



**US Army Corps  
of Engineers**

Engineer Institute for  
Water Resources

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# **CIVIL WORKS PLANNERS TRAINING**

## **Appendices**

**FEBRUARY 1983**

**Reimbursable Study RS-2a**

CIVIL WORKS PLANNERS TRAINING

Appendices

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Reimbursable Study RS-2a

February 1983

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## I. DESCRIPTION OF STUDY

The U.S. Army Corps of Engineers recognizes that accomplishment of mission objectives requires competent personnel. The significance of training as a means to develop competency is evidenced by the Corps long-time support of a training program and its stated objectives for "building and retaining a force of skilled and efficient employees, and installing and using the best possible methods and practices..." (EC 35-2-108).

Like the other elements of Civil Works, the Planning Division issues regulations containing the requirements and guidance for achieving objectives and supplements this material through training. Recently, through the Planning Improvement Program, the Planning division has reorganized and revised its regulations into a more useable and easily-updatable package known as the Planning Guidance Notebook. A logical step subsequent to the regulation reform is to focus the training program to support the Planning Improvement Program. Studies relevant to Corps training needs (e.g. in 1977 and 1980 by ESC) and more specifically to planners training needs (e.g. in 1972 and 1975 by IWR) have been conducted before. Periodic review of planner training is in order because of the dynamics of water resources planning and the multidisciplinary nature of the planning process. Now, with the Planning Improvement Program in operation and the Planning Guidance Notebook in place, it is an appropriate time to ensure that planners training is synchronized with the Planning Division's objectives and functional responsibilities and is also responsive to changes in policy and organization. The Director of Civil Works' Planning Improvement Program for 1982 names planners training needs assessment as an objective.

### A. Objective and Scope

As stated in the scope of work, the objective of a study of training for Corps planners is twofold:

- (a) To determine what kind of training and career development program is needed to support the objectives of the Planning Division, as well as to meet the needs of a staff having an interdisciplinary background, and who work as interdisciplinary teams to plan solutions to water resources problems over the range of functional areas.
- (b) To identify a variety of actions that could help provide for the administration and management of a training program specifically targeted to the Corps of Engineers water resources planners.

This objective encompasses the three major issues concerning the training program: (a) training needs identification, including what training is required and its context, (b) the appropriate mechanism for providing training, such as how courses should be conducted; and (c) the administration of the training program, including program performance monitoring and revision to meet changing needs.

The courses of action identified by this study are specific to these issues and take into consideration the multiple possible effects and purposes of training: to transfer information, build skills, develop career potential, change attitudes, motivate creativity and achievement, provide professional experiences, support and advance organizational goals, influence policy decisions, and promote dedicated service.

As originally envisioned, the study was to be concerned with all the types of training that are available to Corps planners, both non-Corps and Corps opportunities, including local training, long-term training, and the proponent-sponsored engineer Corps training (PROSPECT) program for short-term courses. Although the study concentrated on Corps-wide sponsored training and Corps-funded programs, it did determine the field's perception of what a planner should be and the field's opinions on training needs and effectiveness. The study also identified several actions that could result in improvements to planners training.

#### P. Methods

Data and information for the study was collected through interviews or discussions within and outside of the Corps and through a field survey questionnaire. Within the Corps, persons in the Planning Division, including course proponents, and in IWR and PFRP were asked to give their opinions on the training program's function, successes, and problems and to express any ideas for recommendations to improve the program. Some Chiefs of Planning in the field also contributed their opinions on the study.

Outside of the Corps, training management personnel in eleven other Federal agencies were asked to describe how their agency's training program operated. Topics discussed included types of training offered and location, attention to career development, employee training data base, course evaluations, student testing, instructors, financing. Particular note was made of clear-cut problems and successes. The agencies interviewed included: USDA, USGS, HUD, NPS, ELM, IRS, CPM, Federal Home Loan Bank Board, Bureau of Labor Statistics, Bureau of Reclamation, and Department of Labor.

A lengthy questionnaire was sent to 2000 Corps personnel in planning activities in districts, divisions, WES, EFRH, and CCE to collect information on general opinions about planning, perceptions on the existing training program, preferences for the future, and personal job experience background. The 1146 returns (57 percent response rate) have been statistically analyzed. Three questions were open-ended and their results have been summarized.

#### II. DESCRIPTION OF EXISTING PROGRAM

A broad range of training opportunities are available to Corps planners. These include local presentations and training put on by the districts, both Corps and non-Corps-produced short courses, the PFRP Planning Associates Program, the Civil Works Program, and locally sponsored long-term training. Recently, and in response to the Director of Civil Works' Planning Improvement Program, changes affecting the training program have occurred. Among these are the establishment of the Corps of Engineers Training Issues

Committee (CETIC) which takes on the role formerly held by the Training Review and Evaluation Committee (TRACE) for evaluating ongoing training programs. More significantly, the principal role of CETIC is new: to examine issues affecting Corps training policy and/or programs and to recommend courses of action to the Chief, Office of Personnel. Notable changes have also occurred in certain courses. The Multiobjective Planning Course has become Planning Principles and Procedures. This course now has two major thrusts: to cover what is new in planning (e.g. the Planning Guidance Notebook and budget concerns) and to emphasize principles of plan formulation from a philosophical view. The Intensive Management Course has become Planning Program Management to reflect the change in the intensive management system. Similarly, the Planner Orientation course has been revised to accommodate new developments (e.g. the P&G and trends affecting planning). In conjunction with these changes a new attitude has developed in CWP marked by increased concern for responsiveness to field needs; recognition of the differences between training, education, and development; and awareness of the use of training for building organizational skills.

Most of the short-term training courses offered within the Corps come under the PROSPECT program, which has been in place since 1979. The PROSPECT program comprises about 30 percent of the available training and serves about 13,000 employees. Of the 217 courses now in PROSPECT, the Planning Division is the proponent for 41, and about another 95 are of interest to planners. The elements and mechanisms of PROSPECT are described in ER 350-1-414 (which is currently under revision). Of interest to this study is how PROSPECT courses are dropped, added, or revised, and how students select or are selected to attend. The way in which both of these processes typically occur is described here. In general, both do follow the regulations; the description serves to point out problem areas that are significant to providing the training that planners need.

#### A. Course Change Process

This description of the process names TRACE as the evaluation committee. Although CETIC has now replaced TRACE and assumed its evaluation role, it did not hold its first meeting until December 1982.

Proposals for new courses may be prepared by anyone and are written up on a special form that is reviewed by the originator's organization before submission to the proponent having responsibility for courses in that particular subject area. The proponent reviews the course, completes his portion of the form, and submits it to the Huntsville Training Division (HNTD) where the form is completed with estimates of costs for course development and any overlap with other courses. All proposed courses are collectively reviewed by TRACE in November and a decision is made on each as to whether or not it should be developed. Also at the November meeting the TRACE reviews the previous years program and proponent recommendations on course revision and deletion. Based on TRACE meeting results, the HNTD prepares a catalog of the course offering for the next fiscal year and distributes the catalog in February to determine attendance interest, i.e. the Training Needs Survey. In May, the TRACE meets to go over the Survey results. Guided by TRACE recommendations, HNTD determines which courses have sufficient attendance to

offer and in July publishes the listing of courses to be given over the next fiscal year. For each course, this listing gives the date, location, and the number of student spaces allocated for each FOA and CCE.

In reality, the process operates loosely, the problems being either too little serious attention given at the various steps or else lack of attention to significant factors at the right time. There are several examples of problems that do exist but are by no means pervasive. Proponents may treat their responsibilities lightly because they are busy with other duties, they do not know why they were selected, or do not realize the importance of their roles. Originators have been known to fill out and sign the proponents section of the course proposal form. A proposed course may come to the favorable attention of the TRACE more thorough politicking than training need. Proponents may not monitor courses closely enough to assess their effectiveness. The TRACE does not have sufficient time or technical expertise to give an adequate review to each course. Courses are not considered cost-effective unless their tuition can recoup the cost of development within the first year even though they may be expected to be given for several years.

#### F. Course Selection Process

Each FCA has a training officer to whom employees may go to inquire about the availability of training that they need. In addition, each year, the employee's supervisor discusses his needs with him and enters them in his IDP. It is at this time that courses are at least tentatively selected. Subsequently, when the Training Needs Survey catalog of potential courses is distributed in the early spring, FCA's check for course deletions or additions, make necessary adjustments to the IDP needs, and report the number of spaces they would like per course. Based on this survey, PNTD proposes a recommended program for the coming fiscal year. FCA's review the program and send student names and priorities for courses into PNTD in the summer. PNTD contacts the FCA's as to actual allocations by late summer.

The course selection process operates more loosely than the course change process, largely because of the considerable variation among FCA's in attention to and timing of the IDP. In some offices the supervisor is conscientious in meeting with employees to discuss current needs and career development and to help select appropriate courses. In other offices the employee is informed as to what courses he will attend. Training need may be overridden by grade, position, or even favoritism in a supervisor's designation of who goes to a course. Employees may not be aware of the existence of a Training Officer or the services available through him. Similarly, Training Officers may not have the time or the inclination to exert their visibility. Another problem is the length of time that may elapse (up to 18 months) between the Training Needs Survey and attendance at a course.

### III. FINDINGS

#### A. OCF Planning Division's Perception of Existing Training

Eight persons in the Planning Division, including four proponents, made several important observations on the training program. First, not everyone is actually planning: some are technicians, who need to know how to do a few things well but are never in a position to pull information together for plan

development. Second, by virtue of their job activities, field people are an excellent resource but may make poor instructors or be difficult to obtain. Third, a training agent can put on better courses than the Corps yet outside instructors are generally only able to teach technical subject matter. Fourth, course structure is not flexible enough to vary with the overall level of each class or to meet the difference in needs of students from CCE, the Divisions, and the Districts.

The problems identified by the Planning Division are:

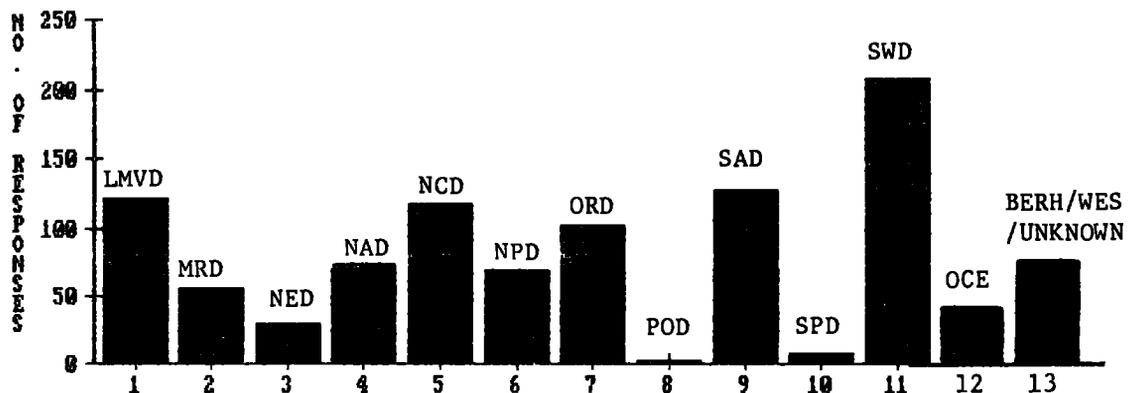
- a. lack of a satisfactory mechanism to evaluate learning in planning courses
- b. mismatch of students with courses
- c. practice of offering courses based on the number who register
- d. inability of short courses to substitute for experience and on the job training
- e. paper shuffling in the proponent system
- f. lowest levels in the field not adequately involved in the Training Needs Survey nor cognizant of training opportunities:

Planning Division personnel came out in favor of:

- a. a core curriculum
- b. enforcement of course prerequisites
- c. training of instructors
- d. greater conscientiousness on the part of proponents
- e. student evaluation of course a few months later

P. Questionnaire Responses: Characteristics of Respondees

The distribution of the 1146 returned questionnaires from among the responding organizations is shown below:



Eighty percent of the returns came from districts and at least 10 responses were received from most district and division offices.

## 1. Background Information

The average respondent is 38.7 years old, is a GS 11, and has been in grade for 4.7 years. He has been employed in public service at some government level for 13.4 years, employed by the Federal government for 12.7 years, and employed by the Corps for 11.1 years. Respondents had an average of 10.7 years in Corps Civil Works and 4.5 years in private industry. Graphs showing the frequency distribution of years in the Corps, current grade, and years at current grade are given in Figure 1.

The breakdown of entry into the Corps is as follows: 52 percent through open announcement, 25 percent from college recruitment, 19 percent through transfer from another government agency, and 4 percent through Co-op. Before joining the Corps, most (37 percent) were students. About a third worked for another government agency and a fifth had been in private business. The remaining 10 percent had been largely either in active military or employed by an educational institution.

The majority of respondents (72 percent) have no supervisory duties. Of the remainder, 16 percent are first-line supervisors, 10 percent are middle managers, and 2 percent are executives who report to the Commander.

The experience profile of the respondents' time with the Corps within various functions is given in Table 1. Table 2 indicates the breakdown of respondents by what section within the Planning Division they are now in.

Twenty-five percent of the returned questionnaires were filled out by personnel in environmental sections. Not only did this seem high for environmental, but is a higher percent than from any other section category except miscellaneous. Data is not readily available to assess the representativeness of the responses, but a look at the "Corps Strat Report" (December 1981) suggest that the percentage of environmental may be reasonable even though the Strat data tabulates planning personnel by function rather than section; for this reason the strat category "Environmental & Studies" includes persons in planning divisions and in regulatory functions. As of December 1981, Strat reports 2235 personnel in planning (including professional, clerical, technician, etc.) in three functions:

Planning and Reports	1061	47%
Flood Plain/Urban Studies	422	19%
Environmental & Studies	752	34%
	<u>2235</u>	<u>100%</u>

## 2. Skills and Habits

The questionnaire listed a number of skills that would be effective in encouraging teamwork and efficiency on a study. In general, between 80 and 95 percent of the respondents agreed or strongly agreed that they possessed those skills. In only three skills did the overall group feel relatively less

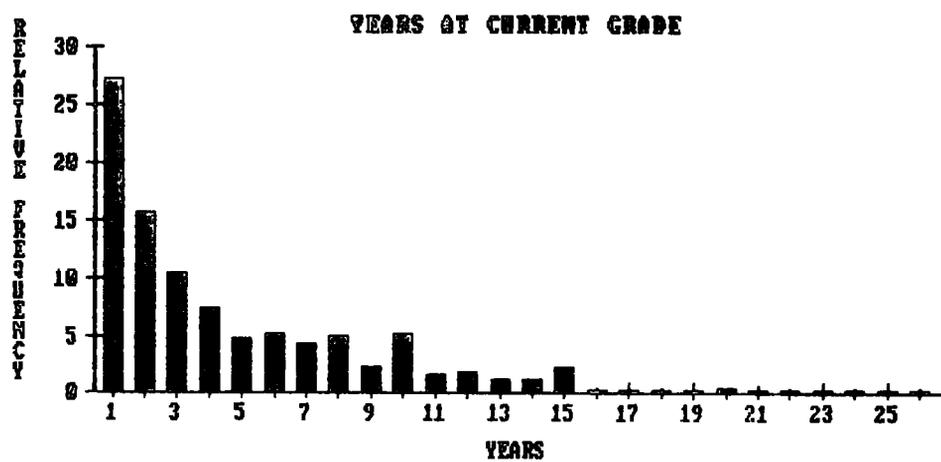
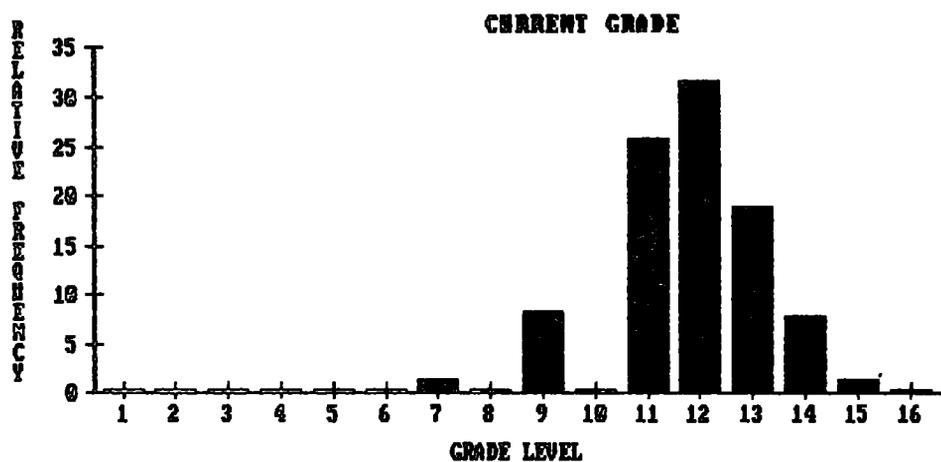
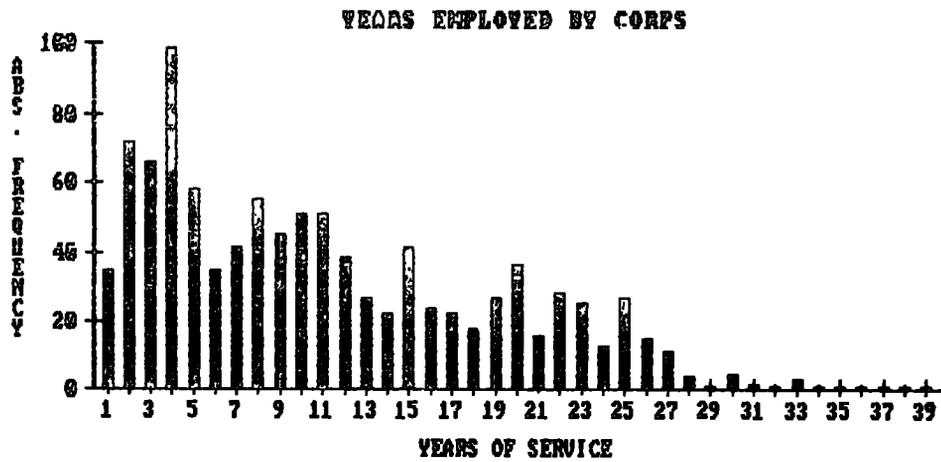


Figure 1. Employment profile of persons who answered the questionnaire.

Table 1  
Experience in the Corps

<u>Function</u>	<u>Percent Having Experience by Year Class</u>						<u>Total</u>	<u>Mean # yrs</u>
	<u>0</u>	<u>&lt;1</u>	<u>1-3</u>	<u>3-5</u>	<u>5-10</u>	<u>&gt;10</u>		
Planning	4	4	17	17	21	37	100%	3.6
Engineering	46	7	13	9	12	14	100%	1.8
Construction Management	75	12	8	4	2	1	100%	0.5
C&M	78	10	7	3	3	1	100%	0.5
Permits	82	9	5	3	1	>1	100%	0.3
R&D	83	5	7	3	2	1	100%	0.4

Table 2

Section within the Planning Division

Section	Percent of Respondents
Hydrology & Hydraulics	2
Program Development	1
Urban Studies	1
Special Studies	10
Policy & Long-Range Planning	3
Project Development	7
Flood Plain Management Services	6
Levees and Waterways	1
Coastal Engineering	2
Structures	>1
Environmental	25
Project Management	19
Other	23
	<u>100</u> (1146 responses)

strong (i.e. 7 or 8 percent indicated disagreement): motivate people, to educate team members, and to redirect study efforts. However, in that these are supervisory skills, the response is consistent with the fact that nearly three-quarters do not have supervisory duties. The skills and the distribution of level of agreement to each is given on Table 3.

Respondents were also asked to indicate how often they applied certain techniques that are of use in planning activities. Techniques that are not used or are rarely used are generally those requiring special equipment and/or skill in a relatively recent technique. Three techniques are used at least "sometimes" by about half of the respondents: mathematical modeling, computer-aided planning, flow charting of jobs. Flow charting, the most frequently used technique, is applied "very often" by about one-third of the respondents. With the exception of flowcharting of jobs, each of the techniques is never used by between 20 to 80% of the respondents. Table 4 displays the response to techniques use.

With respect to mobilization, 41 percent either strongly agreed or agreed that they have the right skills for likely mobilization assignments they could receive; 30 percent had no opinion and 29% either disagreed or strongly disagreed. Just over half of the respondents believe that there is a need for cross-training to prepare planners for wartime mobilization while about a third have no opinion on it. Opinions on mobilization skills and training vary by supervisory level. Executive-level respondents most often agreed that they had the right skills for mobilization assignments and that there is a need for cross-training. Middle managers and first-line supervisors also agreed, but less often than executives. Non-supervisory respondents tended to have no opinion on the need for cross-training for planners but tended to feel that they did not have the right skills for mobilization.

Other indicators of habits and skills are indicated by frequency in making suggestions, publishing for innovations, reading of professional journals and technical literature, and attendance at professional meetings. Only 3 percent did not suggest to their supervisor a different or better way to do something on the job during the past year, while 23 percent made a suggestion more than 10 times. On the average, respondents made suggestions about 4 times per year.

Similarly, respondents feel, that in general, they have a reputation for being innovative: nearly 40 percent indicated that "yes, definitely" they were perceived by their peers as one who initiates improvements and develops new ideas or methods.

On the average, respondents read 1.4 professional journals regularly; most (75 percent) read between 2 and 4 on a regular basis. Respondents also spend a fair amount of time in professional activities outside of regular work hours, although the time spent in meetings is less than that spent in reading:

Table 3

Possession of Skill Effectiveness for Teamwork and Efficiency

<u>Skill</u>	<u>Strongly Agree</u>	<u>Agree</u>	<u>No Opinion</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Total</u>
Plan Activities	39	55	3	3	0	100%
Organize Tasks	39	57	2	2	0	100%
Implement Action	31	57	8	4	>1	100%
Motivate People	25	50	16	7	1	100%
Monitor Progress	32	62	4	3	>1	100%
Educate Team Members	23	52	16	8	1	100%
Redirect Study Efforts	26	51	15	7	1	100%
Communicate	38	56	4	2	>1	100%
Initiate Actions	33	54	9	4	>1	100%
Evaluate Progress	32	59	6	3	<1	100%

Table 4

Frequency of Use of Techniques

<u>Technique*</u>	<u>Very Often</u>	<u>Sometimes</u>	<u>Parely</u>	<u>Never</u>	<u>Total</u>
Flow Charting of Jobs	32	34	19	15	100%
Computer-aided Planning	18	37	25	20	
Mathematical Modeling	13	33	30	24	
Management Information Systems	12	31	24	33	
Landsat and/or other Satellite Data	4	29	29	38	
Computerized Network Computers	10	22	21	47	
At-Desk Micro Computers	7	19	18	56	
Interactive Graphics	4	19	23	54	
Computerized Drafting	2	14	18	66	
Intertial Surveying	1	7	17	75	
Video Conferencing	1	5	19	75	
Computer Conferencing	1	3	18	78	

\*Techniques are listed in order of decreasing frequency of use.

Activity	Percent Engaged in Activity During Off-Job Hours Last Year				Total
	0 hrs	1-8 hrs	9-40 hrs	>40 hrs	
Reading Technical/ Professional Literature	8%	28%	33%	31%	100%
Attending Technical/ Professional Literature	22%	30%	34%	14%	100%

Reading of professional journals is correlated with activeness in formulating and evaluating alternative plans.

### 3. Job Satisfaction

Respondents indicated that they liked their work, felt good about it, and were not eager to change jobs. Only 1 percent hate their job or would quit it if they could get anything else to do while as much as 66 percent see themselves still with the Corps five years from now (7 percent would be retired) nearly 50 percent said they liked their job better than most people like theirs and just over three-quarters feel satisfied with their job at least half the time.

### 4. Participation in Planning Activities

Overall, the respondents indicated that they are "active" to "very active" in all planning activities including study management. The activity most often engaged in is "comparison of alternative plans." The distribution of responses to level of participation in planning activities is given on Table 5. In addition, analysis indicates a correlation between the planning activities and educational activities:

#### Planning Activity

Specification of the problems and opportunities associated with the objectives

Inventory, forecast, and analysis of conditions relevant to the identified problem and opportunities

Formulation of alternative plans

Evaluation of the effects of alternative plans

Comparison of alternative plans

#### Education Activity

Participation in water resource fellowship program

Participation in Planning Associates Program

Reading professional journals

Planning Activity

Selection of a recommended plan  
based upon comparison of  
alternative plans

Study management

Education Activity

Reading professional journals



Table 5

Level of Participation in Planning Activities

Activity	Level of Participation, % Response			
	Very Active	Active	Not Very Active	Inactive
Specification of the problems and opportunities associated with the objectives	28	44	20	8
Inventory, forecast, and analysis of conditions relevant to the identified problem and opportunities	27	46	21	6
Formulation of alternative plans	33	33	25	9
Evaluation of the effects of alternative plans	41	41	14	1
Comparison of alternative plans	46	37	13	4
Selection of a recommended plan based upon comparison of alternative plans	36	34	20	10
Study management	36	26	22	16

## 5. Participation in Training

The questionnaire listed 136 Huntsville sponsored training courses and asked respondents to indicate which they had taken over the last five years. It is important to note that changes occur in the training program each year. Thus, several of the 136 listed as having been of interest to planners over the last five years were added, deleted, or revised during that time and some have been deleted or revised since. However, this report keeps separate the responses relative to the 136. For example, course #56, "Intensive Management" is now entitled "Planning Program Management" (#81); even though the course is basically the same, the discussion treats the two as separate courses. For convenience, there is a tabulation at the very end of this report which lists the 136 courses including: the numeration used in the questionnaire, short titles, proponents, fiscal years surveyed, and comments as to major revisions. Appendix P, the Questionnaire, tabulates the evaluations of the 136 courses. Overall, the average number of FNTD courses taken by an employee during that time period is 1.9. The graph below displays the distribution of the average number taken within each division.

