservation-related organization	2	1	0	9	12
	No previous experience	0	3	9	5	17
<b>Total</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>	

“Other” responses:

- Friends of trees, parks
- NSEA
- Orka Network
- People for Puget Sound
- Skagit Conservation Education Alliance
- Skagitonians to Preserve Farmland
- Snohomish County
- Stilly-Sno FTF
- Swinomish Reservation
- US Forest Service
- US Park Service



Experience with Local Conservation Organizations  
- response choices -

Fig. 19.) About how many years have you been involved in these kinds of activities related to restoration and/or salmon protection?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Years Involved in Restoration/Salmon Protection	Less than one year	1	2	5	6	14
	About 1 year	0	3	1	2	6
	2-5 years	0	1	0	12	13
	6-10 years	3	2	0	6	11
	11-20 years	1	0	0	4	5
	21-30 years	0	0	0	1	1
	More than 30 years	0	0	0	1	1
	No Response	0	0	4	3	7
<b>Total</b>		<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

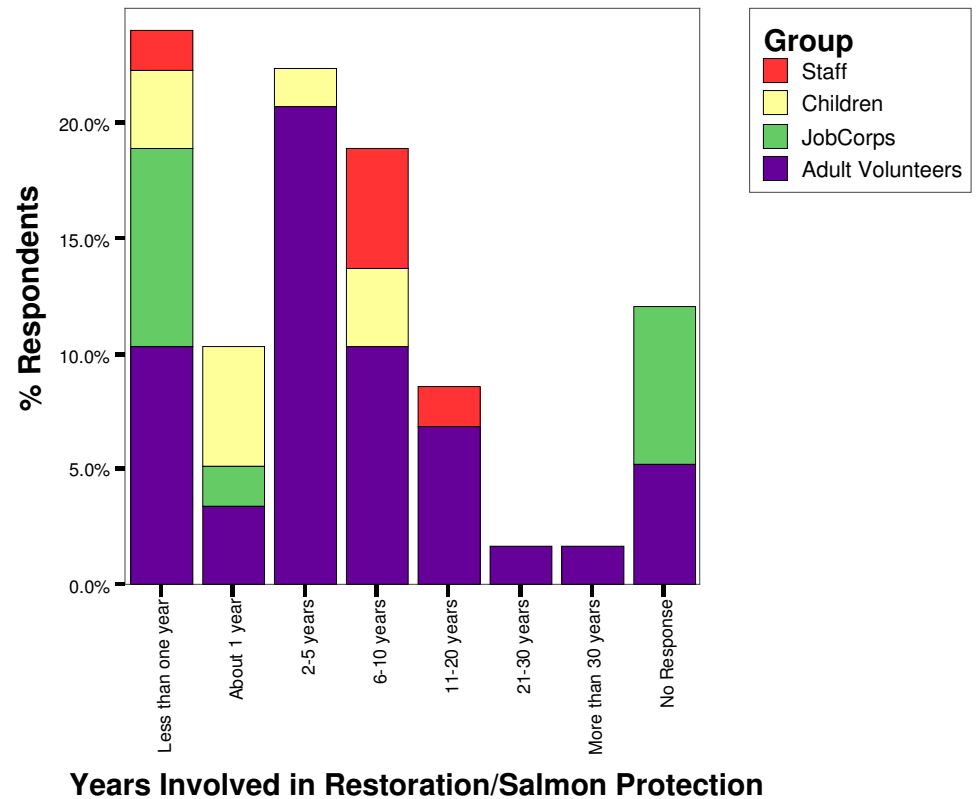


Fig. 19a.) Estimate of length of involvement in restoration and salmon protection activities - descriptive statistics.

**Roughly, Years Involved in Restoration/Salmon Protection**

		Maximum	Mean	Minimum	Median	Mode
Group	Staff	15.5	8.0	.5	8.0	8.0
	Children	8.0	2.9	.5	1.0	1.0
	JobCorps	1.0	.6	.5	.5	.5
	Adult Volunteers	30.0	6.6	.5	3.5	3.5
Table Total		30.0	5.5	.5	3.5	.5

Fig 20.) About how often are you involved in restoration and/or salmon protection?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Frequency of Involvement in Restoration/Salmon Protection	Less than once per year	0	1	5	8	14
	2-5 times per year	0	5	1	6	12
	6-10 times per year	0	0	0	5	5
	About once per month	0	1	0	2	3
	2-3 times per month	0	0	0	1	1
	Weekly	0	1	0	6	7
	Daily	5	0	0	3	8
	No Response	0	0	4	4	8
<b>Total</b>		5	8	10	35	58

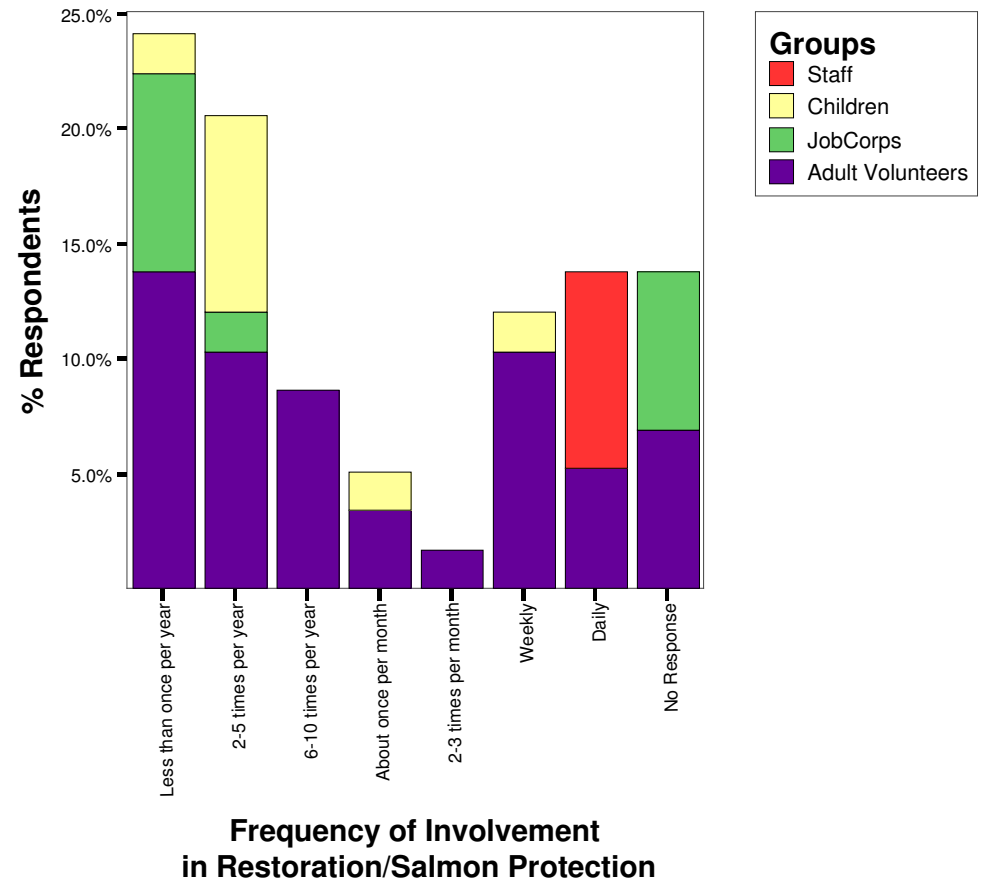


Fig. 20a.) Estimate of frequency of involvement in restoration and salmon protection activities – descriptive statistics.

**Roughly, Frequency of Involvement in Restoration/Salmon Protection (days per year)**

		Maximum	Mean	Median	Minimum	Mode
Group	Staff	256.0	256.0	256.0	256.0	256.0
	Children	52.0	10.3	3.5	.5	3.5
	JobCorps	3.5	1.0	.5	.5	.5
	Adult Volunteers	256.0	38.7	8.0	.5	.5
Table Total		256.0	51.3	3.5	.5	.5

### *What do volunteers think about the Skagit Valley environment?*

*Overall, most volunteers consider the Skagit Valley environment to be somewhat – but not severely – degraded, and believe increasing population and development are sources of the major negative impacts on the local environment.* Most respondents (58%), two thirds of adult volunteers and all staff felt that the Skagit Valley environment is currently “somewhat degraded” (Fig. 21). Seven respondents marked its condition as “severely degraded”. It is interesting to note that all of those (10) marking its condition as “just fine” or “better than ever”, except one, were children or JobCorps students – i.e. the younger generations. When asked to indicate the main things negatively affecting the Skagit Valley environment, about three-quarters of all respondents marked “increasing population” and “development” (Fig. 22). That volunteers felt the increasing presence of humans – and “human nature” – was a major negative impact on the environment was reinforced by their handwritten comments, such as: “Human nature. It’s all related to the rest.” The second most frequently selected negative factor by all respondents was “water pollution” (62%), including large fractions of children and JobCorps students. Adult volunteers (63%) were slightly more concerned about “farming practices” as a negative influence on the local environment. Adult volunteers were next most concerned about logging (49%), dams (43%), fishing practices (43%) and climate change (40%). Interestingly, JobCorps students as a group were most concerned about air pollution (8 out of ten), while it was the least marked concern for adult volunteers (9 out of 35). This question (Question 18 in Appendix A: Questionnaire), also asked respondents to distinguish what they considered to be the *most* important factor negatively affecting the Skagit Valley environment. Unfortunately, this question, and others like it, was probably not explained effectively in the questionnaire, since almost half of the respondents (47%) did not mark a “top thing”. Of those that did (31 respondents), by far the most frequently marked top cause of degradation was “development”, including a mix of respondent categories (14), followed by “increasing population” (8, all adult volunteers). Only one or two people, if any, marked the other choices as “top things” negatively affecting the environment in the Skagit Valley. Handwritten responses suggest that respondents would have answered these questions in a more complicated way if given the chance. For example, one respondent chose to distinguish between negative environmental influences in the present (“development/population”) versus in the past (“conversion to estuary of farmland), and another distinguishes between those sources of degradation that are getting worse (“development/population”) and those that are improving (“farming practices, logging, dam operation”). Finally,

two respondents wrote “lack of knowledge among residents about environmental issues” as a negative factor not listed in the question choices.

Respondents were also asked to write in their own words what they believed were the main things benefiting the Skagit Valley environment (Fig. 23). I was able to organize the range of 34 resulting responses into several common categories. Most frequent was the idea that “community awareness” – i.e. existing awareness, care or concern for the environment, or efforts to raise awareness about the environment was a positive thing affecting the local environment. Second most popular was the feeling that the presence and general efforts of local conservation groups and staff benefited the environment. Other, though less frequently identified positive factors included the presence of volunteerism in the local community, habitat restoration projects themselves, and the observation that the local environment is still relatively intact, given its large protected areas, and distance from urban centers.

Volunteers were asked specifically about their perceptions of local salmon populations. About half (52%) thought there had been a major decrease in Skagit salmon populations over the last century (Fig 24). Others felt there had been a moderate decrease (including 6 adult volunteers), or that populations had fluctuated over time but stayed the same overall (mostly children, no staff or adult volunteers). Four respondents wrote in “other” that changes in salmon populations varied by species, so I included this as another category in the response table. Seven respondents, mostly JobCorps students, indicated that they didn’t know about the status of local salmon populations. Nobody marked that they thought salmon populations had increased in any way. Like responses to the earlier question about the local environment in general, respondents marked “development” most frequently (72%) as a major thing negatively affecting Skagit salmon populations over the last century (Fig. 25). (“Increasing population” was not offered as a choice for this question.) “Diking and drainage in the floodplains and delta” was selected second most frequently as a negative impact on Skagit salmon populations (60%). This was the only choice that all 5 staff members marked. In third place (52% each), as major negative influences on local salmon populations, were: logging, commercial fishing in the oceans, and dams. A close fourth: changing ocean conditions (43%), tribal fishing in the river or Puget Sound (40%, mostly adult volunteers), and climate change (40%, selected by relatively large proportion of children and JobCorps students). Fifth were: hatcheries (33%), daily farming practices (31%), and canneries and the global trade in salmon (30%). Least frequent choices were: recreational fishing (22%) and predators (12%).

Fig. 21.) How would you describe the condition of the environment in the Skagit Valley today?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Condition of Skagit Valley Environment	Better than ever	0	1	2	0	3
	Just fine	0	2	4	1	7
	Somewhat degraded	5	4	2	23	34
	Severely degraded	0	1	0	6	7
	Don't know	0	0	1	3	4
	No Response	0	0	1	2	3
Total		5	8	10	35	58

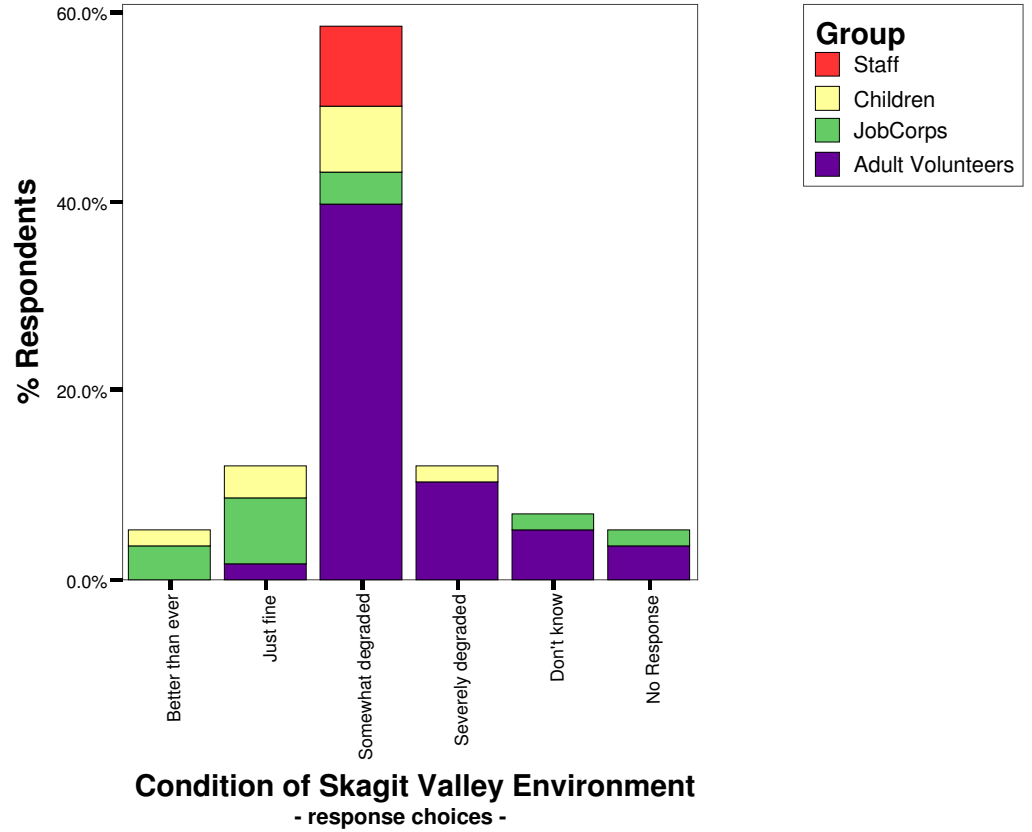
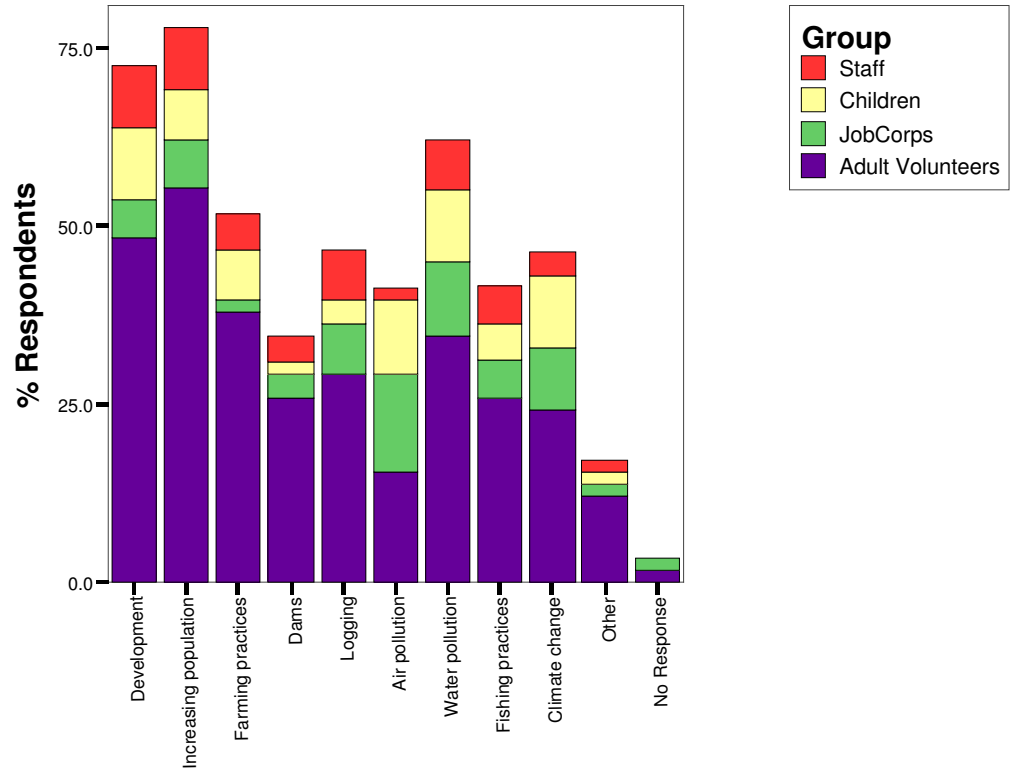


