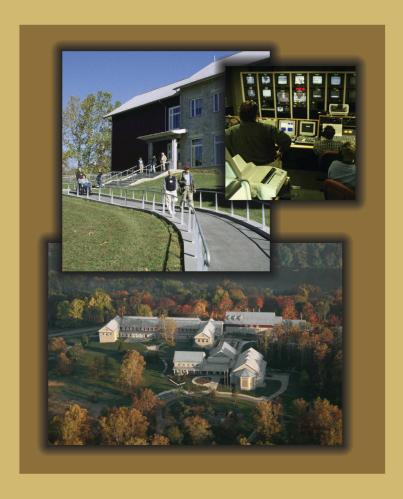
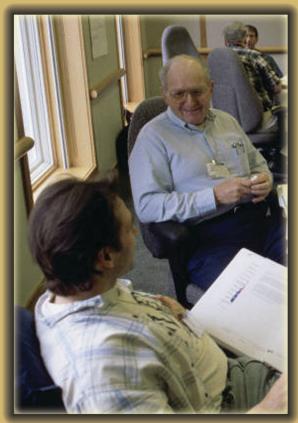


# A Survey of U.S. Fish and Wildlife Service Employees Regarding Topics for Distance Education— Summary Report to Respondents

By Joan M. Ratz, Rudy M. Schuster, and Ann H. Marcy





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U.S. Department of the Interior U.S. Geological Survey

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# A Survey of U.S. Fish and Wildlife Service Employees Regarding Topics for Distance Education—Summary Report to Respondents

By Joan M. Ratz, Rudy M. Schuster, and Ann M. Marcy

# **Executive Summary**

This report provides a summary of responses to the questions included in the U.S. Fish and Wildlife Service (FWS) National Conservation Training Center (NCTC) Distance Education survey conducted from January 26, 2010, to February 8, 2010. The survey included questions for two studies sponsored by the Division of Education Outreach (DEO) at the NCTC. The first study identifies the topics of interest to FWS employees on which training could be provided via distance education. The topics were limited to the area of conservation and environmental education, outreach, and partnerships because these topics are within the scope of the DEO. The second study focused on characterizing the relation between onsite course enrollment at NCTC and distance education offerings. Because there were only a few questions on the survey for the second study and because the target populations were the same for both, the two surveys were combined.

Our preliminary conclusion, based only on frequencies of responses and averages, is that our survey respondents appear to prefer traditional instructor-led training. However, they would still enroll in distance education courses. The distance education technologies of audio conferencing, computer-mediated training, and written resource provision are the technologies respondents reported being most familiar and accessible to them. For four of the five topic areas—creating and maintaining partnerships, technology, program planning and development, and outreach methods—the response frequencies and averages indicate that the topics were viewed as both relevant and important. Respondents were more neutral regarding the relevance and importance of the topic of evaluation methods. Respondents reported preferences for different types of information on different topics and also reported preferences in delivery mode of training for each topic area. Detailed results and conclusions will be included in the completion reports for the two studies.

# **Purpose of the Survey**

To make informed decisions about the expansion of their distance education offerings, the Division of Education Outreach (DEO) of the U.S. Fish and Wildlife Service National Conservation Training Center (NCTC) conducted two studies. The first study focused on topics in which U.S. Fish and Wildlife Service (FWS) employees would be interested in receiving training via distance education. The DEO sought to identify topics of interest specific to outreach, conservation and environmental education activities. The second study focused on characterizing the relation between onsite course enrollment at NCTC and distance education offerings. Specifically, DEO was interested in determining if expanding distance education offerings would be likely to increase or decrease enrollment in onsite courses at NCTC. The DEO entered into an agreement with the Policy Analysis and Science Assistance

Branch (PASA) of the U.S. Geological Survey (USGS) to conduct these studies to identify the topics of interest and preferred distance education options for FWS employees.

To develop the most effective distance education offerings, it was important to identify preferred training topics and preferred distance education technology prior to the actual instructional design and development process. An assessment of the preferences of the population targeted as recipients of the training (FWS employees) was a particularly important component of the process of developing technologically based distance education (Brown and Ford, 2002; Cho and Berge, 2002; DeRouin and others, 2004; Kraiger, 2003). The training offered should be of value to FWS employees and the agency at large; conducting an assessment such as this was the first step for NCTC to plan what content and by which mode to offer training (Burton and Merrill, 1991). As part of planning distance education offerings, the NCTC also needed to be aware of the potential effect on their onsite training programs. Results of formative evaluation studies such as these are commonly used for strategic decision making, prioritization, and resource allocation (Thompson and Irele, 2007; Witkin and Altschuld, 1995). The information collected in these studies supports NCTC in setting priorities for distance education offerings and allocating resources for development of distance education programming.

Because there were only a few questions on the survey for the second study and because the target populations were the same for both, the two sets of questions were combined into one survey on distance education.

## **Purpose of This Report**

The purpose of this report is to provide a summary of the survey to those who participated in the survey and to other interested parties. The results as they are provided here are brief—consisting only of frequencies and averages when appropriate. More detailed analyses are provided in the project completion reports for the two studies being published as Open-File Reports in the U.S. Geological Survey publications series.

# **Brief Description of Survey**

A message written by Janet Carrier Ady, Chief of the DEO, introducing the survey was emailed to individuals who were included in the survey sample. Even though the message was from the DEO Chief, it was sent by PASA personnel to maintain the privacy and protect the identity of those in the survey sample. We sent an email message that included a link to the survey to the FWS employees in the survey sample a few days after the introductory letter was sent. We sent a reminder to those who had not yet completed the survey about one week after the initial survey distribution. A final reminder was sent to those who had not submitted a complete survey on the last day the survey data were being collected.

All correspondence regarding the survey was emailed by PASA personnel to keep confidential the identity of those in the survey sample. The survey was administered online by using KeySurvey© software. The use of this software allowed us to design a survey that was adaptive. Adaptive surveys tailor the questions an individual survey respondent is asked based upon their responses to earlier questions.

We stratified the sample by FWS region. We determined the sample size for each region to provide representative coverage. To identify which employees to include in the sample, we first included the FWS employees who subscribe to the VOICES electronic distribution list. VOICES is a list targeted to those who are interested in environmental education and is hosted by DEO. We knew they were individuals who would be in the target population of DEO and would be NCTC potential training

participants. The VOICES list did not include enough names for a sufficient survey sample. To complete the survey sample, we added more FWS employees from each region. We selected employees from a list of FWS employees who had taken training through NCTC from October 1, 2007 to June 24, 2009. The final sample for this survey included 1,488 FWS employees.

#### **Results**

#### **Response Rate**

Of the 1,488 surveys initially sent, 48 were undeliverable either due to the individual no longer being with the FWS or because the individual's mail box was over quota. Four individuals requested to be removed from the survey sample. Eight individuals were out of the office for the duration of the data collection process. This left us with a potential sample size of 1,428. Eight hundred sixty-four individuals submitted a completed survey via the survey software. Partial responses were received from 47 individuals who started but did not finish the survey online. We included the partial responses for a total of 911 respondents. The overall adjusted response rate was 64 percent. Every region had a regional response rate of at least 50 percent.

#### **Question Summaries**

The summary results for the survey questions are provided in the order in which the questions were asked. Because this was an adaptive survey, not all questions were asked of all respondents, and because some respondents skipped questions or did not complete the survey, we provide a response n indicating the number of respondents who answered each question. The percent of respondents selecting each option is provided. Due to rounding error, percents may exceed 100 percent when added. There are a few instances in which so few individuals selected a particular response that the percent rounded down to zero. In those few situations, we use "<.05%" to indicate that the response was selected by at least one respondent. If a response option is left blank, no respondents selected that option. The most frequently selected responses are bolded. Averages are provided when appropriate.

#### Introductory Section

#### Q1. How many courses have you taken onsite at NCTC in Shepherdstown, WV? (n = 911)

0	1	2	3	More than 3
7%	13%	13%	12%	56%

#### Q2. How many courses have you taken from NCTC that were offered via distance education? (n = 911)

0	1	2	3	More than 3
48%	17%	11%	5%	19%

# Q3. Considering all of your responsibilities, what percentage of your job involves conservation and/or environmental education or outreach programming? (n = 911)

0%	1% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 99%	100%
6%	28%	13%	11%	10%	13%	19%

Q4. In your job, do you supervise anyone (including employees, contractors, and volunteers) whose job involves work in conservation and/or environmental education, outreach programming, visitor services, or partnerships? (n = 909)

Yes 41% No 59%

At this point in the survey, respondents who had indicated that 0 percent of their job involves conservation education and that they do not supervise anyone whose job involves conservation education were redirected to the section of questions regarding distance education attitudes.

#### **Topics for Training**

Five content areas for potential future training were assessed on this survey: creating and maintaining partnerships, technology, program planning and development, outreach methods to engage the community, and evaluation methods. The following descriptions of the five content areas included in the survey were provided:

- Creating and maintaining partnerships: Creating and maintaining community partnerships; working with internal partners; project management with partners—including managing funding, agreements about responsibility, and volunteer management; and effective communication with partners.
- Technology: Need to be more competent with emerging technologies and leveraging current technology to more effectively connect with the public in an active rather than passive manner.
- Program planning and development: Developing innovative and creative programs and materials
  that are current and relevant, developing programs for topics involving some uncertainty such as
  climate change, maintaining the relevance of program materials particularly with respect to
  maintaining currency with State educational standards, and planning outreach content to coordinate
  with other FWS priorities and needs.
- Outreach methods to engage the community: Effective outreach methods to encourage more community participation in programs.
- Evaluation methods: Methods for measuring the success of environmental education in terms of change in attitudes and behavior and not just program participation.

Respondents were asked about the relevance and importance of each topic to their job, and how much they would like training on each topic. The average values provided are rounded to the nearest whole number.

#### Q5. Relevance of creating and maintaining partnerships to my job. (n = 855, average = 6)

	Irrelevant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Relevant (7)
ĺ	3%	2%	1%	8%	12%	16%	57%

#### Q6. Importance of creating and maintaining partnerships to my job. (n = 855, average = 6)

Unimportant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Important (7)
3%	2%	1%	7%	12%	16%	59%

#### Q7. I would like training on creating and maintaining partnerships... (n = 851, average = 5)

Not at all (1)	(2)	(3)	Somewhat (4)	(5)	(6)	Very much (7)
7%	5%	6%	23%	18%	18%	23%

#### Q8. Relevance of technology to my job. (n = 854, average = 6)

Irrelevant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Relevant (7)
<.05%	1%	1%	8%	16%	22%	52%

#### Q9. Importance of technology to my job. (n = 854, average = 6)

Unimportant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Important (7)
<.05%	<.05%	1%	8%	15%	24%	52%

#### Q10. I would like training on technology... (n = 853, average = 6)

Not at all (1)	(2)	(3)	Somewhat (4)	(5)	(6)	Very much (7)
2%	2%	3%	16%	17%	24%	37%

#### Q11. Relevance of program planning and development to my job. (n = 852, average = 5)

Irrelevant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Relevant (7)
5%	6%	4%	19%	20%	16%	29%

#### Q12. Importance of program planning and development to my job. (n = 852, average = 5)

Unimportant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Important (7)
5%	5%	4%	19%	21%	18%	28%

#### Q13. I would like training on program planning and development... (n = 850, average = 5)

Not at all (1)	(2)	(3)	Somewhat (4)	(5)	(6)	Very much (7)
10%	7%	10%	20%	17%	17%	19%

#### Q14. Relevance of outreach methods to engage the community to my job. (n = 849, average = 5)

Irrelevant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Relevant (7)
7%	6%	5%	18%	23%	16%	25%

#### Q15. Importance of outreach methods to engage the community to my job. (n = 850, average = 5)

Unimportant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Important (7)
7%	5%	6%	18%	25%	15%	25%

#### Q16. I would like training on outreach methods to engage the community... (n = 848, average = 4)

Not at all (1)	(2)	(3)	Somewhat (4)	(5)	(6)	Very much (7)
11%	8%	9%	22%	21%	14%	17%

#### Q17. Relevance of evaluation methods to my job. (n = 844, average = 4)

Irrelevant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Relevant (7)
16%	10%	6%	26%	15%	12%	15%

#### Q18. Importance of evaluation methods to my job. (n = 846, average = 4)

Unimportant (1)	(2)	(3)	Neutral (4)	(5)	(6)	Important (7)
16%	10%	5%	25%	17%	13%	14%

#### Q19. I would like training on evaluation methods... (n = 847, average = 4)

Not at all (1)	(2)	(3)	Somewhat (4)	(5)	(6)	Very much (7)
21%	11%	11%	25%	14%	9%	10%

#### Type of Information From Each Topic

For each of the five topics addressed in the survey, respondents were asked what type of information for each topic they most needed. Some respondents did not mark a choice for each topic; therefore, the *n* per topic (row) is provided below.

Q20a-Q20e. What type of information do you most need from each topic as defined above? Mark only one per topic.

	Basic facts	Processes and procedures	Technical hands-on skill	Interpersonal skill	Problem solving methods	How to develop a strategy
Q20a. Creating and maintaining partnerships (n = 838)	15%	17%	8%	16%	22%	22%
Q20b. Technology (n = 838)	11%	8%	71%	1%	5%	4%
Q20c. Program planning and development ( <i>n</i> = 837)	24%	26%	9%	3%	10%	28%
Q20d. Outreach methods to engage the community ( <i>n</i> = 838)	31%	19%	10%	10%	9%	22%
Q20e. Evaluation methods (n = 838)	46%	23%	12%	1%	6%	11%

## Experience With and Access to Technology

Two factors must be considered when developing a distance education program. First, the amount of experience the target population has with the learning technology is important. When people are familiar with and have experience using a particular technology, they are more likely to accept and be comfortable using that technology for applications such as distance education. Second, the target population's access to technology is of critical importance in planning distance education. It makes little sense to plan distance education using a technology to which few in the target population have access.