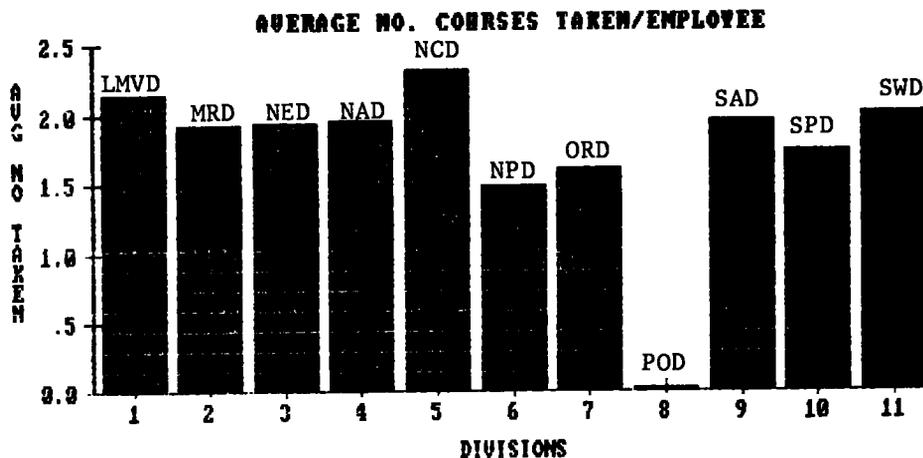


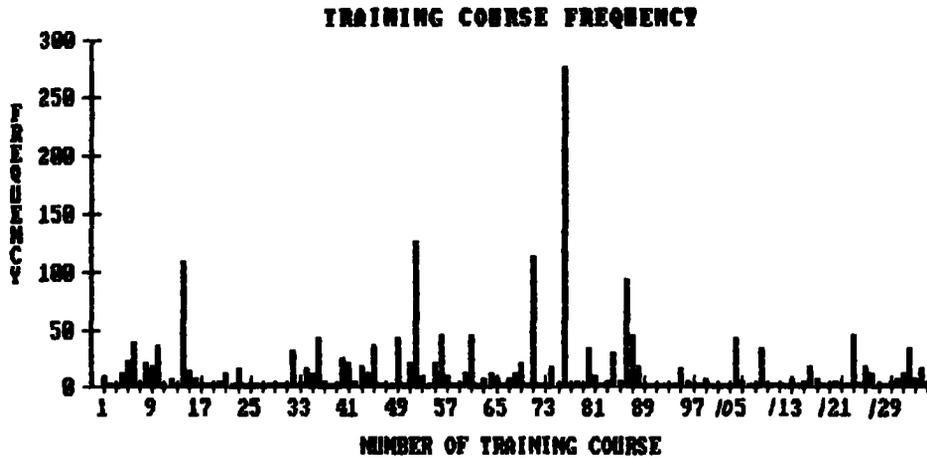
Table 6

The 20 Most Frequently Taken HMTD Courses  
 (Revisions and deletions not accounted for;  
 see tabulation at the end of this report)

<u>Course Title and Number*</u>	<u>Proponent</u>	<u>Number of Responses</u>
Planner Orientation (76)	CWP-W	278
Hydrologic Engineering for Planners (52)	CWE-H	126
Multi-Cbj Plan Study Mgmt (71)	CWP-P	112
Contract Negotiation (14)	MPC	108
Public Involvement, Basic (86)	CWP-P	124
Public Involvement, Advanced (87)	CWP-P	45
Water Supply and Conservation Planning (123)	CWP-S	44
Land Use Analysis (61)	CWP-P	44
Intensive Management (56)	CWP-W	44
Flood Plain Hydrology and Hydraulics (49)	CWP-F	43
Environmental Law and Regulation (36)	CCE	42
Social Impact Analysis (104)	CWP-P	42
Analytical Techniques for Formulation of Nonstructural Plans (6)	CWP-F	38
Civil Works Program Development (10)	CWE-C	37
Forecasting Techniques (45)	CWP-P	36
Planning Principles and Procedures (80)	CWP-P	35
Wetlands Science and Hydrology (135)	CWO-N	35
Spatial Data Management Techniques (108)	CWP-F	34
Environmental Data Contracts (32)	CWP-V	32
Problem Analysis and Decisionmaking for Managers (84)	PEC-T	30

\*Number used in the questionnaire.

The following graph shows the frequency with which individual courses have been taken (courses are identified by the number used in the questionnaire):



The twenty most popular HNTD courses, i.e., courses named as having been taken by at least 30 respondents, are listed on Table 6. Planner Orientation is, by far, the most frequently taken course.

Respondents have taken an average of 1.9 courses over the past five years that were not sponsored by the Huntsville Training Division (the same as the number taken within the Huntsville Program). Although 71 percent have taken up to five non-HNTD courses during that time, nearly 20 percent have not taken any course outside the HNTD.

Twelve percent have participated in the Planning Associates Program.

C. Questionnaire Responses: Perception of What a Planner Should Be

The questionnaire began with a list of 21 attributes represented as opposite pairs on a five-point scale. Respondents were asked to indicate where, on each attribute's scale, their concept of the "ideal planner" lay. Analysis shows that for most attributes, the ideal planner falls close to midway between the opposite pairs. For example, for the attribute of experience, advanced education and years of planning experience are about of equal importance. However, for some attributes a preference is indicated. Thus, the ideal planner:

<u>tends more to</u>	<u>than to</u>
be an innovator	follow tried and time proven planning methods
be a generalist	be a specialist
be a realist	be an idealist
do a good job	get the job done
seek general guidance	seek complete guidance

A few correlations with responses to other questions are also noted:

- doing a good job is correlated with preferring economic growth and having a national orientation.
- preferring economic growth is also correlated with formulating alternative plans.
- seeking to influence policy is correlated with establishing the need for additional Corps studies and participation in short-term training courses.

Respondents were also asked to judge how important they believe a series of 35 disciplines (e.g., biology) and skills (e.g., negotiation) are to Corps planning. All 35 are considered to be "important" to "very important". Those of greatest importance are: Planning, Economics, Engineering, Leadership, Writing Skills, and Decisionmaking. Those of relatively least importance are: Geography, Landscape Architecture, and Operations Research.

Finally, respondents were asked to review a list of 21 water resource planning subject areas and to indicate, for each, how critical the training is to becoming an effective planner. Four levels of criticality were given, Table 7 summarizes the results. None of the subject areas is rated as being not needed.

D. Questionnaire Responses: Perceptions of Corps Management, Career Success, and Planning

1. Corps Management

In general, respondents feel that the management of the Corps is competent and effective: 55 percent "agree" or "strongly agree" that this is so. However, this margin would indicate that planners in the field believe there is some room for improvement.

Table 7

Level of Importance of Subject Areas to  
Planner's Qualifications

<u>Level of Importance</u>	<u>Subject Area</u>
I. Vital: all planners should have training	Planning Process Planning Principles and Procedures Report Preparation
II. Important, provides a broad context for professionals	Public Involvement/Coordination Management Economic Principles Continuing Authorities Flood Damage Reduction Cost Allocations Institutional Analysis Water Supply/Conservation Fish and Wildlife Resources Flood Plain Management Services Planning Assistance to States Navigation Shore Protection Water Quality Recreation Other Social Effects
III. Needed for Specialists Only	Hydroelectric Power Historic Preservation
IV. Not Needed	----- none -----

When asked to give their opinion on one particular aspect of management, the ability to give a performance appraisal, respondents are less well pleased: overall, only 31 percent indicated that they agreed or strongly agreed that managers are sufficiently well trained to do this. By supervisory level, executives are the only group that clearly agree that managers know how to give a performance appraisal (67 percent). This compares with 42 percent of the middle managers, 37 percent of the first-line supervisors, and 28 percent of the non-supervisors.

## 2. Career Success

In considering an array of career choices for planners, the respondents ranked their top preferences as:

- 1st - to be Chief of Planning in a District
- 2nd - to be on CCE staff
- 3rd - to be a first-line supervisor

Whatever their career preference, the survey shows that planners believe the most important qualifications in attaining career objectives are:

- 1st - work experience
- 2nd - Corps training courses
- 3rd - willingness to relocate

When asked to consider four qualifications specific to being a successful study manager, respondents ranked them in order of importance as:

- 1st - Communication
- 2nd - Dedication
- 3rd - Evaluation
- 4th - Initiation

Respondents also ranked the order of importance of seven study manager activities as:

- 1st - planner of activities
- 2nd - organizer of tasks
- 3rd - educator of team members
- 4th - monitor of work progress
- 5th - motivator of people
- 6th - implementer of tasks on time
- 7th - realigner of study direction if necessary.

### 3. Corps Planning

The survey did include a few questions which indicate opinions on planning. For example, regarding current planning guidance, 54 percent agreed that it is sufficient while 34 percent believe it is not. Only 12 percent had no opinion.

Perceptions on the sufficiency of guidance varied by supervisory level as shown by the following (percent having no opinion is not included):

<u>Level</u>	<u>Agree or Strongly Agree</u>	<u>Disagree or Strongly Disagree</u>
Executive	86%	14%
Middle Manager	69%	24%
1st Line-Supervisor	36%	43%
Non-Supervisor	28%	50%

When asked about the relative importance of three study goals to Corps planning, respondents showed that they regard two as important: (a) initiate local action to solve problems and (b) future implementation of a Corps project. The third goal, to establish the need for additional Corps studies, is not considered to be very important. Among these three goals, the one regarding future implementation appears to be the most important: 35 percent judged it to be "very important" while only 20% put the other two goals at that importance level. However, since the questionnaire did not specify the implementation as to local or Federal level, it is not known how the field interpreted the goal. They could have construed implementation as being a mixed strategy or as technical assistance to the locals. Some may have recognized that planning involves a lot of problem solving work and not necessarily for projects that the Corps can implement.

### F. Questionnaire Response: Perceptions of Existing Training

#### 1. Administration

The survey results clearly show that there are some real administrative problems in providing training to those who need it when they need it. In general, procedures for arranging training are treated casually. The response which is perhaps the most indicative of this is that 60 percent do not know if their office has a system for prioritizing training among planning personnel. Another 19 percent reply that there is no priority system. This is consistent with the response that 56 percent disagree that training is a high priority item (in fact 17 percent "strongly disagree"). While most executives agree that training is a high priority item, non-supervisors generally disagree while both middle managers and first-line supervisors tend to disagree that this is true.

Other problems are indicated by these respondees:

- overall 46 percent "disagree" or "strongly disagree" with the statement that they are given reasons for why a request for training is rejected; executives get the best feedback, only 10 percent disagree with this statement as compared to 38 percent of non-supervisors and first-line supervisors.
- similarly, 57 percent disagree with the statement that their training officer actively assists personnel in identifying and planning appropriate training; by supervisory level, the percent who disagree are 29 percent of executives, 48 percent of middle managers and first-line supervisors, and 61 percent of non-supervisors.
- again, 68 percent disagree with the statement that persons in their office receive the training they need at the proper time. While executives agree that training is timely, middle managers tend to disagree, and both the first-line supervisors and the non-supervisors clearly disagree with the statement.

For all three statements, 20 to 25 percent of all responses responded that they had no opinion; this could perhaps be interpreted as apathy.

When training officers do provide assistance it typically takes the form of passive reaction to a request initiated by either the employee or the supervisor. Only 11 percent say they receive active assistance from the training officer.

With respect to notification for attendance, about one-fourth of the respondees said they were told between 1 and 4 weeks in advance that they would be going to their most recent course, another quarter were given 1 to 3 months notice. For some reason, 31 percent indicated that prior notification was not applicable to the last course they took.

On reasonableness of tuition, nearly 60% had no opinion. About one-third agreed that costs are reasonable when compared to other training courses on similar subjects.

## 2. Types of Training, Location, and Instructors

Respondents expressed no real preference for a particular type of Corps training course (i.e., 5-day PNTD, 1 to 3-day PNTD, or district/division courses), but did seem to lean more towards the 5-day courses sponsored by Hunstville. Further, when asked to select the kind of course which has been most helpful to their job performance, 41 percent identified the 5-day HNTD courses.

Similarly, respondents exhibited no distinct preference for type of format for a course although there is a slight edge favoring case studies and workshops over lectures. When asked to judge various instructional formats in

terms of enhancing understanding, respondents rated case studies, workshops, demonstrations, and problems-exercises, as being about equally effective. Between 70 and 73 percent rate each of these formats effective, but when lectures are considered, the number who judge them effective drops to 50 percent.

As for instructors, the survey indicated a fairly strong preference for Corps professionals who work with the subject. Professional instructors are also preferred. While academic and contractor instructors are the least preferred, there is no real dislike or indifference to any of the types of instructors.

Respondees are essentially indifferent to Washington, DC as a course location. They do prefer that courses be given at locations scattered throughout the U.S. They also indicate that they tend to dislike the Huntsville location.

Finally, there is no real preference for time of year, however slightly more prefer spring and fall; this is probably to avoid conflict with summer vacations and travel in winter.

### 3. Overall Effectiveness and Linkage with Job Satisfaction, Grade, and Performance

Respondents see no difference in the effectiveness of the Corps training system to recognize training needs and to meet training needs, but do not hold it in high regard. While about 20 percent have no opinion on the matter, about half either "disagree" or "strongly disagree" that the system is effective in either recognizing or meeting training needs. This opinion remains consistent within each supervisory level.

Nevertheless, 62 percent "agree" and 10 percent "strongly agree" that Corps training courses have generally improved their job performance. Also, when asked about three specific types of training programs in terms of their effectiveness in enhancing the Corps technical capability, about 60 percent indicated that both the Planning Associates program and the short-term training program are effective while about 50 percent believe University water resource fellowship programs to be effective. Stratification of responses by supervisory level indicates that each individual level believes the Planning Associates Program to be the most effective type of training for enhancing capability. It is interesting to compare response with the type of training that has been received. For example, 96 percent of those who have completed the Planning Associates Program believe it is effective in enhancing Corps capability as compared to 77 percent of all others. As for the University water resource fellowship program, 71 percent of those who have had a fellowship judge that program to be effective in increasing capability as compared to 92 percent of the PA graduates, and 70 percent of those who have only taken short courses.

The survey shows that higher graded personnel and personnel in supervisory positions have received more training than others. For receiving job promotions, the average respondent believes that short-term training courses

are "slightly important" and that participation in the Planning Associates Program is "important". In fact, nearly 30 percent rated the PA Program as being "very important" in getting promoted as compared to the less than 10 percent rating that short courses received at that importance level. Eleven percent rated University water resource fellowship programs as being "very important" to promotion. Those who have had long-term training are more inclined to believe it is important to being promoted. For example, 56 percent of those who have only taken short courses believe a fellowship is important as compared to 67 percent who have had a fellowship and 70 percent who have completed the PA Program. Eighty-two percent of former PA's believe that program is important to promotion as compared to 70 percent of all others.

Figure 2 compares the ratings that the three types of training programs received for effectiveness in increased technical capability and importance to promotion. Table 8 summarizes the field's judgement as to the significance of training, in general, to several job aspects: job performance and technical capability are most affected.

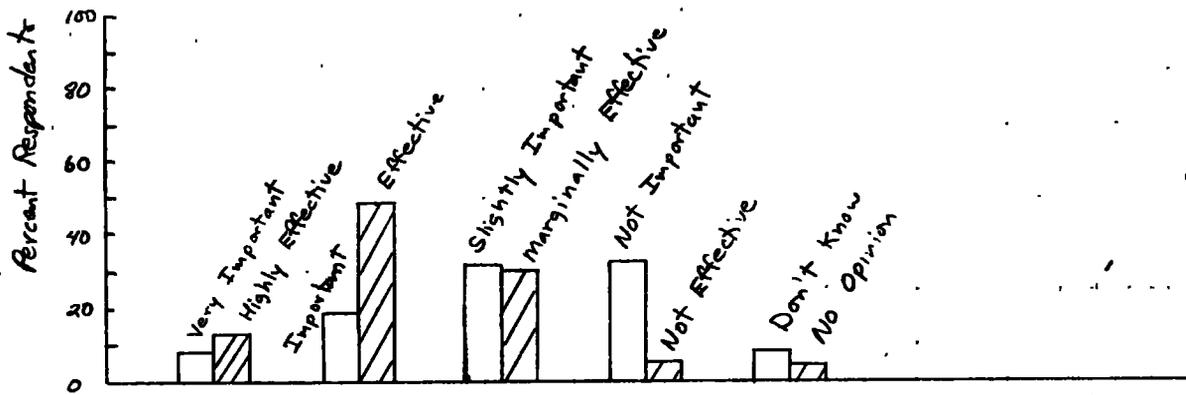
A comparison of job satisfaction with the amount of Corps training received indicates that there is no real difference between those that had received a lot of training and those that had received very little. This is true for all types of training, whether through the PROSPECT Program or not. As for actual utility of training to job performance, there is a considerable difference between those who have completed the PA Program and those who have not. Of those who were PA's, 90 percent said the PA program has been useful; of those who have not taken the PA Program 90 percent indicated that short courses (HNTD and district/division) have been the most useful).

Table 8

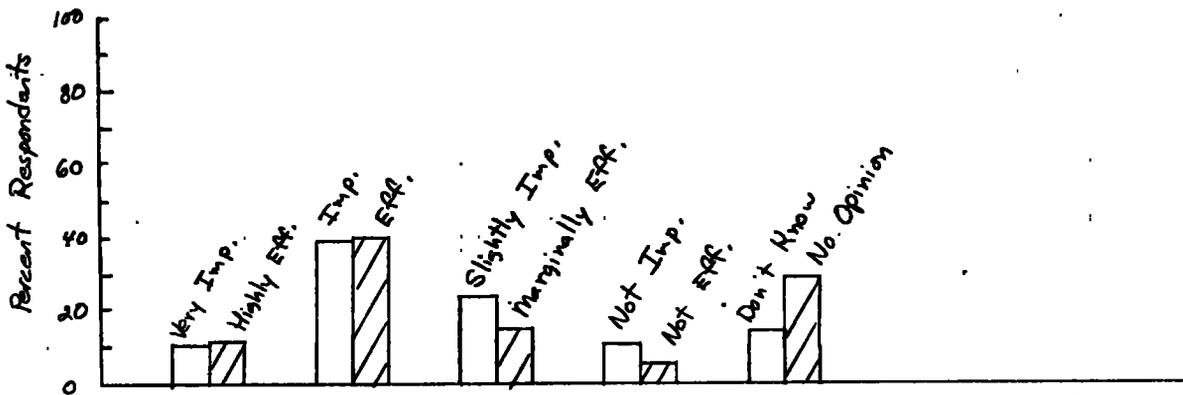
Significance of Training to Aspects of Job

Aspect	Level of Significance, % Response			
	Very Signif.	Signif.	Not Very Signif.	Insignif.
Enhanced promotion potential	7	20	44	29
Increased job satisfaction	10	45	31	14
Better job assignments	6	21	45	28
Improved job performance	13	52	28	7
Improved technical capability	15	50	27	8

a. Short-term Training (2 wks or less)



b. University Water Resources Fellowship Programs



c. Planning Associates Program

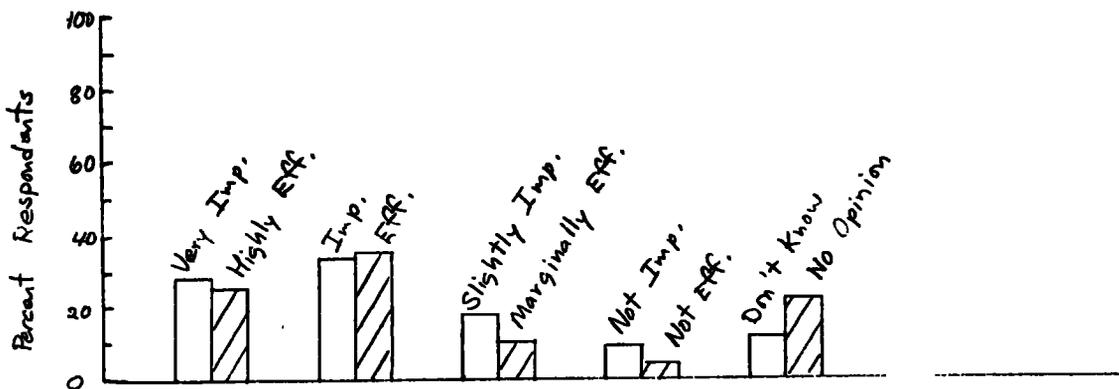


Figure 2. Impact of three types of training on (1) importance to receiving job promotions and (2) effectiveness in enhancing the Corps' technical capability.

When grade level is compared with training received and job satisfaction, no distinction could be made. Even when analyzed by district and division, no clear pattern emerges across grade levels between level of job satisfaction and amount of training received.

4. Evaluation of Specific Courses.

Not only were respondents asked to identify which Huntsville-sponsored courses they had taken during the last five years, but also to evaluate each in five ways as listed below. A tabulation summarizing the response to each course taken is given in Appendix P immediately following page 13 of the questionnaire.

- a. assign an overall "grade" for the value of the course to the job duties had at the time the course was taken
- b. assign an overall "grade" for the value of the course in preparation for the assumption of future job duties
- c. check those that had a direct influence on receiving increased responsibilities
- d. check those that enhanced promotion potential
- e. check those that improved capability as a water resource

The few courses that received an "A" for their value are, with one exception, based on the opinion of one respondent each. The exception is course #50, "Hydrologic Analysis of Floods", which, based on the response of four students received a high E for its value to at-the-time duties and a solid A for its value to future. Similarly, those courses whose grade changed significantly between times were largely those taken by one or two respondents. Because of the peculiarities of results based on few responses, this discussion focuses on courses reported by five or more respondees. Of courses taken by five or more, the breakdown of grade value is:

Grade	Number of Courses	
	Duties at the Time	Duties in the Future
A	0	0
E	23	14
C	45	53
D	4	6
F	1	0
TOTAL	73	73

Figure 3 displays the impact, across all courses taken, that students felt each course has had on increasing their job responsibilities, promotion potential, and planning capability.

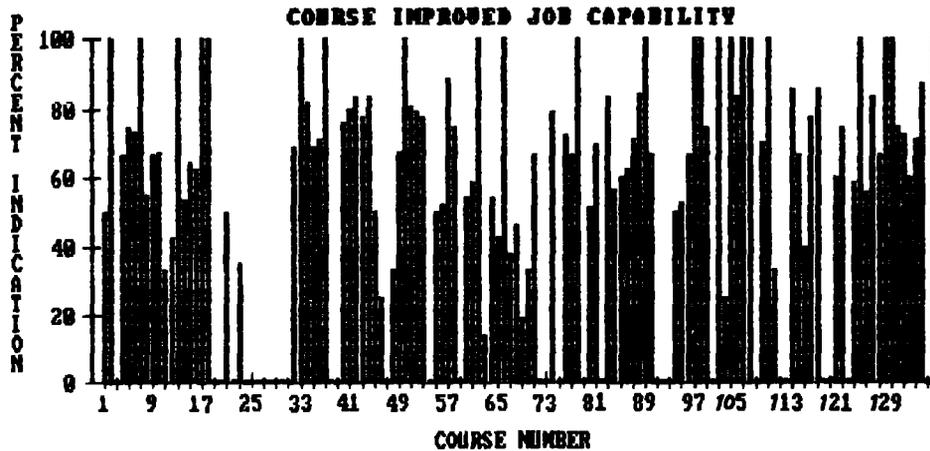
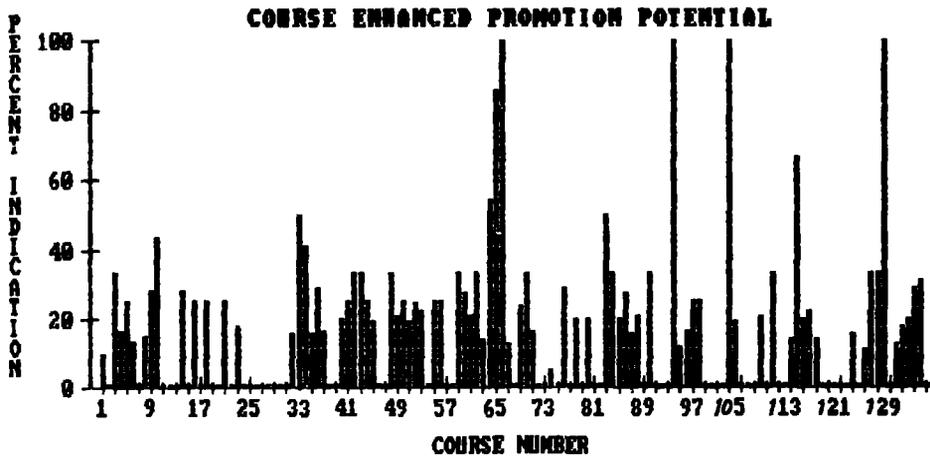
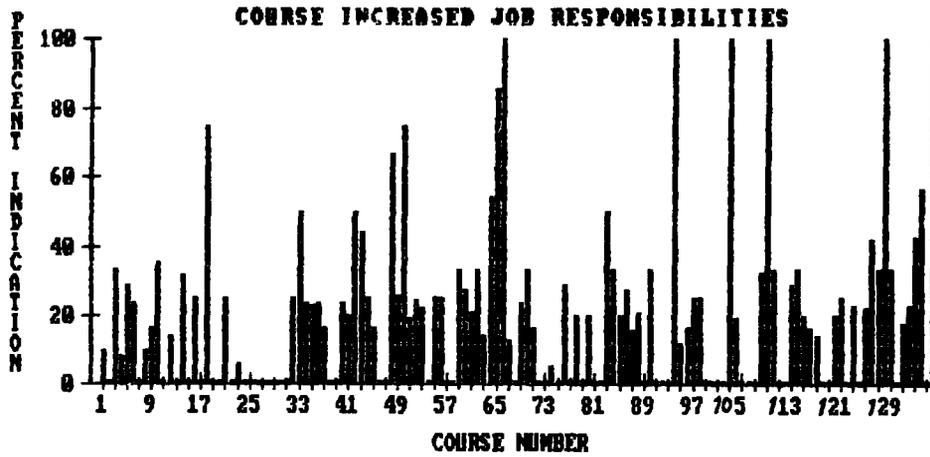


Figure 3. Influence of individual courses in increasing job responsibilities, enhancing promotion potential, and improving job capability. Influence is expressed as percent of "yes" response of course attendees.