Fig. 22.) What do you believe are the main things negatively affecting the environment in the Skagit Valley today, if any?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Main Things	Development	5	6	3	28	42
Negatively	Increasing population	5	4	4	32	45
Affecting	Farming practices	3	4	1	22	30
Skagit Valley	Dams	2	1	2	15	20
Environment	Logging	4	2	4	17	27
	Air pollution	1	6	8	9	24
	Water pollution	4	6	6	20	36
	Fishing practices	3	3	3	15	24
	Climate change	2	6	5	14	27
	Other	1	1	1	7	10
	No Response	0	0	1	1	2
Total		5	8	10	35	58



Main Things Negatively Affecting Skagit Valley Environment  
- response choices -

“Other” responses:

- Affluent resource consumption: McMansions, for instance
- County commissioners
- Development/population is biggest problem now/future, but the conversion of estuary to farmland is what caused biggest past impact
- Human nature. It's related to all the rest.
- Lack of knowledge among residents about environmental issues
- Lack of knowledge/concern among residents about environmental issues
- Loss of riparian areas
- Number 2 [increasing population] affects most others
- People are the main cause - their disregard for most anything, but the me first attitude.
- They all play a part. Development and increasing population are the primary ones that are getting worse. Some of the others are improving: farming practices, logging, dam operation



Fig. 22, cont'd.) Please star what you consider to be the most important factor negatively affecting the Skagit Valley environment today.

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Top Thing	Development	3	2	1	8	14
Negatively	Increasing population	0	0	0	8	8
Affecting the	Farming practices	1	1	0	2	4
Skagit Valley	Dams	0	0	0	0	0
Environment	Logging	1	0	0	2	3
	Air pollution	0	0	0	0	0
	Water pollution	1	1	0	0	2
	Fishing practices	0	1	1	1	3
	Climate change	0	0	0	0	0
	Other	0	0	0	1	1
	No Response	2	3	8	14	27
Total		5	8	10	35	58

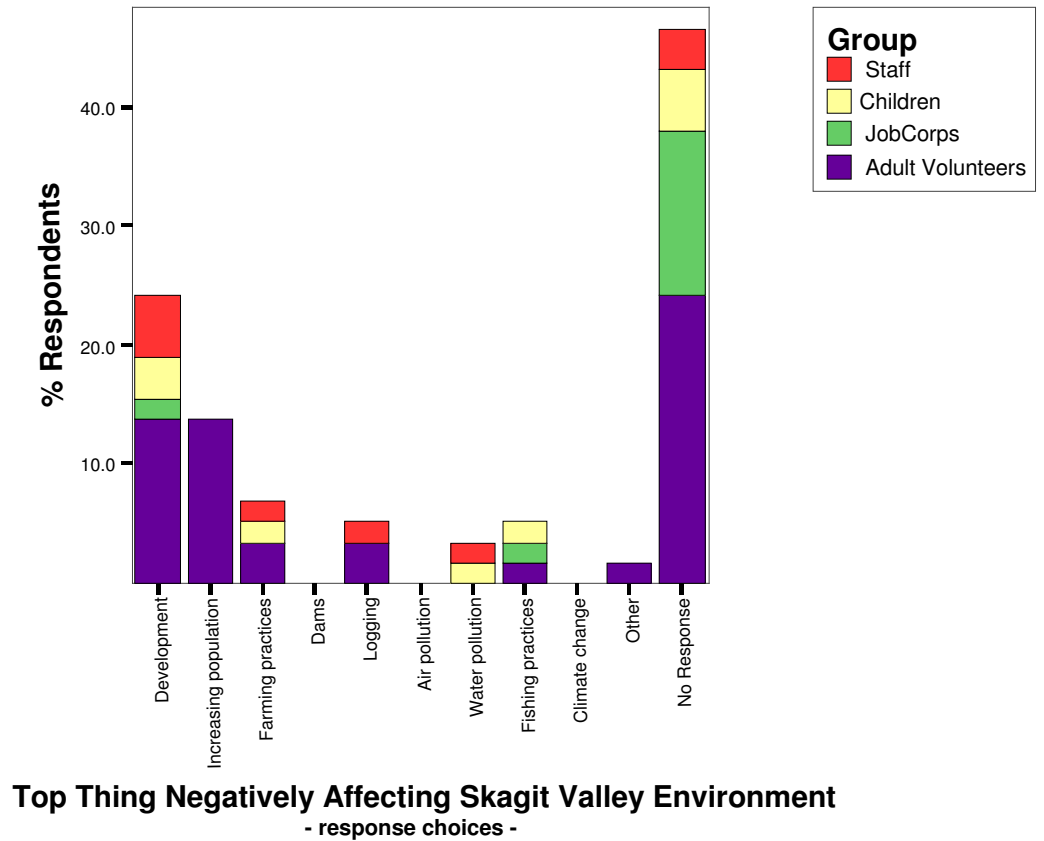
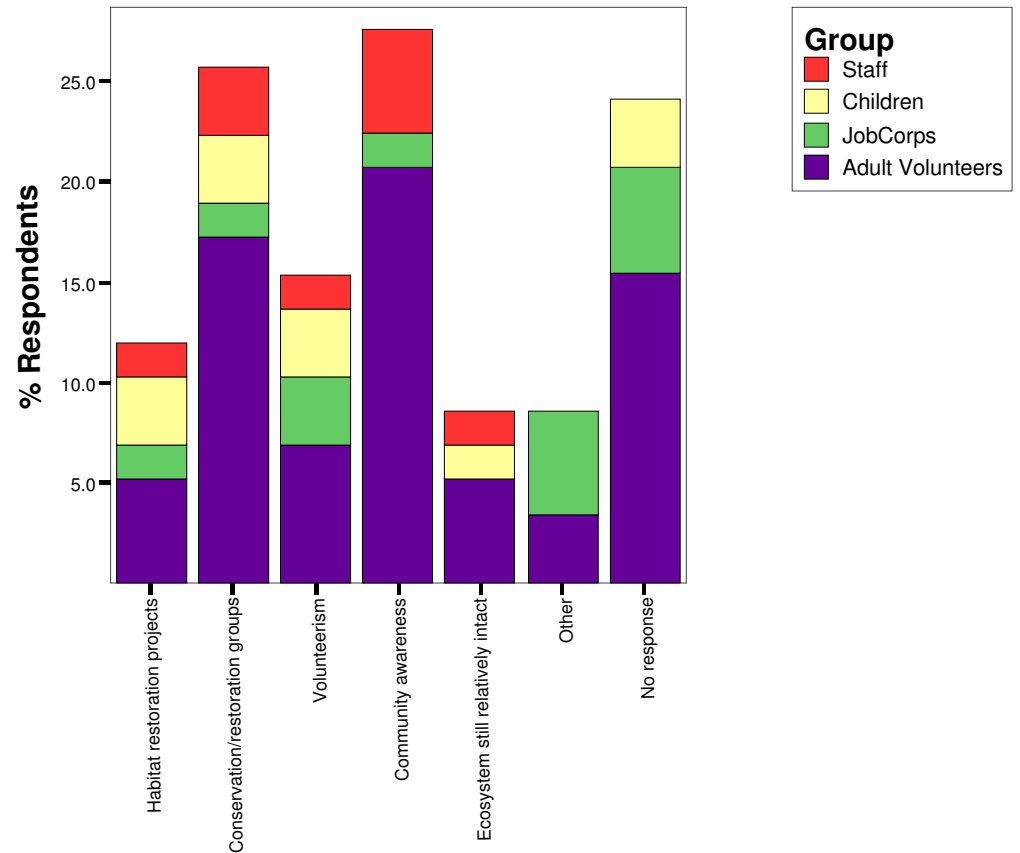


Fig. 23.) What do you believe are the main things benefiting the environment in the Skagit Valley today, if any?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Main Things Positively Affecting Skagit Valley Environment	Habitat restoration projects	1	2	1	3	7
	Conservation/restoration groups	2	2	1	10	15
	Volunteerism	1	2	2	4	9
	Community awareness	3	0	1	12	16
	Ecosystem still relatively intact	1	1	0	3	5
	Other	0	0	3	2	5
	No response	0	2	3	9	14
Total		5	8	10	35	58

“Other” responses:

- Me!!!
- Littering
- Regulations
- Nothing
- From King County!



**Main Things Positively Affecting Skagit Valley Environment**  
- open response topics -

24.) How do you think Skagit salmon populations have changed over the last century?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Perceived change in Skagit salmon populations over last century	Major decrease	3	3	2	22	30
	Moderate decrease	1	2	1	6	10
	Fluctuated over time but stayed the same overall	0	3	1	0	4
	Species specific	1	0	0	3	4
	Don't know	0	0	5	2	7
	No Response	0	0	1	2	3
<b>Total</b>		<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

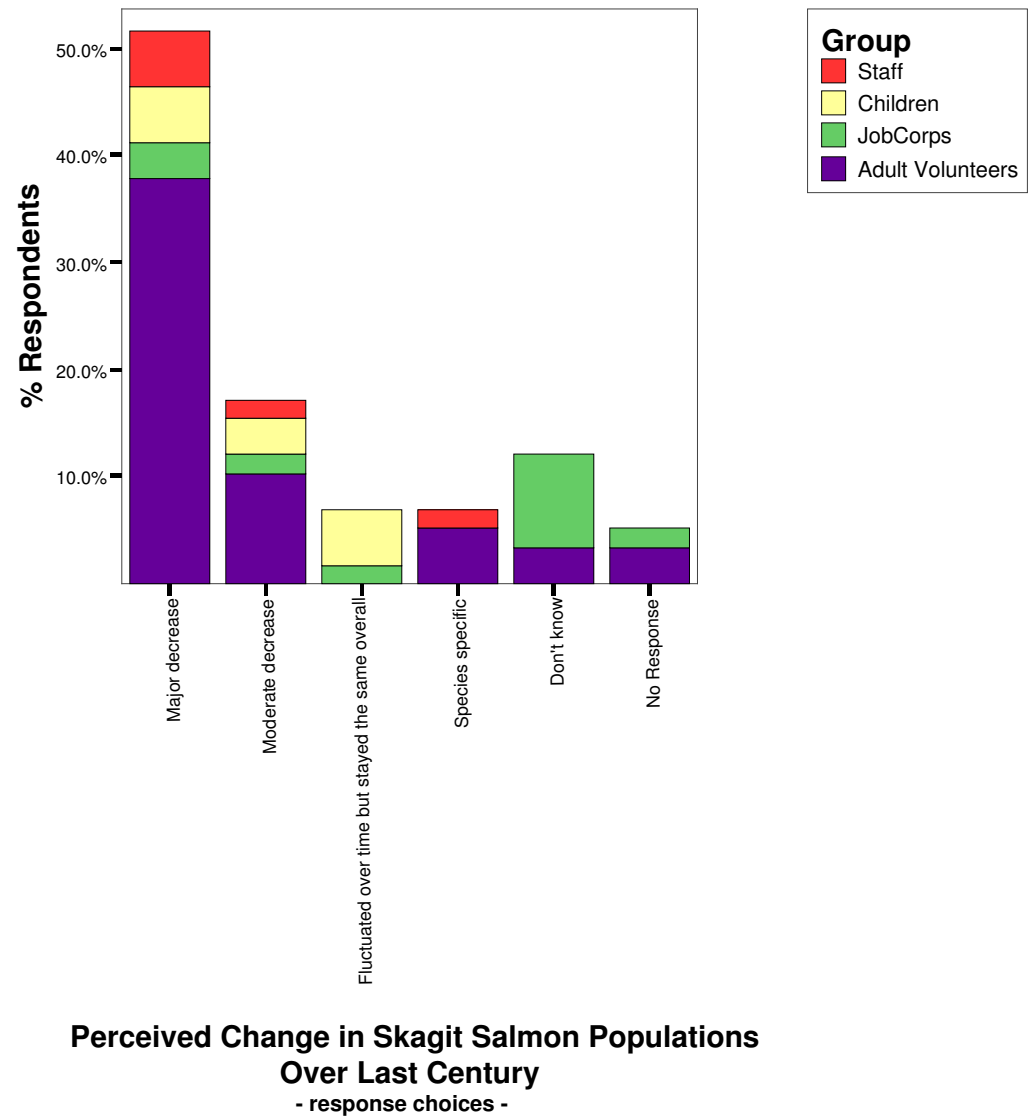
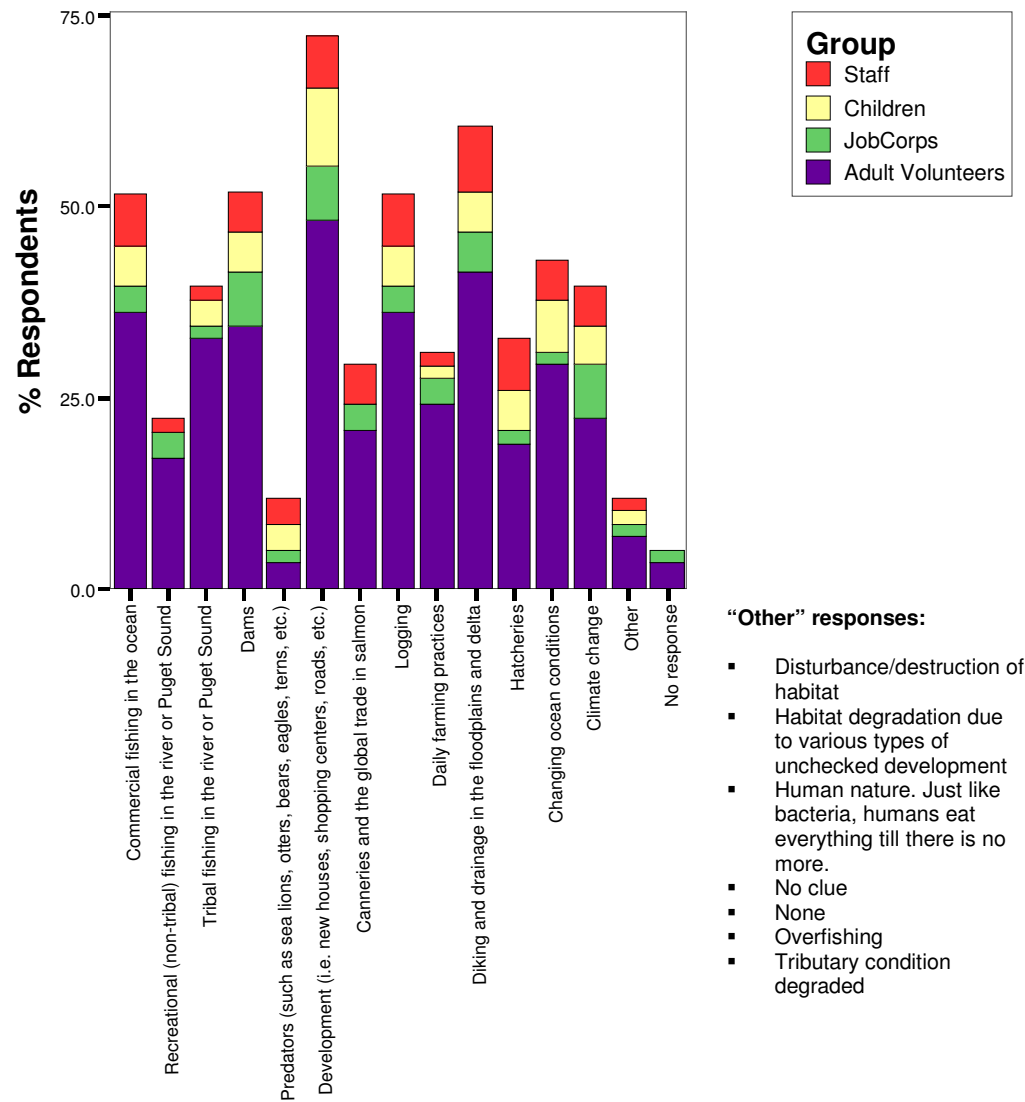