The following descriptions of the six types of technology included in the survey were provided:

- Satellite television involves transmission of a live presentation to select locations with appropriate receptive technology. Participants in different locations can interact with the presenter via audio transmission.
- **Video conferencing** can take place through webcams or other online technology; the instructor and participants are able to see and hear each other simultaneously.
- **Audio conferencing** includes audio interaction only and is most commonly in the form of conference calls.
- Computer mediated training involves use of computers and specialized software for training; the instructor and participants do not necessarily need to be online at the same time, but they can be. Examples include training via webcast, WebEx©, bulletin boards, discussion lists, video podcast, interactive gaming, and group shareware such as wikis.
- Written resource provision provides documents via CD-ROM, online PDF, or website. Examples include correspondence courses, toolkits, or other resources.

• **Audio resource provision** via podcast or other audio file downloaded to a computer or handheld device such as an iPod<sup>TM</sup>. An example of an audio resource would be a recorded lecture that could be listened to at any time.

Some respondents did not mark a choice for all of the technologies in a question set; therefore, the n per topic (row) is provided below.

Q21a-Q21f. How frequently do you use each technology?

	Not at all	Less than once each week	About once each week	Multiple times each week	About once each day	Multiple times each day
Q21a. Satellite television (n = 832)	70%	26%	1%	1%	1%	1%
Q21b. Video conferencing (n = 830)	63%	34%	2%	1%	<.05%	<.05%
Q21c. Audio conferencing (n = 834)	11%	45%	23%	17%	3%	2%
Q21d. Computer mediated training (n = 826)	17%	74%	5%	2%	<.05%	1%
Q21e. Written resource provision (n = 828)	28%	41%	11%	9%	3%	8%
Q21f. Audio resource provision (n = 829)	58%	31%	5%	2%	1%	2%

Q22a-Q22f. How comfortable are you with each technology?

	Very uncomfortable	Slightly uncomfortable	Not uncomfortable or comfortable	Slightly comfortable	Very comfortable
Q22a. Satellite television ( <i>n</i> = 832)	17%	13%	36%	15%	18%
Q22b. Video conferencing (n = 830)	13%	15%	35%	21%	17%
Q22c. Audio conferencing (n = 832)	7%	5%	18%	15%	55%
Q22d. Computer mediated training (n = 831)	7%	8%	23%	21%	42%
Q22e. Written resource provision ( <i>n</i> = 827)	8%	5%	28%	11%	48%
Q22f. Audio resource provision (n = 829)	12%	9%	38%	14%	27%

Q23a-Q23f. How many distance education courses have you taken with each technology?

	0	1	2	3	More than 3
Q23a. Satellite television ( <i>n</i> = 829)	80%	9%	4%	2%	5%
Q23b. Video conferencing (n = 828)	71%	13%	7%	3%	5%
Q23c. Audio conferencing (n = 821)	63%	14%	6%	2%	15%
Q23d. Computer mediated training ( <i>n</i> = 826)	31%	11%	10%	4%	44%
Q23e. Written resource provision ( <i>n</i> = 826)	53%	11%	7%	4%	26%
Q23f. Audio resource provision (n = 824)	78%	9%	3%	2%	8%

Specific questions regarding access, perceived ease of use, and availability of technical support were asked for each type of distance education technology. Some respondents did not mark a choice for all questions in each set, or respond to the questions for all technologies; therefore, the *n* per question is provided below. The average ratings are provided and were calculated only on responses for scale values 1 (Strongly disagree) to 5 (Strongly agree). The response option "Don't know" was considered a missing value for these calculations, although the frequency of that response may be informative. Averages are rounded to the nearest whole number.

Q24a-Q24e. Please rate your agreement with the following statements regarding satellite television:

	Strongly disagree (1)	Slightly disagree (2)	Neither agree nor disagree (3)	Slightly agree (4)	Strongly agree (5)	Don't know (6)
Q24a. I have easy access to satellite television at my workplace. (n = 836, average = 2)	45%	8%	8%	11%	17%	11%
Q24b. I can easily obtain technical support for satellite television if I need it. (n = 832, average = 3)	36%	10%	12%	13%	14%	16%
Q24c. I would find it easy to get satellite television to do what I want it to do. (n = 833, average = 2)	34%	11%	21%	8%	8%	18%
Q24d. I would find satellite television easy to use. (n = 828, average = 3)	16%	9%	30%	15%	13%	17%
Q24e. Using satellite television would not require a lot of mental effort. (n = 833, average = 3)	13%	10%	29%	16%	16%	17%

Q25a–Q25e. Please rate your agreement with the following statements regarding video conferencing:

	Strongly disagree (1)	Slightly disagree (2)	Neither agree nor disagree (3)	Slightly agree (4)	Strongly agree (5)	Don't know (6)
Q25a. I have easy access to video conferencing at my workplace. (n = 829, average = 3)	33%	12%	12%	12%	21%	10%
Q25b. I can easily obtain technical support for video conferencing if I need it. (n = 828, average = 3)	25%	14%	15%	15%	18%	13%
Q25c. I would find it easy to get video conferencing to do what I want it to do. (n = 823, average = 3)	19%	12%	21%	17%	16%	16%
Q25d. I would find video conferencing easy to use. ( <i>n</i> = 825, average = 3)	12%	10%	24%	20%	19%	15%
Q25e. Using video conferencing would not require a lot of mental effort. (n = 827, average = 3)	11%	11%	26%	19%	18%	15%

## Q26a-Q26e. Please rate your agreement with the following statements regarding audio conferencing:

	Strongly disagree (1)	Slightly disagree (2)	Neither agree nor disagree (3)	Slightly agree (4)	Strongly agree (5)	Don't know (6)
Q26a. I have easy access to audio conferencing at my workplace. (n = 826, average = 5)	4%	2%	7%	10%	76%	2%
Q26b. I can easily obtain technical support for audio conferencing if I need it. (n = 826, average = 4)	5%	5%	11%	19%	56%	4%
Q26c. I would find it easy to get audio conferencing to do what I want it to do.  (n = 825, average = 4)	4%	3%	10%	20%	61%	3%
Q26d. I would find audio conferencing easy to use. (n = 823, average = 5)	2%	2%	10%	16%	68%	2%
Q26e. Using audio conferencing would not require a lot of mental effort. (n = 824, average = 4)	2%	4%	12%	16%	63%	3%

Q27a-Q27e. Please rate your agreement with the following statements regarding computer mediated training:

	Strongly disagree (1)	Slightly disagree (2)	Neither agree nor disagree (3)	Slightly agree (4)	Strongly agree (5)	Don't know (6)
Q27a. I have easy access to computer mediated training at my workplace. (n = 822, average = 4)	6%	4%	8%	21%	56%	6%
Q27b. I can easily obtain technical support for computer mediated training if I need it. (n = 823, average = 4)	8%	8%	12%	23%	39%	9%
Q27c. I would find it easy to get computer mediated training to do what I want it to do. (n = 823, average = 4)	5%	7%	13%	26%	39%	10%
Q27d. I would find computer mediated training easy to use. ( <i>n</i> = 823, average = 4)	4%	3%	13%	26%	47%	7%
Q27e. Using computer mediated training would not require a lot of mental effort. (n = 817, average = 4)	4%	6%	17%	25%	41%	8%

## Q28a-Q28e. Please rate your agreement with the following statements regarding written resource provision:

			Neither			
	Strongly disagree (1)	Slightly disagree (2)	agree nor disagree (3)	Slightly agree (4)	Strongly agree (5)	Don't know (6)
Q28a. I have easy access to written resources at my workplace. (n = 823, average = 4)	2%	2%	12%	18%	61%	5%
Q28b. I can easily obtain technical support for written resources if I need it.  (n = 822, average = 4)	3%	4%	15%	18%	52%	8%
Q28c. I would find it easy to get a written resource to do what I want it to do.  (n = 819, average = 4)	2%	4%	15%	18%	54%	7%
Q28d. I would find written resources easy to use. (n = 818, average = 4)	1%	1%	13%	18%	60%	6%
Q28e. Using written resources would not require a lot of mental effort.  (n = 815, average = 4)	3%	4%	17%	19%	53%	6%

Q29a-Q29e. Please rate your agreement with the following statements regarding audio resource provision:

	Strongly disagree (1)	Slightly disagree (2)	Neither agree nor disagree (3)	Slightly agree (4)	Strongly agree (5)	Don't know (6)
Q29a. I have easy access to audio resources at my workplace. (n = 822, average = 4)	13%	10%	14%	17%	32%	14%
Q29b. I can easily obtain technical support for audio resources if I need it. (n = 819, average = 3)	12%	10%	17%	16%	27%	18%
Q29c. I would find it easy to get an audio resource to do what I want it to do. (n = 821, average = 4)	7%	8%	19%	19%	29%	17%
Q29d. I would find audio resources easy to use. (n = 821, average = 4)	4%	5%	18%	21%	37%	15%
Q29e. Using audio resources would not require a lot of mental effort. (n = 818, average = 4)	5%	6%	21%	18%	36%	14%

### Preferences for Type of Training

The next section of questions asked respondents about their most preferred mode of training for each of the identified topics. We included two traditional classroom options for instructor-led training (ILT) onsite at the NCTC facility in Shepherdstown, W. Va., and offsite ILT at other locations in addition to the distance education choices.

Q30a-Q30e. Please indicate your most preferred mode to receive training in each topic area.

	ILT onsite at NCTC	ILT offsite	Satellite television	Video conferencing	Audio conferencing	Computer mediated training	Written resources	Audio resources
Q30a. Creating and maintaining partnerships (n = 801)	41%	21%	6%	9%	2%	15%	5%	1%
Q30b. Technology (n = 804)	43%	22%	3%	6%	<.05%	22%	3%	<.05%
Q30c. Program planning and development (n = 800)	36%	17%	7%	10%	2%	20%	8%	1%

	ILT onsite at NCTC	ILT offsite	Satellite television	Video conferencing	Audio conferencing	Computer mediated training	Written resources	Audio resources
Q30d. Outreach methods to engage the community (n = 802)	30%	16%	8%	11%	1%	22%	9%	2%
Q30e. Evaluation methods (n = 802)	26%	12%	7%	11%	2%	27%	14%	2%

Survey respondents were asked questions regarding their preferences for onsite classroom training, distance education technology, and technical support for distance education.

#### Q31a. I prefer onsite classroom training over training by distance education technology. (n = 858, average = 4).

		Neither agree nor		
Strongly disagree (1)	Slightly disagree (2)	disagree (3)	Slightly agree (4)	Strongly agree (5)
5%	8%	20%	28%	39%

# Q31b. I would take a training course administered by distance education technology instead of a classroom based course. (n = 856, average = 3).

		Neither agree nor		
Strongly disagree (1)	Slightly disagree (2)	disagree (3)	Slightly agree (4)	Strongly agree (5)
10%	14%	31%	32%	13%

# Q31c. I would prefer technical support for technology used in a distance education course to be provided by my local duty station. (n = 855, average = 4).

		Neither agree nor		
Strongly disagree (1)	Slightly disagree (2)	disagree (3)	Slightly agree (4)	Strongly agree (5)
9%	8%	29%	28%	26%

# Q31d. I would prefer technical support for technology used in a distance education course to be provided by the sponsor of the training, the National Conservation Training Center. (n = 855, average = 3).

		Neither agree nor		
Strongly disagree (1)	Slightly disagree (2)	disagree (3)	Slightly agree (4)	Strongly agree (5)
9%	12%	40%	22%	19%

Questions in the next section focused on respondents' preferences for either onsite training at NCTC or distance education. The questions include two checklists and two questions using a rating scale. For the checklists, the frequencies indicate the number of individuals who checked the option. We cannot provide percentages for these checklists because it cannot be determined if lack of a check mark is missing data—meaning that a respondent skipped the question—or if it is a negative response—meaning that the respondent is not influenced by this factor.