It is of interest to note those courses that five or more respondents considered particularly useful or useless to them. Perhaps the courses of most value to the respondents are the twelve that maintained a "F" grade for duties at both time periods. These twelve courses are listed in Table 9; as indicated, four are also among the courses taken most frequently by the respondents. In general, participation in these courses has the greatest influence on improved capability. By type of positive influences, the courses that impacted the most students are:

increased responsibility -  
Wetlands Science II, Wetlands Specialist

enhanced promotion potential -  
Management Development, Seminar I

improved capability as a planner -  
Planning for Hydrologic Engineers

It is also interesting to note that of the courses that are most frequently taken (Table 6) and graded as being most worthwhile (Table 9) many are process oriented. This is indicative of the field need for courses that can not only demonstrate a process that is used in planning but also how that process may be integrated into the overall Planning Process.

According to this survey, one course was given an average grade of "F" by the five respondents who took it: Economic Analysis for Navigation. Although the students rated it as a "waste of time" for duties they had at the time, they did give it a "D" grade of value for future assignments. As shown on Table 10, this course had no positive impact on the students. The courses with the next least value to survey respondents are the three that received a "D" grade for both time periods. These three courses and their impact on the students are listed in Table 10. Again, the positive impact of these courses is most realized in increased capability.

Having respondents assign grades to the courses they took is one useful indication of the value or worth of a course, but of particular interest to this study are courses that participants believe actually improved their capability as a water resource planner. Courses that had a positive impact on 75 percent or more of the attendees are listed in Table 11. For many of these, the Planning Division is the proponent.

It is of interest to make a closer examination of how students feel affected by CWP courses. For this, current CWP courses (i.e., listed in the December 1981 catalog) taken by five or more respondees have been selected and their impact not only on planning capability, but also on increasing job responsibility is examined. Figure 4a shows the distribution of how students felt about this selected group of 25 CWP-sponsored courses and compares the influence of these courses to those not sponsored by CWP. Figure 4b identifies those 25 courses by name. The four CWP courses that have the most positive impact are:

Course and Number	Percent Yes, Responsibility	Percent Yes, Capability
Flood Plain Hydrology and Hydraulics (43)	44	78
Wetlands Classification (57)	33	89
Water Transportation Planning (126)	42	83
Wetlands Devel. and Restoration (129)	33	100

## 5. Needs Expressed

Responses from the field (via open-ended question) ran the gamut from disenchantment with the program to reasonable satisfaction. A surprising number took the time to write up their opinions on what could be done to improve at least some aspect of training. Among the more interesting and practical ideas are:

- a. Reduce costs through videotaping or satellite conferencing of some courses.
- b. Identify what competencies are required for the various planning jobs and establish what training or experience can be used to acquire competence and at what career phase it should be accomplished. This incorporates the idea of a core curriculum for the different disciplines.
- c. Investigate the possibility of co-sponsorship of courses with universities or other agencies.
- d. Revise training funding system to keep it separate from study funds and travel funds, this could be done either through central funding or funding at district or division levels.
- e. Take advantage of the opportunity training offers to prepare the Corps for the future and to maintain responsiveness in a fast-changing world.

The field also indicated some real needs:

- a. Improved system of course announcement to inform employees below the level of supervisor about courses that may be of use to them.
- b. Additional courses in environmental and economic areas; ADP; Federal agency coordination; interdisciplinary teamsmanship; and basic orientation on Corps legislation, funding, mission, and how planning fits in the organization.
- c. Improved process for course selection, with stricter adherence to prerequisites and greater employee interaction.

Table 9

Courses the Respondents Considered to be Most Worthwhile\*

Course and Number	Proponent	Direct Influences of Course, % Yes**			Number Responses
		Responsibilities	Potential	Capability	
+CW Program Development (10)	CWP	35	43	68	37
GE-Environ Projects (34)	CWP-V	24	41	82	17
+Fenviron Laws & Reg (36)	CCE	24	29	71	42
Flood Freq Anal (42)	CWE-HY	50	33	83	6
+Flood Plain Hydrology (43)	CWP-F	44	33	78	18
Mgmt Development I (64)	PEC-D	45	55	55	11
Plan/Hydrologic Engrs (78)	CWE-HY	40	20	100	5
Problem Analysis-Exec (83)	PEC-T	33	50	83	6
+Public Involvement, Adv (87)	CWP-P	24	16	71	45
Urban Hydrology (117)	CWE-H	14	14	86	7
Wetlands Sci II Specialists (13 <sup>u</sup> )	CWC-N	56	31	88	16
Wetlands Classification (57)	CWP-V	33	0	89	9

\* Courses that received at least a "F" grade of value to duties at the time the course was taken as well as a "I" or more grade of value in preparation for assumption of future duties.

\*\* Percent of students who indicated that the course had a direct influence on receiving increased responsibilities, enhanced promotion potential, and improved capability as a water resource planner.

+ Course that is also one of the most frequently taken (see Table 6).

Table 10

Courses the Respondents Considered to be the Least Worthwhile\*

Course and Number	Proponent	Direct Influences of Course, % Yes**			Number Responses
		Responsibilities	Potential	Capability	
Economic Analysis WRP (20)	CWP-S	0	0	0	5
Area-Wide Planning, (8)	CWE-E	10	15	55	20
Macro Econ Models-Nav (63)	CWP-S	14	14	14	7
Merit Pay System (69)	PEC-L	24	24	19	21

\* Courses that received no more than a "D" grade of value to duties at the time the course was taken as well as no more than a "D" grade of value in preparation for assumption of future duties.

\*\* Percent of students who indicated that the course had a direct influence on receiving increased responsibilities, enhanced promotion potential, and improved capability as a water resource planner.

NOTE: None of these courses are also among those most frequently taken (see Table 6).  
All of these courses have been dropped from PROSPECT because of bad reviews and low demand.  
Course number is per the questionnaire.

Table 11

Courses Having the Greatest Impact on  
Improving Capability as a Water Resource Planner

Course and Number	Proponent	Percent Yes Response	Number Responses
Environ. Projects (37)	CWP-V	100	6
Plan/Hydrologic Engrs. (78)	CWE-HY	100	5
Social Impact Anal-Exec.	CWP-P	100	5
Wetland Devel. and Rest. (129)	CWP-V	100	6
Wetlands Classification (57)	CWP-V	89	9
Wetlands Sci. II Specialist (134)	CWC-N	88	16
Urban Hydrology (117)	CWE-H	86	7
Transp. Costing & Anal. (113)	CWP-S	86	7
Public Involv., Exec. (88)	CWP-P	84	19
Problem Analysis Exec. (83)	PEC-T	83	6
Water Trans. Planning (126)	CWP-S	83	12
Flood Freq. Anal. (42)	CWE-HY	83	6
Flood Plain Management Plng. (44)	CWP-F	83	12
Social Impact Anal-Tech (104)	CWP-S	83	42
GE Environ. Projects (34)	CWP-V	82	17
Hydrol Aspects Hydropower (51)	CWE-HY	81	21
Flood Control Planning (41)	CWP-F	80	20
Hydrologic Eng./Planners (52)	CWE-HY	80	126
Nonstructural Plans (74)	CWP-F	79	19
Urban Environment (116)	CWP-V	78	18
Hydropower Planning (53)	CWE-HY	78	9
Flood Plain Hydrology (43)	CWP-F	77	18
Environmental Writing (40)	CWP-V	76	25
Aerial Photography Interp (5)	WRSC-C	75	24
RA-PM for Managers (100)	CWM-S	75	8
Wetlands - Ecology (120)	CWC-N	75	8

NOTE: Courses taken by 5 or more respondees.

**Improved Capability as a Water Resources Planner  
(Percent Yes Response)**

		0-25%	26-50%	51-75%	76-100%
Influence on Receiving Increased Responsibilities (Percent Yes Response)	76-100%	0/0	0/0	0/0	1/0
	51-75%	0/0	0/0	0/0	1/0
	26-50%	0/0	1/0	10/3	8/4
	0-25%	3/0	10/3	27/10	12/5

Total number of courses of interest to planners (including courses within the Planning Division)

Total number of courses currently offered within the Planning Division

Figure 4a. Influence of Huntsville-sponsored courses on planning capability and increased responsibility. Includes only those courses taken by five or more respondees, a total of 73 courses of which 25 are currently offered within the Planning Division.

Improved Capability as a Water Resources Planner  
(Percent Yes Response)

		0-25%	26-50%	51-75%	76-100%
Influence on Receiving Increased Responsibilities (Percent Yes Responses)	76-100%	0	0	0	0
	51-75%	0	0	0	0
	26-50%	0	0	<ul style="list-style-type: none"> <li>• Spatial Data Manag #108</li> <li>• Public Invol #86</li> <li>• Habitat Eval Proc. #49</li> </ul>	<ul style="list-style-type: none"> <li>• Flood Plain Hydrol #43</li> <li>• Water Trans Plng #126</li> <li>• Wetland Dev &amp; Rest #129</li> <li>• Wetlands Classif #57</li> </ul>
	0-25%	0	<ul style="list-style-type: none"> <li>• Forecasting Tech #45</li> <li>• Economic Anal WRP #21</li> <li>• Eco Survey Tech #23</li> </ul>	<ul style="list-style-type: none"> <li>• Env Impact Assess #35</li> <li>• Public Invol #87</li> <li>• Arch/Hist Contact #15</li> <li>• WS &amp; WC Planning #123</li> <li>• Plan Prog Mgmt #81</li> <li>• Planner Orient #76</li> <li>• Env Data Contracts #32</li> <li>• Pln-Princ &amp; Procd #80</li> <li>• Land Use Analysis #61</li> <li>• Nonstructural Plans #6</li> </ul>	<ul style="list-style-type: none"> <li>• Urban Environments #116</li> <li>• Social Impact, Exec #105</li> <li>• Public Inv Exec/Mgr #88</li> <li>• Social Impact Tech #104</li> <li>• Flood Plain Mgt Pln #44</li> </ul>

Figure 4b. Influence of identified individual courses currently offered within the Planning Division. Includes only those courses taken by five or more respondees, a total of 25 courses.

- d. Increased opportunity for cross-training and rotational assignments.

Finally, in response to a statement in the questionnaire, 38 percent said they "agreed" that there is a need for cross-training to prepare planners for wartime mobilization while 16 percent said they "strongly agreed"; 29 percent had no opinion.

F. Questionnaire Response: Perceptions of Impact of Possible Initiatives on Future Training

The third section of the questionnaire posed 18 initiatives that would require a change in Corps training policy. Respondents were asked to judge the impact of each initiative on mission accomplishment and job performance in planning divisions. A five-point impact scale, from "highly positive" to "highly negative" was provided. Initiatives dealt with a variety of program aspects such as requiring training in order to receive promotions, changes in the Planning Associates Program, career ladders, office quotas, financial support, etc. The responses are summarized in the following paragraphs. Numbers in parentheses indicate the mean response over all questionnaires on a scale of 1 to 5, 5 being "highly positive."

1. Requirement of Specific Training for Promotion

This overall idea was separated into five separate initiatives in order to determine if the impact would be different for technical positions, study managers, supervisors, and executives. The collective response shows that the field would anticipate little to no impact for the different types of jobs. However, for supervisory and executive positions, a slight positive impact might be expected (3.5 and 3.6).

2. Mandatory Quota System (3.4)

Respondents considered a mandatory quota system in which each field office would be required to send a specific number of employees to courses over a 3 to 5-year period on a planned schedule worked out with employees. This could be expected to have only a slight positive impact, if at all.

3. Career Ladder and Core Curriculum (3.6; 3.8)

Both a structured training program for career planners and a core curriculum for all planners would tend to have a positive impact.

4. Changes to the PA Program (2.7 to 3.3)

Changes in sponsor, time length, number of students and accreditation were posed by the survey. In the mean, respondents believe that no impact would be realized from shortening the Program, but that either conducting a shortened Program several times a year or increasing the number of students and having an attendee from each district would have some small positive effect. Similarly, restricting the Program to award an academic degree would tend to be positive. For each of the changes that the average respondent would

anticipate a slight positive impact, about one-third believed that the result would be highly positive. When asked to consider the impact of the Program's having a sponsor other than EFRH, 15 percent replied that it would be highly negative, another 15 percent indicate it would tend to be negative, while 60 percent have no opinion.

Judgements of respondents who have completed the PA Program are particularly pertinent; in general, they are opposed to any of the initiatives regarding the Program. A summary of the general opinions of the PA's with comparison to non-PA's is given below:

Initiative	Judgement of Impact	
	PA's	Non-PA's
Having a sponsor other than PFRH	Negative	None/Negative
Shorten the Program	Mixed/Negative	Positive
Shorten the program and conduct several times per year	Negative/None	Highly Positive
Require each District to send a student to each session	Highly Negative	Highly Positive
Restructure to award degree	Mixed	Slightly Positive

#### 5. Long-Term Training

Two initiatives were offered, one to give more emphasis (3.3) to long-term training and one to de-emphasize it (2.5). Results show that de-emphasis would be a bad idea: 30 percent believe that would be highly negative. Those who have taken long-term training are particularly opposed to de-emphasizing it.

Overall, respondents see that emphasizing long-term training would have a slight positive impact and again, those who have participated in long-term training, particularly the PA Program come out in favor of more emphasis.

#### 6. Local Training (3.4)

Eighteen percent think that encouraging district/division sponsored short courses rather than HNTD courses would have a highly positive impact. Another 30 percent believe the effect would be positive to some degree.

#### 7. Credit for Training Courses (3.8)

In response to the concept of establishing continuing education credits (CEUs) for Corps training courses, one-fourth anticipate a highly positive impact.

8. Financial Support for Graduate Courses (4.?)

By this initiative, there would be official Corps financial support and approval employee job-related evening graduate degree programs. Respondents are definitely in favor of this, nearly 50 percent see a highly positive impact.

9. Regional Training Courses (4.0)

Respondents are also in favor of having training course presented regionally to reduce high transportation costs. Nearly 40 percent indicated the effect would be highly positive.

Summary of Judgements on Initiatives

For most initiatives, the field foresees no impact or else a slight positive one. Only one is regarded as having negative effects, i.e. de-emphasis of long-term training programs. The concepts that the field considers to have the most potential are:

- 1st - financial support and approval of employees taking job-related graduate degree programs
- 2nd - offering training courses regionally
- 3rd & 4th (tie) -
  - a core curriculum of water resource planning courses
  - CEUs for Corps training courses

Table 12

Tabulation of Courses Listed in the Questionnaire

Course Number*	Short Title	Proponent	Fiscal Years Surveyed	Comment
1	Environ Tech Info System	ZCE	83 82	
2	Adv Digital Image Process	WRSC-C	82 81	Dropped, same as 94
3	Adv Network Management	MPC-E	83 82	New Title-Network Mgmt for Executives
4	Advanced HEC-2	CWE-HY	82 80	
5	Aerial Photography Interp	WRSC-C	83 82 81	Same as 58 which has the new title
6	Nonstructural Plans	CWP-F	83 81	Same as 74
7	Water Qual & Ecol Models	CWE-H	83 82 81	Drop in FY 84
8	Area Wide Planning	CWE-B	83 82 81 80 79	Dropped, same as 68
9	CE Public Awareness	PAL-B	81	Same as new title 85
10	CW Program Development	CWB	83 82	
11	Coastal Flood Prediction	CWE-H	83 82 81	Dropped
12	Executive ADP	RMI-S	83	
13	Computer Application/Engr	CWE-B	83 82 81	
14	Contract Negotiation	MPC	81	
15	Arch/Hist Contracting	CWP-V	83 82	Dropped
16	Costing & Analysis - Transp	CWP-S	83 81 79	
17	Cost Analysis WWT (CAPDET)	CWE-B	81	
18	Dam Break Analysis	CWE-HW	81 80	
19	Selective W-D Structures	CWE-H	83 81	
20	Economic Analysis Nav	IWR	82 81	
21	Economic Analysis WRP	CWP-S	83 82	
22	Economic Anal Energy Sys	MPE-D	83 82 81	Dropped
23	Eco Survey Tech	CWP-V	83 82 81 80	
24	Energy Auditing	--	81	Dropped
25	Energy Conservation Build	ZCF-U	82 81	

\*Number per Questionnaire.

(continued)

(Table 12, Continued)

Course Number*	Short Title	Proponent	Fiscal Years Surveyed	Comment
26	Energy Conservation Princ	ZCF-U	83 82 81	
27	Energy Management	MPO-V	82 81	Dropped
28	Energy Monitor & Cont Sys	ECE-E	81	
29	ES-Environ Appls Climatol	CWZ-P	81	
30	ES-Environ Appls Meteor	CWZ-P	81	
31	Appls-Geology and Hydro	CWE-H	83 82 81	
32	Environ Data Contracts	CWP-V	83 82 81 80 79	
33	Environmental Engineering	CWE-B	83	Formerly: Sanitary Engr
34	GB-Environ Projects	CWP-V	82 81	Same as new title 35
35	Environ Impact Assessment	CWP-V	83	Formerly 34
36	Environ Laws & Reg	CCE	83 82 81 80	
37	Environ Projects	CWP-V	80	Same as 34, 35
38	Environ Aesthetic Quality	CWP-V	83	Now: Aesthetic Res IA&E
39	Cultural Envir-Anal/Eval	CWP-V	83	
40	Environmental Writing	CWP-V	81	Same as 79
41	Flood Control Planning	CWP-F	81 79	Same as 44 (latest title)
42	Flood Freq Anal	CWE-HY	81 79	
43	Flood Plain Hydrology	CWP-F	82 79	
44	Flood Plain Mgmt Plng	CWP-F	83 82	Formerly 41
45	Forecasting Techniques	CWP-S	83 82 81 80 79	
46	Fund Environ Science	CWP-V	83 82 81	
47	Fund Solar Energy	MPC-E	81	New title: Solar Passive Design
48	Ground Water Hydrology	CWE-HW	82 80 79	
49	Habitat Evaluation Pro	CWP-V	83 82	
50	Hydrologic Analysis Flood	CWE-HY	83 82 81	
51	Hydro Aspects Hydropower	CWE-HY	83 82 81	
52	Hydrologic Engr/Planners	CWE-HY	83 82 81 80 79	
53	Hydropower Planning	CWE-HY	83 82	
54	Inspection of Facilities	S-OFF	83 82 81	
55	Instructional Methods	HNSTD	83 82 81 80	
56	Intensive Management	CWP-A	82 81 80 79	Same as 81, which is new title

\*Number per Questionnaire.

(continued)

(Table 12, Continued)

Course Number*	Short Title	Proponent	Fiscal Years Surveyed	Comment
57	Wetlands Classification	CWP-V	82	
58	Interdisc Imagery Anal	WRSC-C	83	Same as 5
59	Intro Constr Contract Mgt	MPC-E	83 82 81	
60	Intro to Wetlands	CWO-N	83 82	Former Title: Wetlands Sco and Technology. See 132
61	Land Use Analysis	CWO-S	83 82 81 80 79	
62	Life Cycle Cost Analysis	RMV	83 82 81	Dropped
63	Macro Econ Models - Nav	CWP-S	82 81 80 79	Dropped
64	Mgmt Development I	PEC-D	83	
65	Mgmt Development II	PEC-D	83	
66	Mgmt Development III	PEC-D	83	
67	Manage the E&S Workforce	PEC-T	83 82	
68	Water Supply Technical (MAPS)	CWE-B	83 82 81	Dropped; formerly 8
69	Merit Pay System	PEC-L	83	Dropped
70	Monitoring Techniques	CWE-B	81	
71	Multi-Obj Plan Study Mgmt	CWP-G	83 82 81 80 79	Same as 80, which is new title
72	Nav Lock Perf Mon Sys	CWP-S	83 82 81	Dropped
73	Neg Bargain & Confl Mgmt	CWP-V	83	
74	Nonstructural Plans	CWP-F	80	Same as 6
75	Photogrammetry - Mgr	CWE-BU	83 82	
76	Planner Orientation	CWP	83 82 81 80 79	
77	Land Treatment Systems	CWE-B	82 81	Dropped
78	Plan/Hydrologic Engrs	CWE-HY	83 82 81	
79	Environmental Writing	CWP-V	83 82	Same as 40
80	Pln - Princ - Procd	CWP-G	83	Formerly 71
81	Plan Prog Mgmt	CWP-A	83	Same as 56
82	Pollution Problems	CWP-V	83 82 81	
83	Problem Analysis - Exec	PEC-T	83 82 81 80	Drop in FY 84
84	Problem Analysis - Manager	PEC-T	83 82 81 80	Drop in FY 84
85	Pub Aware/Conflict Resol	PAL-B	83 82	Formerly 9
86	Public Involve Basic	CWP-A	83 82 81 80 79	
87	Public Involve Advanced	CWP-A	83 82 81 80 79	

A41

\*Number per Questionnaire.

(continued)

(Table 12, Continued)

Course Number*	Short Title	Proponent	Fiscal Years Surveyed	Comment
88	Public Involve Exec/Mgr	CWP-A	83 82 81 80 79	
89	Public Involve Regulatory	CWO-N	83 82 81	
90	Rainfall Runoff Anal			79
91	Regional Develop Accounts	CWP-S	83 82	
92	Regulatory Function/Basic	CWO-N		81
93	Reg Function/Comp & Enf	CWO-N	83 82 81	Dropped New title: Regulatory Compliance and Enforcement
94	Adv Digital Image Process	WRSC-C	83 82	Dropped; Same as 2
95	Remote Sensing - Fundament	WRSC-C	83 82 81	
96	Remote Sensing - Manager	WRSC-C	83 82 81 80 79	
97	Remote Sensing - Technical	CWM-R		81 80 79
98	Reservoir System Anal	CWE-HW	83	81 80
99	RA-PM			81
100	RA-PM for Managers	CWM-S	83 82	Replaced by 100 Formerly 99
101	Advanced RA/PM Sys W/S	CWB-S	83 82	
102	RA-PM Training	CWM-S	83 82	
103	Ship Navig Channel Design	CWE-H	83	80
104	Social Impact Anal-Tech	CWP-S	83 82 81 80 79	New title: Applied Social Analysis Techniques
105	Social Impact Anal-Tech, Exec	CWP-S	83 82 81 80 79	Dropped
106	Solar Energy Sys Design	ECE-E		82 81
107	Solar/Therman Power Sys			81
108	Spatial Data Mgmt Techq	CWP-F	83	81 80
109	Stat Methods Hydro	CWE-HY		82
110	Streambank Protection	CWE-HW	83	
111	Systematic Drill & Blast	CWE-S	83	Dropped
112	Water Supply Technical (MAPS)	CWE-B	83	Dropped, same as 8 and 68
113	Transp Costing & Analysis	CWP-S		82 81
114	Transportation Modeling	CWP-S		82 80 79
115	Transportation Plan Data	CWP-S	83	81 80 79
116	Urban Environment	CWP-V	83 82 81 80 79	Same as 127
117	Urban Hydrology	CWE-H		82 81

\*Number per Questionnaire.

(continued)

(Table 12, Concluded)

Course Number*	Short Title	Proponent	Fiscal Years Surveyed	Comment
118	US Waterborne Foreign Trade	CWP-S	80 79	Dropped, same as 128
119	Waste Heat Utilization		81	Dropped
120	Water Qual - Water Control	CWE-HW	83 82 81 80 79	Dropped
121	Water Quality Modeling	CWE-HW	80	
122	Water Resource Plan/DEs		79	
123	Water Supply/Conserv Plng	CWP-S	83 82 81 80 79	
124	Water Supply Hydrology	CWE-HY	83 82 81 80 79	
125	Basic HEC-2	CWE-HY	83 81	
126	Water Trans Planning	CWP-S	82 81	
127	Transportation Plan Data	CWP-S	83	Same as 115
128	Waterborne Foreign Trade	CWP-S	80 79	Dropped, same as 118
129	Wetlands Dev & Restora	CWP-V	83 82	
130	Wetlands Ecology	CWO-N	81 80	Dropped
131	Wetlands Executive	CWO-N	83 82 81	
132	Wetlands Sci & Tech	CWO-N	81 80 79	Same as 60
133	Wetland Sci I Field Tech	CWO-N	83 82 79	
134	Wetland Sci II Specialist	CWO-N	83 82 81 80	
135	Wetland Sci III Soils/Hydro	CWO-N	83 82	
136	Wetlands Survey	CWO-N	81	Dropped

NOTE: Courses were selected for inclusion in the questionnaire by reviewing course listing for FY 79-83 and noting those identified in the prerequisites (section a., Corps Stratification) as being for planning.

**APPENDIX B:**  
**PLANNERS' TRAINING NEEDS ASSESSMENT QUESTIONNAIRE**  
**AND SUMMARY OF RESPONSE**



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers  
WASHINGTON, D.C. 20314

REPLY TO  
ATTENTION OF:

21 JUL 1982

DAEN-CWP-W

SUBJECT: Planners' Training Needs Assessment Questionnaire

U.S. Army Corps of Engineers Water Resources Planners

1. The U.S. Army Corps of Engineers has a strong commitment to the principle that competent, well trained personnel are needed to carry out our mission. This commitment is emphasized in the Director of Civil Works Planning Improvement Program, which includes the Planners' Training Needs Assessment as a major action for 1982.
2. At the request of the Chief of Planning Division, OCE, the Institute for Water Resources is conducting a study of Corps planners' training needs. The study objectives are to review existing training opportunities, determine what kind of training is needed, and make recommendations to provide a high quality training program for Corps planners. I am taking a great personal interest in this study and fully support the work necessary to complete it.
3. As a part of the study, I am requesting all Corps planners to provide information about technical planning capabilities, the existing training program, future training needs, and background information, via the inclosed questionnaire. The information is a vital part of the study and your cooperation in completing the questionnaire is essential. I urge you to give the questionnaire your full attention and thoughtful and accurate answers.
4. Please return the completed questionnaire in the inclosed envelope to the Institute for Water Resources by 13 August 1982.