Fig. 25.) What do you think have been the major things negatively affecting Skagit salmon populations over the last century, if any?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Major Things	Commercial fishing in the ocean	4	3	2	21	30
Negatively Affecting Skagit Salmon Populations	Recreational (non-tribal) fishing in the river or Puget Sound	1	0	2	10	13
	Tribal fishing in the river or Puget Sound	1	2	1	19	23
	Dams	3	3	4	20	30
	Predators (such as sea lions, otters, bears, eagles, terns, etc.)	2	2	1	2	7
	Development (i.e. new houses, shopping centers, roads, etc.)	4	6	4	28	42
	Canneries and the global trade in salmon	3	0	2	12	17
	Logging	4	3	2	21	30
	Daily farming practices	1	1	2	14	18
	Diking and drainage in the floodplains and delta	5	3	3	24	35
	Hatcheries	4	3	1	11	19
	Changing ocean conditions	3	4	1	17	25
	Climate change	3	3	4	13	23
	Other	1	1	1	4	7
	No response	0	0	1	2	3
Total		5	8	10	35	58

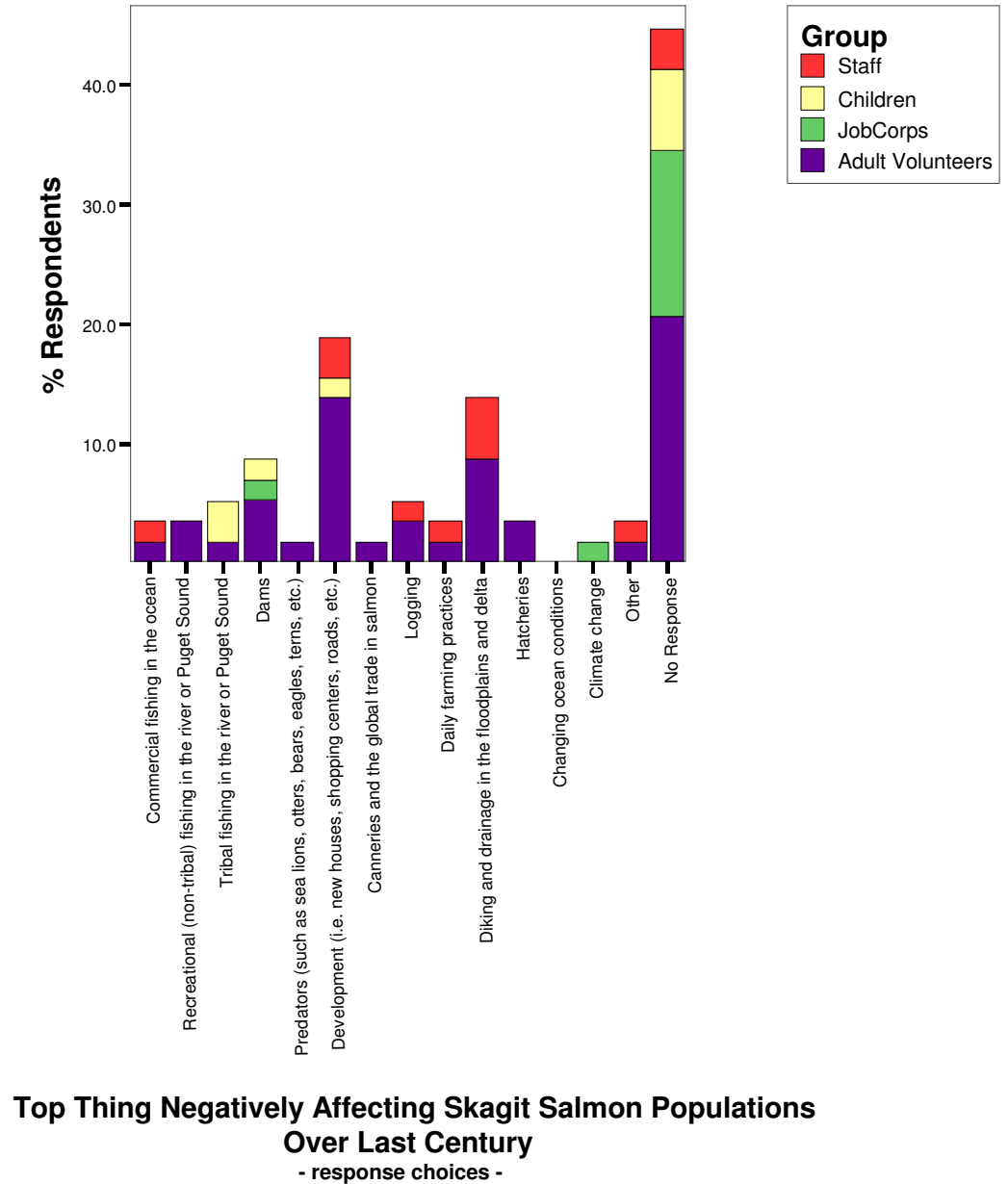


**Major Things Negatively Affecting Skagit Salmon Populations Over Last Century**  
- response choices -

- “Other” responses:**
- Disturbance/destruction of habitat
  - Habitat degradation due to various types of unchecked development
  - Human nature. Just like bacteria, humans eat everything till there is no more.
  - No clue
  - None
  - Overfishing
  - Tributary condition degraded

Fig. 25, cont'd.) Please star what you think is the most important factor negatively influencing Skagit salmon populations over the last century.

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Top Thing	Commercial fishing in the ocean	1	0	0	1	2
Negatively Affecting Skagit Salmon Populations	Recreational (non-tribal) fishing in the river or Puget Sound	0	0	0	2	2
	Tribal fishing in the river or Puget Sound	0	2	0	1	3
	Dams	0	1	1	3	5
	Predators (such as sea lions, otters, bears, eagles, terns, etc.)	0	0	0	1	1
	Development (i.e. new houses, shopping centers, roads, etc.)	2	1	0	8	11
	Canneries and the global trade in salmon	0	0	0	1	1
	Logging	1	0	0	2	3
	Daily farming practices	1	0	0	1	2
	Diking and drainage in the floodplains and delta	3	0	0	5	8
	Hatcheries	0	0	0	2	2
	Changing ocean conditions	0	0	0	0	0
	Climate change	0	0	1	0	1
	Other	1	0	0	1	2
	No Response	2	4	8	12	26
Total		5	8	10	35	58



When asked to rate what they thought was the single most important factor negatively influencing Skagit salmon populations over the last century, again, many respondents did not follow the (poor) instructions. Of those that did (32), by far “development” was again selected most frequently (11 respondents). Second was “diking and drainage” (8), and third was dams (5). Other choices were selected by only one to three respondents (Fig. 25, cont’d).

Like the previous question, respondents were asked to write in their own words what they thought were the major things benefiting Skagit salmon populations over the last century. I organized the resulting 46 responses into several categories, as before. This time, respondents most frequently (9) indicated that both public awareness and education about salmon, and habitat restoration projects, were two major things benefiting local salmon populations. In addition, several respondents (5) indicated that government attention to salmon recovery in the form of policies and regulation had a positive impact (Fig. 26). Other categories of things beneficial to local salmon that were suggested by a handful of respondents’ written comments were: the presence of conservation and restoration groups and people working for them, that the ecosystem is still relatively intact, the presence of fishing restrictions and reductions, and the construction of fish ladders and dam improvements. Eight people, including 4 JobCorps students and three adult volunteers said they didn’t know what were the major things benefiting Skagit salmon populations.

The following questions (Figs. 27 and 28) were intended to gain an understanding of how well volunteers were aware of the intended ecological, and possibly social, consequences of habitat restoration. Unfortunately, it was difficult to analyze the results from the first question, “What do you think are the main ways salmon habitat restoration affects the natural environment?” (Fig. 27). This was an open-ended question in which respondents were invited to write in their own response. Some respondents wrote more general comments, such as “It is needed for the circle of life” while some wrote more specific comments, such as “Increases habitat for many species, including salmon; restores natural river processes; decreases silt and sedimentation; in small streams, can help maintain/decrease stream temperatures; returns native plants to area; helps control invasives.” Comparing these two responses would suggest that the second respondent knew more about what the specific intended ecological effects of restoration are, yet it would be impossible to know this for sure because we don’t know if the first respondent simply chose to be more general in their answer. Also unclear are responses that are brief, but suggest some specific ecological

understanding, such as “prevents erosion”, or “provides shade and instream structure”. It is impossible to know if respondents listed only a sample of the ecological consequences they were aware of, or all of them. (A better design for this question would have probably been to include a multiple choice list of potential ecological consequences of restoration.) Nonetheless, in order to give a sense of volunteers’ answers, I coded responses as to whether they were general – relating to “the environment”, “nature”, “earth”, “life”, etc.; or whether they were more specific – relating to something specifically ecological – “leaf litter”, “stream structure”, “erosion”, etc. With this coding system, 4 out of 5 staff members gave “specific” responses, while 1 child respondent and no JobCorps students did, so it seems a rough guide to knowledge about the intended ecological consequences of restoration, based on respondents’ level of experience. With this approach, 38% of respondents gave general answers, with 4 of these being children and 4 JobCorps students, and 34% of respondents gave specific answers, with 4 of these being staff and 1 a child. Four JobCorps students and 1 child said they didn’t know how salmon habitat restoration affects the natural environment, and 11 people did not respond to the question.

Surprisingly, it was easier to organize written responses to the next question, “what do you think are the main ways salmon habitat restoration affects society, if you think it does” into common categories (Fig. 28). Of the 46 people who responded to this question, 14 indicated that it has some kind of direct impact on human health or quality of life, such as improving enjoyment of nature. Next most popular was the idea that it raises awareness about the environment, or has some kind of educational impact. Equally popular, especially among children, was the idea that restoration was good for its economic or material consequences for people – such as providing fish for fishermen and food to eat. And a close third was the idea that restoration benefits society by giving people a good feeling – like a sense of hope. A handful of people suggested that restoration helps build community. Two respondents specifically said that it does not, or hardly benefits society. I included some responses stated by only one person each that I thought were noteworthy (they should probably be included under an “other” category, however, to be consistent): “causes political conflict”, and “important for tribes”. Five JobCorps students said they don’t know how restoration benefits society, and 12 people did not respond to the question.

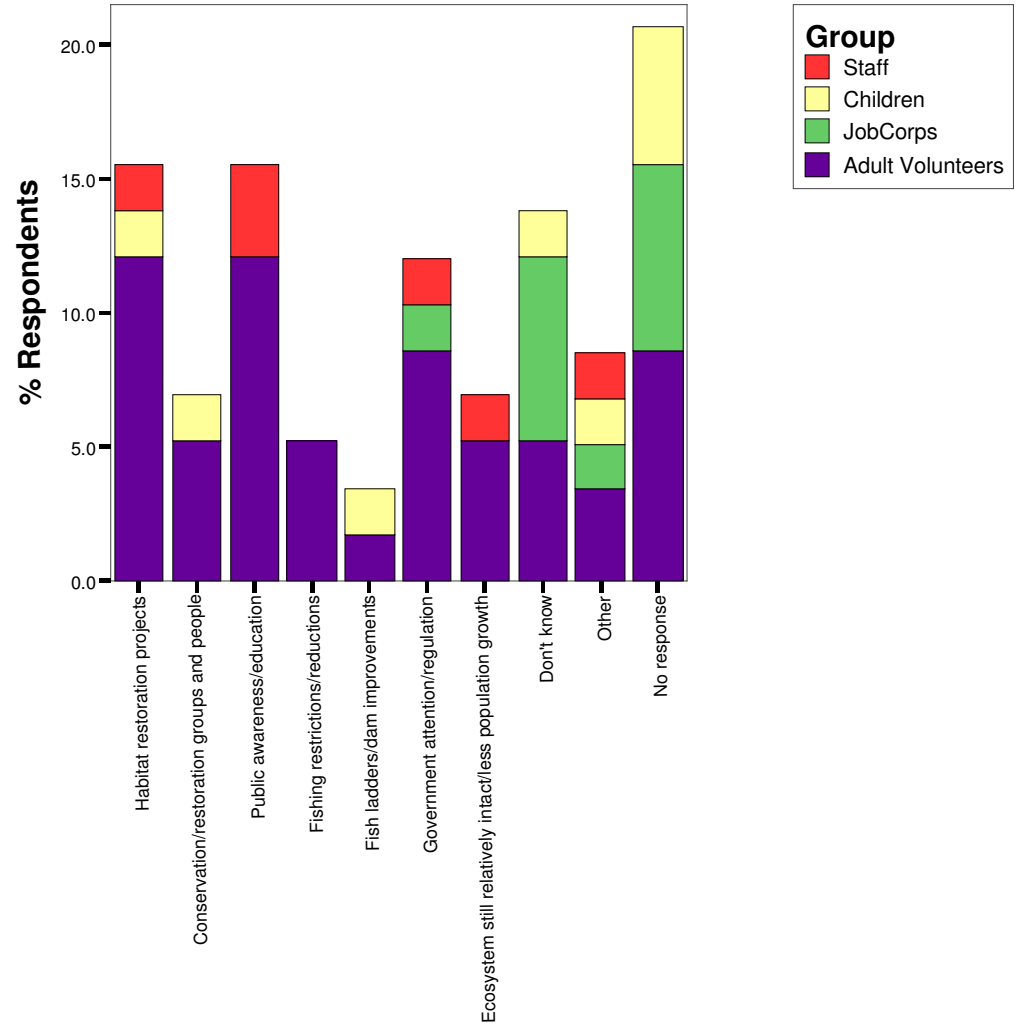
The next question (Fig. 29) asked respondents how familiar they were with various government agreements, policies and laws affecting the management and protection of local salmon populations. Not surprisingly, respondents were most familiar with the Endangered Species Act and the Clean Water Act, both federal acts that are often in the news. Over three-quarters of respondents indicated they were either somewhat or very familiar with the Endangered Species Act;

65% were somewhat or very familiar with the Clean Water Act. A little under half of respondents said they were somewhat or very familiar with the other policies listed. Of these, they were most familiar with the Growth Management Act (see Fig. 29a). (By scoring levels of familiarity 0-3, with 0=never heard of it; 1=heard of it but not familiar with it; 2=somewhat familiar with it; 3=very familiar with it, and adding up total scores for each policy, I am able to rank them in order of familiarity. This method suggests slightly different conclusions than the bar graphs that just summarize more or less familiarity). Next most familiar among respondents, according to the scoring, were the Indian Treaties of 1855 and the Boldt Decision. Least familiar were the Critical Areas Ordinance and the Conservation Reserve Enhancement Program. Many of those indicating little or no familiarity with these laws and policies were children and JobCorps students. Still, about a third of adult volunteers said they had little or no familiarity with the Treaties of 1855 or the Boldt Decision, both instrumental in current salmon recovery efforts.