# Q32a–Q32o. Please indicate which of the following reasons would influence you to take training via any type of distance education instead of onsite at the NCTC: (mark all that apply)

Q32a. Scheduling with commitments in my personal life. (n = 648)

Q32b. Scheduling with commitments in my work life. (n = 696)

- Q32c. Transportation issues. (n = 355)
- Q32d. Physical disabilities. (n = 14)
- Q32e. Independent pace of learning. (n = 247)
- Q32f. Meeting others. (n = 35)
- Q32g. Interaction with other students. (n = 55)
- Q32h. Interaction with instructor. (n = 69)
- Q32i. It's easier for me to learn this way. (n = 51)
- Q32j. Cost issues. (n = 500)
- Q32k. Needing permission from supervisor. (n = 164)
- Q321. It's efficient to learn this way. (n = 172)
- Q32m. Freedom to complete training when I can fit it in. (n = 459)
- Q32n. Travel time. (n = 457)
- Q32o. Level of interest in the topic. (n = 342)

# Q33a–Q33o. Please indicate which of the following reasons would influence you to take training onsite at NCTC instead of through distance education: (mark all that apply)

- Q33a. Scheduling with commitments in my personal life. (n = 113)
- O33b. Scheduling with commitments in my work life. (n = 141)
- Q33c. Transportation issues. (n = 59)
- Q33d. Physical disabilities. (n = 4)
- Q33e. Independent pace of learning. (n = 29)
- Q33f. Meeting others. (n = 670)
- Q33g. Interaction with other students. (n = 745)
- Q33h. Interaction with instructor. (n = 765)
- Q33i. It's easier for me to learn this way. (n = 492)
- Q33j. Cost issues. (n = 59)
- Q33k. Needing permission from supervisor. (n = 55)
- Q331. It's efficient to learn this way. (n = 265)
- Q33m. Freedom to complete training when I can fit it in. (n = 20)
- Q33n. Travel time. (n = 63)
- Q330. Level of interest in the topic. (n = 465)

# Q34. How likely is it that you would choose to take a course from NCTC via distance education instead of onsite at the NCTC campus? (n = 860, average = 5)

Extremely		Slightly unlikely	Neither likely or	Slightly likely		Extremely likely
unlikely (1)	Unlikely (2)	(3)	unlikely (4)	(5)	Likely (6)	(7)
4%	7%	10%	23%	20%	25%	11%

# Q35. How likely is it that you would choose to take an onsite course at the NCTC campus instead of an NCTC course through distance education? (n = 859, average = 5)

Extremely		Slightly unlikely	Neither likely or	Slightly likely		Extremely likely
unlikely (1)	Unlikely (2)	(3)	unlikely (4)	(5)	Likely (6)	(7)
3%	6%	8%	22%	17%	28%	17%

## Aspects of Training

The last section of questions relating to the topic of the survey focused on the importance to respondents of varied aspects of training. The number of respondents varies and is provided with the statement. The average response is rounded to the nearest whole number. This was the next to last section of questions on the survey as it was administered. The last section on the survey included the demographic questions.

Q36a–Q36l. Please rate the importance of each of these:

		Somewhat important			
	Not important (1)	(2)	Important (3)	Very important (4)	
Q36a. The USFWS providing					
training to me is:	2%	6%	26%	67%	
(n = 826, average = 4)					
Q36b. Having an instructor to					
provide face-to-face training	3%	19%	43%	35%	
is: (n = 858, average = 3)					
Q36c. Having time available					
on the job to participate in	1%	5%	40%	54%	
training is:	1 %0	3%	40%	54%	
(n = 857, average = 3)					
Q36d. Being able to access					
training away from the office,	16%	200/	270/	100/	
over the internet is:	16%	29%	37%	19%	
(n = 859, average = 3)					
Q36e. Having the ability to					
control when I complete a	00/	2.40/	200/	100/	
training course is:	9%	34%	39%	18%	
(n = 858, average = 3)					
Q36f. Having access to an					
instructor to answer my					
questions about course	1%	14%	39%	46%	
content is:	1,0				
(n = 857, average = 3)					
Q36g. Being able to complete					
training with a minimal amount					
of time away from the tasks of	6%	32%	41%	22%	
my job is:					
(n = 857, average = 3)					
Q36h. Being able to access					
information right before I need	407	200/	450/	2007	
it on my job is:	4%	20%	47%	29%	
(n = 854, average = 3)					
Q36i. Being able to select the					
order in which I learn topics	210/	200/	220/	00/	
within a training course is:	31%	39%	22%	8%	
(n = 856, average = 2)					
Q36j. Being able to control the					
speed at which I progress	4.70 (				
through a training course is:	15%	46%	28%	12%	
(n = 858, average = 2)					
( 550, a.to.ago 2)		1		<u> </u>	

	Not important (1)	Somewhat important (2)	Important (3)	Very important (4)
Q36k. Being able to talk face to face with other people enrolled in the same training course is: (n = 858, average = 3)	7%	24%	37%	33%
Q36l. Enhancing my training experience by interacting with others who are in positions similar to mine but at locations across the country is:  (n = 858, average = 3)	5%	18%	33%	45%

#### **Demographic Questions**

Our demographic questions helped us understand to what extent the respondents to this survey were representative of the U.S. Fish and Wildlife Service.

#### Q37. What is your employment status with the Fish and Wildlife Service? (n = 864)

Permanent Federal Employee	94%
Term/Temporary Federal Employee	5%
Other	1%

#### Q38. What is your age (in years)? (n = 848, average = 46)

We formatted this question as an open-ended response that required survey respondents to type in their age. Opinions regarding distance education are related to technology. Attitudes regarding technology are related to age. There is some controversy regarding the most appropriate manner in which to measure age when the primary focus is a technology-related topic. Age groupings can be based on socio-cultural generations or on technology-based generations. Technology-based generations are defined based on the dominant technology available during age-related developmental phases. We chose to measure age in such a way that we knew the data would be most useful in our analyses. Seven survey respondents provided answers that were nonresponsive. An example of an answer that would be considered nonresponsive was "too old." For our data analyses, those few responses were recoded as missing data.

The majority of respondents (n = 848) provided an age. Reported ages ranged from 22 to 69 and approximated a normal distribution. The average age was 46; the most frequently reported age (the mode) was 50.

#### Q39. How long have you worked for the U.S. Fish and Wildlife Service? (n = 864)

Less than 1 year	1-3 years	4-8 years	9-13 years	14-17 years	18 or more years
1%	14%	23%	23%	13%	27%

#### Q40. How long have you worked at your current duty station? (n = 862)

Less than 1 year	1-3 years	4-8 years	9-13 years	14-17 years	18 or more years
6%	25%	29%	20%	10%	11%

#### Q41. How long have you worked in your current position? (n = 863)

Less than 1 year	1-3 years	4-8 years	9-13 years	14-17 years	18 or more years
7%	30%	32%	17%	7%	7%

#### Q42. In which region is your duty station? (n = 911)

- 1 14%
- 2 10%
- 3 12%
- 4 15%
- 5 10%
- 6 11%
- 7 5%
- 8 9%
- 9 14%

#### Q43. What is your WG/GS/GM level? (n = 852)

- 3 < .05%
- 4 1%
- 5 3%
- 6 2%
- 7 7%
- 8 1%
- 9 11%
- 10 1%
- 11 24%
- 12 27%
- 13 18%
- 14 7%
- 15 2%

#### Q44. Do you subscribe to the VOICES listsery? (n = 855)

Yes 12% No 88%

#### Q45. What is the numerical code for your Job Series? (Examples: 401, 023, 1713)

We formatted this question as an open-ended response because providing all possible options on a checklist would have made a lengthy response drop list. Responses were provided by 820 survey respondents. However, a few of them provided responses that were not indicative of a job series. There were 96 different job-series codes provided. The eleven most frequent responses were:

0401 (General Biological Science)	34%
0486 (Wildlife Biology)	8%
0485 (Wildlife Refuge Management)	8%
0482 (Fishery Biology)	7%
0025 (Park Ranger)	5%

2210 (Information Technology Management)	5%
0303 (Miscellaneous Clerk and Assistant)	3%
0404 (Biological Science Technician)	2%
0480 (General Fish and Wildlife Administration)	2%
0301 (Miscellaneous Administration and Program)	2%
0023 (Outdoor Recreation Planning)	2%

#### **Open-Ended Comment**

Survey respondents were provided with the opportunity to comment as they wished at the end of the survey. Their responses have been sorted into topical categories. These topics are not mutually exclusive and some comments may easily fit into more than one topic. Grouping comments by topic is intended to ease the reader's burden. The few comments in which people indicated they had no comments or simply typed "n/a" were excluded. The comments are provided in their entirety. The alterations made to the comments include correction of spelling and grammar and removal of respondent names and contact information (to protect respondent identity since this is a publicly available document). In some comments respondents addressed several different topics. We split the comments into segments so that each addressed only one topic. The presence of ellipses (...) indicates that the comment was separated from another part of a single response.

Q46. If you have any thoughts or comments about training content for conservation and/or environmental education, outreach programming, visitor services, or establishing partnerships OR comments about this survey, please leave them here. We value your feedback. (n = 260)

#### Comments About Distance Education

The general comments about distance education included a mix of positive and negative statements, expressions of concern that quality issues were important to consider in providing distance education, and suggestions related to distance education. Some comments described a degree of preference for distance education. Reasons for taking training via distance education include comments about the practicality and cost effectiveness of distance education. Being "green" to reduce carbon emissions was another reason. Reasons to not use distance education centered on the distractions in the office that prevent the focus that distance education requires. Comments concerning the technology aspect of distance education referred to accessibility of technology and technology support as potential barriers to successful implementation of distance education across the FWS. The need for accommodations in the technology and design of distance education for those with disabilities was noted.

#### **Distance education general comments:**

Learning from a distance tends to be top down versus a bottom up approach, and tendency to be preachy.

I've had a recent experience with taking a university course online through NCTC. I had to transfer from fall semester to spring semester. It was simple for NCTC but the resulting transfer mix-up on the university's end has proven to be an endless nightmare. I have been passed around to so many people without resolution of my record. The spring semester course will begin next week and I still don't have any resolution despite all of my attempts with emails and phone calls. Distance is a definite disadvantage with taking an online course through a large institution like a university.

I think a lot of the different ways/types of distance training are very difficult to conduct (and take as a student) due to the differences in computer speed, internet connection, etc. I have taken a few distance training sessions or short-courses over the internet and have regularly had problems with refresh speed and the instructor getting ahead of people and their receipt of the latest image, slide, etc. Then, the course is further interrupted by people randomly saying 'slow down' and talking over each other....

We definitely need to move towards more online and distance learning tools within the Fish and Wildlife Service, particularly for less complex subjects. You can do some really neat training with clean, simple videos - see http://www.apple.com/findouthow/mac/ for examples.

We are a conservation agency. Travel associated with training is a resource that we need to be smart about. The private sector and the National Park Service do distance learning all the time to save resources. We need to get with the times and stop being a dinosaur.

Very well done survey. New media has a lot of potential for my division and I hope that NCTC will be in a position to offer training, either on-site or distance, soon. Instructors and students at NCTC have been great resources and I appreciate on-site training, but I have faith that NCTC can do equally well with distance learning, and distance learning might be an opportunity for me to participate in more training than I do when my only options are on-site or off-site classes.

Very excited about the prospect of increased distance learning opportunities through NCTC. I take advantage of those offered by EPA and other agencies. NCTC has excellent courses, so improving access through distance learning would be a tremendous asset for me.

Under the current economic and ecological conditions we face, distance learning should be strongly encouraged.

NCTC is a great place, but its location makes it difficult, expensive, and time-consuming for most Service employees to access. I know many people who attend NCTC as a mini vacation because of the good food, lodging, and atmosphere. That's not what we need for training. We need good information available locally or regionally. I support NCTC's interest in better developing distance education.

Make available as many courses as possible by distance education. Technology courses should be distance instructor-led when possible.

...In those cases where one cannot participate in an ILT course, group distance learning situations could help provide the social and team atmosphere while still minimizing travel and costs. Can also provide opportunities for group learning and problems solving for those that benefit from interactive learning methods.

I'm seeing more distance ed courses being offered, this is great...

I'm open to all aspects of distance education / training.

I would like more use of video conferencing for short-duration training, and to replace travel to meetings.

I think Distance Learning can be particularly important with the development of immediate training needs...'just in time' training that can be accessed quickly and employee not have to wait months/year to get scheduled...

I have taken the UofWisc online courses, which are excellent. As a result of that experience, I not only received a Certificate from an online university, I also teach at one that has received awards for the quality of online education. I would be glad to serve on this group or panel, if there is one formed. [name deleted] I would be very happy to see NCTC go online and to partner with universities, where necessary, to get USFWS employees trained. I also know 2 or 3 USFWS employees taking MS degree courses at my university.

...The technology is available to have video and web based learning at a fraction of the cost. If students need one-on-one time, the instructors can set up or schedules times to talk one-on-one to clarify problem areas. We definitely need to develop more training using alternative outlets/media.

I think distance learning will be fantastic for employees who have disabilities or limited time to leave the office. It will also be great for allowing advanced students to advance further and faster without having to wait for their comrades in a classroom to catch up. I also like distance learning because it provides me the opportunity to pick and choose the things I need to learn, and not spend time on the things I already know. :)

Distance learning is a great way to get more on the job training which is vital to staying current. For example the climate change webinars....

I like the idea of distance education and for that matter, being able to video conference with colleagues for work. Before the Service, I was an extension agent in Florida. They used these technologies a lot to reach the employees throughout the state....

I have taken several CBT courses through skill-soft library access in DOILearn and LOVE IT!...

...WebEx and online course are more accessible and for most courses where I want to just gain knowledge these work well. I've taken a number of online computer courses for IT purposes and like the freedom these offer to learn when I can set aside the time.

As distance education opportunities become more common, they become easier and more convenient to use....They can be broken up in to chunks that are easier to schedule than a full week away from your job. They can reduce our carbon footprint!

Distance education can help control costs and make training more available, which is good. Strive to include ways to interact with instructor and other students....

Distance learning, especially via video or computer is definitely my preferred method to complete mandatory training courses (ethics, eeo, etc.)

Having done little to no distant learning, and none for my specific job, it is difficult to say what would be more beneficial. I have always preferred classroom training but I would not want to dismiss any new technology. I would think there could be more chances to take a class, or take new and different classes via distant learning. I am all for trying it out.

Web ex format seems to work great from my experience

...some of my answers would depend on the specific nature of the course and how well the course materials were developed. I have tried a NCTC distance learning course (electrofishing) and the materials were confusing to the point that I dropped it. But, it could have been the best method for me to learn the material, if the material had been presented differently.