FOR THE COMMANDER:

1 Incl  
#5

FORREST L. GAY, III  
Brigadier General, USA  
Acting Director of Civil Works

**TRAINING NEEDS QUESTIONNAIRE**

## INSTRUCTIONS

The attached questionnaire seeks your candid opinions and feelings on the strong and weak areas of the training program; problems affecting the maintenance of the training program; and opportunities for improving this program for planners. Most of the questions are "closed-ended" and require only a few moments to answer. Pretest have indicated that you should spend about one hour in completing the questionnaire. There are no right or wrong answers. Please answer the questions carefully and honestly, but do not spend too much time on any one question. It will be helpful to have reviewed the Corps training courses you have taken over the past 4 years prior to completing the section on past training. Please return the completed questionnaire in the inclosed self-addressed postage paid envelope no later than 13 August 1982.

## I. General Opinions About Planning

Most of us hold images of the "competent" or "ideal" characteristics of a water resources planner. With a picture of the "ideal" planner in mind, please go through the following scales of attributes and indicate your preference. (An "X" in position 1 indicates strong preference of the left side attribute compared to that attribute on the right. An "X" in position 5 indicates the opposite. Position 2 and 4 indicate weighted trade-offs. Position 3 indicates equal importance is attached to both attributes.

### A Competent Planner:

	(6-17)	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>		<u>M</u>
I-1	has many years of planning experience	10 [ ]	50 [ ]	34 [ ]	5 [ ]	1 [ ]	has many years of advanced education	2.4
I-2	follows the chain of command	5 [ ]	23 [ ]	40 [ ]	29 [ ]	3 [ ]	is highly independent	3.0
I-3	is an innovator	17 [ ]	51 [ ]	25 [ ]	6 [ ]	1 [ ]	follows tried and time proven planning methods	2.2
I-4	is a generalist (has some knowledge of many disciplines)	33 [ ]	42 [ ]	18 [ ]	6 [ ]	1 [ ]	is a specialist (has high knowledge of one planning discipline)	2.0
I-5	is a realist	21 [ ]	41 [ ]	32 [ ]	5 [ ]	1 [ ]	is an idealist	2.2
I-6	is pro-preservation	2 [ ]	12 [ ]	74 [ ]	11 [ ]	1 [ ]	is pro-development	3.0
I-7	advocates a plan (argues in favor of specific action)	11 [ ]	39 [ ]	19 [ ]	20 [ ]	11 [ ]	present plans (no preference for any action)	2.8
I-8	works carefully within the agency's policies & regulations	4 [ ]	21 [ ]	27 [ ]	40 [ ]	8 [ ]	seeks opportunities to promote a broader range of beneficial effects	3.3
I-9	believes quantifiable criteria are more important	7 [ ]	37 [ ]	50 [ ]	5 [ ]	1 [ ]	believes non-quantifiable criteria are more important	2.6
I-10	accepts agencies policies and regulations	6 [ ]	24 [ ]	38 [ ]	27 [ ]	5 [ ]	questions agencies policies and regulations	3.0
I-11	seeks out dissenting opinion	20 [ ]	43 [ ]	31 [ ]	5 [ ]	1 [ ]	avoids controversy	2.3
I-12	does a good job	34 [ ]	26 [ ]	31 [ ]	7 [ ]	2 [ ]	gets the job done	2.2

		(18-26)						<u>M</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>		
I-13	is concerned about long-range planning	10 [ ]	26 [ ]	43 [ ]	17 [ ]	4 [ ]	is concerned about implementation	2.8
I-14	is concerned about the agency mission	3 [ ]	11 [ ]	43 [ ]	31 [ ]	12 [ ]	is concerned about public service	3.4
I-15	is concerned about existing conditions	2 [ ]	18 [ ]	55 [ ]	22 [ ]	3 [ ]	is concerned about distant future conditions	3.0
I-16	prefers economic growth	2 [ ]	17 [ ]	65 [ ]	13 [ ]	3 [ ]	prefers social well being	3.0
I-17	prefers environmental enhancement	3 [ ]	14 [ ]	64 [ ]	18 [ ]	1 [ ]	prefers economic growth	3.0
I-18	prefers social well being	2 [ ]	16 [ ]	71 [ ]	10 [ ]	1 [ ]	prefers environmental enhancement	2.9
I-19	has a strictly national orientation	2 [ ]	21 [ ]	55 [ ]	21 [ ]	1 [ ]	has a strictly local orientation	3.0
I-20	seeks general guidance	30 [ ]	45 [ ]	17 [ ]	6 [ ]	2 [ ]	seeks complete guidance	2.0
I-21	seeks to influence policy	14 [ ]	51 [ ]	24 [ ]	10 [ ]	1 [ ]	accepts policy	2.4

In your work within a Corps office how active are you in the following planning actions? (Please check one box per line.)

		(27-30)				
		<u>Very Active</u> 4	<u>Active</u> 3	<u>Not Very Active</u> 2	<u>Inactive</u> 1	
I-22	Specification of the problems and opportunities associated with the objectives	28 [ ]	44 [ ]	20 [ ]	8 [ ]	2.9
I-23	Inventory, forecast, and analysis of conditions relevant to the identified problem and opportunities	27 [ ]	46 [ ]	21 [ ]	6 [ ]	2.9
I-24	Formulation of alternative plans	33 [ ]	33 [ ]	25 [ ]	9 [ ]	2.9
I-25	Evaluation of the effects of alternative plans	41 [ ]	41 [ ]	14 [ ]	1 [ ]	3.2

(31-41)	Very Active 4	Active 3	Not Very Active 2	Inactive 1	<u>M</u>
I-26 Comparison of alternative plans	46 [ ]	37 [ ]	13 [ ]	4 [ ]	3.2
I-27 Selection of a recommended plan based upon comparison of alternative plans	36 [ ]	34 [ ]	20 [ ]	10 [ ]	3.0
I-28 Study management	36 [ ]	26 [ ]	22 [ ]	16 [ ]	2.8

Based on your experience how important are each of the following study goals to Corps planning. (Check one box per line.)

	Very Important 4	Important 3	Not Very Important 2	Not Important 1	
I-29 Initiate local action to solve problems. (Negative Report)	18 [ ]	53 [ ]	23 [ ]	6 [ ]	2.8
I-30 Future implementation of a Corps project	35 [ ]	54 [ ]	10 [ ]	1 [ ]	3.2
I-31 Establish the need for additional Corps studies	21 [ ]	50 [ ]	25 [ ]	4 [ ]	2.9
I-32 Other(s) (Specify) _____	[ ]	[ ]	[ ]	[ ]	
I-33 _____	[ ]	[ ]	[ ]	[ ]	

In your opinion, how important are the following to receiving job promotions? (Check one box per line.)

	Very Important 4	Important 3	Slightly Important 2	Not Important 1	Don't Know 9	
I-34* short-term training (training courses of two weeks or less)	7 [ ]	18 [ ]	33 [ ]	34 [ ]	8 [ ]	2.0
I-35* University water resource fellowship programs	11 [ ]	39 [ ]	24 [ ]	12 [ ]	14 [ ]	2.6
I-36* Planning Associates Program	28 [ ]	34 [ ]	17 [ ]	9 [ ]	12 [ ]	3.0

\* Break down of responses to questions I-34, I-35, and I-36 by Supervisory level is on page 3a.  
Break down of response to questions I-35 and I-36 by training experience is on page 3b.

Break Down of Responses to Question I-34, I-35, and I-36 by Supervisory Level:

	<u>Very</u> <u>Important</u>	<u>Important</u>	<u>Slightly</u> <u>Important</u>	<u>Not</u> <u>Important</u>
<b>(I-34) How important is short-term training to receiving job promotions?</b>				
<b>Executives</b>	0	21	47	32
<b>Middle Managers</b>	11	24	30	35
<b>1st Line Supers</b>	7	20	36	38
<b>Non-Supers</b>	8	19	37	37
<b>(I-35) How important is the Univ. water resource fellowship program to promotion?</b>				
<b>Executives</b>	0	58	37	5
<b>Middle Managers</b>	9	53	30	8
<b>1st Line Supers</b>	8	48	31	12
<b>Non-Supers</b>	15	44	26	15
<b>(I-36) How important is the PA Program to receiving job promotion?</b>				
<b>Executives</b>	21	58	16	5
<b>Middle Managers</b>	33	44	16	7
<b>1st Line Supers</b>	22	43	26	10
<b>Non-Supers</b>	35	37	18	9

Break Down for Response to Question I-35 by Training Experience of Respondee:

(I-35) How important is the Univ. water resource fellowship to promotion?

<u>Experience</u>	<u>Very</u> <u>Important</u>	<u>Important</u>	<u>Slightly</u> <u>Important</u>	<u>Not</u> <u>Important</u>
Took Short Courses	13	43	29	14
Took PA	22	48	25	5
Took CW Fellowship	5	63	28	5

Break Down of Response to Question I-36 by Those Who Have Completed the PA Program and those Who Have Not.

(I-36) How important is the PA Program to receiving promotion?

PA' Graduates	38	44	10	8
All Others	31	39	20	10

In your experience, how often do you use the following techniques?

(42-63)	Very Often 4	Sometimes 3	Rarely 2	Never 1	M
I-37 Mathematical Modeling	13 [ ]	33 [ ]	30 [ ]	24 [ ]	2.3
I-38 Computer Aided Planning	18 [ ]	37 [ ]	25 [ ]	20 [ ]	2.5
I-39 Flow Charting of Jobs	32 [ ]	34 [ ]	19 [ ]	15 [ ]	2.8
I-40 Video Conferencing	1 [ ]	5 [ ]	19 [ ]	75 [ ]	1.3
I-41 Computer Conferencing	1 [ ]	3 [ ]	18 [ ]	78 [ ]	1.3
I-42 Inertial Surveying	1 [ ]	7 [ ]	17 [ ]	75 [ ]	1.3
I-43 At-Desk Micro Computers	7 [ ]	19 [ ]	18 [ ]	56 [ ]	1.8
I-44 Interactive Graphics	4 [ ]	19 [ ]	23 [ ]	54 [ ]	1.7
I-45 Computerized Drafting	2 [ ]	14 [ ]	18 [ ]	66 [ ]	1.5
I-46 Management Information Systems	12 [ ]	31 [ ]	24 [ ]	33 [ ]	2.2
I-47 Landsat and/or other Satellite Data	4 [ ]	29 [ ]	29 [ ]	38 [ ]	2.0
I-48 Computerized Network Analysis	10 [ ]	22 [ ]	21 [ ]	47 [ ]	2.0

Of the following qualifications, please rank the three you consider most important in reaching your career objectives. (1 = 1st importance; 2 = 2nd importance; 3 = 3rd importance)

	Your Rank (1 to 3)
I-49 Professional development activities	_____
I-50 Academic background	_____
I-51 Work experience	<u>1</u>
I-52 Corps training courses	<u>2</u>
I-53 Individual personality characteristics	_____
I-54 Willingness to relocate	<u>3</u>
I-55 Preference for specific type of work	_____
I-56 Visibility of projects to which assigned	_____
I-57 Field of specialization	_____
I-58 Other (specify) _____	_____

Of the following Corps planning roles, please rank your top three career preferences. (1 = 1st preference; 2 = 2nd preference; 3 = 3rd preference)

(64-72)

I-59	Technical specialist	_____
I-60	Planning generalist	_____
I-61	Study manager	_____
I-62	1st line supervisor	<u>3</u>
I-63	Chief of Planning in District	<u>1</u>
I-64	Division staff	_____
I-65	OCE staff	<u>2</u>
I-66	Planning research	_____
I-67	BERH staff	_____

Please rank the following factors in their order of importance to performing as a Study Manager (e.g., place 1 in the most important factor, 2 second in importance, etc.)

(2/6-16)

Your Rank (1 to 7)

I-68	Planner of Activities	<u>1</u>
I-69	Organizer of Tasks	<u>2</u>
I-70	Implementer of Tasks on Time	<u>6</u>
I-71	Motivator of People	<u>5</u>
I-72	Monitor of Work Progress	<u>4</u>
I-73	Educator of Team Members	<u>3</u>
I-74	Realigner of Study Direction if necessary	<u>7</u>

Please rank the following factors in the order of importance as keys to being a successful study manager

Your Rank (1 to 4)

I-75	Communication	<u>1</u>
I-76	Initiation	<u>4</u>
I-77	Evaluation	<u>3</u>
I-78	Dedication	<u>2</u>

Based on your experience how do you feel about the following statements?  
 (Check one box per line.)

(17-21)	<u>Strongly</u> <u>Agree</u> 5	<u>Agree</u> 4	<u>No</u> <u>Opinion</u> 3	<u>Disagree</u> 2	<u>Strongly</u> <u>Disagree</u> 1	<u>M</u>
I-79 Overall, the management of the Corps is competent and effective	5 [ ]	50 [ ]	9 [ ]	28 [ ]	8 [ ]	3.2
I-80 In my opinion, Corps managers are sufficiently trained in how to give a performance appraisal	1 [ ]	30 [ ]	21 [ ]	39 [ ]	9 [ ]	3.0
I-80 In my opinion, Corps managers are sufficiently trained in how to give a performance appraisal	Break down by supervisory level on p. 6a.					
I-81 Corps Training courses have generally improved my job performance	10 [ ]	62 [ ]	11 [ ]	13 [ ]	4 [ ]	3.6
I-82 The goal of all new Corps planning employees should be to become a study manager	6 [ ]	18 [ ]	15 [ ]	44 [ ]	17 [ ]	2.5
I-83 Which of the following best describes where you see yourself in 5 years? (Please check only the most appropriate box.)						
Retired	7 [ ] 1					
In private industry	12 [ ] 2					
Consulting practice	3 [ ] 3					
With another Federal agency	8 [ ] 4					
With a state, local or other public agency	2 [ ] 5					
With the Corps	66 [ ] 6					
I haven't thought about it and cannot answer	2 [ ] 9					

Break Down of Responses to Question I-80 by Supervisory level:

(I-80) In my opinion Corps managers are sufficiently trained in how to give a performance appraisal.

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>No</u> <u>Opinion</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
Executive	5	62	0	29	5
Middle Manager	2	39	17	37	5
1st Line Super	3	35	15	40	8
Non-Super	2	26	23	40	10

(22-25)

I-84 Check the ONE of the following which best tells how you feel about changing your job:

- I would quit this job at once if I could get anything else to do. 1 [ ] 1
- I would take almost any other job in which I could earn as much as I am earning now. 5 [ ] 2
- I would like to change both my job and my occupation. 8 [ ] 3
- I would like to exchange my present job for another job in the same career field. 21 [ ] 4
- I am not eager to change my job, but I would do so if I could get a better job. 56 [ ] 5
- I cannot think of any jobs for which I would exchange. 7 [ ] 6
- I would not exchange my job for any other. 2 [ ] 7

I-85 How many times in the past year have you suggested to your supervisor a different or better way of doing something on the job?

- Never 3 [ ] 1
- Once or twice 20 [ ] 2
- About three times 21 [ ] 3 3.9
- About five times 18 [ ] 4
- Six to ten times 15 [ ] 5
- More than ten times 23 [ ] 6

I-86 Choose ONE of the following statements which best tells how well you like your job.

- I hate it. 1 [ ] 1
- I dislike it. 4 [ ] 2
- I don't like it. 6 [ ] 3
- I am indifferent to it. 12 [ ] 4 4.9
- I like it. 49 [ ] 5
- I am enthusiastic about it. 24 [ ] 6
- I love it. 4 [ ] 7

I-87 Check one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job.

- All the time. 2 [ ] 1
- Most of the time. 35 [ ] 2
- A good deal of the time. 24 [ ] 3
- About half of the time. 18 [ ] 4 3.2
- Occasionally. 15 [ ] 5
- Seldom. 5 [ ] 6
- Never. > 1 [ ] 7

(26-31)

I-88 Check ONE of the following to show how you think you compare with other people.

M

- No one likes his job better than I like mine. 1 [ ] 1
- I like my job much better than most people like theirs. 17 [ ] 2
- I like my job better than most people like theirs. 49 [ ] 3
- I like my job about as well as most people dislike theirs. 24 [ ] 4
- I dislike my job more than most people dislike theirs. 7 [ ] 5
- I dislike my job much more than most people dislike theirs. 1 [ ] 6
- No one dislikes his job more than I dislike mine. > 1 [ ] 7

3.2

I-89 How many professional journals do you read regularly?

- None 13 [ ] 0
- 1 or 2 48 [ ] 1
- 3 or 4 27 [ ] 2
- 5 or 6 8 [ ] 3
- 7 or more 4 [ ] 4

1.4

I-90 Among your peers, do you have a reputation for initiating improvements, developing new ideas or methods, or in other ways pushing for innovations?

- Not really 8 [ ] 0
- To a small extent 15 [ ] 1
- Somewhat, but not especially 29 [ ] 2
- Yes, definitely 39 [ ] 3
- I don't know 9 [ ] 4

2.3

I-91 Please name 1 to 5 major innovations that have occurred in your technical specialty field(s) in the last 5 years. For example: Computer graphics

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Open-ended question summarized on next 4 pages, (Pages 8a - 8d).

0 hrs.	1-8 hrs.	9-40 hrs.	>40 hrs.
1	2	3	4

M

I-92 About how many hours outside regular work hours during the last year did you spend reading technical/professional literature in your field?

- |     |     |     |     |
|-----|-----|-----|-----|
| 8   | 28  | 33  | 31  |
| [ ] | [ ] | [ ] | [ ] |

2.9

I-93 About how many hours during the last year did you spend attending technical or professional meetings?

- |     |     |     |     |
|-----|-----|-----|-----|
| 22  | 30  | 34  | 14  |
| [ ] | [ ] | [ ] | [ ] |

2.4

Response to Question to Name  
Major Innovations that Have Occurred  
in Technical Specialty Fields in the Last Five Years  
(Question I-91, page 8)

Named More Than 100 Times

Computer graphics  
Computerized modeling analysis

Named Between 50 and 100 Times

Computerized data bases  
Numbers crunching B/C and general, by computer and by hand  
Remote sensing/air photo

Named Between 25 and 50 Times

Analytic techniques  
Calculators - computer hardware  
Computer-aided planning  
computer usage, general  
Desk top terminals  
Environmental analysis EA/EIS  
Environmental information systems  
Landsat  
Mini/micro computer  
Word processing

Named Between 10 and 25 Times

Computerized drafting  
Construction methods/techniques  
CPM computerized  
Data base management systems  
Economics  
Evaluation methods  
Habitat Evaluation Procedure (HEP)  
Management/general  
Mathematical/statistical techniques  
Planning policy guidelines, P&S  
Spatial analysis  
Survey mapping

Named Between 2 and 10 Times

Aerial photography computer handling  
Archaeological methods  
Biometrics  
Computer-aided design  
Computer-aided management  
Computer flowchart  
Computer impact use  
Computer mapping  
Computer network analysis  
Computer simulation  
Computerized literature searches

Computerized mailing lists  
Contract work  
Cost analysis  
Cultural resource analysis  
Data bank, msc.  
Data collection  
Discounting  
Dredging techniques  
Energy planning  
Energy saving technology  
EPA water quality criteria  
Enka Mat Mulch & App  
Environmental enhancement practice  
Environmental laws  
Finance methods  
Forecasting techniques  
Geomorphological analysis  
Graphics  
Habitat Evaluation System (HES)  
Habitat quantification technique  
HEC  
Innovative means of public involvement  
Interdisciplinary study teams  
Laboratory analysis capability  
Management by network  
Management information systems  
Microfilm/microfiche  
Modeling  
Multispectral imagery  
Nonstructural  
Office changes, planning branch in planning division  
Office equipment  
Photographic techniques, equipment  
Proton magnetometry  
Quality circles  
RAPM  
Recreation analysis  
Recreational methodologies  
Regulation Reform Action Program (RRAP)  
Regulation programs  
Report format  
Reverse osmosis  
Satellite data  
Satellite photography, imagery  
Sedimentation analysis  
Soil bioengineering  
Social well-being analysis  
Spatial data management, analysis methodology  
Systems analysis  
Three-D bathymetric, profile by computer  
Up-front financing  
Video

Video conferring  
Visual aid development  
Visual resources inventory/evaluation analysis

Named Once

Aerial videotape photography  
Aerial survey  
Airborne laser mapper  
All-inclusive reports  
Alpha record dating  
Behavioral design  
Bioassay  
Biometrics  
Biotelemetry  
Breakwater model analysis  
Characterization studies  
Classification techniques  
Community involvement  
Computer analysis of habitats  
Computer discounting  
Computer image processing  
computer lithic edgeware analysis  
computer memory  
Computer reporting  
Computer research  
Computer sampling design  
Computer survey data  
Cooperative agreement with states  
Cooperative program with university  
Corps technical assistance  
Cost sharing  
Critical flow network  
CPM  
CRM planning  
Digital habitat analysis  
Design and construction for special populations  
Electronic survey procedures  
Electronic typesetting  
Empirical float damage curves  
Energy generation sources  
EROS data center  
Experimental design  
Experimental replication  
GC-MS  
Groundwater  
Hydropower capacity benefits  
Inertial processing  
Information areas  
Information availability  
Inundation preservation  
Instream flow assessment  
Landscape graphics

Laser hydrography  
Laser surveying  
Lithic use  
Microwave surveying  
Mitigation studies  
Multiscreen production  
New scheduling requirements  
New strain of grass  
Personnel training manuals  
Presentations  
Pest control  
Project II  
Public information brochures  
Public participation  
Radio telemetry  
RATS  
Real time data retrieval  
Regional comparative analysis  
Solar ponds  
Sophisticated sampling and positioning of equipment  
Specialization  
Standard form letters  
Study management/accounting procedures  
Study management by computer  
Study teams  
Survey equipment  
Telecommunications  
Telemetry  
Thermal census  
Time and money  
Transfer funding  
Volume calculation system  
Volunteer groups for O&M  
Wave hindcasting

## II. Existing Training Program

Based on your experience how do you feel about the following statements?  
(Please check one box per line.)

I have the requisite skills to effectively

(32-45)	Strongly Agree		No Opinion	Strongly Disagree		<u>M</u>
	5	4	3	2	1	
II-1 plan activities	39 [ ]	55 [ ]	3 [ ]	3 [ ]	0 [ ]	4.3
II-2 organize tasks	39 [ ]	57 [ ]	2 [ ]	2 [ ]	0 [ ]	4.3
II-3 implement action	31 [ ]	57 [ ]	8 [ ]	4 [ ]	>1 [ ]	4.1
II-4 motivate people	25 [ ]	50 [ ]	16 [ ]	7 [ ]	1 [ ]	3.9
II-5 monitor progress	32 [ ]	62 [ ]	4 [ ]	3 [ ]	>1 [ ]	4.2
II-6 educate team members	23 [ ]	52 [ ]	16 [ ]	8 [ ]	1 [ ]	3.9
II-7 redirect study efforts	26 [ ]	51 [ ]	15 [ ]	7 [ ]	1 [ ]	3.9
II-8 communicate	38 [ ]	56 [ ]	4 [ ]	2 [ ]	>1 [ ]	4.3
II-9 initiate actions	33 [ ]	54 [ ]	9 [ ]	4 [ ]	>1 [ ]	4.2
II-10 evaluate progress	32 [ ]	59 [ ]	6 [ ]	3 [ ]	>1 [ ]	4.2

	Strongly Agree		No Opinion	Strongly Disagree		
	5	4	3	2	1	
II-11 Current Corps guidance is sufficient for planning	6 [ ]	48 [ ]	12 [ ]	29 [ ]	5 [ ]	3.2
II-12 The Corps training system is effective in meeting training needs	2 [ ]	33 [ ]	17 [ ]	39 [ ]	9 [ ]	2.8
II-13 The Corps training system is effective in recognizing training needs	2 [ ]	29 [ ]	21 [ ]	39 [ ]	11 [ ]	2.7
II-14 There is a need for cross-training to prepare planners for wartime mobilization	16 [ ]	38 [ ]	29 [ ]	10 [ ]	7 [ ]	3.5

Break down of responses to Questions II-11 through II-20 by Supervisory Level are on pages 10a through 10g.

(46-54)	<u>Strongly Agree</u> 5	<u>Agree</u> 4	<u>No Opinion</u> 3	<u>Disagree</u> 2	<u>Strongly Disagree</u> 1	<u>M</u>
II-15 I feel I have the right skills for likely mobilization assignments I could receive	8 [ ]	33 [ ]	30 [ ]	23 [ ]	6 [ ]	3.1
II-16 Training is a high-priority item in my district (division)	4 [ ]	24 [ ]	18 [ ]	39 [ ]	17 [ ]	2.6
II-17 Tuition for Corps training courses sponsored and coordinated by the Huntsville Training Division is reasonable when compared to other training courses on similar subjects:	3 [ ]	27 [ ]	58 [ ]	9 [ ]	4 [ ]	3.2
II-18 I am provided feedback concerning reasons why a request for training is rejected	2 [ ]	38 [ ]	24 [ ]	24 [ ]	12 [ ]	3.0
II-19 The training officer in my district (division) actively assists personnel in identifying and planning appropriate training	2 [ ]	17 [ ]	23 [ ]	35 [ ]	22 [ ]	2.4
II-20 In my district (division) those who need training receive that training at the proper time	1 [ ]	11 [ ]	20 [ ]	43 [ ]	25 [ ]	2.2

Break down of responses to Questions II-11 through II-20 by Supervisory level are on pages 10a through 10g.

In your opinion, how effective are the following Corps training programs in enhancing the Corps' technical capability? (i.e. the Corps' ability to plan solutions and to implement projects.)

	<u>Highly Effective</u> 4	<u>Effective</u> 3	<u>Marginally Effective</u> 2	<u>Not Effective</u> 1	<u>No Opinion</u> 9	
II-21 Short-term training (two weeks or less)	12 [ ]	48 [ ]	30 [ ]	5 [ ]	5 [ ]	2.7
II-22 University water resources fellowship programs	12 [ ]	40 [ ]	15 [ ]	6 [ ]	27 [ ]	2.8
II-23 Planning Associates Program	26 [ ]	35 [ ]	12 [ ]	4 [ ]	23 [ ]	3.1

Break Down of Responses to Questions II-11 through II-22 by Supervisory Level:

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>No</u> <u>Opinion</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
<b>(II-11) Current Corps guidance is sufficient for planning.</b>					
Executive	24	62	0	10	5
Middle Manager	9	60	8	22	2
1st Line Super	7	50	7	34	1
Non-Super	4	46	14	30	6

**(II-12) The Corps training system is effective in meeting training needs.**

Executive	5	48	19	29	0
Middle Manager	3	45	15	35	3
1st Line Super	3	45	14	32	7
Non-Super	1	29	19	41	10

Strongly                      No                      Strongly  
Agree                      Agree                      Opinion                      Disagree                      Disagree

(II-13) The Corps training system is effective in recognizing training needs

Executive	0	33	10	58	0
Middle Manager	4	31	15	45	5
1st Line Super	3	33	21	36	6
Non-Super	1	27	22	37	13

(II-14) There is a need for cross-training to prepare planners for wartime mobilization.