How had the volunteers learned about their natural environment (Fig. 30)? Perhaps unsurprisingly, given this crowd, most said they had learned about the environment from volunteer experiences (80%). Second most frequently indicated sources of knowledge were educational field trips and recreational activities (both 59%). Notice that so far, these are all hands-on activities. Only nine adult volunteers, but nearly all children and JobCorps students, perhaps representing recent attention to (and memory of) environmental education programs in public schools, said they had learned about the local environment from elementary or high school classes. Over a third of respondents selected the media, friends or family members, and books or magazines as sources of knowledge about their local environment (see the list of books and magazines they refer to). Thirty-four percent of respondents (20) noted they had learned about the environment from college classes and 19 from their job.

Fig. 26.) What do you think have been the major things benefiting Skagit salmon populations over the last century, if any?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Major Things Benefiting Skagit Salmon Populations	Habitat restoration projects	1	1	0	7	9
	Conservation/ restoration groups and people	0	1	0	3	4
	Public awareness/education	2	0	0	7	9
	Fishing restrictions/reductions	0	0	0	3	3
	Fish ladders/dam improvements	0	1	0	1	2
	Government attention/regulation	1	0	1	5	7
	Ecosystem still relatively intact/less population growth	1	0	0	3	4
	Don't know	0	1	4	3	8
	Other	1	1	1	2	5
	No response	0	3	4	5	12
<b>Total</b>		<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>



**Major Things Benefiting Skagit Salmon Populations Over Last Century**  
- open response topics -

**“Other” responses:**

- ?
- Fishing is a benefit, people want to fish. They want to protect salmon. Farming. Farms are good stewards and have helped create great land protection rules decades ago.
- Hatcheries
- Seeing runs depleted in other watersheds have shown us what not to do if we want to keep diversity of salmon and other critters here
- The climate



27.) What do you think are the main ways salmon habitat restoration affects the natural environment?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
How Does Restoration Affect Natural Environment?	Specific response	4	1	0	15	20
	General response	1	4	4	13	22
	Don't know	0	1	4	0	5
	No response	0	2	2	7	11
Total		5	8	10	35	58

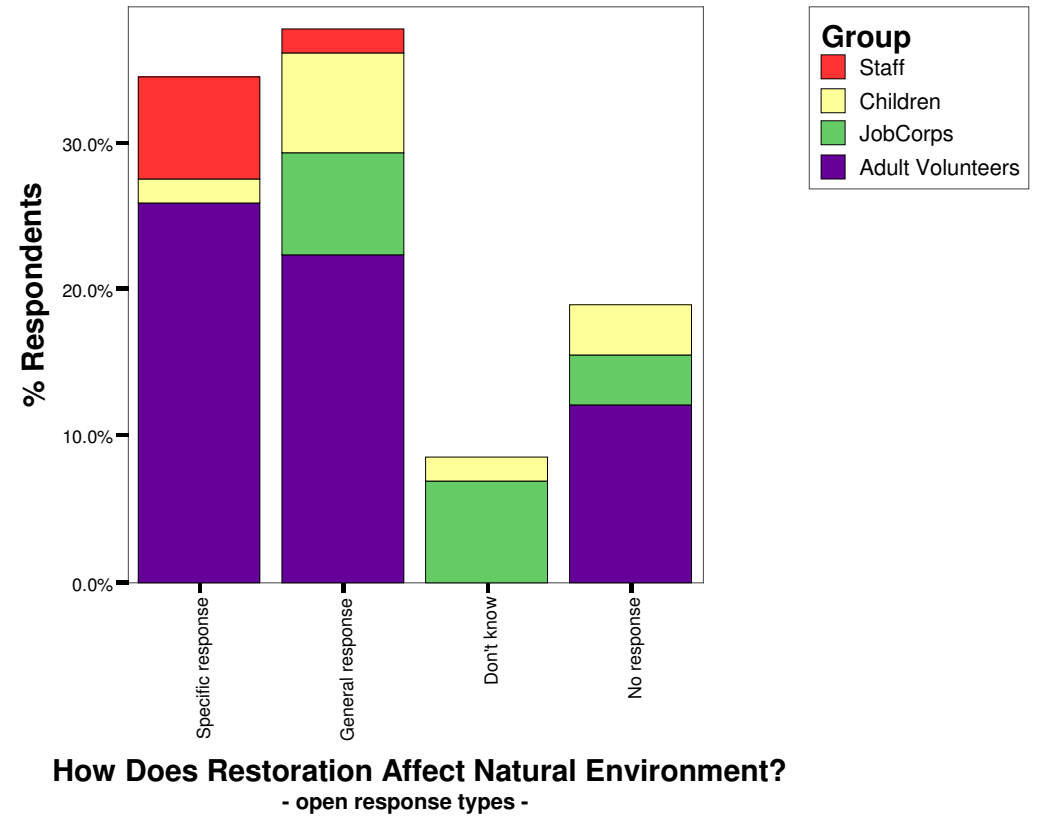
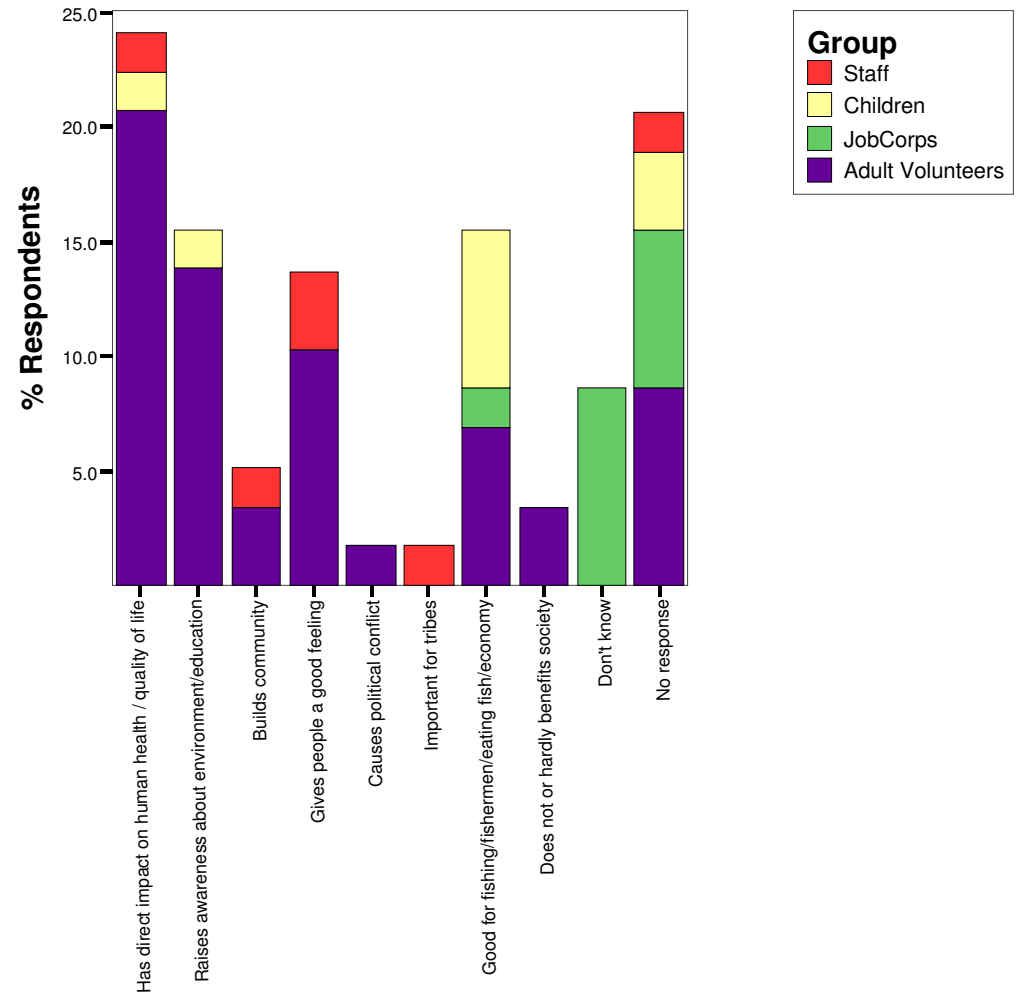


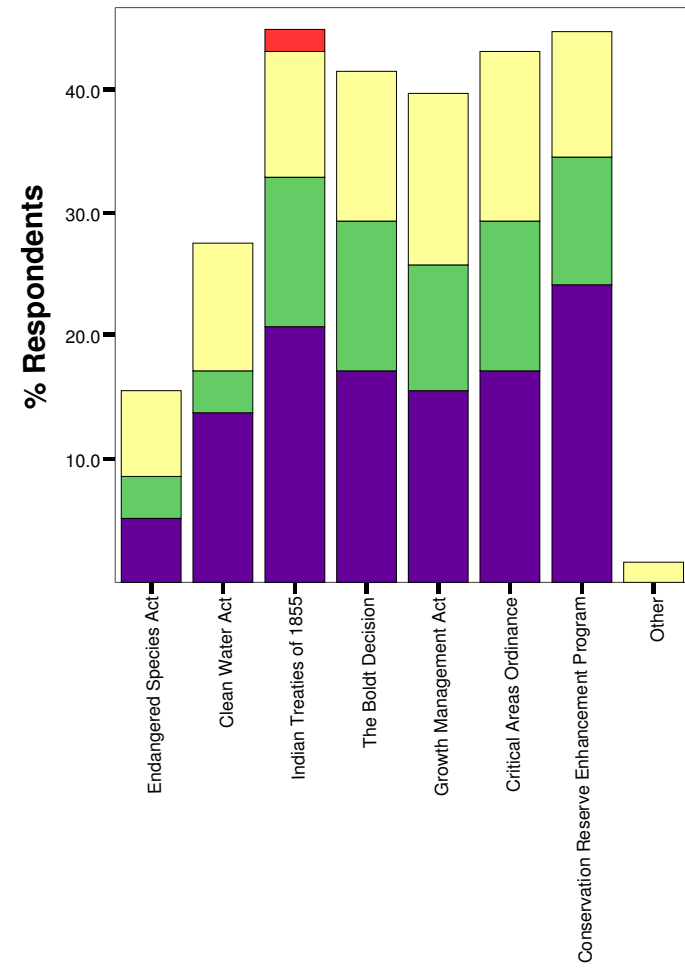
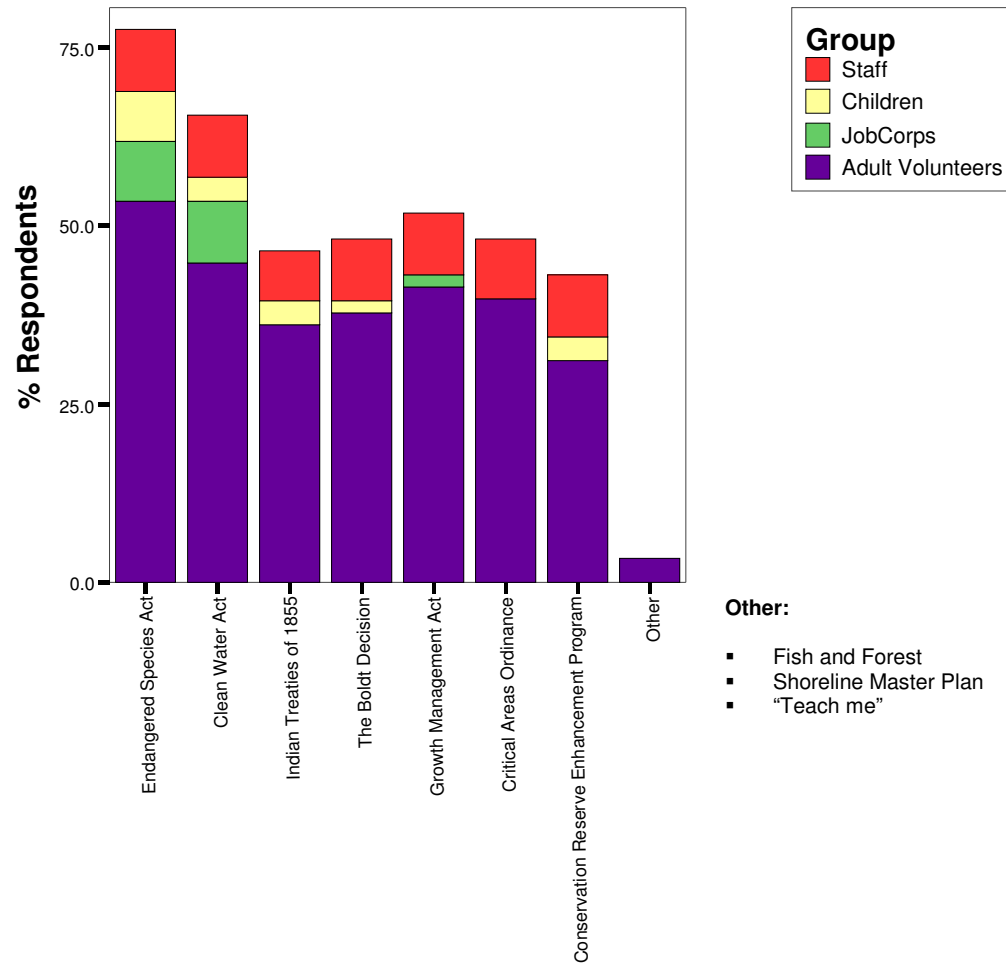
Fig. 28.) What do you think are the main ways salmon habitat restoration affects society, if you think it does?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Main Ways	Has direct impact on human health / quality of life	1	1	0	12	14
Salmon Habitat Restoration Affects Society	Raises awareness about environment/education	0	1	0	8	9
	Builds community	1	0	0	2	3
	Gives people a good feeling	2	0	0	6	8
	Causes political conflict	0	0	0	1	1
	Important for tribes	1	0	0	0	1
	Good for fishing/fishermen/eating fish/economy	0	4	1	4	9
	Does not or hardly benefits society	0	0	0	2	2
	Don't know	0	0	5	0	5
	No response	1	2	4	5	12
Total		5	8	10	35	58



Main Ways Salmon Habitat Restoration Affects Society  
- open response topics -

Fig. 29.) How familiar are you with the following government agreements, policies and laws affecting the management and protection of local salmon populations? (Cont'd next page).