In the past, I've found 'distance learning' valuable for disseminating information to a large number of people. But its value as a true training method seems limited. I think of it as a lecture, where the lecturer is simply providing a 'data-dump' with little or no interaction. Meanwhile, the people enrolled in the distance learning are filing, checking email, and conducting other multi-tasking functions (granted, you only get out of it what you put into it, so this should be discouraged). My personal experience with this learning method has previously not benefitted me as much as classroom learning....

I have had good and bad experiences with online courses. When done well, I find them a great alternative to onsite training. Having read a few articles about distance learning, I would like to reiterate the following. - Increased access to education and training through distance learning is good. - Maintaining academic quality is paramount. - There may be some concern about analyzing the cost of routine equipment upgrades. - Training offered through distance learning should still be compelling and not dull or disjointed.

...Also, I've taken distance learning classes that are terribly boring. Eventually I just 'tune out' and don't finish the class. I have typically been disappointed by my distance education experiences. Some topics seem more conducive to distance delivery but, on balance, it always seems like a poor second choice compared to face-to-face options.

I enjoy computer-mediated training that is carefully designed for customized progress and learning. 'Page-turner' courses aren't really effective training. Social networking can be accomplished in distance education, if it's designed in from the beginning....ISD Instructional System Design is crucial, before choosing a means of transmission to the students.

Distance training is great but there must be a hands-on application built in or it is easily forgettable....

...All video conferencing I have seen out of R5 has been ridiculously inferior and just a waste of everyone's time....

The current example of distance learning--the mandatory annual DOI training in privacy, records, security, etc.--is not likely to excite anyone about computer-based training, so there's an image problem there. NCTC also offers amenities that make it attractive above and beyond its effectiveness as a learning center. Distance education must be compelling in its own right and not just because travel makes NCTC cost-prohibitive.

...I think many people would be interested in listening to POD casts on their way to & from work. Some educational ones in a simple to access place would be nice - and publicize how (in very simple terms) to access, load, play them and what hardware is needed.

...I would like to see 'Distance Learning' also include 'Distance Broadcast' - specifically in the realm of climate change. For instance, designing a series of panel discussions on various aspects of climate change, held at the NCTC auditorium, as some other climate change meetings have been. The panels would be made up of a wide variety of interests: business interests such as the U.S. Chamber of Commerce, agriculture groups, academia / climate and biology experts, perhaps even some citizens and media. Idea would be to reach out to incrementally advance knowledge the public about climate change: what we know about climate change to-date, what trends are occurring that were predicted by the IPCC, (or not), what are some of the proposed solutions to reducing greenhouse gases, such as the Princeton 'wedge' approach, and how conservation of natural habitat fits into the greenhouse solution by ensuring the continuation of 'ecosystem services' such as oxygen, water/rainfall, food, and jobs. I think much of the public doesn't understand that forests, prairies, etc help create planetary systems such as precipitation, drinking water, species for food consumption, jobs, recreation. And that as habitat is changed by climate shift, many quality of life issues will also be changed.

Each topic or subject has its own place for distance learning. For example, the 'Annual required training- computers, Privacy, etc.' its place is as a filler in the day. After taking it for a couple years you begin to wonder how many hundreds of thousands of dollars are wasted using this medium. A more appropriate method should be to round everyone up on a Monday morning and force feed everyone using a satellite presentation or video. Get everybody though the process in two hours and then back to work

I like the connecting kids with nature Monday mornings outside email. It would be great if there was a podcast along the same lines, it's a great way to get ideas and learn what others are doing.

A multiple type of distance ed is needed. Also, the service needs to provide an easy way for FWS employees to give WebEx or other.

... A diverse range of training media would fit more people in the field....

#### Statements of preference regarding distance education:

...DOILearn & Skillcraft are good tools but not the preference.

NCTC is a great campus, but from the west coast it's a haul, we always have to add on 2 more days of travel, often spending night near airport to catch decent flights to and from. I prefer the flex of distance learning for many reasons, and more regional/local trainings as necessary to interact in person with peers. I am a big fan of web based learning, you still have personal communications with others in class, instructors can respond to all or just you in most cases, and the time factor of fitting a course into my work and personal scheduling is more likely to happen from home or office. As I get older, I find the excitement of travel and meeting others to be somewhat less than earlier in my career - I can't keep up with those a lot younger and don't want to, I just want to do the course, not worry about going out at night and having to sit in class the next day. I can't sit for long and need to move around, get a drink, wear comfy clothes, and pet my dogs; I can do all that at home/office where I don't disturb others. I think in economic hard times and with the 'greening' of the government efforts, less travel is a good thing....

I find it hard to justify costs and time for a week long course. I have never retained much that way. I either learn from a book or manual on the job, or at home. Courses that span semesters via computer would be good.

#### Reasons for taking training via distance education:

Wish there were more options for distance learning due to budget constraints at our station and in our region in general. Taking a course at off site is preferred but often we do not have the resources at our station to allow me to take off site training.

The use of distant education would be learned skills within itself, and these training opportunities would be cost effective to our remote field station staff as NCTC is 5 time zones away.

...Bottom line is money. My preference is classroom instruction on a face-to-face level (I learn & retain more in that situation) but cost prevents that from happening....

...And of course, budget always figures into the decision.

In light of flat budgets and a struggling economy, I think distant learning will become imperative to offset station training costs

You should include 'concerns about carbon footprint' in your reasons for choosing distance learning. For people in R1 (Pacific Islands) and R7 especially, NCTC on-site training is hugely expensive, arduous, and disruptive, but on the flip side provides a gov't paid opportunity to visit folks on the mainland. So those factors are in conflict. I generally support all video-based communication that lessens fuel use, we just don't have a good deployed system yet.

An additional reason for my increasing preference for distance learning is to reduce my carbon footprint--and the FWS's collective carbon footprint.

Alternatives to travel for training is critical -- both from an efficiency standpoint and to reduce the Service's carbon footprint. ...I have never been to NCTC. But all of my supervisors have, all the managers, usually once a year. Do biologists from other refuges, other regions go to NCTC, or is it just for managers, supervisors and outreach staff? Eliminating NCTC as an option

for me, makes any way of getting training the default.

While I love taking courses at NCTC, I'm at a point in my life and work where it's not always the most feasible thing to do.

As much as I would miss the face to face interaction with other participants (and the delicious food!) I would welcome the opportunity to do distance training with an instructor.

The closest off-site training is almost 100 miles away. It's hard to justify that travel time for short courses.

...One drawback to nctc (for us in Hawaii) is sheer distance/travel time.

...However, having the option to choose a distance-learning option would be terrific if traveling to NCTC would create conflicts either at work or at home. I would love to see FWS develop the capability to participate in classes on site through video conferencing rather than some canned computer course like the ones we complete annually for IT security. Those things are horrendous. =)

In the past, I preferred going to NCTC for classes; now that my travel schedule is so hectic, I cherish time at home, and would prefer to take online courses.

I prefer classes at NCTC but don't always have the travel time to commit.

I appreciate distance learning as I cannot get to NCTC as often as I would like.

As much as I like to travel, and as much as I might enjoy the classroom ILT experience, distance education is generally the most efficient and cost-effective training method for those of us in Alaska and other rural or isolated locations.

Distance Learning is an excellent way to gain knowledge without the expense of travel. While I prefer to be a classroom and meet new people, distance learning offers an expedited way to learn.

First of all: NCTC is difficult to get to, especially for folks who have to fly across the country. Concerns about this include cost, travel time, often has to occur on Sunday, and carbon emissions associated with the necessary transportation....

I think distance education is very important to learning in today's work environment. Not only does it help reduce emissions (by reducing travel), but it also helps reduce the amount of time spent away from the office and family. I just returned from NCTC this week and earned 16 hours of travel compensatory time to get there and back (even when traveling on 1 - 10 hour work day). Living on the opposite side of the country makes it much more difficult to attend training classes at NCTC....

For shorter classes I like the option of distance learning due to cost and time of travel to NCTC. But I always enjoy being at NCTC.

Due to home life commitments travel is very difficult for me so much of my training is now done long distance. I suspect this is an increasing trend in society and should be a consideration. It can also save lots of travel costs.

...The distance learning classes have benefits in that they have the potential to get the information out to a larger audience quickly. I prefer to have short technical classes, such as the computer software training and the annual required training online so I can take them when I have the opportunity.

I really like the webinars for training that can be covered in 2 hrs or so because it causes the least disruption with my overwork load....

I love the idea of distance learning (of any kind). Having to travel to NCTC from half-way across the country is the major difficulty I face (plus the cost of that travel on our office budget). I have a husband and children that depend on me to be home at the end of each day, and being away from home for a week (plus any extra travel days) is not an option for me....

Although nothing compares to face to face and on-hands learning, besides students interaction and idea sharing experiences, it is very important to consider the development of distance trainings for those subjects which may apply considering actual travel costs.

By default, distance learning is beneficial for our office because of the distance we have to travel for classroom learning. However, having a good instructor in a classroom setting can never be beat.

#### Reasons not to use distance education:

...For me, distance learning ends up as a series of rushed sessions needing to be finished. I am often pulled away by other 'more important' tasks and then rush to complete class work by the imposed deadline. A long distance class takes a back seat to my regular work day and is not given the attention it deserves. I don't get as much out of it as I would like to get.

Very important! but is often sidelined because of workload problems.

The only way I can participate in training is if it happens away from the office. Whenever there is internet-based training I want to take, it ends up getting bumped by higher priorities, i.e. the need to attend to the crisis-of-the-day.

The biggest problem with distance learning is that it is too easy to not follow through with it - other priorities/job duties tend to take precedence. A course at NCTC means substantially more time and cost, therefore, when you sign up to take it, you know that it is a course that your are interested in taking; you are committed to learning about that topic.

Need to get away from my office, for training otherwise I have a difficult time completing with all the other work load responsibilities. NCTC is a great idea.

I've been interested in taking a distance course in the past, but thought it would be difficult to complete while working my regular job--one of my superiors thought it looked like it would take up too much time. This is why I try to take courses at NCTC if possible--it seems to be less stressful than trying to incorporate them into a busy work schedule

It is too stressful to take distance learning courses in the office. There is no way to get free from the distractions, emergencies, and daily commitments that come with simply being there. Taking distance learning classes at my desk during the work day usually turns out to be a negative experience and I am glad when it is over; where as taking a class at NCTC is almost always a positive experience.

I find it VERY hard to complete on-line courses because they are not always important to my supervisor. They are more important when it is required and has reached the deadline or past the deadline! I find it very annoying and do NOT control the pace at which I am able to complete on-line training.

A million things come up at work on any given day that interrupt what I'm doing. I think it would be extremely difficult to focus on distance training at work, which is why I like flying to NCTC where I can physically remove myself from the distractions and give myself permission to focus! ...

...Doing training at work is too disruptive sometimes.

Although I like technology and the idea of taking distance training on my own schedule. I find it difficult to focus and make a serious effort to learn if still working in my office environment (i.e., checking emails, phone calls and other distractions). If I'm going to take time to learn, I'd prefer to make it effective and would either like to take instructor-led courses or have an alternate study site for distance learning. I could see working at home from a computer or if there was a quiet and vacant office space. Or I may focus better if distance learning had instructors that helped remind and focus participants on better study methods (unplug/mute phone, close door, and developing interactive participation like chat Q&A or combined instructor and computer aided distance learning where you need to stay focused)

I think distance learning is an effective method for delivering training. Unfortunately, the nature of my job makes it impossible for me to complete training unless I am off-site.

...As accessible as Distance Learning opportunities can be, it can be difficult to give the appropriate and deserved attention to this medium of training while still surrounded by the demands and expectations of the regular work environment; NCTC provides that necessary escape so that the student can focus on the training program.

...One downside to web conferencing - with all the other work distractions, it's easy to get distracted by email, etc during a slow point in online training or webinars. That isn't a problem at NCTC. I go there to learn and that's what I do. I don't let other work interfere with it. Then again, I would rather have distance education than no education.

I prefer to dedicate one full week of my time and attention to taking a course at NCTC than trying to disengage from daily activities for an hour here or there for lecture series or distance education....

Distance learning in the office is a bust. Too many distractions and urgencies will prevent completing or fully participating in training. Away from the office is better,...

I have taken several CBT courses ... Often do not have time to finish them is the drawback....

...Drawback is blocking out time for course while at regular job is challenging.

#### Access to technology:

...Satellite TV - not many offices have access to this technology and I see it as less important distance learning device overall....

We do not at the current time have access to teleconferencing or video conferencing at this station. I do feel that these two forms of education are very important

We are in a remote location without access to much technology. We have internet but it is very slow and unreliable. We don't have much of any kind of support for our technology here at [location deleted].

We are at a location that does not have access to the satellite or distance learning opportunities that have been offered in the past. We would have to travel hours, and/or take a ferry to get to a location. I think these opportunities are wonderful and would absolutely take advantage if it were possible.

The NPS and the University of tell net sites very close to my duty station

No one has the tech support for anything but the most basic (online, voice conference) long-distance training....

In my opinion, the USFWS is very, very, behind related to technology, computer support, and using technology to enhance the work force. Most of the people working just barely even know what most of the items mentioned are (Satellite conf., etc.). There is no one to explain it training wise. There is no reason to travel for 9 out of 10 meeting in todays technological world. Video and audio conferences would be more than ample to accomplish the task. Once set up, it would save taxpayers thousands of dollars in trip costs. Strong teleworking programs should be set up for those who want it, and the whole US Gov. needs to realize the virtual office. That is where ever you are is your office at the time. With laptops, Blackberry's, I-phone, web cam, etc. we can conduct our work better from just about anywhere. Work should be output related. It would drastically reduce our carbon footprint. It would allow better balances between work and home life too. The Gov. should get with the program on technology, embrace it, or leave it. Right now we don't even have good computer support or anyone to even tell use how to use something if we had it. FYI.