Executive	38	57	5	0	0
Middle Manager	25	46	21	8	1
1st Line Super	20	41	24	10	6
Non-Super	14	36	33	10	8

	<u>Strongly Agree</u>	<u>Agree</u>	<u>No Opinion</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
--	-----------------------	--------------	-------------------	-----------------	--------------------------

(II-15) I feel I have the right skills for likely mobilization assignments I could receive.

Executive	24	43	19	14	0
Middle Manager	15	42	27	14	2
1st Line Super	9	41	26	22	3
Non-Super	7	29	32	26	7

(II-16) Training is a high-priority item in my district (division).

Executive	24	48	19	10	0
Middle Manager	6	31	24	34	6
1st Line Super	5	30	14	38	14
Non-Super	3	21	18	41	18

(II-17) Tuition Costs for Corps training courses, HMTD, is reasonable when compared to other training courses on similar subjects.

Executive	0	58	24	19	0
Middle Manager	1	31	51	10	8
1st Line Super	4	36	47	10	3
Non-Super	3	23	63	8	4

	<u>Strongly Agree</u>	<u>Agree</u>	<u>No Opinion</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
--	-----------------------	--------------	-------------------	-----------------	--------------------------

(II-18) I am provided feedback concerning reasons why a request for training is rejected

Executive	10	50	30	5	5
Middle Manager	3	53	19	20	5
1st Line Super	3	45	15	26	12
Non-Super	2	34	26	26	13

(II-19) The training officer in my district (division) actively assists personnel in identifying and planning appropriate training.

Executive	0	52	19	19	10
Middle Manager	6	25	21	33	15
1st Line Super	5	26	21	34	16
Non-Super	1	13	25	36	25

(II-20) In my district (division) those who need training receive that training at the proper time.

	<u>Strongly Agree</u>	<u>Agree</u>	<u>No Opinion</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
Executive	5	67	19	10	0
Middle Manager	0	25	22	38	15
1st Line Super	2	14	16	51	18
Non-Super	1	7	20	43	29

(II-21) How effective is short-term training in enhancing the Corps technical capability.

	<u>Highly Effective</u>	<u>Effective</u>	<u>Marginally Effective</u>	<u>Not Effective</u>
Executive	24	38	24	14
Middle Manager	14	48	35	4
1st Line Super	15	55	25	5
Non-Super	11	52	33	4

(II-22) How effective is the fellowship program in enhancing Corps technical capability.

	<u>Highly Effective</u>	<u>Effective</u>	<u>Marginally Effective</u>	<u>Not Effective</u>
Executive	5	62	29	5
Middle Manager	10	59	26	5
1st Line Super	16	48	27	9
Non-Super	19	55	18	8

Break Down of Response to Question I-22 by Training Experience of Respondee:

(II-22) How effective is the fellowship program in enhancing Corps technical capability?

<u>Experience</u>	Highly		Marginally	Not
	<u>Effective</u>	<u>Effective</u>	<u>Effective</u>	<u>Effective</u>
Took Short courses	14	55	23	8
Took PA	46	46	3	5
Took CW Fellowship	15	56	25	4

Break Down of Response to Question II-23 by Those Who Have Completed the PA Program and Those Who Have Not:

(II-23) How effective is the PA Program in enhancing the Corpss technical capability?

	Highly		Marginally	Not
	<u>Effective</u>	<u>Effective</u>	<u>Effective</u>	<u>Effective</u>
PA Graduate	62	34	3	3
All Others	30	48	18	5

How significant has Corps sponsored training been to you in the following activities?

(55-64)	<u>Very Significant</u> 4	<u>Significant</u> 3	<u>Not Very Significant</u> 2	<u>Insignificant</u> 1	<u>M</u>
II-24 Enhanced promotion potential	7 [ ]	20 [ ]	44 [ ]	29 [ ]	2.1
II-25 Increased job satisfaction	10 [ ]	45 [ ]	31 [ ]	14 [ ]	2.5
II-26 Better job assignments	6 [ ]	21 [ ]	45 [ ]	28 [ ]	2.1
II-27 Improved job performance	13 [ ]	52 [ ]	28 [ ]	7 [ ]	2.7
II-28 Improved technical capability	15 [ ]	50 [ ]	27 [ ]	8 [ ]	2.7

In your opinion how effective are the following instructional formats in enhancing your understanding of training materials presented at Corps training courses?

	<u>Highly Effective</u> 4	<u>Effective</u> 3	<u>Marginally Effective</u> 2	<u>Not Effective</u> 1	<u>No Opinion</u> 9	
II-29 Case Studies	22 [ ]	51 [ ]	16 [ ]	4 [ ]	7 [ ]	3.6
II-30 Workshops	18 [ ]	54 [ ]	17 [ ]	3 [ ]	8 [ ]	2.9
II-31 Lectures	5 [ ]	44 [ ]	38 [ ]	7 [ ]	6 [ ]	2.5
II-32 Demonstrations	17 [ ]	56 [ ]	14 [ ]	2 [ ]	11 [ ]	3.0
II-33 Problems-Exercises	21 [ ]	49 [ ]	18 [ ]	5 [ ]	7 [ ]	2.9

Appendix A contains a number list of courses given by Huntsville during FY 79-82. Open the fold-out and please do the following:

First: Go through the list and identify those courses you have taken during from the last five years. In Column 1 write down the identification number for each course in the spaces provided below (questions II-34 thru II-53).

Next: In Column 2 for those courses you have taken, provide an overall "grade" for the value of the course to the job duties you had at the time you took the course. Use the scale (below) to assign the grade.

Scale

- A = Outstanding. Course had extremely positive impact.
- B = Good. Course had high positive impact.
- C = Average. Course had some positive impact
- D = Poor. Course had low positive impact
- F = Waste of Time. Course had no positive impact.

In Column 3: Using the same scale assign a "grade" for the value of the course in preparing you to assume future job assignments.

In Column 4: Place a check beside those courses which you feel had a direct influence on your receiving increased responsibilities.

In Column 5: Place a check beside those courses which you feel enhanced your promotion potential.

In Column 6: Place a check beside those courses which you feel improved your capability as a water resource planner.

Example: The example below shows an individual who has taken two training courses. The individual has give "B" grades to course 004 on both present and future value to job. For course 006, the individual has assigned grades of C for the value of the course for duties he had at the time he took the course, an A for future job duties. The individual also felt this course had a direct influence on receiving increased responsibilities, and therefore checked column 4.

	<u>Col 1</u>	<u>Col 2</u>	<u>Col 3</u>	<u>Col 4</u>	<u>Col 5</u>	<u>Col 6</u>
1.	<u>4</u>	<u>B</u>	<u>B</u>	<u>    </u>	<u>    </u>	<u>    </u>
2.	<u>6</u>	<u>C</u>	<u>A</u>	<u>X</u>	<u>    </u>	<u>    </u>

<u>Col. 1</u>	<u>Col. 2</u>	<u>Col. 3</u>	<u>Col. 4</u>	<u>Col. 5</u>	<u>Col. 6</u>
Course Identification Number	Grade value to present job	Grade value for future	Check if Increased job responsibilities	Check if Enhanced promotion potential	Check if Improved capability
II-34 _____	_____	_____	_____	_____	_____ (3/6-13)
II-35 _____	_____	_____	_____	_____	_____
II-36 _____	_____	_____	_____	_____	_____
II-37 _____	_____	_____	_____	_____	_____
II-38 _____	_____	_____	_____	_____	_____
II-39 _____	_____	_____	_____	_____	_____
II-40 _____	_____	_____	_____	_____	_____
II-41 _____	Responses for each of 136				_____
II-42 _____	courses are given on				_____
II-43 _____	pages 13a, 13b, and 13c.				_____ (4/6-13)
II-44 _____	_____	_____	_____	_____	_____
II-45 _____	_____	_____	_____	_____	_____
II-46 _____	_____	_____	_____	_____	_____
II-47 _____	_____	_____	_____	_____	_____
II-48 _____	_____	_____	_____	_____	_____
II-49 _____	_____	_____	_____	_____	_____
II-50 _____	_____	_____	_____	_____	_____
II-51 _____	_____	_____	_____	_____	_____
II-52 _____	_____	_____	_____	_____	_____ (5/6-13)
II-53 _____	_____	_____	_____	_____	_____ (14-21)

Respondees Evaluation of HNTD Courses FY 79-83

(Col 1) No.	Short Title	(Col 2) (Col 3) Grade of Value		(Col 4) (Col 5) (Col 6) Percent Yes Response			No. Resp
		Present Duties	Future Duties	Unassess. Resp.	Promotion Potential	Planner Capability	
1	Environ Tech Info System	C-	C	10	10	50	10
2*	Adv Digital Image Process	D	B	0	0	100	1
3	Adv Network Management	D+	C	33	33	0	3
4	Advanced HEC-2	C+	C+	8	17	67	12
5	Aerial Photography Interpret	C	C+	29	25	75	24
6	Nonstructural Plans	C	C	24	13	74	38
7	Water Qual + Ecol Models	B	D	0	0	100	1
8*	Area Wide Planning	D+	D+	10	15	55	20
9	CE Public Awareness	C+	C+	17	28	67	18
10	CW Program Development	B	B-	35	43	68	37
11*	Coastal Flood Prediction	D+	C-	0	0	33	3
12	Executive ADP	C-	C	14	0	43	7
13	Computer Application / Engr	C	B	0	0	100	1
14	Contract Negotiation	C	C+	31	28	54	108
15*	Arch / Hist Contracting	C	C	0	0	64	14
16	Coating + Analysis - Transp	C+	C+	25	25	63	8
17	Cost Analysis WWT (CAPDET)	B-	D	0	0	100	2
18	Dam Break Analysis	B+	C+	75	25	100	4
19	Selective W-D Structures	-	-	-	-	-	0
20	Economic Analysis Nav	F+	D-	0	0	0	5
21	Economic Analysis WRP	C	C	25	25	50	12
22*	Economic Anal Energy Sys	D	C	0	0	0	1
23	Eco Survey Tech	C-	C-	6	18	35	17
24*	Energy Auditing	D	B	0	0	0	1
25	Energy Conservation Build	-	-	-	-	-	0
26	Energy Conservation Prime	-	-	-	-	-	0
27*	Energy Management	-	-	-	-	-	0
28	Energy Monitor + Cont Sys	-	-	-	-	-	0
29	ES - Environ Applo Climatol	-	-	-	-	-	0
30	ES - Environ Applo Meteor	-	-	-	-	-	0
31	Applo - Geology and Hydro	D	D	0	0	0	1
32	Environ Data Contracts	C	C-	25	16	69	32
33	Environmental Engineering	B-	B-	50	50	100	2
34	GB - Environ Projects	B-	B-	24	41	82	17
35	Environ Impact Assessment	B-	C+	23	15	69	13
36	Environ Laws + Regs	B-	B-	24	29	71	42
37	Environ Projects	B-	C+	17	17	100	6
38	Environ Aesthetic Quality	-	-	-	-	-	0
39	Cultural Envir - Anal/Eval	-	-	-	-	-	0
40	Environmental Writing	C+	C	24	20	76	25
41	Flood Control Planning	C+	C	20	25	80	20
42	Flood Freq Anal	B-	B-	50	33	83	6
43	Flood Plain Hydrology	B	B-	44	33	78	18
44	Flood Plain Mgmt Plan	B-	C+	25	25	83	12
45	Forecasting Techniques	C	C	17	19	50	36
46	Fund Environ Science	C-	C-	0	0	25	4
47	Fund Solar Energy	B	D	0	0	0	1

No.	Short Title	Grade of Value		Percent Increased Resp	Percent Upgr Response		No Resp.
		Present Rating	Future Rating		Permitted	Planner Capability	
48	Ground Water Hydrology	D-	D	67	33	33	3
49	Wetland Evaluation	C	C	26	21	67	43
50	Hydrologic Analysis	B	A-	75	25	100	4
51	Hydro Projects Hydropower	B-	C+	33	19	81	21
52	Hydrologic Engr./Planner	B-	C+	15	25	79	126
53	Hydropower Planning	B-	C-	78	22	78	9
54	Integration of Facilities	-	-	-	-	-	0
55	Construction Methods	C	C+	5	25	50	20
56	Antenna Management	C+	C+	16	25	52	44
57	Wetland Classification	B-	B-	33	0	89	9
58	Underdrain Unmgt	B-	C	0	0	75	4
59	Underdrain Entree Mgt	D-	B-	33	33	0	3
60	Underdrain Entree Mgt	C+	C+	27	27	55	11
61	Land Use Analysis	C-	C-	11	20	59	44
62*	Life Cycle Cost Analysis	B-	B-	0	33	100	3
63*	Macro Econ Models - Mar	D+	D-	14	14	14	7
64	Mgmt Development - I	D-	B	45	55	55	11
65	Mgmt Development - II	C+	B-	43	86	43	7
66	Mgmt Development - III	A	A	0	100	100	1
67	Managing the E+S Workforce	C-	C-	13	13	38	8
68*	Water Supply Technical (MA95)	C-	C-	23	0	46	13
69*	Wrest Pay System	D+	D+	24	24	19	21
70	Maintaining Technology	D-	D	33	33	33	3
71	Multi-Obj Plan Study Mgt	C+	C	21	16	67	112
72*	Nav. dock Pay Man Sys	D	C	0	0	0	1
73	Neg Bargain - Craft Mgt	A	A	0	0	0	1
74	Nonstructural Resour	B-	C+	21	5	79	19
75	Photogrammetry - Mgr	-	-	-	-	-	0
76	Planner Orientation	C+	C+	25	29	72	27
77*	Land Treatment Systems	D+	D-	0	0	67	3
78	Plan/Hydrologic Engr	B+	B	40	20	100	5
79	Environmental Writing	B	C	0	0	0	1
80	Pln - Prime + Parcel	C	C+	14	20	51	35
81	Plan Prog Mgt	C+	C+	0	0	70	10
82	Pollution Problems	C-	D-	0	0	0	3
83	Problem Analysis - Etc	B	B-	33	50	83	6
84	Problem Analysis - Manager	C+	C+	17	33	57	30
85	Pub Aware/Conflict Resol	C-	C-	0	20	60	5
86	Public Involvement Basic	B-	C+	27	28	63	94
87	Public Involvement Advanced	B-	B-	24	16	71	45
88	Public Involvement Etc/Mgr	C+	C+	5	21	84	19
89	Public Involvement Regulatory	B-	C-	0	0	100	2
90	Rainfall Runoff Anal	B-	C+	33	33	67	3
91	Regional Develop Accounts	-	-	-	-	-	0
92*	Regulatory Function/Issue	D-	D-	0	0	0	2
93	Reg Function/Comp + Engr	D-	B-	-	-	-	0
94*	Adv Digital Change Process	D	B-	50	100	50	2

(Col 1)

(Col 2)

(Col 3)

(Col 4)

(Col 5)

(Col 6)

No.	Short Title	Grade of Value		Percent Yes Response			No. Resp.
		Present Duties	Future Duties	Increased Resp.	Promotion Potential	Planner Capability	
95	Remote Sensing - Fundament	C <sup>-</sup>	D <sup>+</sup>	24	12	53	17
96	Remote Sensing - Manager	B <sup>-</sup>	C <sup>+</sup>	33	17	67	6
97	Remote Sensing - Technical	C <sup>-</sup>	C	25	25	100	4
98	Reservoir System Anal	C <sup>-</sup>	C	25	25	100	4
99	RA - PM	C <sup>-</sup>	C <sup>-</sup>	13	0	75	8
100	RA - PM for Managers	C	C	0	0	0	1
101	Advanced RA/PM Sys w/S	A	A	100	0	100	1
102	RA - PM Training	B <sup>-</sup>	C	25	0	25	4
103	Ship Navig Channel Design	B	B	100	100	100	1
104	Social Impact Anal - Tech	C	C	12	19	83	42
105*	Social Impact Anal - Econ	C	C	0	0	100	5
106	Solar Energy Sys Design	A	A	0	0	100	1
107*	Solar/Thermal Power Sys	-	-	-	-	-	0
108	Spatial Data Mgmt Technq	C	C <sup>+</sup>	32	21	71	34
109	Stat Methods Hydro	B	B	100	0	100	1
110	Streambank Protection	C <sup>+</sup>	B	33	33	33	3
111*	Systematic Drill + Blast	-	-	-	-	-	0
112*	Water Supply Technical (MAPS)	-	-	-	-	-	0
113*	Transportation Costing + Analysis	C <sup>+</sup>	C	29	14	86	7
114*	Transportation Modeling	C <sup>+</sup>	B <sup>-</sup>	33	67	67	3
115	Transportation Plan Data	C <sup>-</sup>	D	20	20	40	5
116	Urban Environment	C <sup>+</sup>	C <sup>+</sup>	17	22	78	18
117	Urban Hydrology	B <sup>-</sup>	B <sup>-</sup>	14	14	86	7
118*	U.S. Waterborne Foreign Trade	A	B	0	0	0	1
119*	Waste Heat Utilization	-	-	-	-	-	0
120*	Water Qual - Water Control	D	C <sup>-</sup>	20	0	60	5
121	Water Quality Modeling	C	D	25	0	75	4
122	Water Resource Plan / DE's	-	-	-	-	-	0
123	Water Supply / Conserv Plng	C	C	23	16	60	44
124	Water Supply Hydrology	B <sup>-</sup>	B <sup>-</sup>	0	0	100	2
125	Basic HEC - 2	C <sup>+</sup>	C	22	11	56	18
126	Water Trans Planning	C	C	42	33	83	12
127	Transportation Plan Data	C <sup>-</sup>	D <sup>-</sup>	33	33	67	3
128*	Waterborne Foreign Trade	B	B	100	100	100	1
129	Wetlands Dev + Restora	C <sup>+</sup>	B	33	0	100	6
130*	Wetlands Ecology	C <sup>+</sup>	C <sup>+</sup>	0	13	75	8
131	Wetlands Executive	B <sup>-</sup>	C <sup>+</sup>	18	18	73	11
132	Wetlands Science + Tech	C <sup>+</sup>	C	23	20	60	35
133	Wetland Sci I Field Tech	B <sup>-</sup>	C <sup>+</sup>	43	29	71	7
134	Wetland Sci II Specialist	B <sup>+</sup>	B <sup>-</sup>	56	31	88	16
135	Wetland Sci III Soils/Hydro	-	-	-	-	-	0
136*	Wetlands Survey	A	B	100	0	100	1
*	Indicates course has been dropped.						
NOTE	Details on Course revisions at end of Main Report (Appendix A).						

(22-25)

II-54 For the most recent training course sponsored by Huntsville Training Division you have attended, how far in advance were you aware that you would be attending the training course prior to your actually attending the course?

< one week	5	[ ]	1	
between one week - one month	23	[ ]	2	
> one month, but < 3 months	24	[ ]	3	
3 - 8 months	14	[ ]	4	2.8
> 8	3	[ ]	5	
Not applicable	31	[ ]	6	

II-55 Please indicate the most typical form of assistance your training officer has provided you in identifying and planning appropriate training. (Check only one box.)

Active assistance	[ ]	1	11	
Passive reaction to request initiated by you or your supervisor	[ ]	2	32	2.9
Primarily involved in general planning	[ ]	3	17	
None	[ ]	4	40	

II-56 Of the kinds of courses listed below, which have been the most useful for helping you to perform your job effectively? (Choose one.)

		<u>All Responses</u>	<u>PA's Only</u>	<u>Non-PA's Only</u>
5-Day Courses Sponsored by Huntsville Training Division	[ ] 1	41	1	47
1 - 4 Day Courses Sponsored by Huntsville	[ ] 2	13	2	15
District/Division Sponsored Short Courses	[ ] 3	26	5	29
Planning Associates Program	[ ] 4	13	90	1
Civil Works Fellowships	[ ] 5	7	2	8

II-57 Of the types of instructors listed below which do you feel is generally most useful for helping you to understand and apply training materials presented at Corps training courses? (Choose one.)

Corps Personnel	[ ]	1	56
Professional-Contractor Instructors	[ ]	2	28
Academic Instructors	[ ]	3	11
Private Industry Instructors	[ ]	4	5

(26-28)

II-58 How many training days have you taken in the last 5 years not sponsored by Huntsville Training Division?

1 - 5	71 [ ] 1
5 - 10	8 [ ] 2
10 - 15	2 [ ] 3
> 15	1 [ ] 4
None	18 [ ] 5

1.9

II-59 Have you participated in the Planning Associates Program?

Yes	12 [ ] 1
No	88 [ ] 2

II-60 Does your district (division) have a system for prioritizing training among planning personnel?

Yes	21 [ ] 1
No	19 [ ] 2
I don't know	60 [ ] 3

If yes please briefly explain or describe.

Open-ended question, summarized on next 6 pages (15a - 15f)

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Categorized Summary of  
Responses to Question Regarding Any System  
Prioritizing Training Among Planning Personnel  
(Question II-60, page 15)

I. Responses that indicate no system exists or else that system is based on negative/artificial priorities.

- o Good ole boy system
- o Religious or ethnic background or cronyism
- o Nothing that is apparent
- o If you are in the right section, work for the right "boss", don't have anything to do, have an abundance of funds, then you have an excellent change of being able to participate in training
- o Favoritism, nepotism
- o The same employees receive training each year
- o Women sycophants first, male sycophants second, others -- who cares.
- o If there is a system, it is insensible, unfit, inappropriate, and/or inane.
- o Seniority
- o If it is in the district interest to have a body, one will be there.

II. Responses that indicate that a system exists but beyond who establishes the priorities, uncertain as to how it works.

- o There is a system, but I've not figured it out yet.
- o Don't know how it works, but there is a system. It's used as the same reasons some employees are not allowed to attend a training course.
- o Prioritized at branch level by branch section chief
- o Chief of Planning decides priority
- o Personal selection by chiefs
- o Supervisor sets priority
- o I am not familiar with the system, but supervisors rank requests and these are reviewed by a training committee of some kind.
- o A joint meeting among division and section chiefs decides who is the person going.

III. Responses that indicate that system is based on administrative constraint priorities.

A. Cost/Location

- o Courses must be "east of the Mississippi"
- o Based on budget & travel limits, not needs.
- o If money is limited, only engineers and supervisors go.
- o Primary criteria appears to be travel.
- o Get one course per year out of town due to travel cost.
- o No limit on local courses.

B. Grade/Position

- o If the employee is an engineer, he has training priority; good luck to the others.
- o High grades get the training.
- o Study managers get high priority.

- o Non-engineers are never selected for project manager/supervisory assignments.
- o Upward mobility positions are placed ahead of others.
- o Project engineers have priority to attend OCE training courses.
- o Chances slim unless GS-12 or higher.
- o If 2 employees want the same course, the higher grade goes.
- o Only GS-14's and up.
- o Upper management, then other supervisors, then GS-12 non-supervisors, then others.

C. Allocation of Space, Money, Hours, or Number of Courses

- o Each employee allowed one TDY course per year.
- o Division is given 2 spaces for 5 districts.
- o One course every other year is practical limit.
- o Training spaces go first to Division personnel, so reducing opportunities for District personnel.
- o "40/80 Rule", i.e., 40 hrs. training which requires TDY plus 40 hrs. local training per year; maximum of 80 hrs. per year per individual.
- o Each person allowed 1 wk training/yr.
- o General criteria is 60 hrs/yr/employee.
- o Depending on funds, each employee is given a chance to participate in one 3-5 day course/yr.
- o When a couple of people get long-term training, everyone else must cut back.

D. Employee Expendability

- o Training priority given only to personnel who are assigned low priority work and thus available for training. This is tantamount to striving for a stagnant mediocrity.
- o If the study can get along without you, then you can go.
- o Whoever has the time and is encouraged by the administration will get the courses.

IV. Responses that indicate that system is based on positive priorities.

A. Individual's Preference but Subject to Approval

- o All persons pick one course per year, then the Planning Division Training person ranks each person 1 through n.
- o Needs are assessed, supervisors ask employees to indicate preferences, courses are screened for balance among all employees.
- o Most requests are initiated by the employee. The priority is then based on who applies and how much training he has had previously.
- o Employees are asked to list long-term and short-term training needs.

B. Short-Term Organizational Need -- Present Job Performance/Assignment

- o Applicability to present or near future job assignments.
- o Training is provided for those individuals who need training to perform assigned tasks.

- o Review work to be performed and capability and establish training accordingly
- o Training must be strictly project-related and is limited to 1 or 2 persons unless sponsored locally.
- o Priority is given to training needed for immediate improvement in job performance.
- o Depends on which areas of expertise we may expect to rely heavily on in near future, also depends on anticipation of types of studies.

C. Long-term Organizational Need -- Career Development Program

- o New and inexperienced employees get training priority over experienced employees.
- o High priority goes to newer planners to take Planner Orientation or general Corps planning work.
- o Planners take Planners Orientation even if near retirement.
- o A list of basic courses for new people in planning has been established; new personnel go through a pre-planned training sequence.
- o A list of core courses has been prepared for each branch.
- o Lower level and newer employees are directed toward training.
- o Training identified in career development plan is given priority; also individual training history is considered.
- o A training inventory is made each year to identify employee needs. Courses to satisfy needs are scheduled to the extent practicable.
- o Basic and advanced training needs for each functional area of planning are identified and prioritized. Training is then programmed for each employee according to the priorities, goals and objectives of the employees, and the planning element.
- o Supervisors work with individuals to plan a training schedule. Generally, training is in technical areas early in the professional career. Planners Orientation is scheduled in 2nd and 3rd year. Public Involvement is brought in at the GS-11 level. Management oriented training is offered to GS-12's if they indicate an interest or aptitude for assuming first-line supervisory responsibilities.