**Somewhat or Very Familiar with Agreement/Law/Policy**

- response choices -

**Little or No Familiarity with Agreement/Law/Policy**

- response choices -

29a.) Sum of scores  
(0=never heard of it;  
1=heard of it;  
2=somewhat familiar;  
3=very familiar.):

	Endangered Species Act	Clean Water Act	Growth Management Act	Indian Treaties of 1855	The Boldt Decision	Critical Areas Ordinance	Conservation Reserve Enhancement Program
Sum	116	104	86	78	78	72	67

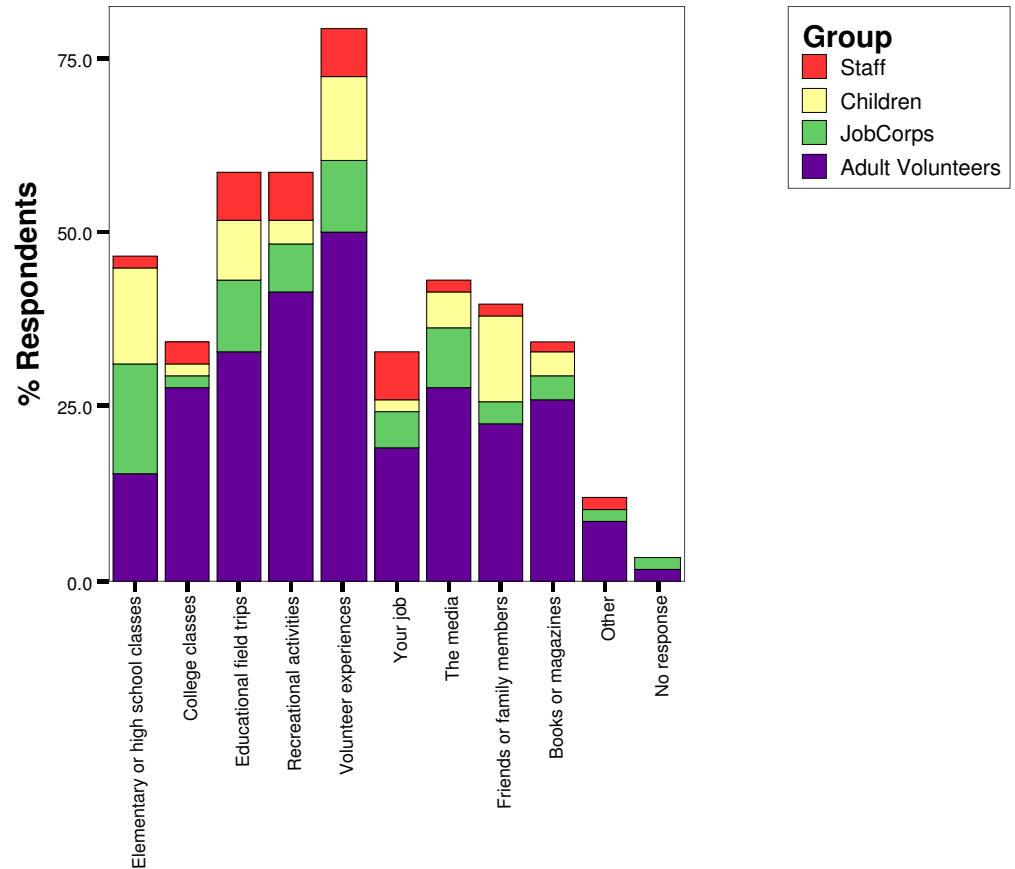
		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Endangered Species Act	Never heard of it	0	2	0	0	2
	Heard of it but not familiar with it	0	2	2	3	7
	Somewhat familiar with it	1	3	3	19	26
	Very familiar with it	4	1	2	12	19
	No Response	0	0	3	1	4
Clean Water Act	Never heard of it	0	3	0	0	3
	Heard of it but not familiar with it	0	3	2	8	13
	Somewhat familiar with it	2	1	3	17	23
	Very familiar with it	3	1	2	9	15
	No Response	0	0	3	1	4
Indian Treaties of 1855	Never heard of it	0	5	2	4	11
	Heard of it but not familiar with it	1	1	5	8	15
	Somewhat familiar with it	4	1	0	13	18
	Very familiar with it	0	1	0	8	9
	No Response	0	0	3	2	5
The Boldt Decision	Never heard of it	0	6	4	4	14
	Heard of it but not familiar with it	0	1	3	6	10
	Somewhat familiar with it	4	0	0	12	16
	Very familiar with it	1	1	0	10	12
	No Response	0	0	3	3	6
Growth Management Act	Never heard of it	0	3	0	3	6
	Heard of it but not familiar with it	0	5	6	6	17
	Somewhat familiar with it	4	0	1	16	21
	Very familiar with it	1	0	0	8	9
	No Response	0	0	3	2	5
Critical Areas Ordinance	Never heard of it	0	5	3	7	15
	Heard of it but not familiar with it	0	3	4	3	10
	Somewhat familiar with it	4	0	0	18	22
	Very familiar with it	1	0	0	5	6
	No Response	0	0	3	2	5
Conservation Reserve Enhancement Program	Never heard of it	0	5	3	11	19
	Heard of it but not familiar with it	0	1	3	3	7
	Somewhat familiar with it	2	2	0	11	15
	Very familiar with it	3	0	0	7	10
	No Response	0	0	4	3	7
Other	Never heard of it	0	1	0	0	1
	Somewhat familiar with it	0	0	0	1	1
	Very familiar with it	0	0	0	1	1
	No Response	5	7	10	33	55

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Somewhat or Very Familiar with Law/Policy	Endangered Species Act	5	4	5	31	45
	Clean Water Act	5	2	5	26	38
	Indian Treaties of 1855	4	2	0	21	27
	The Boldt Decision	5	1	0	22	28
	Growth Management Act	5	0	1	24	30
	Critical Areas Ordinance	5	0	0	23	28
	Conservation Reserve Enhancement Program	5	2	0	18	25
	Other	0	0	0	2	2
	No response / Little or no familiarity with any	0	3	3	2	8
	Total	5	8	10	35	58

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Little or No Familiarity with Law/Policy	Endangered Species Act	0	4	2	3	9
	Clean Water Act	0	6	2	8	16
	Indian Treaties of 1855	1	6	7	12	26
	The Boldt Decision	0	7	7	10	24
	Growth Management Act	0	8	6	9	23
	Critical Areas Ordinance	0	8	7	10	25
	Conservation Reserve Enhancement Program	0	6	6	14	26
	Other	0	1	0	0	1
	No response / Somewhat or very familiar with all	4	0	3	17	24
	Total	5	8	10	35	58

Fig. 30.) How have you learned about your local environment?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Sources of Knowledge About Local Environment	Elementary or high school classes	1	8	9	9	27
	College classes	2	1	1	16	20
	Educational field trips	4	5	6	19	34
	Recreational activities	4	2	4	24	34
	Volunteer experiences	4	7	6	29	46
	Job	4	1	3	11	19
	The media	1	3	5	16	25
	Friends or family members	1	7	2	13	23
	Books or magazines	1	2	2	15	20
	Other	1	0	1	5	7
No response	0	0	1	1	2	
Total		5	8	10	35	58



Sources of Knowledge About Local Environment - response choices -

**Media:**

- KUOW
- PBS,
- NPR X 2
- Outdoor Network
- SVH X 5
- Seattle Papers
- Bham Herald
- Seattle Times
- TV

**Books/Magazines:**

- Academic / journals / professional
- American Fisheries journal and scientific papers
- Environment-related
- Field guides
- King of Fish X 2
- Commercial fishing magazines
- National Geographic
- Restoration Ecology
- Science oriented articles and books

**Other:**

- County and city organizations
- Emails from SFEG
- Groups like REI
- It's been part of my life since childhood (and Boy Scouts)
- News
- Organizations I volunteer with
- Parks

### *How did volunteers hear about the day?*

The single most effective recruitment strategy for this group of volunteers was the Skagit Fisheries Enhancement newsletter: 22 respondents said they heard about the Edgewater Park planting day in this way (Fig. 31). The second most effective strategy was, essentially, the internet: 12 respondents received emails from SFEG or SWC and 9 heard about it on the “internet”, which could have included an email. Word of mouth was third most effective: 12 respondents said they heard about it from a friend, relative or co-worker. Six saw the newspaper ad in the Skagit Valley Herald. Five saw flyers posted at their workplace or school. Two saw or heard the planting going on; only one respondent saw the park banner, and only one said they had heard the KLKI radio spot (these latter two strategies therefore definitely seem less than worth the effort and expense, or were somehow ineffective). Nobody mentioned hearing about the planting day from the newspaper’s volunteer section or from Entertainment News Northwest Magazine. JobCorps students, ofcourse, heard about it from JobCorps staff as a volunteer option.

Respondents had many ideas for other ways to encourage people to come to a volunteer restoration event. Among them (Fig. 32) were to: post flyers in schools, Skagit Valley College (e.g. environmental studies program bulletin board), local government offices, senior centers, groceries and nurseries; engage other (non-conservation) clubs; get more media and high-profile political coverage; advertise on KAPS, a local AM radio station; and tell people it is fun, makes you feel good, and feel like you are doing something good for your community and salmon. Many agreed that word of mouth and email were good strategies.

### *Why did volunteers come to this planting day?*

Nearly 80% of respondents said they came both to “give something back to the environment” and because they “enjoy being and working outdoors” (Fig. 33). For just over 70% a main motivation was specifically to “improve the river habitat”, and for two thirds to “improve salmon runs”. Interestingly, over half of respondents said they came to “help the community”; half said they came to “make the park look better” and just under half for “future generations”. About 40% of respondents said they came because they enjoy community service. About 30% of respondents said they came because they enjoy socializing, it sounded like fun, or they needed to fulfill community service requirements (8 out of 10 JobCorps students chose the latter as a main reason; note, however, that as many also chose “enjoy being and working

outdoors” as a main reason, and 7 chose “to improve salmon runs” as a main reason, so fulfilling community service requirements was not the only reason JobCorps students came.) Thirteen respondents said they came to “learn about the environment”; 6 for “religious or spiritual reasons”, 6 because “a friend or relative brought me” (most children or JobCorps students), and 5, all children or JobCorps, because they had “nothing else to do today.” As before with this kind of question, instructions to mark the top reason for coming were mostly missed, misunderstood, or ignored (Fig. 33, cont’d). Of those that did respond to the question, “to give something back to the environment” and “to improve the river habitat” were selected most frequently as the top reasons for coming to the planting day.

### *How did the day go?*

Not surprisingly, most volunteers identified “planting plants and mulching”, “digging and preparing planting holes”, and “watering plants” as the main things they did at the Edgewater Park planting day (Fig. 34). Just under half also acknowledged that they spent time socializing, eating and drinking and filling out the questionnaire. Only a handful indicated that they had removed debris from the site, or helped set up or take down the site (the latter were all staff, a handful of children and a JobCorps student).

Respondents were asked to write down the best thing about the day. I organized these open-ended responses into several categories (Fig. 35). Most frequently expressed by all respondents was some variation on the theme of “helping the environment”. Almost as many adult volunteers (8 versus 9), however, said the best thing about the day was feeling a sense of accomplishment. Second most popular among all respondents was planting plants, getting dirty or working outside – i.e. the physical, outdoor work of restoration. A handful of respondents wrote that the best thing about the day was helping the community, learning how to plant plants, and that the event was well-organized. Two respondents listed “food” as the best thing about the day.

Worst things about the day (also open-ended responses) concerned mainly some kind of physical ailment or illness that the volunteer was experiencing (Fig. 36). Other worst things listed by just a handful of people, mainly children or JobCorps students, were: having to get up early (only staff, children and JobCorps students complained about this); having a problem digging; getting dirty; that it was hard work (adult volunteers made up most of this group); and having to leave or leave early. Several people listed other unrelated worst things. The most relevant information here is that 20 respondents either

specifically indicated that nothing was worst or wrong about the day, or didn't respond to the question, which likely meant that they didn't think anything was worth putting down, as all had responded to the previous question asking them to note the best thing about the day. Only about 8 volunteers noted something that organizers would have any control over: the amount of available equipment or materials, and the start time. Overall the results from this question suggest that the day went beautifully with very little to complain about.

Reinforcing this conclusion, most respondents wrote "nothing" when asked what would have made their experience during the day better (Fig. 37), and even more did not respond to the question, again a likely indication that their answer was also "nothing". Of the 32 remaining respondents, a handful (mostly JobCorps) suggested that more equipment, soil or water would have made the day better, or better weather, or having a relative, friend or pet present. One or two respondents noted a variety of other ways the day could have been better, some more practical ("better explanation of benefits of project") than others ("a massage at end of work day").

Respondents were also asked to write down how the Edgewater Park planting day differed from other restoration and salmon protection experiences they had had (Fig. 38). Twelve people did not respond and many responded with comments that were too unique to organize into categories. Of the recurring responses, most frequent (11) was the observation that the presence of food and/or music made the Edgewater experience special; so did the location on the river, in town and/or a shorter drive from home. Several people (8) expressed that the Edgewater day was better organized than others, and several (7) indicated that the instructions and plans were clearer and more specific. A handful of respondents commented on the large number of volunteers present, hands-on work and the numerous organizations involved. Four mentioned that they had no previous experiences.

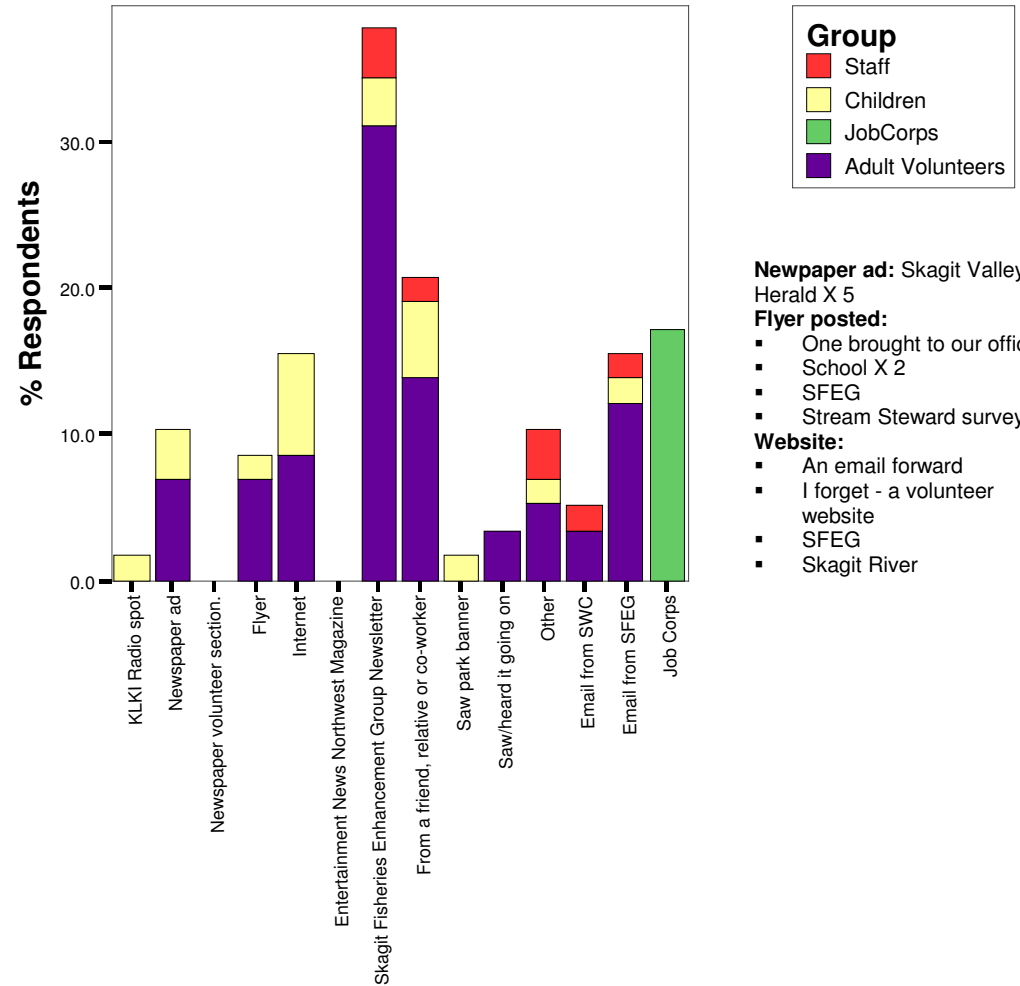
Many respondents (23) did not respond to the question, "What did you learn about restoration and salmon protection today at the Edgewater planting, if anything, that you did not already know?" (Fig. 39) It is difficult to know whether leaving this question blank meant that they did not learn anything new, or they just skipped the question. Nine respondents specifically wrote in that they did not learn anything new. A handful of people indicated that they learned about the plans for the park, learned about how to plant plants, learned about native plants, or learned that plants are important for the salmon and the river. Eight respondents indicated other, more idiosyncratic

things they learned during the day. Overall, the day did not appear to have a great deal of specific educational value for the majority of respondents.