If we had quality support for our office satellite system we would use it. However, it has been broken for over 3 years and we can find no support services to fix it!

If satellite communication was easily available, I would like to use it. Same for video conferencing. The USFWS needs to provide field offices with on-site consultation for what is available and doable for each site.

I work in a remote location where most of these distance learning options are not possible.

I like the idea of satellite broadcast but I hear it is difficult to get at remote field stations. Computer issues are also barriers with some distant learning opportunities

Distance learning could be a great asset to the USFWS but can be greatly hindered by access on a computer security level. Currently accessing some podcasts and audio/video that could be used for learning is blocked by IT security because they are from a resource outside the USFWS.

...We are a remote field station with no IT support. We've become accustomed to conference call and web cam technology, but are not familiar with some other forms of remote classroom technology (and may not be equipped)....

I am a designer, developer, user of internet-based technology. I have participated in remote classrooms (satellite). I video conference once a week all over the country. But I do none of these things at work. If I create work-related web-based products, I do them at home. The safeguards and procedures to video-conference, use computer-based learning at work is too cumbersome to be useful, there is no technology support here, and it saves time and frustration just to do it at home using personal resources. When I was the guest lecturer for a University class (for the FWS) I could not use the televideo equipment installed in our office (it could not connect except to other regional refuges and the regional office) and instead used the facilities at the local community college....

- ...The field often does not have the technical expertise to delve into new technologies please don't assume we do.
- ...For the Technology part of this, I also think that we need to develop our expertise and technical support for that. And that Technical support folks should be taking the lion's share of responsibility for making the use of technology happen. So I suggest that we need to really consider expanding out our workforce to get past the Biologist who is expected to be able to do all these things in addition to the biology of their work. More... folks who have the technological expertise to make the technology work better for us.

I understand there is a big push for distant learning, but at field stations such as mine with horrible satellite connection barely above dial-up, that would be near impossible to participate in live sessions....

- ...I am fortunate that the IT staff at my office are exceptional, therefore I answered that I would prefer that they do programming/setup/troubleshooting for any technology based training, however, this may not be the case for many offices lacking IT staff or with less competent IT staff.
- ...NO ONE at my field station has the time or inclination to assist with any audio, video, or computer courses....
- ...Our facility is unfortunately not equipped with updated phone, video, and satellite communication. I'm grateful to be able to take courses at NCTC.

I am located on a remote refuge and we do not have access to satellite technology or Web/video conferencing....

#### Accommodations for disabilities:

This person is hearing-impaired. It would be nice to have captions for online presentation or training.

I am Deaf and would use service if it is either open- or closed captioning. Thanks.

#### Comments About Traditional Face-to-Face or Onsite Learning

Comments about training in a traditional classroom format, face-to-face training, or onsite learning are grouped together. Respondents made comments indicating preferences for face-to-face training. The additional benefits of the traditional classroom format at NCTC were emphasized. Respondents suggested more instructor-led traditional training at sites away from NCTC; some specifically noted that conducting this type of training on the West Coast would be beneficial. Some respondents suggested reasons not to go to NCTC for training.

#### **Preferences for face-to-face, onsite training:**

...It would be nice if it were available, but I would always prefer training in person.

I find that face to face contact with the instructor and other students is a better way of learning.

I learn better with face-to-face training.

...I will always prefer to attend a live course than take on-line training, with the exception of some technology courses.

I am more of a hands on person and do not do well with distance learning. I believe I learn more with the interaction with my peers and the instructor than I actually learn from the training materials. I will not take distance learning unless it is my only option!

I have deeply valued my experience with instructor-led courses at the NCTC campus. Instructor-led NCTC courses held off-campus have been wonderful too.

#### I'd rather travel to NCTC for training

I would do more distance learning if I thought I would learn off-site and I would get something useful from it. An on-site learning environment where you can interact with the Instructor(s) and other students is important to me.

I would be willing to try Distance Learning, but I do prefer the traditional way of teaching. I like that personal interaction, and I think this gets lost in Distance Learning.

I prefer on-site training, but I am not opposed to distance learning.

I don't believe temporary employees are normally able to attend NCTC, but my supervisor sent me and I am very grateful. The Invasive Plant Management Class was great and very informative. I personally do not enjoy distance learning, though I do realize it is more cost effective. I prefer the experience of on-site training and believe it results in a better transfer of knowledge from instructor to student through hands on training and the ability to pose specific questions to the instructor regarding specific topics.

...I find I retain more if I actually take a course on-site.

#### Additional benefits of face-to-face training:

When given the choice, I will always attend trainings in a classroom setting, in spite of the difficulties involved with travel and scheduling. I appreciate the opportunity to interact directly with a group of people who share my interest in the subject being studied and who bring their personal experience to the classroom. There is an added intensity to the learning when the participants are taken out of their normal environment, and put in a setting in which the class is the only focus. Information exchanges go on outside of the classroom as folks with the same interests continue to talk....

Traveling to NCTC has values far beyond the actual coursework presented: the access to other professionals, including managers and their experience, different agency and job responsibilities, and learning about other parts of the country is by far the real learning experience. Sitting at your desk and staring at a computer or sitting in a room with the people you see every single day is not conducive to a good learning experience.

...Other than the desire to be 'green' and reduce our carbon footprint, I would always prefer the benefits of face-to-face contact. The best value-added benefit of NCTC is the interaction between people in different Regions, positions, and levels of the Service.

The value of existing courses in these four areas traditionally offered at NCTC stems from the strength of the instructors and employees with valuable experience to impart. You need to be careful that technology doesn't get in the way of the demonstrated value of such face-to-face interaction. Don't put all of your eggs in the techno basket.

The interaction of students and the communication during and after class is a vital aspect of NCTC. Many different view points and concepts are brought out after hours and during breaks. That is why I enjoy the classroom experience.

The benefits of attending training courses at NCTC is meeting other employees from different Regions, positions and age groups; being away from distractions like cell phones; being immersed in the course topic. Staff at refuges/fish hatcheries in isolated places are able to meet their peers and hear about what other staff are doing and how others do their jobs. Thank you for giving me the opportunity to participate in the survey - made me think and see that I may be antiquated in how I view training.

Networking with constituents is the most beneficial experience for me at training opportunities at NCTC. We are often cut off from each other at our isolated stations and training together provides a great learning experience that would be lost with distance education.

In my opinion, an important benefit of on-site NCTC training is the opportunity to meet people, network, and get out of my comfort zone for a bit. This is the main reason I would choose on-site training over distance training....

I believe it is really important to attend trainings at NCTC. It is so good to spend time with my peers...people who do the same work that I do to network and get ideas and opportunities to learn from others. I also enjoy getting to know the trainers and using them as resources.

Given a choice I would prefer to attend a course onsite verse distance learning. A lot of the learning experience involves interaction with the instructor(s) and other participants.

...The networking aspect of attending a class in person is very important for the Service and the development of its employees.

If I get 40 hours of training, I will always try to take it at NCTC to network with other people and to get away from my office. If we were actually allowed to take additional training, the distance learning then becomes somewhat attractive. If I could do a little more training with distance learning, I would be happy not making a trip to NCTC.

- ...Plus, I think it is invaluable having face-to-face interactions and discussions with others in and outside of the class.
- ...it's vital to be onsite at NCTC. The courses are usually great, but it's the interactions and connections you make with others around the country that enhance the learning experience which would be lost entirely through distance learning.
- ...If at all possible, I prefer to take my courses on-site at NCTC or off-site with NCTC. Plus, I really value the interaction with the instructor and other students during breaks or before/after the class.

I prefer training at NCTC because it gives a chance meet and learn from other people....

...However, we cannot forget the importance of taking time off of your normal duties and immersing yourself in the learning environment, problem solving with like staff, and meeting new people and getting new ideas, interacting with staff, all of which is available only at NCTC.

I feel that my biggest benefit from taking classes at NCTC is the ability to network with other professionals and learn from their experiences....

All 3 of the trainings I have attended at NCTC have been tremendously valuable because of the interactions with students and instructors. I think it is important to increase the availability of distance learning, but not at the price of the quality of the training and content. NCTC trainings are a highlight of my career with the Service and help to reinvigorate my efforts in carrying out the Service's mission.

...I greatly value the face-to-face interactions with staff, peers, and instructors, and the facility really is inspiring....

...Travel to NCTC is important for professional development. Classes are great, experience is great, networking is important.

I enjoy the on-campus learning experience as a means of networking with others in my field of interest around the country....I am a very extroverted type of person and find the personal interaction of on-site courses exhilarating. But the travel really detracts from the overall experience....

#### Offsite Instructor-led Training (ILT):

Instructor-led courses off site of NCTC have provided me with the training that I need for my field work....

In this survey, we are looking at Distance Learning compared to face-to-face instructor-led learning. Another option which is not assessed here is instructor-led training in the field. Sending an instructor on a road trip is far more efficient (cost per student) than training at NCTC. Distance learning is (my opinion) less effective than face-to-face training. Franklin Covey and Dale Carnegie seminars are conducted on the road and their effectiveness is proven by their success. On site at NCTC = highest quality learning experience, fewest number of students, and highest cost per student. Distance learning = lower quality learning experience, greatest number of students, and lowest cost. A traveling instructor can reach more students than on site at NCTC, still offers high quality face-to-face instruction, realizes significant cost savings in student travel, and in lots of cases can reach a broader scope of students. The savings can easily be passed on to students in this scenario too - making our training more accessible to a great many more people. [data in field not captured] expensive, and distance learning is most cost efficient

Being able to participate in remote classes in small groups (i.e. several staff at a refuge or field office) would be a great way to learn. Having an instructor present is not necessary and can be done via web cam, satellite TV. However, interaction and discussion among attendees is a valuable part of the learning process. I would like to see NCTC deliver more 'mini-courses' (2-3 days) in the field or make them available via teleconference. I think our supervisors would be more receptive to this approach. Budget shortfalls often restricts trips to NCTC for a full-week class, but travel to a nearby duty station for a 'short-course' would be more favorably received by supervisors. Training and support in some remote classroom technology is important....Finally, it may be more cost-effective for an NCTC instructor to travel to a duty station to give a class than for all the students to travel individually to NCTC. This will also save on the Service's carbon expenditures!

1. Consideration should be given to providing NCTC instructors to field installations as part of the distance education training program. For example, the cost-benefit of having instructors come to large field offices such as the one I'm located in (i.e. 70+ FTEs), would provide high benefits for low cost when you consider flying 10+ people into Washington, Dulles and housing them in Shepherdstown for a week versus sending 2 instructors on the road. 2. NCTC should consider providing a service to field installations by working 1-on-1 with field managers to come up with a strategy for key education classes for large classes of field employees. This could consist of NCTC administrators helping field supervisors map out a strategy for the types of distance education and/or at-field-installation training by NCTC instructors over a 2-3 year training window. The cost savings to the government would be enormous. 3. The following list of 3 topics should be considered for distance education by NCTC trainers coming to field installations. Our office desperately can use every course listed to raise our level of effectiveness working together internally as well as externally with partners, however, not everyone who needs this training will get it due to budget constraints: TEAM BUILDING/INTERPERSONAL SKILLS LED5128:Increasing Your Personal Effectiveness LED5118:Team Startup LED5021:Team Effectiveness Training (assume that the whole office is the Team for this training) LED5122:Effective Facilitation ECS3167:Critical Writing Skills Development OUT8110:Conservation Partnership (Interagency training) OUT8118:Conservation Partnerships in Practice (Interagency training); CONSENSUS BUILDING/NEGOTIATIONS/CONFLICT RESOLUTION LED5102:Introduction to Interest-Based Negotiation OUT 8127: Public Participation & Informed Consent—Part I LED5136: Applying Collaboration to Environmental Issues; ENVIRONMENTAL EDUCATION/OUTREACH OUT8104:Outreach Basics OUT8106:Natural Resource Communications Techniques and Technologies OUT8181: Working with the News Media

...there would still be some courses that I think are necessary to be conducted/taken with an in-class instructor. In these cases, it would be helpful for NCTC to offer essential training courses off-site more often (i.e. only 1-3 people - the instructors - would be required to travel longer distances and 20-30 students would be able to spend less time traveling)....

I have a strong preference for on site (local), instructor lead training, especially for NCTC sponsored classes to come to my location. Travel is too costly and time consuming. I appreciate and understand the trend toward distance education and I am fairly comfortable with technology but I think people over a certain age do better with real inter-personal and hands on training approaches.

Face-to-face, instructor-led courses are great, and I do enjoy them. However, since I am located quite far from NCTC, it's hard to make it to them. It would be helpful to have more courses located throughout the country...

- ...I prefer offsite NCTC classes close to my home office. I think education classes and outreach classes would be best in person so you can see direct results of your ideas or projects etc.
- ...The NCTC instructors are great. If we could find ways to use distance technology and even bring the instructors out into the regions I would avail myself of training opportunities more frequently.

Would like more opportunity to training on the west coast for less travel time.

Working with people in all aspects of outreach and education, visitor services, partnerships and more is all about working with personalities, diversity of cultures, varying experience and education levels. It has always been more beneficial to train with peers from other parts of the country who can network and share ideas and thoughts together in a common setting. NCTC is a far distance to travel from Region 1, so a closer location would be preferred for some trainings....