V. Responses that identify the relationship among criteria or process priorities within the system

A. Criteria Priorities

- o 

Supervisor assesses individual's needs against: <ol style="list-style-type: none"> <li>1. necessity to complete current mission</li> <li>2. opportunity to learn new skills</li> <li>3. personal development</li> </ol>
---
- o 

<ol style="list-style-type: none"> <li>1. Needed to satisfactorily accomplish present job.</li> <li>2. Needed to satisfactorily accomplish a future job.</li> <li>3. Needed to improve a skill.</li> </ol>
--

4. Needed to develop or improve a skill that may be useful in some future task.

- o Supervisor makes determination as to:
  1. Needed now (essential)
  2. Needed soon (needed to improve performance)
  3. Needed in future (nice to have)

- o
  1. Basis of need
  2. Expected benefits to organization
  3. Availability of spaces and funds

- o Supervisor assigns a numerical priority to each course request:
  1. critical
  2. nice to have
  3. not important

- o
  1. Level of funding available
  2. Present or future job assignments
  3. Priorities of studies being developed

- o
  1. Immediate needs
  2. Long-term needs
  3. General education

- o
  1. Specific training needed to do assigned work
  2. Training having general value to job performance
  3. Training needed to accomplish potential new work

- o
  1. High priority to training for proficiency in assigned duties
  2. Favorable consideration given if funds are available
  3. Reasonable participation in long-term training on a selective basis.

B. Process Priorities

- o 

Review of training needs.  
Review of those who have had recent training.  
Subject to available funds, selection of courses for those who most need training.
  
- o 

Each year, branch chief and employees develop IDP based on skills and workload  
The IDP is useful in request for training  
Funds and workload actions put limits on requests  
Process is 80% effective in getting needed training
  
- o 

Course catalogs are circulated annually and employees choose courses of interest  
Courses are approved based on division space allotment and division chief's analysis of individual and division needs
  
- o 

Individuals pick and prioritize 3 courses.  
Planning division prioritize all first choices in consideration of division needs.  
Every attempt is made to get individuals their first choices.
  
- o 

Employee and supervisor review available FY course in light of IDP  
One week of training is scheduled  
One week of training is unscheduled pending availability of a more appropriate course  
The system works and is very fair
  
- o 

Supervisors and employees establish FY training needs  
Collective needs are screened for excessive space allocation and cost  
Revised training plan for branch is submitted to training officer  
If cuts occur during the year, training is reduced to that of greatest need, and an attempt is made to obtain local training for others

- o Training committee  
Employee input  
Supervisor input  
Reviewed by chief of planning

- o Branch chiefs met with division chief to set priorities  
Planning Division representative presents recommendations  
to District Training Committee

### III. Future Training Program

In your judgement, how important are the following areas to Corps planning?  
(One check per line.)

(29-63)	Very Important 4	Important 3	Slightly Important 2	Not Important 1	<i>M</i>	
III-1	Economics	67 [ ]	31 [ ]	2 [ ]	1 [ ]	3.6
III-2	Social Science	16 [ ]	44 [ ]	36 [ ]	5 [ ]	2.7
III-3	Mathamatical Modeling	16 [ ]	43 [ ]	34 [ ]	8 [ ]	2.9
III-4	Biology	21 [ ]	49 [ ]	26 [ ]	4 [ ]	2.9
III-5	Anthropology/Archaeology	13 [ ]	42 [ ]	38 [ ]	7 [ ]	2.6
III-6	Planning	73 [ ]	24 [ ]	2 [ ]	1 [ ]	3.7
III-7	Geography	9 [ ]	36 [ ]	44 [ ]	11 [ ]	2.4
III-8	Sociology	9 [ ]	40 [ ]	42 [ ]	9 [ ]	2.5
III-9	Environment	46 [ ]	46 [ ]	7 [ ]	1 [ ]	3.4
III-10	Ecology	35 [ ]	49 [ ]	14 [ ]	2 [ ]	3.2
III-11	Landscape Architecture	9 [ ]	34 [ ]	45 [ ]	12 [ ]	2.4
III-12	Engineering	69 [ ]	26 [ ]	4 [ ]	1 [ ]	3.6
III-13	Physical Science	16 [ ]	48 [ ]	31 [ ]	5 [ ]	2.8
III-14	Hydrology/Hydraulics	71 [ ]	26 [ ]	2 [ ]	1 [ ]	3.7
III-15	Operations Research	9 [ ]	35 [ ]	42 [ ]	14 [ ]	2.4
III-16	Computer Science	22 [ ]	46 [ ]	26 [ ]	6 [ ]	2.9
III-17	Leadership	66 [ ]	27 [ ]	6 [ ]	1 [ ]	3.6
III-18	Writing Skills	62 [ ]	33 [ ]	4 [ ]	1 [ ]	3.6
III-19	Speaking Skills	50 [ ]	41 [ ]	8 [ ]	1 [ ]	3.4
III-20	Motivation	55 [ ]	37 [ ]	6 [ ]	2 [ ]	3.5
III-21	Dedication	46 [ ]	41 [ ]	11 [ ]	2 [ ]	3.3
III-22	Evaluation	41 [ ]	50 [ ]	8 [ ]	1 [ ]	3.3
III-23	Public Involvement/ Coordination	53 [ ]	40 [ ]	7 [ ]	1 [ ]	3.4
III-24	Decision-Making	64 [ ]	32 [ ]	4 [ ]	1 [ ]	3.6
III-25	Budgeting	39 [ ]	50 [ ]	10 [ ]	1 [ ]	3.3
III-26	Scheduling	40 [ ]	51 [ ]	8 [ ]	1 [ ]	3.3
III-27	Research	16 [ ]	38 [ ]	37 [ ]	10 [ ]	2.6
III-28	Group Management	23 [ ]	50 [ ]	23 [ ]	4 [ ]	2.9
III-29	Negotiation	19 [ ]	50 [ ]	28 [ ]	4 [ ]	2.8
III-30	Analysis	37 [ ]	52 [ ]	11 [ ]	1 [ ]	3.2
III-31	Synthesis	22 [ ]	45 [ ]	28 [ ]	5 [ ]	2.8
III-32	Presentations	35 [ ]	50 [ ]	13 [ ]	1 [ ]	3.2
III-33	Graphics	18 [ ]	53 [ ]	27 [ ]	2 [ ]	2.9
III-34	ADP	19 [ ]	48 [ ]	28 [ ]	5 [ ]	2.8
III-35	Review	30 [ ]	53 [ ]	15 [ ]	2 [ ]	3.1

(22-35)

	Prefer	Indifferent	Dislike		
III-50 Extensive Use of Case Studies	24	40	22	10   4	<sup>M</sup> 3.7
	5	4	3	2	1
III-51 Workshops	25	48	20	5   2	3.9
	5	4	3	2	1
III-52 Lectures	11	38	33	14   4	3.4
	5	4	3	2	1
III-53 Professional Instructors	31	40	22	5   2	3.9
	5	4	3	2	1
III-54 Academic Instructors	13	35	34	13   4	3.4
	5	4	3	2	1
III-55 Contractor Instructors	14	35	36	11   4	3.4
	5	4	3	2	1
III-56 Instructors who are Corps Professionals who work with the subject	47	31	16	5   2	4.2
	5	4	3	2	1
III-57 Courses located in Washington, DC	11	18	44	13   15	3.0
	5	4	3	2	1
III-58 Courses scattered through U.S.	42	28	26	2   2	4.1
	5	4	3	2	1
III-59 Courses located in Huntsville, Al.	4	10	46	18   24	2.5
	5	4	3	2	1
III-60 Courses held in spring	18	24	53	3   2	3.5
	5	4	3	2	1
III-61 Courses held in summer	11	13	51	13   12	3.0
	5	4	3	2	1
III-62 Courses held in fall	15	25	52	4   4	3.4
	5	4	3	2	1
III-63 Courses held in winter	11	16	49	13   12	3.0
	5	4	3	2	1

(6/6-21)

Subject Area	Vital	Important	Specialists Only	Not Needed	Don't Know	M
	4	3	2	1	9	
III-34 Fish and Wildlife Resources	8 [ ]	45 [ ]	44 [ ]	1 [ ]	2 [ ]	2.6
III-35 Historic Preservation	3 [ ]	28 [ ]	63 [ ]	3 [ ]	3 [ ]	2.3
III-36 Report Preparation	56 [ ]	38 [ ]	3 [ ]	1 [ ]	2 [ ]	3.5
III-37 Flood Plain Management Services	6 [ ]	43 [ ]	46 [ ]	2 [ ]	3 [ ]	2.6
III-38 Planning Assistance to States	9 [ ]	48 [ ]	31 [ ]	6 [ ]	6 [ ]	2.6
III-39 Continuing Authorities	19 [ ]	55 [ ]	17 [ ]	1 [ ]	8 [ ]	3.0
III-40 Recreation	5 [ ]	43 [ ]	47 [ ]	2 [ ]	3 [ ]	2.5
III-41 Management	42 [ ]	47 [ ]	8 [ ]	1 [ ]	2 [ ]	3.3
III-42 Other Social Effects	4 [ ]	44 [ ]	41 [ ]	5 [ ]	6 [ ]	2.5
III-43 Planning Principles & Procedures	67 [ ]	27 [ ]	1 [ ]	1 [ ]	4 [ ]	3.7
III-44 Others _____	[ ]	[ ]	[ ]	[ ]	[ ]	
III-45 _____	[ ]	[ ]	[ ]	[ ]	[ ]	
III-46 _____	[ ]	[ ]	[ ]	[ ]	[ ]	

Based on your experience attending Corps training courses, what are your preferences? (Please circle the most appropriate number in each line.)

	Prefer	Indifferent	Dislike		
III-47 5-Day courses sponsored by Huntsville Training Division	40   5	25   4	24   3	6   5   2 1	3.9
III-48 1-3 day courses sponsored by Huntsville Training Division	18   5	31   4	37   3	9   5   2 1	3.5
III-49 District/Division Sponsored Short Courses	21   5	31   4	33   3	9   6   2 1	3.6

Indicate the importance of each of the water resource planning subject areas listed below using the following scale: (Please check only one box per line)

- (4) Vital: All planners should have training in this subject area. Water resources planning professionals cannot function effectively without training in this area.
- (3) Important: Training in this subject area provides a broad context for water resources planning professionals; however, planners can function in a professional and competent manner without the course.
- (2) Needed for Specialists Only: Most water resource planning professionals need not have training in this subject area. Training is needed for those working in the area only.
- (1) Not needed: Subject area is superfluous to needs of water resource planners.
- (9) Don't know/No Opinion:

(64-74)		Specialists					
Subject Area		Vital	Important	Only	Not Needed	Don't Know	
		<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>9</u>	
III-23	Planning Process	77	20	>1	>1	2	3.8
III-24	Navigation	7	42	48	1	2	2.6
III-25	Flood Damage Reduction	16	54	26	1	3	2.9
III-26	Shore Protection	5	39	51	2	3	2.5
III-27	Hydroelectric Power	5	34	57	1	3	2.4
III-28	Water Supply/Conservation	10	51	36	1	2	2.7
III-29	Economic Principles: Benefits and costs	41	44	12	>1	2	3.3
III-30	Cost Allocations	21	50	24	1	4	2.9
III-31	Public Involvement/ Coordination	44	47	6	1	2	3.4
III-32	Institutional Analysis	11	48	28	4	9	2.7
III-33	Water Quality	6	35	55	1	3	2.5

The following statements address possible training policies which the Corps could initiate. Please share your best judgement on the impact of these policies on mission accomplishment and job performance in planning divisions. (Please circle the most appropriate number in each line.)

(36-46)	Highly Positive	No Impact	Highly Negative	<i>M</i>
III-64 Require completion of specific training courses before an individual is eligible for promotions to higher technical positions	13   35   14   18   20	5   4   3   2   1		3.0
III-65 Require completion of specific training courses before being promoted to study manager or team leader	18   37   15   16   14	5   4   3   2   1		3.3
III-66 Require completion of specific training courses before an individual is eligible for promotion to supervisory positions	27   36   12   13   13	5   4   3   2   1		3.5
III-67 Require completion of specific training courses before an individual is eligible for promotion to executive positions	32   30   14   11   12	5   4   3   2   1		3.6
III-68 Establish a mandatory quota system in which each district or division would be required to send a specific number of employees to training courses over a 3 to 5 year period on a planned schedule worked out with employees	26   27   19   15   13	5   4   3   2   1		3.4
III-69 Have OCE develop a structured training plan or program that would be followed by a new employee upon entering the Corps planning career ladder	27   37   11   14   11	5   4   3   2   1		3.6
III-70 De-emphasize long term training programs (PA's, CW Fellowship)	8   13   25   26   28	5   4   3   2   1		2.5
III-71 Give more emphasis to long term training programs	17   29   31   16   8	5   4   3   2   1		3.3
III-72 Have a different sponsor for the Planning Associate Program rather than BERH	5   5   60   15   15	5   4   3   2   1		2.7
III-73 Shorten the length of the Planning Associate Program	12   26   36   16   10	5   4   3   2   1		3.1
III-74 Shorten the length of the Planning Associate Program and conduct it several times a year	19   30   27   14   10	5   4   3   2   1		3.3

(Note, Break down of responses to Questions III-70 through III-76 by training experience are given on pp. 21a and 21b.)

(47-53)

Highly Positive    No Impact    Highly Negative

M

	Highly Positive	No Impact	Highly Negative			
III-75 Increase the number of students attending the Planning Associates Program by requiring each district to send a student to each session of the course	20   5	30   4	20   3	16   2	14   1	3.3
III-76 Restructure the Planning Associates Program to award an academic degree to students who complete the program	19   5	27   4	33   3	11   2	11   1	3.3
III-77 Encourage more District/Division sponsored short courses rather than Huntsville Training Division courses	18   5	31   4	30   3	16   2	6   1	3.4
III-78 Establish a "core" curriculum of water resources planning courses that all Corps planners must go through	28   5	44   4	11   3	10   2	6   1	3.8
III-79 Establish continuing education credits (CEUs) for Corps training courses	25   5	40   4	28   3	5   2	3   1	3.8
III-80 Official Corps financial support and approval of employee job-related evening graduate degree programs	49   5	39   4	9   3	2   2	2   1	4.3
III-81 Present training courses regionally to reduce high transportation costs	37   5	37   4	19   3	4   2	3   1	4.0

Break Down of Response to Questions III-70 Through III-76 by Training

Experience of Respondee:

		Highly Positive	4	No Impact	3	Highly Negative	2	1
		----- -----						
		5	4	3	2	1		
(III-70) De-emphasize long- term training programs	Took Short Courses	9	15	29	25	22		
	Took PA	2	3	11	25	59		
	Took CW Fellowship	0	4	6	29	62		
(III-71) Give more emphasis to long-term training programs	Took Short Courses	14	28	31	18	9		
	Took PA	32	32	30	3	3		
	Took CW Fellowship	29	33	30	7	1		

		Highly Positive		No Impact		Highly Negative
		----- ----- -----				
(III-72) Have a different sponsor for PA Program	PA's	5	1	16	23	56
	All Others	5	6	66	14	10
(III-73) Shorten the length of the PA Program	PA's	8	17	11	31	33
	All Others	12	28	40	14	7
(III-74) Shorten the length of the PA Program and conduct several times/yr	PA's	7	15	11	26	41
	All Others	20	32	30	12	6
(III-75) Increase PA students by quota system	PA's	5	20	9	29	37
	All Others	23	31	21	15	11
(III-76) Restructure PA Program to award degree	PA's	25	26	19	16	13
	All Others	18	27	35	10	11

#### IV. Background Information

##### Experience in the Corps

How much experience do you have in each of the following functions listed below:

	(7/6-11)	None	<1 Yr.	1-3 yrs.	3-5 yrs.	5-10 yrs.	>10 yrs.	<u>M</u>
		0	1	2	3	4	5	
IV-1	Planning	4 [ ]	4 [ ]	17 [ ]	17 [ ]	21 [ ]	37 [ ]	3.6
IV-2	Engineering	46 [ ]	7 [ ]	13 [ ]	9 [ ]	12 [ ]	14 [ ]	1.8
IV-3	Construction Management	75 [ ]	12 [ ]	8 [ ]	4 [ ]	2 [ ]	1 [ ]	0.5
IV-4	Operations and Maintenance (O&M)	78 [ ]	10 [ ]	7 [ ]	3 [ ]	3 [ ]	1 [ ]	0.5
IV-5	Permits	82 [ ]	9 [ ]	5 [ ]	3 [ ]	1 [ ]	>1 [ ]	0.3
IV-6	Research and Development (R&D)	83 [ ]	5 [ ]	7 [ ]	3 [ ]	2 [ ]	1 [ ]	0.4

IV-7 What is your age? (12-13) 38.7 years old

IV-8 What is your current GS (GM) level? (14-15) 11.7

IV-9 How many years have you been at your current grade level (for less than one year, put 1)? (16-17) 4.7

IV-10 How many years have you been employed in public service at any governmental level? (18-19) 13.4

IV-11 How many years have you been employed by the Federal Government? (20-21) 12.7

IV-12 How many years have you been employed by the Corps? (22-23) 11.1

IV-13 How did you enter the Corps: (24)

College recruitment	25	[ ]	1
Co-op	4	[ ]	2
Transfer from another government agency	19	[ ]	3
Open announcement	52	[ ]	4

IV-14 My employment status before joining the Corps was:

(25)

Student	37	[ ]	1
Worked for another government agency	28	[ ]	2
Worked for private business	21	[ ]	3
Worked for educational institution	5	[ ]	4
Active military	6	[ ]	5
Other	3	[ ]	6

IV-15 How many years of experience do you have in Corps Civil Works? (26-27)

10.7

IV-16 How many years of experience do you have in private industry? (28-29)

4.5

IV-17 Supervisory position status:

(30)

Executive who reports to Commander	2	[ ]	1
Middle Manager	10	[ ]	2
First-Line Supervisor	16	[ ]	3
No Supervisory Duties	72	[ ]	4

IV-18 What is your occupational series (see Appendix B at back of questionnaire for number)? (31-34)

IV-19 Please refer to Appendix C of this questionnaire and identify the code for the academic discipline of your highest educational degree. Enter the code in the space to the right. (35-38)

IV-20 Mark the ONE box corresponding most closely to the section in which you work in Planning Division. (39-40)

Hydrology & Hydraulics	2	[ ]	1
Program Development	1	[ ]	2
Urban Studies	1	[ ]	3
Special Studies	10	[ ]	4
Policy & Long-Range Planning	3	[ ]	5
Project Development	7	[ ]	6
Flood Plain Management Services	6	[ ]	7
Levees & Waterways	1	[ ]	8
Coastal Engineering	2	[ ]	9
Structures	21	[ ]	10
Environmental	25	[ ]	11
Project Management	19	[ ]	12
Other: _____	23	[ ]	13

IV-21 Where do you work?

(41)

District	80	[ ]	1
Division	16	[ ]	2
OCE	4	[ ]	3

IV-22 If you are assigned to a District or Division please  
write in the name of the District or Division \_\_\_\_\_  
(42-43)

Use this page to give us any additional opinions, thoughts or information about  
training for Corps planners.

## APPENDIX A

<u>Course Title</u>	<u>Course Title</u>
1. Access and Application of the Environmental Technical Information System (ETIS) for Impact Analysis	35. Environmental Impact Assessment of Projects
2. Advanced Digital Image Process	36. Environmental Laws and Regulations
3. Advanced Network Management	37. Environmental Projects
4. Advanced Water Surface Profile Computation Using HEC-2	38. Environmental Resources: Analysis and Evaluation of Aesthetic Quality
5. Aerial Photography Interpretation	39. Environmental Resources: Identification, Analysis and Evaluation of the Cultural Environment
6. Analytical Techniques for Formulation of Nonstructural Plans	40. Environmental Writing
7. Application of Water Quality and Ecological Models	41. Flood Control Planning
8. Area-Wide Planning (see Maps-Water Supply Plng)	42. Flood Flow Frequency Analysis
9. CE Public Awareness	43. Flood Plain Hydrology ad Hydraulics
10. Civil Works Program Development and Execution	44. Flood Plain Management Planning
11. Coastal Flood Prediction	45. Forecasting Techniques for Water Resources
12. Computer Application and Utilization for Engineering Executives	46. Fundamentals of Environmental Science
13. Computer Application for Engineers and Engineering Managers	47. Fundamentals of Solar Energy
14. Contract Negotiation	48. Groundwater Hydrology
15. Contracting of Historical and Archeological Service	49. Habitat Evaluation Procedures
16. Costing and Analysis-Transportation	50. Hydrologic Analysis of Floods
17. Cost Estimating and Economic Analysis Mgt CAPDET Modeling for Sewage Treatment Plants	51. Hydrologic Aspects of Hydropower
18. Dam Break Analysis	52. Hydrologic Engineering for Planners
19. Design and Operation of Selective Withdrawal Structure	53. Hydropower Planning Inland Navigation Systems Analysis
20. Economic Analysis for Navigation	54. Inspection of Facilities for OSHA Compliance
21. Economic Analysis for Water Resource Planning	55. Instructional Methods
22. Economic Analysis of Energy Systems	56. Intensive Management
23. Ecosystem Surveying Techniques	57. Interagency Regional Wetlands Classification Training Program
24. Energy Auditing	58. Interdisciplinary Imagery Analysis
25. Energy Conservation in Buildings	59. Introduction to Construction Contract Mgmt
26. Energy Conservation Principles	60. Introduction to Wetlands
27. Energy Management	61. Land Use Analysis for Water Resource Planning
28. Energy Monitoring and Control Systems	62. Life Cycle Cost Analysis/Design-to-Cost
29. Environmental Applications of Climatology	63. Macro Economic Models, WRPNAV
30. Environmental Applications of Meteorology	64. Management Development, Seminar I
31. Environmental Applications of Geology and Hydrology	65. Management Development, Seminar II
32. Environmental Data Contracts	66. Management Development, Seminar III
33. Environmental Engineering	67. Management of the Engineering and Scientific Work Force
34. Environmental Evaluation of Proposed Projects	68. Maps-Water Supply Planning (previous title Area Wide Planning WWT)
	69. Merit Pay System
	70. Monitoring Techniques for Water and Wastewater

<u>Course Title</u>	<u>Course Title</u>
71. Multi-Objective Planning	107. Solar/Thermal Power Systems
72. Navigation Lock Performance Monitoring System	108. Spatial Data Management Techniques for Corps Planning
73. Negotiating, Bargaining and Conflict Mgmt Network Analysis	109. Statistical Methods in Hydrology
74. Nonstructural Plans	110. Streambank Protection
75. Photogrammetry Managers	111. Systematic Drilling and Blasting
76. Planner Orientation	112. Technical Aspects in Preliminary Water Supply, Planning, Design and Operations
77. Planning and Design of Land Treatment Systems	113. Transportation Costing and Analysis
78. Planning for Hydrologic Engineers	114. Transportation Modeling
79. Planning, Organizing, Writing and Editing EISs and EAs	115. Transportation Planning Data
80. Planning Principles and Procedures	116. Urban Environment
81. Planning Program Management	117. Urban Hydrology
82. Pollution Problems	118. U.S. Waterborne Foreign Trade
83. Problem Analysis and Decision Making for Executives	119. Waste Heat Utilization
84. Problem Analysis and Decision Making for Managers	120. Water Quality Aspects of Water Control
85. Public Awareness and Conflict Resolution	121. Water Quality Modeling of Rivers and Reservoirs
86. Public Involvement I, Communication Skills (Basic)	122. Water Resource Plan/DES
87. Public Involvement II Advanced	123. Water Supply and Water Conservation Planning
88. Public Involvement for Executives and Managers	124. Water Supply Hydrology
89. Public Involvement in the Regulatory Program	125. Water Surface Profile Computation Using HEC-2 (Basic)
90. Rainfall Runoff Analysis	126. Water Transportation Planning
91. Regional Development Accounts	127. Water Transportation Planning Data
92. Regulatory Functions - Basic	128. Waterborne Foreign Trade
93. Regulatory Functions - Compliance and Enforcement	129. Wetlands Development and Restoration
94. Remote Sensing - Advanced Digital Image Processing and Analysis	130. Wetlands - Ecology
95. Remote Sensing - Fundamentals	131. Wetlands - Executive Level
96. Remote Sensing Manager	132. Wetlands Science and Technology
97. Remote Sensing Technical	133. Wetlands Science I - Field Techniques
98. Reservoir Systems Analysis	134. Wetlands Science II - Wetlands Specialist
99. Resource Allocation/Project Management	135. Wetlands Science III - Wetlands Soils and Hydrology
100. Resource Allocation Project Management - Manager Overview	136. Wetlands Surveys
101. Resource Allocation/Project Management System Advanced Workshop	
102. Resource Allocation/Project Management Training	
103. Ship Navigation Channel Design	
104. Social Impact Analysis Techniques for Executives	
106. Solar Energy System	

APPENDIX B

GS-100 SOCIAL SCIENCE, PSYCHOLOGY, AND WELFARE GROUP

Social Science Series	GS-101
Social Science Aid and Technician Series	GS-102
Social Insurance Administration Series	GS-105
Unemployment Insurance Series	GS-106
Economist Series	GS-110
Economist Assistant Series	GS-119
Food Assistance Program Specialist Series	GS-120
Foreign Affairs Series	GS-130
International Relations Series	GS-131
Intelligence Series	GS-132
Intelligence Aid and Clerk Series	GS-134
Foreign Agricultural Affairs Series	GS-135
International Cooperation Series	GS-136
Manpower Research and Analysis Series	GS-140
Manpower Development Series	GS-142
Geography Series	GS-150
Civil Rights Analysis Series	GS-160
History Series	GS-170
Psychology Series	GS-180
Psychology Aid and Technician Series	GS-181
Sociology Series	GS-184
Social Work Series	GS-185
Social Services Aid and Assistant Series	GS-186
Social Services Series	GS-187
Recreation Specialist Series	GS-188
Recreation Aid and Assistant Series	GS-189
General Anthropology Series	GS-190
Archaeology Series	GS-193
Social Science Student Trainee Series	GS-199