Similarly, and finally, 22 people did not respond to the question, "Did your volunteer experience today encourage you to do other things that will help the environment? If so, what do you plan to do?" (Fig. 40) Again, it is difficult to know if no response means, "no", or if they missed the question. Seven respondents specifically indicated that they plan to do "nothing new". The most frequently noted plans for future activities were "more plantings/restoration projects" or "do more of the same" (28% of respondents). Six people said they would seek out more volunteer or community service opportunities (three of these were children), and a handful said they would join a conservation program or organization or raise awareness. From these results, the day did not appear to overwhelmingly inspire new future conservation-related activities, but a solid fraction of volunteers suggested that they would continue to attend restoration plantings.

Fig. 31.) How did you hear about this Edgewater Park planting day?

		Group				Total	
		Staff	Children	JobCorps	Adult Volunteers		
Heard About Planting Day From...	KLKI Radio spot	0	1	0	0	1	
	Newspaper ad	0	2	0	4	6	
	Newspaper volunteer section.	0	0	0	0	0	
	Flyer	0	1	0	4	5	
	Internet	0	4	0	5	9	
	Entertainment News Northwest Magazine	0	0	0	0	0	
	Skagit Fisheries Enhancement Group Newsletter	2	2	0	18	22	
	From a friend, relative or co-worker	1	3	0	8	12	
	Saw park banner	0	1	0	0	1	
	Saw/heard it going on	0	0	0	2	2	
	Other	2	1	0	3	6	
	Email from SWC	1	0	0	2	3	
	Email from SFEG	1	1	0	7	9	
	Job Corps	0	0	10	0	10	
	<b>Total</b>		<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>



- Newspaper ad:** Skagit Valley Herald X 5
- Flyer posted:**
- One brought to our office
  - School X 2
  - SFEG
  - Stream Steward survey
- Website:**
- An email forward
  - I forget - a volunteer website
  - SFEG
  - Skagit River

Heard About Planting Day From...  
- response choices -

“Other” responses:

- At work
- Email
- Helped promote/organize
- KSVR radio spot 91.7 Mount Vernon
- School

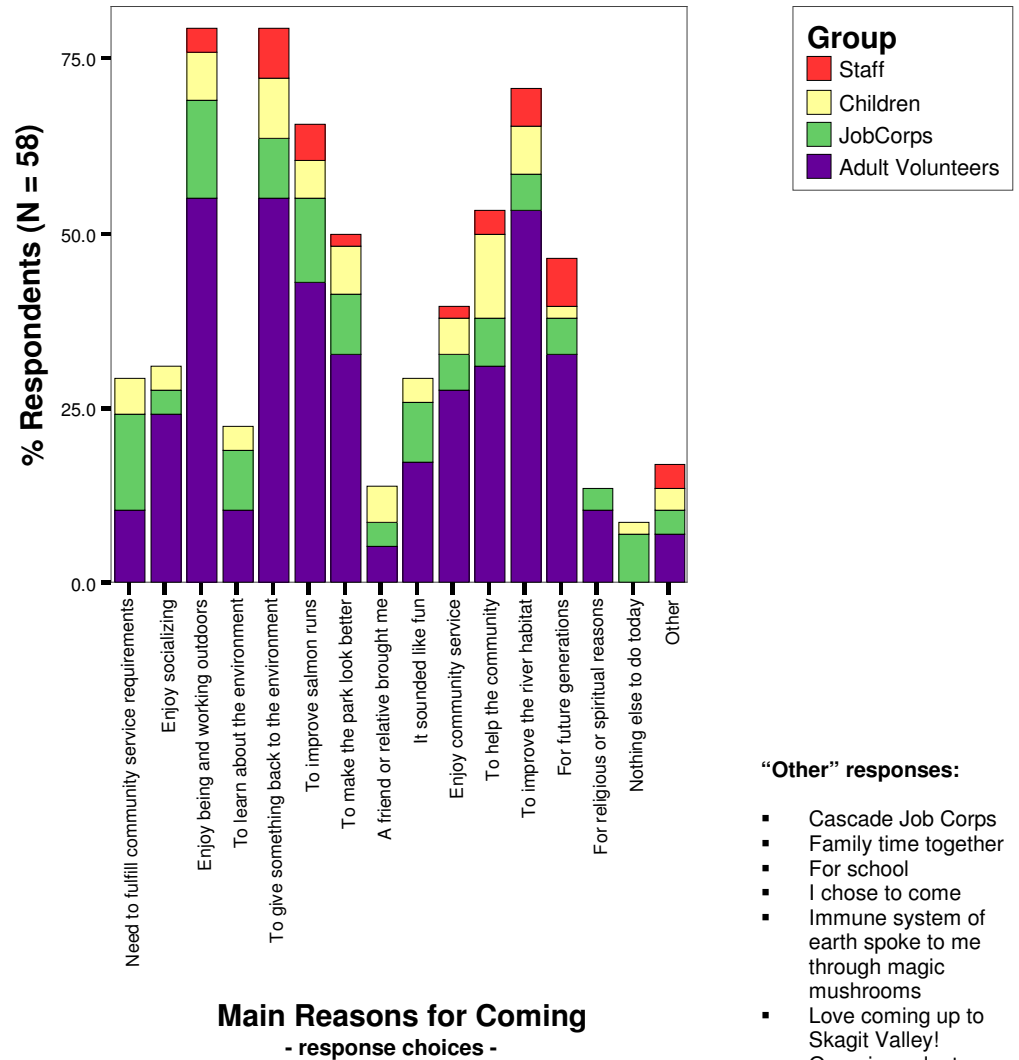


**Fig. 32.) How else would you encourage people to come to a volunteer restoration event?**

- Ads in high school science classroom
- Advertise it in school
- Asking them to come
- Banner in front of park?
- Be a good example
- Beer
- Boy scouts? Work release crews?
- Bring a friend!
- Bring them myself
- Continue education involvement and word of mouth
- Continue these types of programs and it will become more of an anticipated community event
- Do you enjoy the river and parks? Please help!
- Dunno
- Engage other (non-conservation) service clubs
- Feed them mushrooms of meaning
- Free food is always good! You guys have it covered!
- Get the word out, tell them how good it makes you feel
- have the event sponsored by well-known groups [?]
- I don't know
- Incentives
- It would have been great if Skagit County would have sent out a press release on this and if some elected officials were here AND if the Herald had provided more coverage!
- KAPS Radio
- Make it mandatory for all US citizens
- Make or force them to come. This was a really neat experience for me. I'll encourage people to volunteer.
- Making sure the weather is nice
- More advertising. I only saw it once in the paper.
- More publicity
- Newspaper publicity, have info on tables at grocery stores (especially around the popular plant sale area), advertise at nurseries, notify teachers who can notify families
- Personal contact - invitations
- Personal invitations; phone calls
- Post fliers at SVC - Dr. Claus Svendsen has bulletin board for all environmental students to read
- Post flyers at local government offices
- Promotion of good community fun to my friends; sense of doing something good for your community and the salmon
- Raffle or prize drawing?
- Reader boards in town
- Some sort of small handout - Tshirt, etc.
- Tell friends to tell their other friends like tell your Dad or Mom to tell their friend.
- Tell them how fun it was
- Tell them it was fun
- Tell them it's fun!
- Tell them there will be a raffle
- Tell them they can meet cute girls
- The above seems to cover it all
- Through email
- Through email
- Through high schools, senior centers and newspaper. I thought having lunch was a bonus! :)
- Word of mouth
- Word of mouth, email

Fig. 33.) What were your main reasons for coming to this planting today?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Main Reasons for Coming	Need to fulfill community service requirements	0	3	8	6	17
	Enjoy socializing	0	2	2	14	18
	Enjoy being and working outdoors	2	4	8	32	46
	To learn about the environment	0	2	5	6	13
	To give something back to the environment	4	5	5	32	46
	To improve salmon runs	3	3	7	25	38
	To make the park look better	1	4	5	19	29
	A friend or relative brought me	0	3	2	3	8
	It sounded like fun	0	2	5	10	17
	Enjoy community service	1	3	3	16	23
	To help the community	2	7	4	18	31
	To improve the river habitat	3	4	3	31	41
	For future generations	4	1	3	19	27
	For religious or spiritual reasons	0	0	2	6	8
	Nothing else to do today	0	1	4	0	5
Other	2	2	2	4	10	
Total N		5	8	10	35	58



- “Other” responses:**
- Cascade Job Corps
  - Family time together
  - For school
  - I chose to come
  - Immune system of earth spoke to me through magic mushrooms
  - Love coming up to Skagit Valley!
  - Organize volunteers
  - Part of my job
  - To meet others and help our environment!

Fig. 33, cont'd.) If you have one, please star your top reason for coming today.

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Top Reasons for Coming	Need to fulfill community service requirements	0	0	1	3	4
	Enjoy socializing	0	0	1	0	1
	Enjoy being and working outdoors	0	0	2	2	4
	To learn about the environment	0	0	0	0	0
	To give something back to the environment	2	2	1	3	8
	To improve salmon runs	0	1	1	1	3
	To make the park look better	0	0	1	1	2
	A friend or relative brought me	0	1	0	1	2
	It sounded like fun	0	0	1	1	2
	Enjoy community service	0	0	1	1	2
	To help the community	0	1	0	1	2
	To improve the river habitat	0	0	0	7	7
	For future generations	0	0	1	0	1
	For religious or spiritual reasons	0	0	0	0	0
	Nothing else to do today	0	0	0	0	0
	Other	0	0	0	0	0
	No Response	3	3	7	15	28
	<b>Total</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

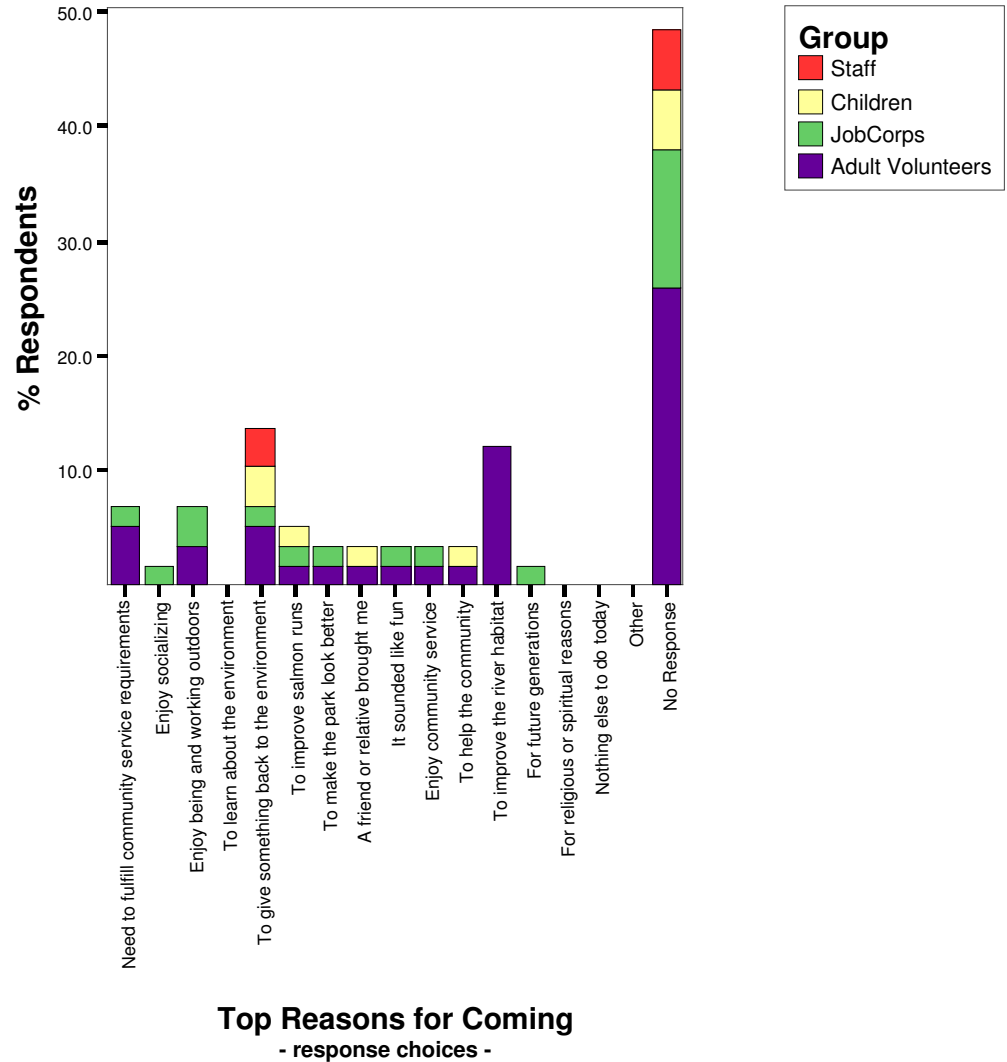


Fig. 34.) What were the main things you did at Edgewater Park today?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Things Done	Helping set up or take down site	5	2	1	0	8
	Digging and preparing planting holes	3	7	9	31	50
	Removing debris from the site	2	2	3	6	13
	Planting plants and mulching	3	7	10	32	52
	Watering plants	3	6	8	26	43
	Socializing	4	1	5	16	26
	Eating and drinking	2	4	3	18	27
	Filling out this questionnaire!	2	4	4	15	25
	Other	0	2	1	5	8
Total		5	8	10	35	58

“Other” responses:

- Bring dirt and mulch to people
- Deliver plants/wheelbarrow run
- Everything
- Filling wheelbarrows with dirt
- Network with Lucy to volunteer again
- Placing plants/pot centralizing
- Taking care of / guiding kids

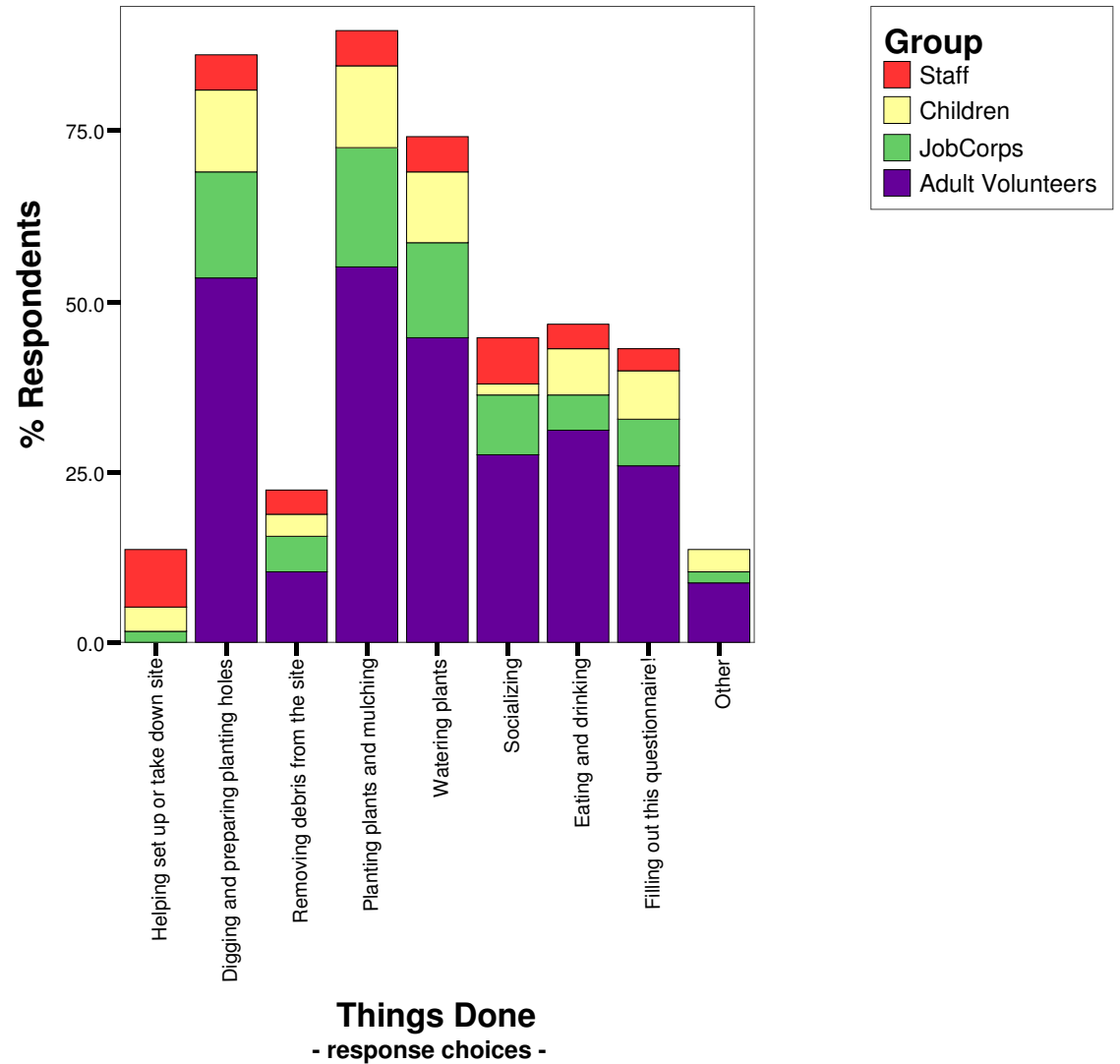


Fig. 35.) What would you say was the best thing about your experience today?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Best Thing About the Day	Helping the environment	0	3	4	9	16
	Helping the community	0	1	1	3	5
	Planting plants/getting dirty/working outside	0	2	3	5	10
	Learning about how to plant plants	0	1	2	2	5
	Being with/meeting other people	4	0	0	3	7
	Event was well-organized	0	1	0	4	5
	Feeling sense of accomplishment	0	0	0	8	8
	Food	0	0	0	2	2
	Other	1	1	0	3	5
	<b>Total</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