Travelling to NCTC from the west is quite time consuming, can be a burden, and more than once has precluded my enrollment in a class of interest. Establishing a training facility in the west (Region 1 or 8) or bringing more classes to the students on the west (i.e., have the NCTC instructors do the travelling) would be highly desirable. This is increasing in occurrence, so I hope more will follow.

Travel to NCTC is difficult from Hawaii. Would like more courses held in the Pacific islands or on the West Coast.

NCTC is a great resource. Excellent trainings. Excellent facility and location. Would like to see more technical conservation sessions on the west coast, especially where it's applicable to the rocky mts ecosystems. I live and work in Northeast Oregon so NCTC sessions in Boise, Idaho, or eastern Oregon or WA, Montana, would be more relevant than site conditions in West Virginia (streams and ecological processes). An aquatic bug course or other stream course, plant id in eastern Oregon, WA, or Idaho would be more beneficial than one on the east coast! Thanks!

I have enjoyed taking NCTC training closer to Spokane than at NCTC (West Virginia). These include: St Louis (2009), Albuquerque (2008), Anchorage (2000)

...I've attended regional NCTC led courses in the Pacific Region over the years. I have to say I really enjoyed them and found them to be the most beneficial. I train and share with the people I work with around the region and I don't have to feel guilty or exhausted from traveling from Portland, OR to West Virginia....

#### Reasons not to go to NCTC:

I would love to go to a course AT NCTC every year. Budgets have precluded any training for me at the NCTC campus for 6 years.

...Although I loved going to NCTC and the facility there, it takes too much travel time....

I love NCTC but it is such a long way from Alaska that and the travel is so expensive and time consuming that I have to think pretty hard about whether or not to take a class. The distance makes it much harder to fit it in with my work and home life....

...NCTC is best when travel time & budgets permit (both limit the availability of NCTC training).

I LOVE attending classes at NCTC, but cost is often our limiting factor. Getting there from the west coast. However, travel is our only cost once at NCTC, so I am not sure if training in other locations is any more economical, as per diem is paid.

...Travelling to NCTC is a chore because of distance to airports, etc....

...I do not enjoy the full day of travel to attend NCTC courses. I'm also very environmentally conscious and it is difficult to make that cross-country trek without feeling somewhat guilty....

#### Comments on the Need for Both Distance Education and Training at NCTC

Many respondents noted that both distance education and onsite training are important options to have available to FWS employees. The comments include statements that whether distance education or onsite training would be preferred depended upon the course content and other factors. The comments also include descriptions of practical reasons why both types of training should be available.

#### It depends:

While distance learning is very useful, and the most efficient delivery system for many training needs (e.g., annual mandatory training on-line), the specific topics you mention here (i.e., EE, Visitor Services, outreach & partnerships) are all dependent on interpersonal skill sets. Put bluntly, some 'book learning' is needed and that technical training may be ok for distance learning, but techniques and mechanisms for these, in particular, are important to deliver through personal (face-to-face) instruction and interaction.

Whether I prefer training at NCTC or in the regional depends highly on the course we are talking about. Certain training lends its self very well to distance learning, others do not. As a supervisor, I observe very different training needs and types of delivery that may be very different from mine.

Whether a course that is NCTC on-site or via the web is useful really depends on the course being taught. I can learn a lot of information on technologies, etc. via the web. But learning on partnerships and feeding off others experiences success and failures in more of on-site class room learning.

When discussing the issue of on-site training and/or other types of distance and on-line education, one of the most important factors to me is the topic. When I'm learning technology, I prefer hands-on learning and at times self paced. Sometimes with an instructor present, but that can be achieved through video and satellite conferencing. Good supplemental training aids can sometimes make all the difference. When learning about a topic that deals specifically with interpersonal skills, understanding relationships, and understanding individual and group behaviors, having the ability to talk to other classmates and the instructor is critical to understanding in-depth issues surrounding people oriented challenges. On site training is preferred, but video conferencing can be effective too. Some issues involve extensive dialogue and background details to understand all sides of an issue and begin to develop strategies for problem resolution. Our learning styles and preferences are as varied as our expanding and contracting budgets. Offering different types of education in a variety of mediums will ultimately inspire more to seek training that fits their individual needs. Let's move away from the one-size fits all course schedule.

Useful for courses not primary to my job -- where I'd like to know more, but don't have the time/funds to commit to a week of onsite training because other training is a priority & where it is less critical to make connections with other practitioners.

This training topic in my opinion requires interaction and networking with instructors other students and participants.

The questions in this survey are general and depending on the specific training needed my answers would be different. Some training is better in a classroom setting and others are better suited to distance learning.

The question of if I would take something at NCTC vs. distance has much to do with subject matter - some things lend themselves to distance ed. (technology, etc.) some things really require discussions, like partnership trainings, decision making trainings, etc.

Taking a course off-site or computer-based truly depends on the course's content.

Some survey questions did not allow for me to provide the most meaningful responses in terms of distance versus on-site courses. I would choose distance-delivered enrollment for courses that were more informational, fact-based or technical. I would choose on-site, instructor-led training for those courses which cover more nuanced, management type skills (e.g., advanced concepts of partnership building)--in part because of the ability to network with and learn from other students.

Some of these agree/disagree questions are not entirely applicable. It is class dependent. I've taken a macroinvertebrate class

using written materials, but I can't seem to find time to sit down and complete the electrofishing class - it would be better with an instructor. It is dependent on the complexity of the class and your prior familiarization with the methodology.

Some of the questions were difficult to answer. Distance learning lends itself well to some types of training, but not all universally. For example: having face-to-face time with an instructor is extremely important for some types of training, and not at all for other types.

Some of my ratings may seem contradictory - it really just depends on the coursework and my personal situation at the time whether I would prefer to attend a course at NCTC or through distance education. For certain courses where it would be nice to be face-to-face, I would also appreciate the opportunity to have a class brought to our field office....

One of the most important considerations in the way I would like to access information is based on the subject matter. Some topics lend themselves best to one or another of the methods available. It did not seem this survey included that as a relevant factor in choosing how to decide to access training.

One critical aspect that was not covered in this survey, and that potentially makes the results harder to summarize, is how a potential course fits into the individual's priorities vs. their interest. For example, I am required to take computer security training, but am not interested in learning more than necessary to keep my computer safe. For this course, distance learning is a great way to go. On the other hand, I may be very interested in exploring and learning about Decision Analysis. It is not required, but I feel it will be a valuable tool. For it, face to face learning is far preferable than distance learning.

My strongest interest is in Conservation Biology, Ecology, and Land Protection planning. Likely, I would prefer on-site training in this subject matter and would love to do so at NCTC. I would probably learn to use new technology best with hands on, on-site training near my job site. Learning strategies with EE, visitor services, and partnerships would be useful in my position. I would prefer to further these skills by satellite or some other local or long distance learning.

My preference for on-site (at NCTC) training vs. computer-based training would be entirely dependent on the subject. For subjects that are complicated, especially those that involve legal or policy nuances, on-site training at NCTC -- with the ability to ask questions and interact with experienced practitioners and fellow biologists -- is every bit as valuable as the course materials.

My level of interest in distance learning depends on (1) my level of interest in the material and (2) the level of difficulty. For routine training such as the annual computer security course, distance learning is fine. For anything highly technical, I want to be on-site where I can ask questions and get immediate, relevant feedback.

My feedback about distance learning vs. face-to-face may seem erratic. Basically, I learn better with face-to-face teaching - especially technical training. But, as long as I have someone to call or ask questions of, I'm willing to try more distance learning. Certainly fits better with busy jobs and lifestyles. Although, I realize the value of stepping away from all that, too!

I've found distance training can be a very helpful tool depending on the subject matter....

...I love the convenience of distance-learning technology, but some topics are better suited to hands-on training....

...About technology - if it's a difficult concept, I prefer instructor-led, but if it's just basics on something, computer based or some other medium is fine.

It was difficult to answer some of these questions, because some of my answers would depend on the specific nature of the course and how well the course materials were developed....

It is the right tool for some trainings. However, obviously some topics are best face to face. I have taken several classes (genetics and ethnobotany) through distance learning and when set up well with companion materials, they work great.

It depends on the topic of the course if long-distance training would suffice or not. Some courses are better face-to-face than others.

It depends on the class - whether I am learning the basics or getting back up to speed on a topic (more likely to do distance) versus an in depth class on a topic that requires more attention, focus, a more academic atmosphere like NCTC....

In my opinion from my training experiences, distance-learning courses appear to be most effective when the material is mandatory and very simple. Most of our work in conservation and partnerships seems too complex to convey through distance learning technologies.

In answering the questions it was difficult to definitively say distance vs. on-site (vice versa) because it really depends on the class and the materials/course content. Some class I would not want to do as distance but others lend themselves well.

...I think both distance learning an on-site training has its place depending on the content of the course.

I think whether a class should be taught via distance learning vs. onsite really depends on the course. For instance, 'Foundations' should only be taught instructor-led, onsite because the real value of the course is the interactions with others in the FWS.

I think some topics will lend themselves more easily to distance training based on the level of current knowledge of the employee. For example, I have some outreach programming experience so I'm more likely to be open to distance education for this; I'm less likely to be interested in distance ed for partnership skills because that is an area where I need more training/exposure.

I think distance education is great for certain topics or subject matter.

I just wanted to add that in selecting whether or not I would choose a distance learning class vs. a NCTC class would depend on the class. I am in region 1 and traveling to NCTC is not convenient so I look for classes that are held off site. Also whether I choose a distance learning class or instructor-led class depends on the content of the course. For example I have taken a computer class on listening skills but have taken a NCTC class on conservation genetics. It all depends on how difficult I think the content of the class will be.

I feel pretty strongly that the nature of some types of training absolutely require high levels of human interaction in order to be highly effective. Other types of training readily lend themselves to non-interactive and distance learning.

I believe that distance learning is the 'next best thing' to being on-site at a course - the personal interaction is hard to replace! But, in many cases, distance learning can be extremely valuable (so for me the pro's and con's would just depend on the topic, time of year, etc.!)

Distance training is very valuable and suitable for some topics and purposes, but not for all.

Distance learning should be used for courses where human interaction is not needed.

Distance learning really depends on the course. Some courses lend themselves well to it and it makes sense while others do not. E.G. Some course like field or field techniques do NOT lend themselves to DL. Also sometimes the interaction with the instructor and other students is very important if not critical. It may be the best part of the course. You lose that or a lot of that with DL.

Distance learning can be used for some courses but other courses require personal interaction and time away from the office so that the student can focus only on the class that he or she is taking. Theory can be best taught by distance learning. Interactions and hands-on work can make a class go a lot further.

Distance education can be useful, but the degree of usefulness relative to live instruction depends on the topic and certainly on the skill of the instructor. I have team-taught via a Horizon-live type format several times, and students seem engaged when they are talking and interacting a lot as opposed to having instructors talk at them. No surprises to you in that, I am sure. It is hard to undervalue face to face instruction for courses that really relate to developing skills needed in performance of work, as opposed to training that is required as a part of the agency.

Distance education can be an important tool, but I believe there are certain courses that do not lend themselves to this type of training (distance education). Interaction with other students and instructors can be very valuable and you don't really get that experience with distance education. That said, I do believe there are some courses that could/should be offered through this method.

Depending on the topic, having the ability to talk to and ask questions of other class participants and/or the instructor is vital to learning.

Courses like this are easier taking on line. Courses that contain math and accounting need classroom instructors to understand the concepts better as well as any computer courses, need hands on training.

All these tools are important, but for me it depends on the topic as to whether I prefer distance learning or on-site training. All of the various training methods are important, and their importance fluctuates depending on the skills needed to perform my job. Technical training needs more 'hands on' instruction such at NCTC, while policy and administrative training is usually better for me using the other distance learning methods.

...Also, my preference for taking a distance class or a class at NCTC very much depends on what the class is about, so I cannot lump my preferences to go one way or another.

...However, for my staff I think distance learning is very viable but it all depends on what the subject matter is.

I don't rarely participate in environmental education. I don't know the complexity of the training material. I do know that the more complex a subject, the more I like having a live instructor and classroom setting. Such as GIS.

I am a Wage grade employee, I would like distance learning as some times I have to read things more than once. But I like the interacting with others as I almost always have questions of the instructor....

Content of the course makes a big difference in whether or not it should be at NCTC, IL elsewhere, or done via recording or something similar. Your questions do not address this directly. For example, training in establishing partnerships for a particular purpose would require interaction, while technology exposition may not.

I think distance learning is perfectly appropriate for some courses (e.g., technical), but other courses (e.g., conflict resolution), I think it's vital to be onsite at NCTC....

...I would definitely prefer distance learning for basic topics that would be helpful to my job, but there would still be some courses that I think are necessary to be conducted/taken with an in-class instructor....

...I was not satisfied with the portion of this survey that asked me to choose how likely I would be to choose a distance learning course over attending NCTC and vice-versa. It all depends on the type of training I need/want. Having courses at NCTC allows students the distinct advantage of being able to personally interact with peers from across the country, in and out of the classroom, thus being exposed to differing opinions and perspectives. However, I think there are some classes that could easily lend themselves to distance learning because personal interaction with other students may not be as critical to successfully understanding the material and completing the course....

Honestly, this questionnaire felt a bit skewed. Many of the questions I wanted to respond to 'it depends.' Determining how instruction is best delivered often depends on such things as the content of what one is learning, the complexity, the need for visual observation versus instruction via audio, the need to interact with other students experiences, classroom versus infield, etc, etc. And that in turn would indicate my preference for distance learning versus onsite instruction....