GS-400 BIOLOGICAL SCIENCES GROUP

General Biological Science Series	GS-401
Microbiology Series	GS-403
Biological Technician Series	GS-404
Pharmacology Series	GS-405
Agricultural Extension Series	GS-406
Ecology Series	GS-408
Zoology Series	GS-410
Physiology Series	GS-413
Entomology Series	GS-414
Plant Protection Technician Series	GS-421
Botany Series	GS-430
Plant Pathology Series	GS-434
Plant Physiology Series	GS-435
Plant Protection and Quarantine Series	GS-436
Horticultural Series	GS-437
Genetics Series	GS-440
Range Conservation Series	GS-454

GS-400 BIOLOGICAL SCIENCES GROUP (Continued)

Range Technician Series	GS-455
Soil Conservation Series	GS-457
Soil Conservation Technician Series	GS-458
Irrigation System Operation Series	GS-459
Forestry Series	GS-460
Forestry Technician Series	GS-462
Soil Science Series	GS-470
Agronomy Series	GS-471
Agricultural Management Series	GS-475
General Fish and Wildlife Administration Series	GS-480
Fishery Biology Series	GS-482
Wildlife Refuge Management Series	GS-485
Wildlife Biology Series	GS-486
Husbandry Series	GS-487
Fish Hatchery Management Series	GS-488
Home Economics Series	GS-498
Biological Science Student Trainee Series	GS-499

GS-800 ENGINEERING AND ARCHITECTURE GROUP

General Engineering Series	GS-801
Engineering Technical Series	GS-802
Engineering Aid Series	GS-802
Civil Engineering Technician Series	GS-802
Safety Engineering Series	GS-803
Fire Prevention Engineering Series	GS-804
Materials Engineering Series	GS-806
Landscape Architecture Series	GS-807
Architecture Series	GS-808
Construction Control Series	GS-809
Civil Engineering Series	GS-810
Surveying Technician Series	GS-817
Engineering Drafting Series	GS-818
Environmental Engineering Series	GS-819
Construction Analysis Series	GS-828
Mechanical Engineering Series	GS-830
Nuclear Engineering Series	GS-840
Electrical Engineering Series	GS-850
Electronics Engineering Series	GS-855
Electronics Technician Series	GS-856
Biomedical Engineering Series	GS-858
Aerospace Engineering Series	GS-861
Naval Architecture Series	GS-871
Ship Surveying Series	GS-873
Mining Engineering Series	GS-880
Petroleum Engineering Series	GS-881
Architecture Engineering Series	GS-890
Ceramic Engineering Series	GS-892
Chemical Engineering Series	GS-893
Welding Engineering Series	GS-894
Industrial Engineering Technician Series	GS-896
Engineering and Architecture Student Trainee Series	GS-899

GS-1300 PHYSICAL SCIENCES GROUP

General Physical Science Series	GS-1301
Health Physics Series	GS-1306
Physics Series	GS-1310
Physical Science Technican Series	GS-1311
Geophysics Series	GS-1313
Hydrology Series	GS-1315
Hydrologic Technician Series	GS-1316
Chemistry Series	GS-1320
Metallurgy Series	GS-1321
Astronomy and Space Science Series	GS-1330
Meterology Series	GS-1340
Meterological Technician Series	GS-1341
Geology Series	GS-1350
Oceanography Series	GS-1360
Navigational Information Series	GS-1361
Cartography Series	GS-1370
Cartographic Technician Series	GS-1371
Geodesy Series	GS-1372
Land Survey Series	GS-1373
Geodetic Technician Series	GS-1374
Forest Products Technology Series	GS-1380
Food Technology Series	GS-1382
Textile Technology Series	GS-1384
Photographic Technology Series	GS-1386
Document Analysis Series	GS-1397
Physical Science Student Trainee Series	GS-1399

GS-1500 MATHEMATICS AND STATISTICS GROUP

Actuary Series	GS-1510
Operations Research Series	GS-1515
Mathematics Series	GS-1520
Mathematics Technician Series	GS-1521
Mathematical Statistician Series	GS-1529
Statistician Series	GS-1530
Statistical Assistant Series	GS-1531
Cryptography Series	GS-1540
Cryptanalysis Series	GS-1541
Computer Science Series	GS-1550
Mathematical Science Student Trainee Series	GS-1560

Community Planner	GS-020
Recreation Specialist	GS-023

APPENDIX C  
ACADEMIC DISCIPLINES CODES

<u>FIELD</u>	<u>CODE</u>
Agricultural and Natural Resources (Agronomy, Forestry, Natural Resource Management, etc.)	0100
Architectural and Environmental Design (city and Regional Planning)	0200
Area Studies	0300
Biological Sciences	0400
Business and Management	0500
City, Community and Regional Planning	0206
Communications/Journalism	0600
Computer and Information Sciences	0700
Education	0800
Engineering General	0901
Aerospace, Aeronautical, and Astronautical Engineering	0902
Agricultural engineering	0903
Architectural engineering	0904
Bioengineering and biomedical engineering	0905
Chemical engineering (include petroleum refining)	0906
Petroleum engineering (exclude petroleum refining)	0907
Civil, construction and transportation engineering	0908
Electrical, electronics, and communications engineering	0909
Mechanical engineering	0910
Geological engineering	0911
Geophysical engineering	0912
Industrial and management engineering	0913

2. FEMIN DISCIPLINES COEFS  
(continued)

<u>FIELD</u>	<u>CODE</u>
Metallurgical engineering	0914
Materials engineering	0915
Ceramic Engineering	0916
Textile engineering	0917
Mining and mineral engineering	0918
Engineering physics	0919
Nuclear engineering	0920
Engineering mechanics	0921
Environmental and sanitary engineering	0922
Naval architecture and marine engineering	0923
Ocean engineering	0924
Engineering technologies (baccalaureate higher programs)	0925
Other related	0999
Fine and Applied Arts	1000
Foreign Languages	1100
Health Professions	1200
Landscape Architecture	0204
Law	1400
Letters (English, rhetoric etc.)	1500
Library Science	1600
Mathematics and Statistics	1700
Military Science	1800
Physical Sciences, general	1901
Physics, general (exclude biophysics)	1902

ACADEMIC DISCIPLINES CODES  
(continued)

<u>FIELD</u>	<u>CODE</u>
Molecular physics	1903
Nuclear physics	1904
Chemistry, general (exclude biochemistry, biol. sci.)	1905
Inorganic chemistry	1906
Organic chemistry	1907
Physical chemistry	1908
Analytical chemistry	1909
Pharmaceutical chemistry	1910
Astronomy	1911
Astrophysics	1912
Atmospheric science and meteorology	1913
Geology	1914
Geochemistry	1915
Geophysics and seismology	1916
Earth sciences, general	1917
Paleontology	1918
Oceanography	1919
Metallurgy	1920
Other related	1921
Public Affairs/Public Administration	2000
Social Sciences	2100
Theology	2200
General Liberal Arts/Interdisciplinary Studies	2300

**APPENDIX C:**

**TABULATION OF CORPS PLANNING DIVISION**

**PROFESSIONAL WATER RESOURCES PLANNERS**

APPENDIX C:

TABULATION OF CORPS PLANNING DIVISION

PROFESSIONAL WATER RESOURCES PLANNERS

In conjunction with the distribution of the Planners' Training needs assessment questionnaire in July 1982, the Planning Division in each district and division office was asked to respond to a survey to provide information on the number of professional water resources planners according to an informal classification. This appendix tabulates the results of that survey.

SURVEY OF PROFESSIONAL WATER RESOURCES PLANNERS AS OF AUGUST 1962

DIVISION	EXECUTIVE	MIDDLE MANAGER	1st LINE SUPERVISOR	PROJECT MANAGER	PLANNING GENERALIST	TECHNICAL SPECIALIST	JUNIOR PLANNER	OTHER	TOTALS
OFFICE OF THE CHIEF	1	3	0		20	24			56
DIVISION									
LOWER MISSISSIPPI VALLEY									
MISSOURI RIVER	2	6	1	0		9			26
NORTH ATLANTIC	1	1	3		1	6			12
NEW ENGLAND	1	1	3		7	8			20
NORTH CENTRAL	1	4	10	14	15	8	10	2	56
NORTH PACIFIC	1	1	5	6	3	9			25
OHIO RIVER	3	3	5	6	3	3			17
PACIFIC OCEAN	2	6	1	6	3	3			17
SOUTH ATLANTIC	2	2	6	12	3	20	3	2	45
SOUTH PACIFIC	1	1	4	1	3	8			20
SOUTHWESTERN	2	6	7	7	8	9			23
	2	4	2	1	0	12			29
DISTRICT									
MEMPHIS	1	1	3	15	16	1			37
NEW ORLEANS	2	6	4	9	1	32	3		57
ST. LOUIS	1	1	6	9	3	14		0	39
VIKSBURG	2	1	4	16	3	23	3		50
KANSAS CITY		1	4	5	2	19	2		31
CHICAGO	1	1	3	16	8	13	2		37
BALTIMORE	1	2	6	11	8	7	1		36
NEW YORK	2	6	8	24	2	38	4	0	87
BOSTON	1	1	5	6	2	11	1		21
PHILADELPHIA	1	1	3	6	3	2	1	2	19
BUFFALO	1	1	3	17	3	19	1		42
CHICAGO	1	1	3	6	1	10	1	0	20
DETROIT	1	1	4	10	4	23	1	1	44
ROCK ISLAND	1	1	6	8	4	19	1	3	42
ST. PAUL	1	3	4	14	1	26	1		50
ALASKA	1	1	3	8	1	15	1		31
PORTLAND	2	4	4	12	10	17	3	0	62
SEATTLE	1	2	6	6	2	6	3		23
WALLA WALLA	1	3	2	6	9	26	2		40
PORTLAND	2	3	6	10	9	17	2		51
LOUISVILLE	2	6	6	12	2	17	2		39
PITTSBURGH	1	1	4	10	2	4	3	6	41
CHARLESTON	1	3	2	4	5	17	3		17
JACKSONVILLE	2	1	7	16	10	10	1	0	51
PUERTO RICO	1	1	2	2	2	1	1	1	6
HOUSTON	1	2	0	14	2	27	0		62
SARASOTA	1	3	4	7	0	11	1		37
BIRMINGHAM	1	3	2	5	2	20	1		36
LOS ANGELES	1	3	12	29	5	14	21	3	69
SACRAMENTO	2	1	3	6	3	26	2		34
SAN FRANCISCO	1	1	3	6	0	10	4		27
ALBUQUERQUE	1	1	4	4	0	10	7		43
FORT WORTH	2	2	5	13	3	11	1		39
BALTIMORE	1	1	6	8	4	19	1	3	42
LITTLE ROCK	1	1	6	8	3	16	3		37
TULSA	1	1	6	8	3	16	3		37
TOTALS	45	119	223	441	200	657	90	31	1026

**APPENDIX D:**  
**INTERVIEWS WITH OTHER AGENCIES**

APPENDIX D:  
INTERVIEWS WITH OTHER AGENCIES

Federal Loan Bank Board . . . . .	D6
U.S. Department of Agriculture . . . . .	D9
Housing and Urban Development, Management Development . . . . .	D23
U.S. Geological Survey, Water Resources Training Division . . . . .	D25
National Park Service . . . . .	D27
Bureau of Land Management . . . . .	D30
Bureau of Labor Statistics . . . . .	D33
Housing and Urban Development, Technical Development . . . . .	D35
Internal Revenue Service . . . . .	D37
U.S. Geological Survey, Employee Development . . . . .	D41
Office of Personnel Management . . . . .	D42

## Other Agency Interviews

### Agency and Person Interviewed

- |                                 |   |
|---------------------------------|---|
| 1. Federal Home Loan Bank Board | Christopher Burdine<br>Training Officer             |
| 2. USDA                         | Don Basinger<br>Ass't Director of Engineering       |
| 3. HUD                          | Judith M. Jaffe<br>Director of Management Dev. Dir. |
| 4. USGS                         | Skip Schmidt<br>Water Resources Training Div.       |
| 5. NPS                          | Clementine P. Pinner<br>Director of Training        |
| 6. BLM                          | Ernie Jones<br>Ass't Director of Employee Dev.      |
| 7. Bureau of Labor Statistics   | Edward Heitov<br>Ass't Dir. Program Related Trning  |
| 8. HUD                          | Dan Tillman<br>Dir. Technical Development           |
| 9. IRS                          | Mary Ann Ruth<br>Director of Management Training    |
| 10. USGS                        | Ms. Louis Pectol<br>Dir. of Employee Development    |
| 11. Bur. Recl.*                 | Frank Percarich                                     |
| 12. Dept. of Labor *            | Joe L. Shea   |
| 13. OPM                         | John Zottoli  |

### Topics Discussed with Other Agencies

Types of training  
Responsible organization  
Career path  
Location of courses  
Instructors and training of staff instructors  
Employee training data base  
Advantages  
Problems  
Evaluations - testing  
Financing

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\*Interview not written up.

Key Points of Interviews with Other Agencies

Agency	Career Development, Career Path	Evaluations	Financing
FHLBB	Required schedule for new employees.	Courses evaluated by senior field employees, course administrators, and students.	Central, national training budget
USDA	No formal relationship between training and career advancement, but courses do have grade-level & skill prerequisites (the ASK guide).	Students evaluate instructors. One center has procedure for evaluation of performance 6 months later.	Each office has training budget. New methods being evaluated to cut costs. Tuition not always charged.
BLM	Required schedule for new supervisors and managers.	Supervisors have an informal system. Pre and post testing being considered.	Headquarters office budget. Tuition charges on some courses
Bureau of Labor Statistics	Required schedule for new employees.	Quizzes during training but not for pass/fail.	Regional programs pay for training.
HUD, Tech. Dev. Div.	Impossible to support training related to career development.	4 levels of evaluation but does not cover measure of job improvement or mission accomplishment.	Hqd. pays travel and per diem. Regional pays student salaries. No tuition.
HUD, Mgmt. Dev. Div.*	Impossible to support training related to career development.	Student happiness factor evaluation. Considering a new system: student action plan with months-later follow-up.	Hqd. finance training. No tuition.
USGS, Employee Development*	Employee and supervisor prepare annual development plan.	Students evaluate course. Supervisor evaluates performance improvements. System is weak.	Funded by National Center, no tuition program. Usually attend local colleges.
USGS, Water Resources	Heavy emphasis in career development, tracked through a data base. Training linked to position assignments.	-	New types of training being considered to cut costs.
IRS*	Mandatory requirements related to position, program, advancement.	Students evaluated by practical exercises and may be flunked.	Hqd. allocates funds to regional center. No tuition charge.

\* Has future plans:

HUD Mgmt Div. will develop a model of an ideal HUD manager.

USGS, Employee Dev. Office is working on an automated training scheduling system.

IRS plans to reduce classroom hours and travel cost; to make 30% training self-instruction.

## MEMO FOR RECORD

SUBJECT: Interview of Christopher Burdine, Training Officer, Federal Home Loan Bank Board (FHLBB), 1700 G St. 3-M-8 - 377-6517, 19 July 1982

Types of Training. The FHLBB has the following types of training:

- o 4 career path schools
- o Hot topic courses
- o Individual training

Schools and courses are only open to FHLBB employees and employees of other Federal, financial regulatory agencies.

Advisory Committee. Training of employees at the FHLBB and its 12 district field offices is the responsibility of the Training Officer and Advisory Committee.

The Committee is made up of three district directors selected because of their interest in training matters. Assistance is provided by senior management personnel in the Washington office and the Training Officer who works with but are not members of the Committee. The Committee meets quarterly or more often if necessary. It plays an important role in two ways:

- deciding what basic training should be provided to employees.
- selling new ideas concerning training to the field. (The FHLBB often meets resistance to Washington-generated ideas.)

The Committee was formed as a result of failure of a needs survey system that had been used in the past. The Committee is a fairly recent organization. No length of service or system for replacing members has been developed.

Career Path Schools. The FHLBB has established (in 1982) a career path that is followed by all new employees. There are four schools\* which all employees must attend within their first 3 years of employment. The schools are:

- o New Examiners Training
- o Real Estate Appraisal Training
- o Intermediate Examiners Training
- o Electronic Data Processing Training

Although employees are expected to take the courses according to a pre-arranged schedule, promotions and more advanced assignments are not dependent upon completion of the courses. However, the Advisory Committee is analyzing incentives for completing schools. Schools are open to existing employees. Those experienced employees are not automatically scheduled to attend. They may apply, indicating their attendance preferences. In FY 83 the FHLBB intends to work through the backlog of older employees who have not attended the four basic schools.

\*A school is a formal training course taught on a continuing basis.

In the future, additional courses may be added to the corp curriculum as they are needed and financial and manpower resources are available.

#### Course Locations and Instructors

Courses are taught at various locations around the country, usually in hotels. Washington is not usually used because of the high cost of renting facilities and sleeping rooms. Courses vary in length from 5 days to 3 weeks.

FHLBB field employees usually teach the courses. If contractors are employed to develop a course, they may conduct the first session of a course. Future sessions will be taught by FHLBB personnel.

#### Employee Training Data Base

In FY 80 the FHLBB set up a central data base which contains information on each new employee. The data file is tied into personnel records file and contains information such as the date hired, social security number, and college education, as well as other fields of information.

When an employee is hired, the FHLBB Washington office prepares a suggested schedule for when the employee should attend schools during the next 3 years. A district office may modify the time and sequence that the employee attends a school. The training schedule is agreed upon and rosters of individuals slated for training are prepared.

#### Advantages of System

- o Facilitates long-range planning
- o Dates of courses are set 3 years in advance
- o Allows supervisors to plan ahead for absence of personnel
- o Eliminates problems which arose in the past when the field told Washington who was to be trained and when
- o Centralizes training scheduling at FHLBB
- o Standardized training content.

#### "Hot Topic Training"

Specialized training in hot topics is developed in response to new responsibilities given the FHLBB. For example, recent rulings that savings and loan associations may make consumer loans and operate trust departments required specialized training.

The responsibility for developing specialized training in a subject is assigned by Washington to a district office. The district may do the analysis and prepare the training course or hire contractors to assist. When the course has been developed, a national pilot course is presented. Those who attend are expected to return to their districts and put on the course when it is needed. Once a year the district office that developed the course is responsible for updating the material and distributing it to the other districts.

### Problems with Hot Topic Training

- o As the work of the FHLBB becomes more complex and expands into new areas, the staff lacks technical expertise to develop new courses.
- o Course may be too basic.
- o FHLBB schools and courses are open to employees of other Federal financial regulatory agencies. Coordination to design courses that meet the needs of all agencies tends to dilute course content.

### Individual Training

Employees may request to attend courses put on by the U.S. Savings and Loan League, other professional training and at universities.

### Evaluations

Quality courses are maintained through evaluations made by:

- session coordinator - a senior field employee.
- NETS Administrator - one assigned to each school
- student evaluation forms.

School content is revised by a field task force, as required.

### Financing

The FHLBB training program is financed by a central, national training budget. Districts do not pay for students to attend a course as is the Corps of Engineers policy.

  
THOMAS M. BALLENTINE

## MEMO FOR RECORD

SUBJECT: Interview with Don Basinger, Assistant Director of Engineering, USDA  
South Building, 1st Wing, Room 6129 - 447-2629

Types of Training

- o Basic courses listed in catalogue (Basinger is mailing a catalogue).
- o Correspondence - phasing out home study program due to lack of effectiveness.
- o Local universities - contracts.
- o USDA Graduate School.

Responsible Organization

USDA operates four Technical Service Centers (Ft. Worth, Lincoln, Neb., Portland, Ore., and Bryn Mawr, Pa.) where training is administered and some courses are conducted. In FY 82, the Employee Development Staff function was consolidated at the Ft. Worth Center. Each center has 10-12 states in its area of jurisdiction.

Three inter-related Training Committees oversee the USDA training program. The committees are:

- National - Washington executive staff and area office directors.
- Area - State conservationists from 10-12 states and members of Employee Development Staff.
- State - Members of state offices

The committees evaluate the annual training needs survey results and decide which courses will be offered. New courses are usually proposed by the Area Training Committees.

When a new course is proposed, it is reviewed by the National Committee which is advised by members of the technical staff at the Washington level. If approved, a new course may be developed by a contractor or done in the department.

In either instance, a technical monitor is assigned. The monitor, in turn, selects the course design team from any of USDA offices. One member of the team must be a nationally recognized expert in the field. In order to have total control over what is to be taught, the design team develops the learning objectives and a detailed outline for the course. Then an assignment is given to one of the technical service centers or a field office, or a contractor is hired to develop the content of the course.

USDA has arrangements with several universities that develop and conduct short courses in soil mechanics (University of Utah), stream mechanics (Colorado State), and groundwater for geologists. The courses range from 4 to 7 weeks in length; no college credit is earned and the courses are taught on an as needed basis.

### Needs Survey

There is similarity between the USDA and the Corps process for assessing training needs. An announcement is sent to all field offices listing the basic courses to be offered during the forthcoming year. The list also contains appropriate courses taught by other Federal agencies. Approximately 60 percent of USDA's list of courses is offered each year, many at the state level.

### Career Path

There is no formal relationship between training attended and career advancement. However, course descriptions in the announcement contain information that implies an employee should take a course by the time he reaches GS-XX level. It is the responsibility of each supervisor and his employee to prepare an individual development plan early in the career of a new employee. A potential danger in this system exists for an employee to miss needed training because his supervisor does not want him to be away from the office or if the training budget is cut.

In FY 80, USDA completed development of the Guide for Evaluation of Design Engineer Skill Level in the Soil Conservation Service (ASK Guide). It is used in personnel management activities, evaluating an employee's performance and training needs, and in counseling for career planning and development. The need for training in a subject is indicated if an employee GS-XX falls below the ASK level indicated for an application. Each state office is responsible to assist employees to get needed training. Eventually an ASK Guide will be prepared for all USDA disciplines.

ASK levels are listed in announcements for open positions. Applicants must submit a written statement of qualifications.

### Instructors

Both USDA staff and contract instructors are used to teach courses. State offices are expected to provide instructors and to pay travel and per diem. There are problems in keeping the best instructors year after year. In addition, many employees who are knowledgeable about a subject have minimal teaching ability. An effort is being made to require instructors to attend instructional methods training.

USDA is considering funding instructors' salaries, travel and per diem from a national budget and relieve state offices of the burden. It would help to obtain the best instructors.

### Evaluations

The evaluation process is out of balance. Since no quizzes are given, students are not evaluated. However, students evaluate instructors, course content, facilities, etc., in a manner similar to the Corps student evaluation.

The Ft. Worth Technical Center has developed an evaluation procedure for evaluating student performance. It is a two part form. Prior to attending a course, the employee and his supervisor fill out the upper part by stating what the student expects to get from the course. Six months after completion of the course, the supervisor fills out the lower part of the form with a statement rating the employee's performance now that he has had training and time to apply it to the job. This procedure has shown that the wrong people were being sent to training courses at the wrong time in their careers.

#### Finance

Each office has a budget for training. Some courses require the office to pay tuition; for other courses, the only cost is travel and per diem. USDA does not charge a tuition fee when a student cancels attendance.

Efforts are being made to reduce the training budget by \$2.0 million plus in FY 83. Approximately 65 percent of the training budget is spent for travel and per diem.

To cut costs, new training methods are being evaluated. The AT&T teleteach and teleconference, electric blackboards, and self-teaching video tapes and computers are among techniques being considered.

THOMAS M. BALLENTINE

**GUIDE  
FOR  
EVALUATION  
OF  
DESIGN ENGINEER  
SKILL LEVEL  
IN THE  
SOIL CONSERVATION SERVICE**

This reference may be used for the evaluation of a design engineer's level of design skills within the Soil Conservation Service (SCS). It can be a useful reference in personnel management activities in (a) evaluating an employee's performance and training needs, and (b) providing counsel for career planning and development.

The tables contain categories of engineering sciences commonly used during the design process by design engineers in SCS. These categories are subdivided into greater definition of complexity of the design procedures to permit the clearest resolution of employee skills. The categories are: hydrology, soil mechanics, hydraulics, structural design, water management, and engineering geology. There are others, but these are some of the best identified central topics of civil and agricultural engineering work done within SCS.

The recommended design ASK level indicated for each respective GS grade is based upon the following definitions:

<u>Level</u>	<u>Ability, Skill, and Knowledge (ASK)</u>
1	Awareness - has limited knowledge of task; cannot perform it.
2	Understanding - has knowledge of basic principles and procedure, but can perform task only if assisted in each step.
3	Perform with supervision - can perform the task, but requires close supervision and checking of work.
4	Apply independently - can perform independently unless special problems are encountered; only a general check of work is required.
5	Proficiency - can perform independently; can train others to do the task.

The ASK level shown is expected to be achieved within less than 1 year after working at that GS grade level. The ASK level would be expected to be achieved only for those engineering categories in which work is performed and experience gained.