“Other” responses:

- The river
- The music
- Good turn-out; Enough plants to cover the planting zone
- Seeing the puzzle pieces connecting

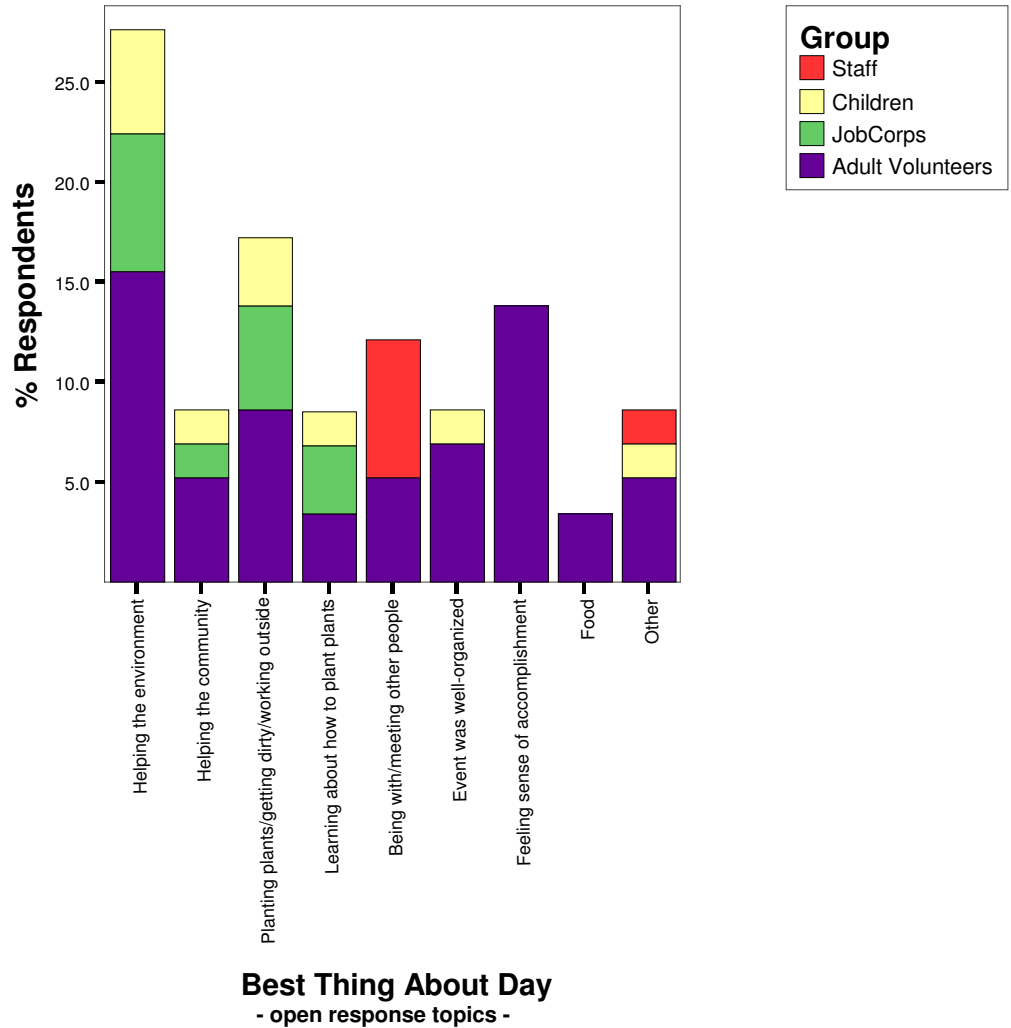
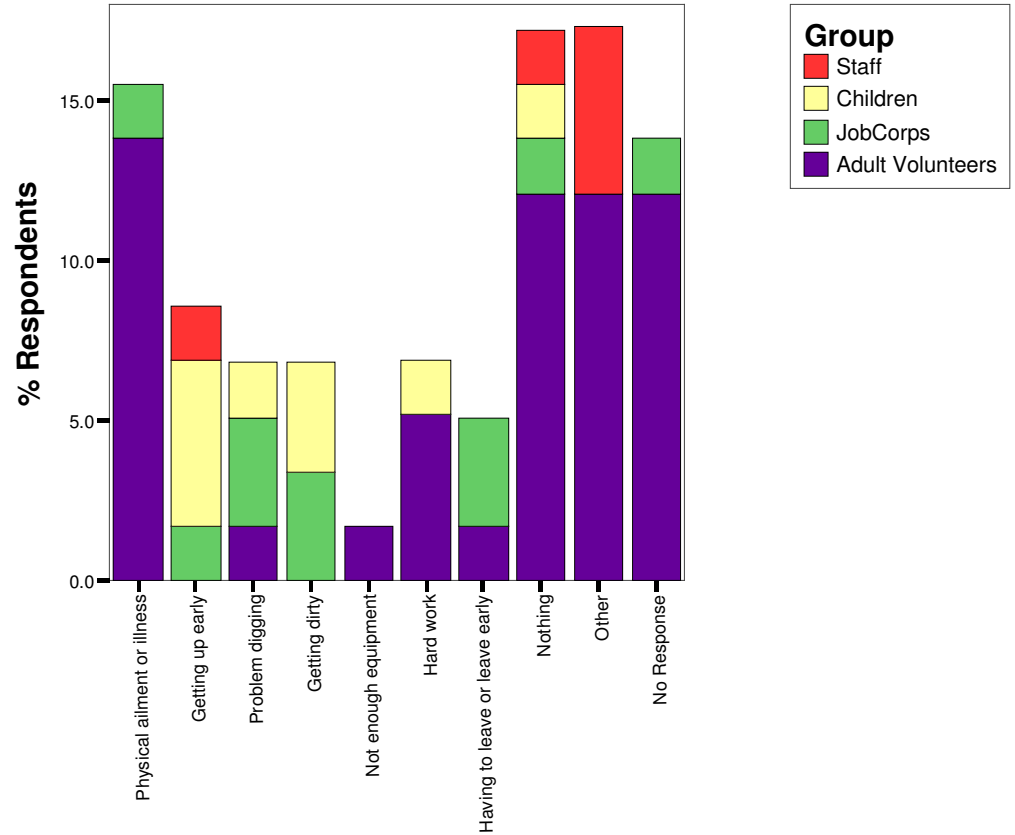


Fig. 36.) What would you say was the worst thing about your experience today?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Worst Thing About the Day	Physical ailment or illness	0	0	1	8	9
	Getting up early	1	3	1	0	5
	Problem digging	0	1	2	1	4
	Getting dirty	0	2	2	0	4
	Not enough equipment	0	0	0	1	1
	Hard work	0	1	0	3	4
	Having to leave or leave early	0	0	2	1	3
	Nothing	1	1	1	7	10
	Other	3	0	0	7	10
	No Response	0	0	1	7	8
Total		5	8	10	35	58



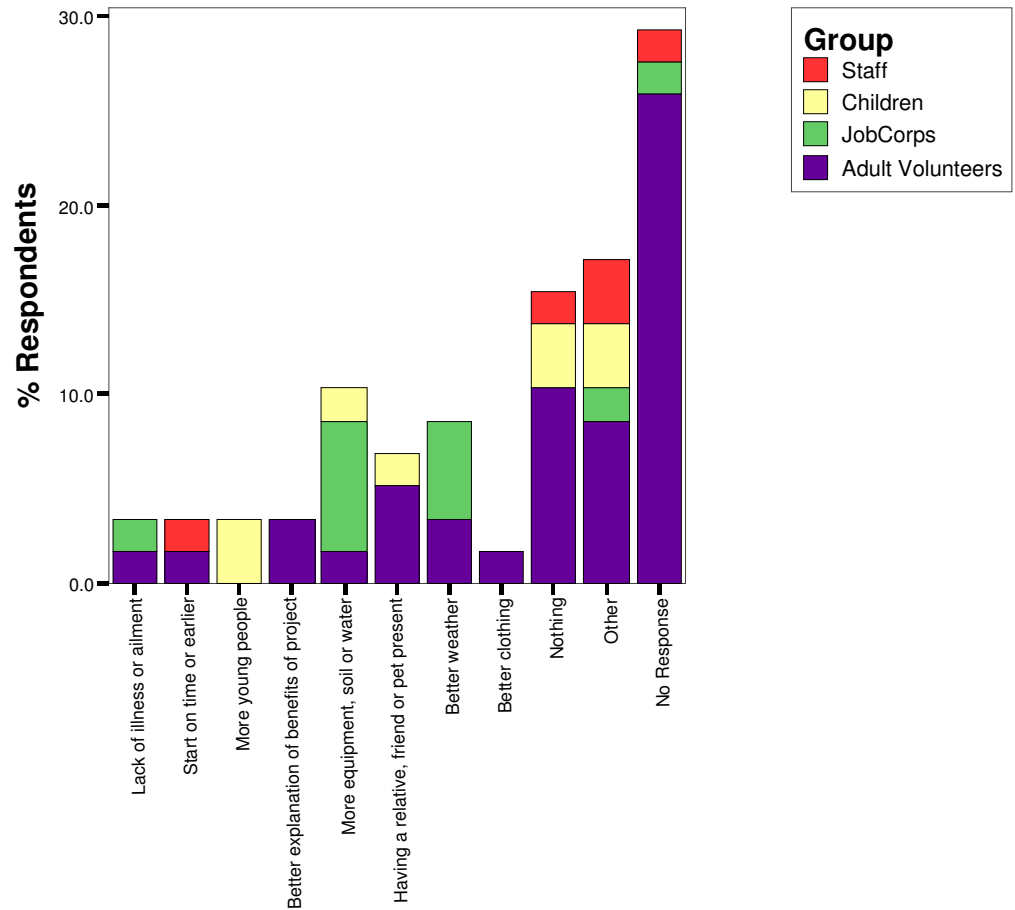
**Worst Thing About Day**  
- open response topics -

**“Other” responses:**

- I arrived late
- Paperwork :(, waiver forms, etc. It's sad that's what the world is coming to.
- People started talking about politics
- Rain wet
- The delay in start time - people weren't sure what they should be doing
- The drive from Seattle
- The view across the river
- Too much potting soil
- Unloading trash!

Fig. 37.) What are the main things that would have made your experience today better?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Things to Make Day Better	Lack of illness or ailment	0	0	1	1	2
	Start on time or earlier	1	0	0	1	2
	More young people	0	2	0	0	2
	Better explanation of benefits of project	0	0	0	2	2
	More equipment, soil or water	0	1	4	1	6
	Having a relative, friend or pet present	0	1	0	3	4
	Better weather	0	0	3	2	5
	Better clothing	0	0	0	1	1
	Nothing	1	2	0	6	9
	Other	2	2	1	5	10
	No Response	1	0	1	15	17
<b>Total</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>	



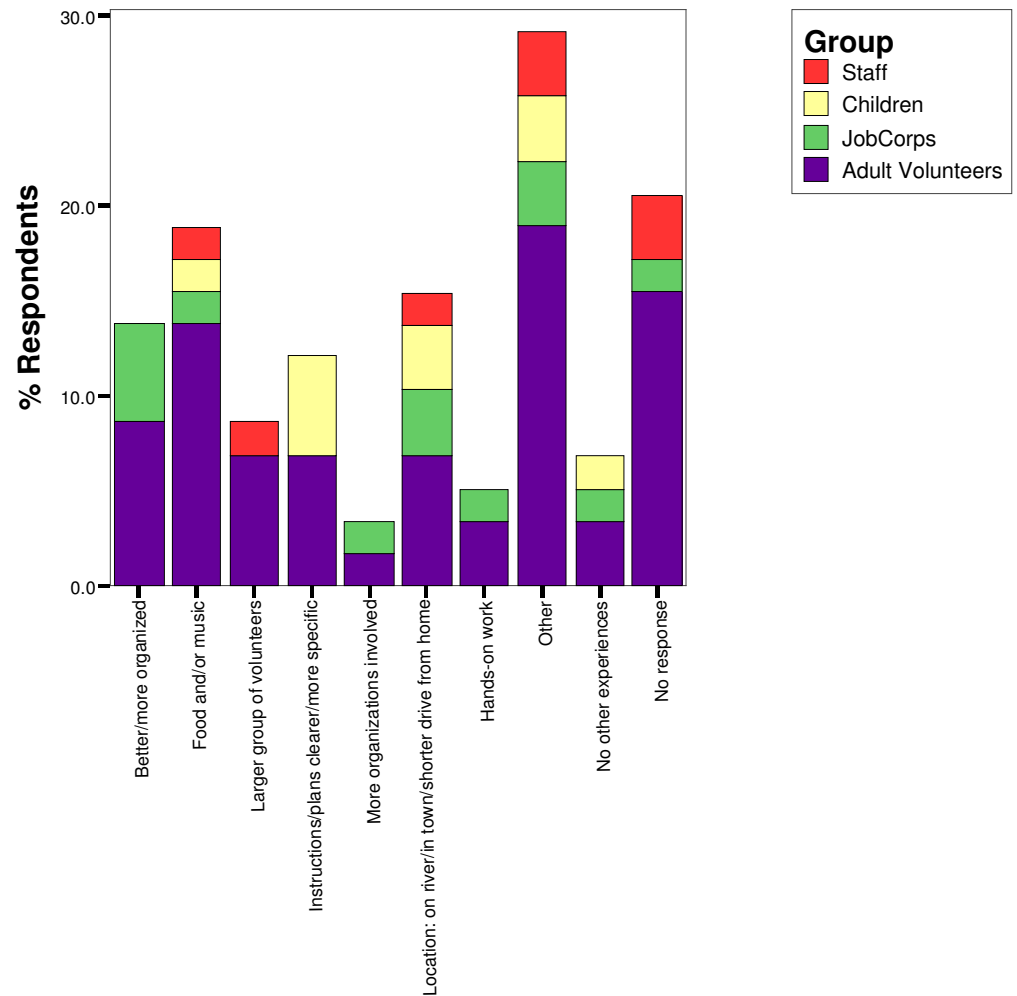
Things To Make Day Better  
- open response topics -

“Other” responses:

- A massage at end of work day
- Beer :)
- Donuts
- Getting more done
- Group effort/ well organized/ with necessary tools and materials
- If I would bring the whole pack of cigarettes instead of one
- No music
- Not to have to worry about T-shirts
- Spread out mulch and soil piles before the planting
- Start later

Fig. 38.) In what ways was the Edgewater experience different from these other experiences you have had?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
How Edgewater Was Different	Better/more organized	0	0	3	5	8
	Food and/or music	1	1	1	8	11
	Larger group of volunteers	1	0	0	4	5
	Instructions/plans clearer/more specific	0	3	0	4	7
	More organizations involved	0	0	1	1	2
	Location: on river/in town/shorter drive from home	1	2	2	4	9
	Hands-on work	0	0	1	2	3
	Other	2	2	2	11	17
	No other experiences	0	1	1	2	4
	No response	2	0	1	9	12
Total		5	8	10	35	58



**How Edgewater Planting Was Different**  
- open response topics -

- “Other” responses:**
- Physically working with many experts on restoration facilitates interactive education.
  - We live right here so it will also be nice to look at
  - I deal with salmon issues at work almost everyday but rarely see things done. It's nice to get out and do something.
  - More fun/social!
  - I worked more
  - I just counted salmon individually before
  - Soil amendments provided
  - Kid friendly - music, fed lunch, playground! Very plush.
  - Large group (awesome!), different kinds of people, I usually work in Seattle
  - All equipment was on hand
  - It was in this country
  - It's more laid back
  - Visual - very community oriented with parks, fisheries. Oftentimes the project aren't noticeable by the general public - this is noticeable and you can watch the area evolve. I think it'll get people more aware and become involved.
  - Very low-key; great survey to fill out, wonderful music and neat to be working so close to where I live / work at a site I have lots of personal connections to.