Certain courses can not be done without the hands-on; others will work nicely as long distance training....

For me, choosing a distance training option over an in-class option depends primarily on the topic and my level of interest/relevance to my job. There are a number of topics that I would probably commit to training at a distance that I wouldn't necessarily be willing to travel for because of the time commitment involved. But, there are some topics that really require meeting in an in-class setting.

While appropriate under certain conditions and for certain simple subjects, for most of the complex issues and assignments in my job type it does not provide the most effective approach. This is particularly true for subjects like partnerships, environmental and conservation education, most outreach programming, and a significant portion of visitor services. These subjects are all about interacting directly with people and getting them out of their buildings, away from their computers, and interacting with nature. With the exception of a few short technical subjects, it is hard to understand how distance learning would best prepare us to apply these....

Distance learning sounds great depending on topic, face-to-face is important too, depending on topic....

...They [distance education opportunities] are definitely a fine option for short courses, for technology and required training. They are less suitable to courses where interactions among students and with the instructor, and discussions, are beneficial to the subject matter....

#### Need for both training options:

Distance learning definitely has its benefits but also its downfalls. It would be handy to schedule around work and personal life, however, the interaction with other students and professionals in my line of work is also important.

NCTC is a great asset, having more courses available over the internet would be GREAT!

The NCTC campus presents an excellent learning environment. Distance learning would provide a very good alternative to supplement, but not a total substitute for, the on-campus experience.

The amount of training opportunities for FWS staff is awesome but overwhelming. I am supportive of distance learning but there should be Regional face-to-face solutions to steepen the learning curve with staff. Things are changing too fast and we are not keeping up with it. Distance learning is a tool but not the only answer and nothing beats face-to-face. Do you recruit teachers?

Thanks for making a variety of options available....

...I think that distance training is a valuable tool, and while it should not replace on-site training, there are definitely times that distance training is better suited to my schedule or to the course materials. Thanks!

I would definitely take advantage of distance learning, especially if a more diverse curriculum was offered. Particularly courses that were traditionally NCTC based. These courses include GIS training, ALL endangered species related courses such as management issues, habitat plans and the Endangered Species Act as well as any wildlife law courses. I would also be interested in grant writing courses and leadership courses. In other words, most courses should have a distance learning option because NCTC is a wonderful facility but it is not always feasible to be away from my duty station for a week or two at a time. I do recognize that distance learning options are not practical for many courses, but some could be developed for a good many courses. This is an issue that I am glad to see addressed.

I think providing options for distance learning will be beneficial both through blended courses as well as being able to provide more training opportunities through archived resources than is possible with face-to-face courses. It is important not to lose the face-to-face opportunities.

I see the value in both learning/training models. Online training is convenient, efficient, widely available, and cost effective. On site training provides opportunity for interaction, questions, networking, and sharing common experiences. Neither model can replace the other, there are topics and situations where one model would be more appropriate than the other. Thanks for caring what we think!!!

I realize some people learn better by online or remote classes, but I retain the knowledge better by being there in person, whether the course is held at NCTC or another location - just having the traditional classroom-type setting.

Both distance learning and classroom learning have valuable roles to play, depending on topic, student, style, and situation. I would not want to see either limited at the expense of the other. Offering more distance learning opportunities will only enrich training. Rosetta Stone for instance has been very valuable, but so have the NCTC courses. The value of distance learning is also in ready availability of the materials/class at a moment's notice for an employee who suddenly finds oneself needing it urgently, especially if not offered regularly.

Both capabilities have their role so I don't see that there is a need to switch to a distance education emphasis, just evaluate whether any particular training could be accomplished more effectively or with wider participation through some of the newer technology.

I like having the opportunity to take distance training, but I believe there is a lot of value in face to face learning and interacting with others.

I am interested in distance learning and training options, but hope that these options will not replace classroom learning....

Distance ed and on-site both have a place. One is not better than the other...

Bottom line - some courses need to be at a facility and some can be taken through distance learning....

I think increasing Distance Learning opportunities is a good thing. However, It would be unfortunate to have fewer opportunities for the classroom experience available at NCTC....

#### Comments About Training

Some respondents offered comments that were about training topics and scheduling rather than the mode of training. The general training comments made were positive, negative, and neutral in tone. Many comments were made regarding training topics. Some of these comments addressed the specific topics included in this study, and other comments were suggestions of other topics for training. Several respondents suggested that the timing of course offerings affected their participation in training.

#### **Training general comments:**

The key elements to me for successful training are ease of access, dedication of time, relevance to current job and interaction with others.

Supervisors should allow for training.

With distance learning - it's hard for me to get time during work hours to take any type of training.

The survey made it clear how little time I have to even think about training (thus so many blank answers--you can't answer questions about something that is functionally irrelevant to your job responsibilities). I tend to learn by doing rather than taking classes (unless it's an actual class with regular meetings over a sustained period)--'training,' as the term is generally used (i.e., short bouts of intensive education) does little for me, and provides virtually no long-term benefits or improvements in job performance....

I work in Maintenance and during the day I have a lot of contact with the public. I also am requested to assist on Biology projects and events at the refuge. ANY training I can get makes me a more versatile and valuable employee.

#### **Training topics on survey:**

This is a long overdue suite of training options, which I fully support. Some of these, in fact, should be offered beyond the Service to other DOI and USDA agencies.

FWS should not do technology training -- others do a much better job and provide more relevant information.

I think any training in outreach programs and environmental ed is very important to do our jobs.

I would love to see more classes on any/all of these topics. It would also be great to interact with other Regions. I think we benefit from more viewpoints.

#### **Training topics not on survey:**

What I need is better technical training. I need advanced GIS courses offered in the winter, NOT during the summer/fall field season. I can't be the only field biologist who wants higher level training in spatial analysis. Telemetry Data in GIS, Remote Sensing & GIS...why aren't you guys more forward thinking in these areas? I love the [leadership] training I've had with y'all; it's been very beneficial. However, NCTC offers little to nothing in more advanced data analyses....I need more, to expand and update my GIS and statistical skills.

There are not many classes held at NCTC that would apply to me or my staff. I would like to see more administrative/budget classes offered.

There are many more important training topics and courses that would be of greater priority.

The Service needs to teach Basic Records Management. We accomplish great things, such as delisting endangered species, (delisting package is a permanent record) we raise the awareness of the public about wildlife and habitat through publications, (another permanent record), there are many more examples but the point is we do NOT submit these records to NARA and we make our history unavailable. I realize we have a History Program at NCTC but we need to be available at a National level as Congress has mandated and we need to work with the National Archive in order to elevate our presence.

The Conservation Partnerships in Practice course is one of the best you offer. Please continue this course. It should continue to be a face to face course.

...Classes I am most interested in are less geared at education/outreach/etc. and more geared to science-based coursework (PVAs, etc.).

Recommend that NCTC do more to promote communications training for FWS employees. Its importance cannot be over emphasized.

Please offer more partners classes, HCP classes, conservation on private lands classes, NRCS funding and grant writing classes, and COASTAL resources and program classes. I think many of these could be offered through distance learning.

One thing I know nothing about is satellite programs. I would like to know how to hook up the local schools with all these neat programs, but just don't know how.

It would be nice if NCTC offered a course in camera (both still and video) basic use. Level of interest is such that I would take it here or there - hands on, instructor-led. Courses in video editing would be good too. I don't know if it would be possible to have a course on how to capture a person's voice in speech writing or not, but that too would be good....

I would like more distance ed courses for basics on stats, partnerships, genetics, study design.

Introduction to Interpretation and Environmental Education. Improving Interpretation and Environmental Education Skills used while leading groups and giving presentations. Skills to actively engage your audience.

...Hands on applications with GIS field equipment, computer applications, biological monitoring and design and similar trainings are important to my job position....

In my job as an Office Assistant I normally don't need the training in these areas. I would like more training in computer and administrative skills.

I would like training on social networking and the USFWS to make decisions about acceptable use and policy regarding social networking.

I would like to explore how I can deliver training to large numbers of employees without bringing them all into one location. I probably won't take much training this way, but I would deliver it if available.

I would like the following courses offered in some form: ECS 3162- Wildland Fire Workshop for Consultation Biologists; ECS 3150 - Advanced Interagency Consultation for Endangered Species.

I really don't want training in this area, I need distance learning opportunities in Biology.

...Would like to learn more about developing online training (especially for WO needs to disseminate info related to online databases, such as the Fisheries Information System) and making use of video conferencing, etc. -- not sure who to contact.

I think it is important for NCTC to look at technology training, especially in those areas that improve efficiencies in administrative processes, data management and communications. As an agency we fall short of addressing training needs of non-biology specialties.

I feel the Service is missing out on the opportunity to provide on-the-job training and instruction to FWS employees on various technical and administrative issues....

...I would like to take review courses- such as the GIS courses I have taken. If these were offered as a computer courses I could continually refer back. The disks are just the manual – which I have- not the "step-by-step-demonstrations" that could be made available on the web.

...Also, many of the training courses provided by NCTC no longer fulfill my learning needs in my current position and at my current level. ...

#### Timing of course offerings:

...Also, classes offered during the field season are automatically beyond attendance for me.

The main reason I would choose distance learning over NCTC (or other live training) would be scheduling. With live classes held just once or twice a year (or sometimes just every other year) and with no control over when the class is held, it can be impossible to get to one. With distance education, especially on-line, I can choose when to take time to take the class....

I would like to attend more training. Unfortunately, most of the training I am interested in is taught during the months when I am the busiest and can't leave to attend training. If distance education was available, I would be able to complete more training courses relative to my job.

I would appreciate more opportunities for distance learning because it would provide more options for me. There have often been classes at NCTC that I'd like to take, but don't because of timing. For instance, it's always difficult to be gone for a week during December.

...Also, it would be helpful to vary the time of year that a particular course is taught at, as my busy season seems to always coincide with several interesting courses (which I'm then not able to attend).

#### Comments About Offices/Agencies in FWS

Respondents made comments regarding NCTC as a facility and its course offerings. A few comments were made regarding the FWS.

#### **Comments regarding NCTC:**

I have been to the NCTC campus once, for Section 7 Consultation training. The course was 5 days (Monday through Friday). Five night away from home is a long time, plus travel time. Overall it was good training, but I believe it could have been condensed, and tailored to meet our specific needs better. I believe this could be accomplished by having the students talk individually with the instructors one day then the class could be divided accordingly; thus, allowing more interaction between instructors and students, and providing more relevant training.

We can never have enough training NCTC is the HEART of the service

...Plus, the NCTC is the 'home' of the Fish and Wildlife Service; I would hate to see us lose it for lack of use!

I look forward to taking some training at NCTC in the future. I have heard good things about the classes offered from other people.

I prefer going to NCTC because I can plan around that and I get more from the traditional 'bricks & mortar' style of learning than I do from any technological/distance style/method.

I'll be taking some training soon which might actually enhance my work performance, and, significantly, it is not being offered by NCTC, but rather by a private contractor.

The training at NCTC should mostly focus on fish & wildlife conservation more than on IT/computer technology. FWS employees in the Washington DC are can find higher-quality IT technology training outside of NCTC....

#### **Comments regarding FWS:**

This was a worthless survey!! The FWS continues to NOT offer training - regardless of method - that pertains to my job. Most training needs I have can only be obtained via other sources. Plus, who the heck has time in the less with less work environment we are supposedly working under - though I have more work today than yesterday. :) The FWS is moving too far away from conservation activities to be solely an education forum. We are moving toward more visitor centers to see 'stuffed' wildlife or photos than actual wild LIFE. It's time for a change in direction - conserve to see it in the wild, not an auditorium or a wing clip.

...In addition, how come members of upper management have a pattern of attending conferences at tourist resorts such as locations close to Sea World at San Diego, CA, Disney World in Florida, Waikiki in Hawaii, etc. ? A Washington Post article briefly mentioned this matter in 2009. All of these conferences were supposed related to fish & wildlife conservation. Why couldn't upper managers hold conferences at NCTC? After all, isn't NCTC the acronym for the National Conservation Training Center?

In general, I think this survey tries to cover too many topics at once and moves beyond the basic issue that conservation education should not be a stand alone program but is the mission of the Service. Therefore, maintaining and sustaining relationships with our partners, effectively communicating our message (be it endangered species, climate change, habitat restoration) is a fundamental component of every program and individual job and communicating this message happens formally and informally through our interactions with the public. What many generic conservation education trainings fail to deliver is site specific context so sometimes these training programs are less relevant. I almost think this type of training and information should be part of new employee orientation and periodic requirement for current employees. Specific training on using emergent technology to improve outreach is useful. Evaluation is useful too, but the Service does not seem to credit employees for education outreach and hence evaluation rarely receives the attention and funding required to do well. Moreover, effective evaluation requires several years of attention which is difficult to accomplish in annual budget/GPRA cycle. I am not trying to throw cold water on education outreach and partnerships, but it almost seems like to do this well the Services needs to: 1) make this a part of job PDs and orientation; 2) identify a few individuals across programs to invest in to help deliver our message and provide regional support for sustaining partnerships and addressing site-specific/partnershipspecific communication issues; 3) hold managers and supervisors accountable to integrate attention to this issue in day-today operations; 4) Invest in our visitor centers - bricks and mortar or virtual; 5) provide the technology, tools and other support services; 6) provide operating support to our most important partnership efforts, such as NFHAP, LCCs, etc (e.g. provide the support needed to care and feed the partnerships, including support to external partner participation, as needed/necessary). One parting comment -- perhaps a better training approach is to offer full service training to an actual partnership - where all the internal and external partners can participate. For example, we have three approved fish habitat partnerships in Alaska -- why not offer an NCTC and/or distance education training to these partnerships to address their specific needs -- this would be valuable and relevant and I suspect do more to build community and effective outreach. Thanks for the opportunity to comment -- [name deleted]

...Partnerships are an important part of my job, and I do well with forming and maintaining them. I think that FWS would benefit from more highly skilled outreach personnel and more of them. I often experience that we do not have enough outreach staff to do a proactive job of getting the story out. I am maxed out with my current job duties, and have a hard time making time to do outreach, and also I am trained as a biologist, not an outreach specialist. All kinds of things come into play with that: how to communicate in a nontechnical manner, but still get your point across....So I suggest that we need to really consider expanding out our workforce to get past the Biologist who is expected to be able to do all these things in addition to the biology of their work. More I&E support with skilled folks, who can have the time to engage in the issues and work the outreach,...