Fig. 39.) What did you learn about restoration and salmon protection today at the Edgewater planting, if anything, that you did not already know?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Topics Learned About Restoration/Salmon Protection	Learned about new plants - esp. natives	1	0	0	4	5
	Learned about how to plant plants	0	2	0	3	5
	Learned that plants are important for salmon/river	0	1	2	1	4
	Learned about the plans for the park	0	0	0	6	6
	Did not learn anything new	0	2	1	6	9
	Other	1	0	2	5	8
	No response	3	3	5	12	23
<b>Total</b>		<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

**Other:**

- Not really point of todays project
- There's paperwork involved :)
- There really is cool people in Mount Vernon
- Salmon are very important to the economy
- The lower Skagit may be the limiting factor to the restoration effects higher up
- Learned more about new contacts
- Will look at the info board
- Keep your river clean

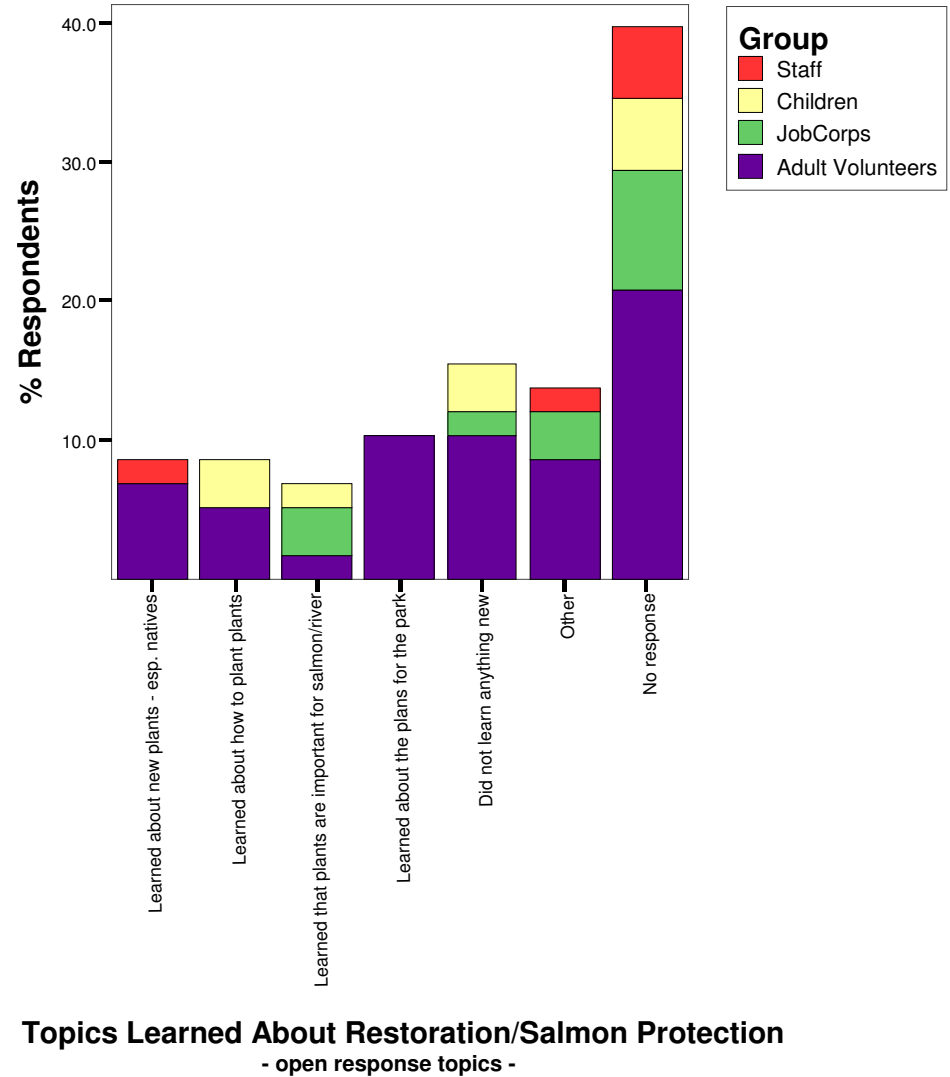
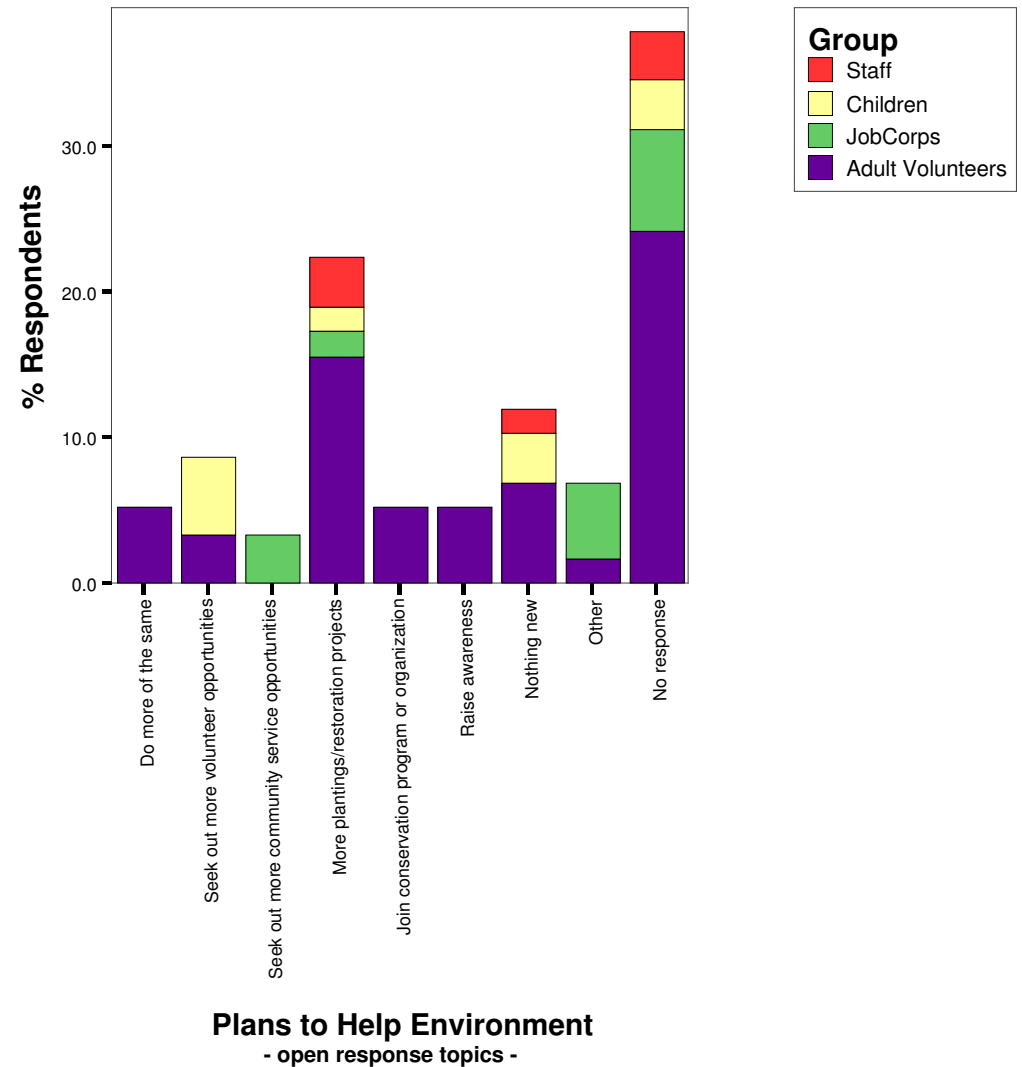


Fig. 40.) Did your volunteer experience today encourage you to decide to do other things that will help the environment? If so, what do you plan to do?

		Group				Total
		Staff	Children	JobCorps	Adult Volunteers	
Plans to Help Environment	Do more of the same	0	0	0	3	3
	Seek out more volunteer opportunities	0	3	0	2	5
	Seek out more community service opportunities	0	0	2	0	2
	More plantings/restoration projects	2	1	1	9	13
	Join conservation program or organization	0	0	0	3	3
	Raise awareness	0	0	0	3	3
	Nothing new	1	2	0	4	7
	Other	0	0	3	1	4
	No response	2	2	4	14	22
	<b>Total</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>35</b>	<b>58</b>

**Other:**

- Yes, anything that I can do to help keep a clean and safe environment
- Possibly
- Yes, I would like to do road-side clean-up
- Get a job in environmental / forestry field



**Fig. 41.) If you were king or queen of this valley, what is the first thing you would do to make it a better place?**

- Attempt to educate the citizens about the importance of caring for the environment.
- Ban drug and smoking and the current affilce [?] elected affinton[?]
- Ban Walmart
- Build a animal shelter!
- Clean garbage
- Clean it up
- Come up with comprehensive low impact development plan for entire valley and a restoration plan for degraded habitats
- Control urban sprawl and do better planning
- Develop a 100 year plan for revitalizing the Valley - restoring river/delta, improving downtown waterfronts, creating greenways and natural habitat along entire length of river, encouraging sustainable businesses, enforcing regulations
- Eliminate all tribal gill netting
- Enforce green building practices / limit new construction
- Find out what is here - never been here
- Fire all mayors and city council and install myself as dictator
- Have a gathering
- Hire or solicit the help of volunteers
- I don't know
- I don't know! I would smile!
- Keep Wal-Mart out of Stanwood
- Kick out everyone not born here!
- Limit commercial development
- Make a world a better place
- Make everyone do their part
- Make it a place that dogs can run in. Thanks much I enjoyed myself.
- Make more parklands and trails - get the dike rights to make walking trails all over.
- Make voting a law
- Massive educational project re: importance of good environmental practices and how they benefit all of us
- Moratorium on all fishing - give them a head start for a few years. Buffer requirements (and actually enforce them!)
- Not sure I know enough to answer this question
- Outlaw harassing police!
- Plant 5,000 trees Douglas Fire
- Reconnect the river to its historic floodplain
- Reduce taxes
- Remove levees and dike
- Remove the current elected officials and many of the chain store businesses
- Responsible development; re-elect or appoint new mayor and city council and work to get new president for USA. Make tougher guidelines for clean air and water
- Send most of the people elsewhere; move the freeway, or charge a toll
- Shut down Indian and commercial fisheries
- Slow the population growth
- Stop development (Wal-mart, Quadrant Housing Project...) Make a park out of the downtown reventment instead of the current parking lot that doesn't flatter downtown or do justice to the beautiful river!
- Stop tribal gill netting. Focus on habitat and revamp the hatchery system.
- Strict controls on housing density to promote high density housing in established urban areas
- Try to urge all groups to work together
- Uffda! Oust the commissioners and appoint a new governing/planning committee with an array of expertise and experience
- Wow! What a question! Limit development in rural areas, teach practical environmentalism

## Discussion

In the spirit of community-based, participatory research, I presented results from this study in exhaustive detail in order to encourage you to draw your own conclusions from the material. Furthermore, I would be delighted to hear your reactions, interpretations and questions with respect to this study and results, and will include these as material in my larger project (with your permission). Please contact me at the address below.

In addition, my hope is that this information will be a starting point for intra- and inter-organizational discussions about the volunteer component of salmon recovery. For example, for me some of the more challenging themes and questions that emerge from these results include:

- 1) Can we more clearly identify and state the various reasons for including volunteers in restoration work? If a goal is to build political support for restoration, are volunteer planting events the most effective and logistically feasible way to achieve this goal?
- 2) Why does restoration appear to attract a largely urban, professional and educated group of people, including people beyond the local area? Is restoration a largely middle to upper class activity? Who controls changes to the landscape here, and why?
- 3) In educational materials and programs, why are ecological and scientific aspects of restoration stressed over social, cultural, historical and political aspects?

What questions do the results raise for you?

## Recommendations

- Keep up the obviously successful and much-appreciated organization and welcoming atmosphere of the planting events.
- Recruitment materials may reach *more* people like those that currently volunteer if rationales beyond salmon recovery are stressed, such as: it is a general opportunity to give back to the environment, a chance to be and work outdoors, a way of responding to fears of development, and a chance to have fun and meet people with similar interests. It would be difficult to distill strategies for reaching a broader *range* of people from

these results, however. In order to do this, explore recruitment strategies that appear to work for different groups.

- If appropriate, spell out the sociopolitical context for restoration in educational materials at planting events. For example, in addition to interpretive material about native plants and planting techniques, provide material about how volunteer restoration fits within the larger context of regional restoration efforts. Include brief explanations of the Endangered Species Act listing of salmon in the Pacific Northwest, State-Tribal co-management of fisheries and the Boldt decision, the Shared Strategy of Puget Sound, the Growth Management Act and Critical Areas Ordinance, etc., with resources for further information. In addition, if this is not already done, it may be helpful to present basic information on the intended ecological effects of restoration, the status of salmon populations here, and how this project fits in to the larger scope of restoration efforts in the Valley.

## Researcher Contact Information

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## Appendix A: Questionnaire

### *Improving the Questionnaire*

In general, respondents expressed interest in taking the survey. Some said the questions were good and some commented on the questionnaire being long.

Some things worked:

- 1) Base questions on insider information: conduct participant observation and focus groups before constructing the questionnaire.
- 2) Make sure the design of the questionnaire is user-friendly. I relied heavily on the recommendations provided in Dillman and
- 3) Provide an incentive, such as a free T-shirt, and an obvious time, such as a lunch break, for filling out the questionnaire.

Room for improvement:

- 1) Depending on your goals and timeframe, cut the questionnaire by at least half. It probably took respondents 30-40 minutes to fill out this 44-question questionnaire. On the other hand, nobody seemed particularly upset by how long it took.
- 2) When there are multiple potential responses to a question, ask respondents to *rank* their top three reasons, rather than asking them to check all reasons and star the top one.
- 3) Limit the number of open-ended questions. These take longer for the respondent to fill out and for you to code and enter into a database.
- 4) Questions 25 and 26, asking volunteers to state what they think are the main ways salmon habitat restoration affects the natural environment and society, were minimally effective. Better would be to include multiple choice responses, or write more effective questions. (Let me know what you come up with!)
- 5) Question 27: include a more comprehensive list of relevant agreements, policies and laws.

- 6) If appropriate, ask more specifically about political, religious, and other group affiliations and participation, income level and education.