#### Comments About the Survey

One topic respondents commented on was the survey itself. Respondents commented on the design, the questions, the length, and made suggestions. Some respondents indicated a desire to see the results of the survey. In some of the comments, respondents clarified their survey responses by describing characteristics of their background that they believed affected their answers to the survey or provided clarification of their response to a specific question. Given the sampling strategy for this survey, one of the questions asked about the respondents' membership on the VOICES electronic distribution list. A few respondents expressed a lack of information about VOICES in their comments. Finally, respondents indicated appreciation for the opportunity to participate in the survey.

#### **Comments on the survey:**

...I had one issue with the survey design: I answered that I would like training on evaluation methods topic- 'not at all' - and then was forced to select the most preferred mode to receive training on that topic. I would have selected 'n/a' if it was a choice. Thank you!

Should define the different types of distance training earlier: computer mediated, earlier.

Poor survey design. You ask for relevance of five topics (four of which are irrelevant for me) and then the next question REQUIRES me to choose what level of training I want for each of the five topics. There should have been a NONE option.

It would have been very helpful to see the definitions for each technology type at the beginning of the survey as opposed to halfway through it....

I think you should have allowed us to rank our top three learning preferences in the section asking us about the types of training and the programs.

A few confusing things on the survey - e.g., you seem to have a specific idea of what program planning is, which is different than mine. I am very much interested in program planning, but not in the context you discuss....

- ...Some of the questions in this questionnaire did not provide me with the appropriate choices. To have me required to indicate what would best fit my needs in a topic area, when I have previously indicated that this topic area is not valuable in my situations means my answers are not an accurate reflection of what I need. They will overestimate the need or interest. All questions should have a 'not applicable', don't know, or similar option. I realize that in questionnaires it is important to avoid having people leave items blank as you cannot be sure if it was intentional or an oversight, but an appropriate 'non-answer' would really help in these cases.
- ...A good portion of this questionnaire seemed biased toward outreach activities. While I understand the importance of those activities, there are those of us whose jobs involve very little in the way of typical outreach. I often found myself not totally comfortable with some questions and some of the answers from which I had to choose because of this apparent bias.
- ...I found most of the questions in this survey very wordy and ambiguous. Not sure how to answer many of these questions because of awkward phrasing 'relevance on the job of....' is no way to start a sentence!

This survey is not applicable for NCTC employees. The answers will be somewhat biased.

This survey is a bit mind-numbing....

This is a boring survey. Who sits around and thinks of this stuff? Had I known the nature of the questions I would never had started the survey in the first place. Way too much repetition. Basically just filled in answers quickly to get through it.

The questions weren't always clear....

Survey only ~10% relevant to 2210s

Many of the questions are not worded well. I don't have time to go back to tell you which ones...sorry!

Why do people always lie about how long it is going to take to do a survey. Really shows no integrity

This took longer than you said it would.

Survey seemed long.

Would be nice to get feedback from you on results of this survey.

Please work with new Distance Learning branch in determining your DL needs and share the results of this survey [name deleted]

...Thanks for doing this survey, can't wait to see results.

Can't wait to see the results of the survey!

I would like to suggest that perhaps a way to decide or figure out what kind/topics of training would be to request input via email/questionnaire from all employees of the Service, ask them if they would like to receive this training on-site, off-site, or via distance-learning, and then create a list of all the topics/courses suggested by Service employees, which could in turn be emailed again to all Service employees to vote on training courses/topics. Just a suggestion.

#### **Clarification of responses:**

My involvement with EE, Outreach, and VS is very minimal. I do work with partners and maintain partnerships.

I live 20 minutes from NCTC.

As an instructor for the FWS, I would be more than willing to participate as a volunteer instructor for NCTC

I plan on retiring in less than 2 years, consequently this biased my response about taking training (don't plan on any training except what meets needs for annual refreshers for a supervisor)....

...My answers are based on how I have experienced Distance Learning products to date, which are largely amateur-developed offerings....

Written resource provision - I had never heard this term before and I included what I understand as a 'written job aid' in my definition when I answered those questions....

I wasn't sure if the IT Workshop counted as a course or not - I assumed it was.

Because I have limited or no experience with many of the distance learning tools (e.g. satellite TV), it was difficult to answer the questions about how I would prefer to receive distance learning. I tended to go with what I know.

As an employee in the administrative operations area of FWS (financial management), a lot of the questions seemed not applicable to my work.

#### **VOICES listsery:**

What is VOICES Listsery? In 6 years in my current position I've never heard of this.

I'm not familiar with the Voices listserv.

I have never heard of VOICES listserv. Perhaps it needs to be publicized and explained....

#### Appreciation:

Thanks for the opportunity to contribute.

Thank you!

... Thanks for the opportunity to comment.

I appreciate the training opportunities offered by the FWS. Thanks for the survey.

...Thank you for this opportunity to provide comments.

...Thank you for asking these questions. I look forward to the outcome!

...Thanks for the opportunity to answer the survey questions.

#### Miscellaneous Comments

Two comments did not fit into any of the other categories.

#### **Miscellaneous comments:**

There are multiple distance learning opportunities but this survey appears to have a large focus on environmental education. With regards to the statement 'to maintain currency with State Educational standards', I would question why we need to do that, i.e. are we going to tailor 50 programs to 50 states? That said we all know how the game is played for EE (at least in my State). If the Service wants to educate (particularly at the primary levels) we have to get folks out on our lands. To do THAT we have to bend to State standards (curriculum). Simply stated, if we do not offer curriculum equivalent programs the teachers/schools will not come. The teachers have told us unless there is something in it for them - being able to 'check the box' so they receive credit they do not want to bother.

I still don't know much about distance learning!

## Summary

This report includes only summaries of the responses to the questions asked on the survey. Until the main data analyses are complete, we can only offer preliminary conclusions on the basis of these summary statistics.

Most of the respondents had taken at least one course at the NCTC facility in Shepherdstown, W. Va. About half had not taken any distance education courses through NCTC. Most of the respondents indicated that at least some part of their job involved conservation or environmental education or outreach, and 41 percent of the respondents indicated that they supervised at least one person (employee, contractor, or volunteer) whose work involved these activities.

Questions addressed the relevance and importance of five content areas to the respondents' positions. For four of the five topic areas, the response frequencies and averages indicate that the topics were viewed as both relevant and important. Respondents were more neutral on the relevance and importance of the topic of evaluation methods. When asked to what extent they would like training in each of the topics, the most frequent responses indicate that they would "very much" like training in technology, they would either "somewhat" or "very much" (tied in frequency) like training in creating and maintaining partnerships, and they would "somewhat" like training in program planning and development, outreach methods, and evaluation methods.

When asked about the type of information they most needed from each of the five topics areas, the response "basic facts" was selected most frequently for the topics of outreach methods and evaluation methods. Respondents indicated they most needed "technical hands-on skill" in the topic of technology. For the topic of creating and maintaining partnerships, there was a tie in most frequent response for "problem solving methods" and "how to develop a strategy." Strategy development was the most frequently selected option for the topic of program planning and development.

Most frequently, respondents indicated that they do not use satellite television, video conferencing, and audio resource provision. They indicated that they use audio conferencing, computer mediated training, and written resource provision less than once each week. Respondents indicated they

are very comfortable with audio conferencing, computer mediated training, and written resource provision. "Not comfortable or uncomfortable" was the response chosen most frequently for satellite television, video conferencing, and audio resource provision. The majority of respondents indicated that they had not taken any distance education courses using the technologies of satellite television, video conferencing, audio conferencing, written resource provision, or audio resource provision. For the distance education technology of computer mediated training, the most frequent response was that "3 or more" courses had been taken with that technology.

For each mode of distance education technology included on the survey, respondents were asked about their access to the technology and technical support for that technology, and about their perceived ease of use of that technology. The most frequent response to the questions of access to technology and support for the technologies of satellite television and video conferencing was "Strongly disagree." For the three questions regarding ease of use, respondents most frequently selected "Neither agree nor disagree" for two of the three questions for satellite television, and all three of the questions for video conferencing. Respondents selected "Strongly disagree" for one of the three ease of use questions for satellite television. For the technologies of audio conferencing, computer mediated training, written resource provision, and audio resource provision, respondents most frequently selected the "Strongly agree" option for the accessibility and ease of use questions.

The options for preferred mode to receive training for each of the topics included instructor-led training onsite at NCTC and instructor-led training offsite in addition to the six distance education technologies. Instructor-led training at NCTC was the most frequent mode selected for four of the five topics (creating and maintaining partnerships, technology, program planning and development, and outreach methods). For the topic of evaluation methods, computer mediated training was the most frequently selected training mode with instructor-led training at NCTC a close second in frequency.

Respondents most frequently indicated that they strongly agreed with a statement regarding preference for onsite classroom training over distance education. When asked a similar question about taking a distance education course instead of a classroom-based course, 32 percent of respondents indicated that they slightly agreed with that statement, and 31 percent of respondents indicated that they neither agreed nor disagreed with the statement. When asked how likely they were to take a course onsite at NCTC instead of a distance education course, and how likely they were to take a course from NCTC via distance education instead of onsite at NCTC, respondents most frequently indicated that they were likely to take a course onsite instead of distance education and likely to take a course via distance education instead of onsite. Based upon the results to these two questions, it appears that there is not a consistent preference for either onsite or distance education. Without additional analyses we cannot determine if preferences are stronger for one mode of training than for the other.

One of the considerations in distance education is technical support for the technology being used. The survey included two statements regarding preferences for technical support. Respondents were asked the degree to which they agreed with a statement that they preferred technical support from their duty station and with a statement that they preferred technical support from NCTC. The most frequently selected response for both statements was "Neither agree nor disagree." Although for the statement addressing technical support from the duty station, 29 percent neither agreed nor disagreed with the statement and 28 percent slightly agreed.

When asked to select the reason or reasons that would influence them to take training via distance education instead of at NCTC, 696 respondents selected "scheduling with commitments in my work life" and 648 respondents selected "scheduling with commitments in my personal life." When asked to select the reason or reasons that would influence them to take training onsite at NCTC instead

of through distance education, 765 respondents selected "interaction with instructor" and 745 respondents selected "interaction with other students."

Respondents were asked to rate the importance of 12 aspects of training. The aspects of training most frequently identified as being very important were the FWS providing training, having time on the job to participate in training, having access to an instructor to ask questions, and interacting with others in similar positions but at other locations. The first two aspects are general aspects of training. Access to an instructor and interacting with others—when not specified as being face-to-face—can occur in either onsite or distance education training. The aspects of training most frequently identified as being important were having an instructor provide face-to-face training, accessing training while away from the office using the internet, controlling when a training course is completed, minimal time away from the job for training, accessing information just in time, and talking face-to-face with others in the class. The aspects of training most frequently rated as being "somewhat important" were selecting the order in which topics were learned and controlling the speed of the training course.

The demographic questions indicate that our survey respondents were mostly permanent Federal employees with an average age of 46. The respondents represented a range of tenure with the FWS; tenure with the FWS of "18 or more years" was most frequently selected. For tenure in current duty station and tenure in current position, the response "4–8 years" was most frequently selected. Respondents were from all regions with Region 4 contributing 15 percent of the survey responses. The WG/GS/GM levels of respondents ranged from 3 to 15 with 27 percent of respondents reporting they were level 12. The majority of respondents indicated they did not subscribe to the VOICES listsery. The most frequent job series code was 0401, General Biological Science.

Our preliminary conclusion, based only on frequencies and averages, is that our survey respondents appear to prefer traditional instructor-led training. However, they would still enroll in distance education courses. The distance education technologies of audio conferencing, computer-mediated training, and provision of written resources are the technologies respondents reported being most familiar and accessible. For four of the five topic areas—creating and maintaining partnerships, technology, program planning and development, and outreach methods—the response frequencies and averages indicate that the topics were viewed as both relevant and important. Respondents were more neutral on the relevance and importance of the topic of evaluation methods. Respondents reported that different levels of information were needed based on the topic and also reported preferences in mode of training for each topic area. Detailed results and conclusions will be included in the completion reports for the two studies.

# **Study Completion Reports**

This report to respondents provides a preliminary summary of the results of the survey regarding distance education sponsored by the DEO at the NCTC. Although the frequencies of responses and average response for the questions are useful information, these summary statistics do not constitute the final analyses of the survey data. A thorough description of the two studies included in the survey and complete data analyses will be provided in the completion reports for each study. The completion reports will be made available as U.S. Geological Survey Open-File Reports.

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