<u>Application</u>	<u>Level of Complexity and Some Typical Problems and Analyses</u>	Recommended Design ASK Level					
		General Schedule (GS) Grade					
		5	7	9	11	12	13
<b>I. HYDROLOGY</b>							
<b>A. Precipitation</b>							
	1. Determination of precipitation amounts, duration and distribution using maps, curves, and tables from Service handbooks and technical references.	2	2	3	4	5	5
	2. Determination of precipitation amounts for actual storm events using available records from several gauges. Includes development of isohyetal maps or Thiessen weights.	1	1	2	3	4	4
	3. Determination of precipitation amounts involving special studies that include orographic effects.	1	1	1	2	3	3
<b>B. Runoff -- hydrograph development</b>							
	1. Determination of runoff for a single watershed subarea using procedures of NEH 4. Includes estimating the soil cover complex value and the time of concentration of the watershed.	2	2	3	4	5	5
	2. Determination of runoff for a single watershed subarea using Geological Survey records and stream gauge analysis.	1	1	2	3	4	4
	3. Determination of runoff for multi-subarea watershed using records from several stream gauges. Involves a regional analysis and transposition of resulting unit hydrographs.	1	1	1	2	3	3
<b>C. Reservoir Operations</b>							
	1. Includes general knowledge of water yield, water demand, and reservoir losses due to evaporation and seepage.	2	2	3	4	5	5

Application	Level of Complexity and Some Typical Problems and Analyses	General Schedule (GS) Grade					
		5	7	9	11	12	13
	2. Detailed analysis of water yield, runoff variability, base flow, seepage, and evaporation losses. Study will usually involve runoff data from several stream gauges, detailed frequency studies and climatic adjustments required for transposition of the data.	1	1	2	3	4	4
D. Flood Frequency Analysis	1. General understanding and use of the results from published studies.	2	2	3	4	5	5
	2. Development of annual series and partial duration series and common adjustments used for length of record, outliers and mixed distributions; making flow duration analyses and evaluating construction diversion needs.	1	1	2	3	4	4
	3. Able to make a complete frequency analysis using the guidelines contained in Bulletin 17A Revised "Flood Flow Frequency," Water Resources Council. Includes understanding of standard statistical terms used in hydrologic studies.	1	1	1	2	3	3
II. SOIL MECHANICS							
A. Natural Slopes and Embankments	1. Homogeneous soils, solution of stability analyses by handbooks and charts.	2	2	3	4	5	5
	2. Mixture or zoning of rock and soil, some problem soils, detailed graphical or mathematical methods of slope stability analyses, pseudo-dynamic forces.	1	1	2	3	4	4
	3. Complex soil conditions, natural slopes analyses, finite element methods of analyses, dynamic analyses.	1	1	2	2	3	3
B. Seepage and Ground Water	1. Standard practice of use, using chart solutions contained in handbooks.	2	2	3	4	5	5
	2. Quantitative filter and drain analyses and design, two-dimensional analyses.	1	1	2	4	4	5
	3. Analyses by use of flow nets, design of relief wells, and similar three-dimensional quantitative analyses.	1	1	2	3	4	4

Recommended  
Design ASK Level

<u>Application</u>	<u>Level of Complexity and Some Typical Problems and Analyses</u>	<u>General Schedule (GS) Grade</u>					
		5	7	9	11	12	13
C. Foundation and Structures	1. Design of spread footings or single piles, uniform bearing pressures, design by hand-book charts without consideration of sliding.	2	2	3	4	5	5
	2. Design of combined footings, foundations on transition soils (nonuniform) using test data, analyses of sliding and overturning.	1	1	2	3	4	4
	3. Foundations with collapsible soils; cavernous, soluble, and jointed rock.	1	1	2	3	4	4
D. Soil Testing	1. Soil properties limited to qualitative estimates by classification and index testing, construction control methods of testing.	2	2	3	4	5	5
	2. Soil testing for engineering properties other than by triaxial shear methods, know how tests are run and be able to interpret results.	1	1	2	3	4	4
	3. Triaxial shear testing: assignment, controls, and evaluation.	1	1	2	3	4	4
E. Loads and Pressures	1. Determination based on equivalent fluid pressure, handbook charts and tables.	2	2	3	4	5	5
	2. Determination of loads on conduits and lateral pressure where restraint is considered, use of Coulomb and Rankine theories using test data.	1	1	3	4	5	5
	3. Determination of soil pressures by use of Boussinesq and complex pressure distribution theories, with use of soil test data; design of wall tie-backs, cellular walls, rock bolts, etc.	1	1	2	3	4	4
F. Corrosion Control	1. Evaluating field and laboratory test data and designing a corrosion control system for pipes or pipelines.	1	2	3	3	4	4
	2. Evaluating field and laboratory test data and designing a corrosion control system for multimaterial facilities (metal and concrete) and metal structures without a compact shape (headwall extensions and wingwalls).	1	1	2	3	3	3

Recommended  
Design ASK Level

Application	Level of Complexity and Some Typical Problems and Analyses	General Schedule (GS) Grade					
		5	7	9	11	12	13
<b>III. HYDRAULICS</b>							
<b>A. Channels</b>							
	1. Subcritical flows in earth and lined prismatic channels to include provisions for adequate inlet and outlet appurtenances and grade stabilization measures, as appropriate.	2	2	4	5	5	5
	2. Supercritical flows in lined prismatic channels to include appropriate consideration of inlet and outlet (energy dissipation) appurtenances.	1	2	3	3	4	5
	3. Combinations of categories 1 and 2, and to include consideration of nonprismatic sections, junctions, transitions, unsteady, rapid, or varied flow or tidal effects, as appropriate, and as site settings dictate.	1	1	2	3	3	4
<b>B. Pipes</b>							
	1. Forced prime pipe drops and inlet control designs.	2	2	4	5	5	5
	2. Pipe and culverts with free inlet and outlets requiring determination of classification of flow involved (that is, inlet control, barrel control or outlet control) and performance conditions associated with each classification.	1	2	3	4	5	5
	3. Analysis and design of systems involving (a) loop systems, or (b) manifold systems.	1	1	2	3	3	4
<b>C. Structures - Spillways</b>							
	1. Design of all standard spillways developed in keeping with available NEH sections, technical releases, and standard drawings to include single barrel pipe conduit and monolithic reinforced concrete rectangular principal spillways, drop spillways, chute spillways, and earth spillways, etc.	2	2	4	5	5	5
	2. Design of nonstandard pressure flow conduits requiring special design for sustained high internal pressures, inspection galleries, guardian gates, and valved outlet appurtenances. Nonstandard, high-velocity, open-channel type spillways, including energy	1	1	2	3	4	4

<u>Application</u>	<u>Level of Complexity and Some Typical Problems and Analyses</u>	Recommended Design ASK Level					
		General Schedule (GS) Grade					
		5	7	9	11	12	13
	dissipation devices. Flow is controlled in a manner permitting prediction based on theory.						
	3. Hydraulic design of performance is indeterminate by theory and development and evaluation by hydraulic modeling is required.	1	1	2	3	3	4
D. Routing	1. Reservoir routing of appropriate inflow hydrographs to include proportioning of dam and spillway appurtenances. Routing procedures are in accordance with NEH procedures.	2	2	4	5	5	5
	2. Channel hydrology to include concepts involved in developing frequency-discharge and design-discharge relationships for canals, drainage channels, and flood control channels. Dam breach routing is in keeping with published SCS procedures.	1	2	3	4	4	5
	3. Stream routing involving restricted flow obstructions; combining flows from sub-areas and intervening areas.	1	1	2	3	4	4
E. Stream Mechanics	1. Analyzing streams by use of published reports on that stream where the regime parameters have been determined.	1	2	2	3	3	4
	2. Analyzing streams in terms of the wash load sediment transport only.	1	1	2	3	3	4
	3. Analyzing stream mechanics to include consideration of stream morphology, erosion processes, hydraulic properties of fluvial sediments and sediment kinetics. Design based on these principles for moveable boundary solutions.	1	1	2	2	3	3
IV. STRUCTURAL DESIGN	1. Design of elementary reinforced concrete structures or structural components, such as simple beams, columns, isolated footings, one-way slabs, and small retaining walls. Requires a knowledge of determinate structural theory, and basic reinforced concrete design theory.	2	2	4	5	5	5

Application	Level of Complexity and Some Typical Problems and Analyses	General Schedule (GS) Grade					
		5	7	9	11	12	13
	2. Design of intermediate structures--that is, structures of a difficulty routinely encountered in service practice and for which criteria and procedures are available in Service publications or other ready references. Requires knowledge of engineering dynamics, intermediate strength of materials, theory of indeterminate frames, and intermediate reinforced concrete design theory.	1	2	3	4	4	5
	3. Design of complex structures--that is, structures of a difficulty beyond those routinely encountered in Service applications and for which criteria and procedures are not available in Service publications nor readily available in other references. Requires knowledge of structural dynamics, advanced strength of materials including theories of elasticity and plasticity, structural theory of indeterminate plate structures, and advance concrete design theory.	1	1	2	3	3	4
<b>V. WATER MANAGEMENT</b>							
<b>A. Irrigation Systems</b>	1. Design of single field border or furrow system with water delivery by subcritical gravity flow field ditch or by use of pipes using handbook charts for design.	2	2	3	4	5	5
	2. Design of individual farm systems using furrow, border, sprinkler, or drip with water delivery under pressure or lined canals with supercritical flows; water management plans for salinity control.	1	2	3	4	4	5
	3. Design of multifarm systems using the applicable method of water application with large distribution canals, large pumping plants with high pressures or lifts; water management plans for salinity control.	1	1	2	3	4	4
<b>B. Drainage Systems</b>	1. Design of single field systems; surface or subsurface; soil without erosion or piping problems; feed grain crops, gravity outlets.	2	2	3	4	5	5

Recommended  
Design ASK Level

Application	Level of Complexity and Some Typical Problems and Analyses	General Schedule (GS) Grade					
		5	7	9	11	12	13
	2. Design of single farm systems; surface and subsurface; includes pump outlets; includes specialty crops or problem soils.	1	2	3	4	4	5
	3. Design of multifarm systems; includes pumping plants, controlled water table systems and structures, specialty crops, salinity control and outlet channels.	1	1	2	3	4	4
C. Water Supply and Disposal Systems	1. Design of single field systems; ditch, pipe, or canal; gravity free surface subcritical flow or low velocity and pressure pipelines; stream, spring, and reservoir.	2	2	3	4	5	5
	2. Design of single farm systems; ditch, pipe, or canal; includes well sources, pumps with moderate pressures and low capacity.	1	2	3	4	4	5
	3. Design of multifarm systems; includes automatic flow and pressure regulators; pumps with high pressures and moderate capacity.	1	1	2	3	4	4
VI. ENGINEERING GEOLOGY	1. Logging and classification of soil materials with qualitative evaluation of engineering properties; type of geologic process of soil deposit; recognize engineering characteristics and significance of soil origin and history.	2	2	3	4	5	5
	2. Evaluating and outlining site investigational needs with respect to structural elements based upon reconnaissance and preliminary geologic reports; making progressive reviews for adequacy of scope, field testing, sampling and classification testing; computing permeability based upon field testing.	1	1	2	4	4	4
	3. Evaluating investigative data, including soil logging, permeability testing, standard penetration testing, core penetrometer, vane shear and other field tests, and laboratory test data into engineering property parameters to be used in design; parameters to include shear modulus, Poisson's ratio and other values relating to strength permeability and compressibility of the soil and the hydro-geologic relationships or the	1	1	2	3	4	4

Application

Level of Complexity and Some Typical  
Problems and Analyses

rock-soil boundary; evaluation of laboratory test data, geologic report, and interpretation determining engineering significance and effects during design analyses in a quantitative manner; analyses of natural slopes of rock and transitional soil-rock materials.

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Ms. Judith M. Jaffe, Director of Management Development Division, HUD, Room 3172, 755-9236

1. Responsible Organization. The Office of Training has 3 divisions:

- Support - logistics and facilities
- Programs - technical training
- \*Management and supervisory training

There is no umbrella committee with responsibility for the department's training. However, the union contract requires an employee committee to review training activities. The thrust of training at HUD is influenced significantly by the policies of political appointees in the current administration. Maintaining central control of training at HUD headquarters is important.

2. Types of Training. See Attachment 1 for a list of in-house management development courses. In addition, HUD will pay tuition for employees to take job related courses at a local university or a course offered by the American Management Association. Employees also attend OPM courses.

3. Career Path. HUD has given some consideration to relating advancement of managers to training requirements and experience factors. Although the idea has merit, as a result of the political system in HUD, it is not workable.

4. Location. Courses are taught at HUD headquarters and a Training Center located in Columbia, Maryland.

HUD has a policy that new managers must have 80 hours of training during their one year probationary period. It is the responsibility of the individual and his supervisor to schedule the training. Of the total, 40 hours must be a personnel practice course. The other 40 hours may be any courses on the list. There is no process for keeping track of training.

5. Instructors. HUD staff is used to teach most courses. Instructors at headquarters devote full time to training. Employees from regional offices are also used. The lack of trained instructors is a problem. Contractors are rarely used to instruct because the Assistant Secretary opposes the idea.

It is common practice for instructors from headquarters to put on a course to train regional training officers who in turn present the course in the field.

WRSC-IWR

28 July 1982

SUBJECT: Interview with Ms. Judith M. Jaffe, Director of Management Development  
Division, HUD, Room 3172, 755-9236

6. Evaluating. How to measure change as a result of training is the main objective. HUD has been using student happiness factor evaluation which has limited usefulness. A new system is being initiated. It has two parts:

- (1) prior to conclusion of the course each student prepares an action plan for use at the office
- (2) Several months after the class the students are contacted to discuss their success in implementing the action plans

In the future a third step will be added: an interview with the student's supervisor about how training is affecting performance.

7. Financing. Training is financed by headquarters. Tuition system is not used.

8. Future Plans. HUD is involved in a continuing study to determine what training is needed by executives and managers. Information is being obtained from the field. Among questions under study are: What needs are there that have training solutions; How to build a HUD executive. A model of an ideal HUD manager will be developed by what training and developmental assignments are needed to develop the model manager.

THOMAS BALLENTINE,

29 July 1982

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Skip Schmidt, Water Resources Division Training, USGS  
5A424, 86D-6945

1. Career Development. The Water Resources Division has a strong commitment from management to support the Manpower Career Development System (MCDS). The MCDS consolidates personal information about employees into a data base. Data is collected annually for different categories of employees on 4 forms:

- a. - Career Development Plan-WRD-A (Attach 1 & 1-A)
- b. - Employee Performance Appraisal-WRD-B (Attach 2) (for all employees)
- c. - Personnel Management Evaluation Data WRD Professional Employees (for technical professional employees) (Attach 3)
- d. - Assessment of Management and Supervisory Potential at Present or Next Highest Grade Level-WRD-D (for employees in grades GS-12 and above) (Attach 4)

Information for Individual Development Plans is entered in the data file by an employee to achieve grade XX. Annually biographical and bibliographical data may also be entered. As an employee applies for training record is entered in career development system. The system contains for each employee:

- Historic file
- Individual development plan for each year
- Evaluation of professional factors
- Assessment of who has potential managerial qualities

General job effectiveness factors were added, but have been discarded as too subjective, Employee Performance Appraisal will be replaced with Performance Standards.

The central data base is up-dated every two weeks from data entered into holding tapes at field offices.

Personnel Management Evaluation Data factors are keyed to statement of qualifications in job announcements.

WRSC-IWR

29 July 1982

SUBJECT: Interview with Skip Schmidt, Water Resources Division Training, USGS  
5A424, 86D-6945

2. Courses. The USGS Management Development Program stresses a continuing program of learning and of personal and professional development. The learning program identifies training necessary for supervisors and managers at every level of responsibility. Individuals are expected to complete the training prior to the new assignment or within the first 2 or 3 years in the position.

The Management Development Guide contains lists of representative courses and sources. Following the lists in a Planning Guide that matches levels of management to recommended and required training (See Attachment 5). The emphasis is on having an individual start early in his career to get management training.

3. New Types of Training. To reduce costs:

- self instruction
- correspondence courses - independent work for 6 months followed by a week of class at a training facility
- video tapes combined with written material and instruments. Some chapters are video-taped, others are read. Instrument used in the field.

4. Note. Parts of the USGS career development program and the management development guide could be adapted to the Corps of Engineers. A pilot program should be developed for Planners and at IWR.

THOMAS BALLENTINE

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Mrs. Clementine P Pinner, Director of Training,  
National Park Service 1100 L Street N.W., Room 5101 523-5290

1. Responsible Organization. The division of training in D.C. has overall responsibility for training field locations, two division training centers are involved in the process.

2. Types of Training.

- Department Managers Development Program a combination of OJT and formal training in which field personnel are assigned to temporary duty in D.C. for 10 to 12 months and reassigned after completing the training.
- In house courses on subjects that are unique to the Service.
- Employees in regions may attend local colleges and universities. Tuition may be paid by the Service if the course is beneficial to the employee's job.
- Correspondence courses from various sources.
- Video tape packages - the Service either purchases or develops training in this format.
- Contract courses - for example the American Association of State and Local History is developing a historic interpretation course which will be used in FY83 to train over 200 employees.
- Mandatory training - although OPM denies that it is required, the Park Service has a list of mandatory training required by regulations, Presidential directives, legislation and Service policies.

3. Location of courses. Most service training is conducted at two permanent training centers located in Harper's Ferry, West Virginia and the Grand Canyon. Basic Law Enforcement for Land Managers, taken by all Rangers, is taught at the Federal Law Enforcement Training Center operated by the Treasury Department at Glencoe, Georgia (This facility is also used by the Corps, FWS, and TVA). Service Training is also conducted at park facilities and regional offices. Some courses are conducted by service employees at a university. For example a package which includes this use of facilities, lodging and meals is available at Colorado State University.

27 July 1982

SUBJECT: Interview with Mrs. Clementine P. Pinner, Director of Training,  
National Park Service 1100 L Street N.W., Room 5101, 523-5290

4. Career Path. The Service no longer uses a career ladder; training and promotion are not linked. However, certain employees (for example those in contracting) must take courses in order to progress to higher levels. It is required that all new employees prepare individual development plans which are monitored by Regional Training Officers.

A program of required training has been developed and is used in the Ranger Program. The program consists of field training and orientation to the Service. The Regional Training Officer is responsible, quarterly reports are submitted to the headquarters training office where the individual development plan and Ranger's progress is monitored.

Service is considering the use of para-professional archeologists. Part of the program would be required training.

5. Annual Training Plan. Development of the annual training plan is related the performance appraisal cycle and IDP which indicate areas of weakness where training could be beneficial.

Regional training plans are submitted to Washington for review. Program managers at headquarters make recommendations about training to meet service-wide needs. A meeting is held in Washington to rank subjects in which training will be conducted during the year. Depending upon the category, courses will be scheduled at a service center; those of more local interest will be taught at the regional level.

Draft proposals for new training courses are submitted to the Training Development Review Board and may also be reviewed by Regional Directors.

Information about courses to be taught during a year are announced in the Courier which is distributed throughout the service and in Regional training announcements.

6. Instructor Training. Service instructors are not required but are encouraged to attend training. The Service sends instructors to the University of Maryland, Instructors Training Program and to courses offered by Practical Management Associates, Inc. (Annandale, VA. 256-9209),

As part of a contract the Service also requires a vender who is developing a training course to train Park Service employees in how to teach the course.

7. Evaluation. Different methods of evaluation are used by the Service:

- Happy sheets are filled out by students
- pre and post performance evaluation by supervisors
- instructor evaluation during course
- assignments - prior to some courses students are given tasks by their supervisors. Replacing hypothetical case studies, students work evenings and during breakout sessions on their assignments. Presentations are made and critiqued during the class. Back on the job, Supervisors evaluate work on the assignment

WRSC-IWR

27 July 1982

SUBJECT: Interview with Mrs. Clementine P. Pinner, Director of Training,  
National Park Service 1100 L Street N.W., Room 5101 523-5290

8. Financing. Courses presented at the Park Service training centers and the Federal Law Enforcement Training Center are funded by headquarters. Regional offices have training budgets. The Service does not use a student tuition system.

THOMAS BALLENTINE

29 July 1982

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Ernie Jones, Assistant Director of Employee Development, Bureau of Land Management, Board of Trade Building, 1129 20th Street, 655-8847

1. Responsible Organization. Department of Employee Development assisted by the Training Committee which approves proposals for new courses.

2. Types of Training. BLM training is based on the need to keep employees up-to-date with rapid changes in the-state-of-the-art.

Training needs are evaluated on a 3 to 5 year cycle use of a questionnaire and analysis memo. Students register for courses listed in the bureau catalogue 2 to 3 months in advance of the course date. The number of students registered during a year cannot exceed the budgeted quota.

- In house - conducted by BLM instructor
- College and university long-term agreements with institutions - employees attend regular degree programs
- American Management Association - seminars
- Management training - the Bureau is emphasizing strategic planning and a future management for the 1980's and 1990's to prepare manager and potential managers for developing and carrying out future missions. See attachment 1.
- Reading lists - the authors of a book is invited to a discussion with employees who have previously read the book

3. Location. BLM maintains training centers at Phoenix, Denver and Boise. Employees also attend the Federal Law Enforcement Academy at Glencoe, Georgia.

4. Career Development. New supervisors and managers are required to attend the Supervisors and Managers Development Program. The two-phased program is taught by BLM subject specialists and instructors from universities. Sup I is attended within 30 days of assuming a supervisory or managerial position. It is given both in Washington and in the field. Sup II is attended 4 to 5 months later. Each segment is 5 days in length.

The BLM is working with field training officers to develop a process that links sequencing of training with job advancement.

5. Instructors. A combination of in-house and contract instructors are used to teach BLM courses. Instructor training is required for some employees depending upon their background and experience.

WRSC-IWR

29 July 1982

SUBJECT: Interview with Ernie Jones, Assistant Director of Employee Development, Bureau of Land Management, Board of Trade Building, 1129 20th Street, 655-8847

Employees who attend university courses, and professional association seminars often attend for the purpose of learning enough to prepare a BLM inhouse course.

6. Evaluation. Supervisors use their own informal system to evaluate training. BLM is considering the use of pre and post testing.

7. Financing. Training is financed from the headquarters office budget. Tuition fees have been charged for a few courses.

8. New Techniques. In an effort to keep employees in their home office, but also keep them abreast of changes in their fields, BLM is investigating new training techniques. Techniques being developed are:

- use of video taped training modules
- self-study aids
- desk aids
- establishing learning centers at state offices - a room where employees can read, find desk order and self-study courses and look at videotapes
- training cadres travel to field offices and present courses
- guides for small group discussion after watching video taped presentation

THOMAS BALLENTINE

**INSTRUCTIONS**

Submit original to Director (533).

Training Program Leader - Person responsible for: (1) developing or coordinating a course, workshop, conference, or training program; (2) insuring effective management of a course, including benefit-cost analysis.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Subject-Function  
Classification

1441-2

**COURSE OUTLINE**

1. Course Title <b>Managing for the 80's - Area Managers</b>		2. Type of Training <b>Management</b>			
		Program Code (enter in Box 11, DI 510 A)			
3. Training Program Leader <b>E. K. James WO 833 (202) 653-8847</b>		4. Instructor Staff (list number and source (WO, SC, etc.) of BLM and non-BLM instructors) <b>4-WO 1 - Nevada 4 - non-BLM 2-DSC 1 - Arizona 1-Idaho Phoenix T C Staff</b>			
5. Location (City, State, Facility) <b>Phoenix Training Ctr. Phoenix, Arizona</b>	6. DATES		7. DURATION		
	BEGINNING	ENDING	HOURS	DAYS	WEEKS
	<b>March 23, 1983</b>	<b>March 29, 1983*</b>		<b>7*</b>	
8. Activity (list benefiting activity or subactivity) <b>*7 consecutive days (including Saturday and Sunday)</b>				9. Participants (no. students) <b>50</b>	

10. Performance Objectives (describe the measurable performance expected from trainees upon completion of training)  
At the completion of this course, trainees will be able to demonstrate skills and knowledge in the following areas:

1. Public administration and politics
2. Conflict Management (including internal organizational Conflict and conflict with the public)
3. Organizational Development
4. Strategic forecasting and planning for alternative futures

11. Brief description of course

- I.. Philosophy and goals of the Secretary of the Interior/BLM Director
- II. The role of the Area Manager as public administrator in a political world
- III. Panel discussions - BLM publics and user groups/key resource and administrative issues.
- IV. Organizational development techniques and application to management issues
- V. Managing conflict skills
- VI. Historical Perspectives
- VII. Skills in strategic forecasting and planning for alternative futures

12. Target Group ( $\frac{1}{2}$  line managers/ $\frac{1}{2}$  key staff) Area Managers, District Managers, Associate District Managers who did not attend in FY 82, selected key staff personnel.

13. Cost (insert asterisk after items to be paid by participants)

a. Tuition (list items included)	\$ None	Outside Instructors/ Contractors/ Consultants	Paid for by WO (833) \$ 7,000
Participating States pay travel and Per Diem		c. Facility & equipment rentals	\$ 3,000 (Paid for by WO-833)
TOTAL	\$	d. Materials & supplies	\$ 800 (Paid for by WO-833)

3 August 1982

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Edw. Heitov, Assistant Director Program Related Training, Bureau of Labor Statistics, 441 G. Street, Room 2870, 523-1565

1. Responsible Organization. Technical training for office and field operations is the responsibility of The Washington office assisted by 8 regional training offices.
2. Types of Training. As a result of employee turnover and program changes the department conducts continuing training in the following program areas:
  - Prices
  - Wages
  - Federal/State

Students are permanent-parttime employees with educational backgrounds which range from a BA in economics to no college education. The basic process does not change, but as programs are refined new training is required.

Information about program training needs originate in the Washington office and from regional offices. Recommendations include new ways to tackle existing problems or new subject areas.

Course objectives are reviewed and approved by the responsible program office. Training course is designed and reviewed by the Office of Survey Design.

Periodically courses undergo a detailed review and methods or procedures may be revised.

Courses are scheduled every other month. Phase I Courses inform regional office employees about programs. Phase II courses focus on problem commodities.

The introductory course is offered 4 times a year. Announcement is by annual calendar and a reminder sent 10 weeks prior to course date.

Nominees are submitted. Course size is usually 15 to 20 students. Headquarters decision of where to hold course is based on location of students. Hotel training space is obtained 2 months prior to course. Final course announcement is sent out 5 weeks ahead.

The department sends pre-course materials to students which include reading material questionnaires and pre-tests. The latter, two, which are returned prior to the course, provide information to instructors. Reading and answering questions benefits students by helping them to quickly become involved in the classroom work.

WRSC-IWR

3 August 1982

SUBJECT: Interview with Edw. Heitov, Assistant Director Program Related  
Training, Bureau of Labor Statistics, 441 G. Street, Room 2870  
523-1565

Colleges and universities are not for Labor Department training. Although there is no formal career development-training policy, employees must attend training courses in order to do the job.

3. Career Development. Phase I basic consumer price index training is given an employee soon after coming on the job. This is followed in 3 to 6 months of work by Phase II training on specific services and commodities. Over a 5 year period employees are given rotational training.

4. Instructors. Instructors are usually department employees with extensive field experience who volunteer to teach. They attend instructional methods training at the University of Maryland or OPM and spend time as co-trainer with experienced staff.

Contractor may be used to assist in developing a course, teach it one time, then the department takes it over.

5. Evaluation. Quizzes are given during training. They are not used to fail students. Regional office supervisor is informed about a student's weaknesses.

6. Financing. Regional program officer pay for training received by employees.

THOMAS BALLENTINE

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Dan Tillman, Director of Technical Development  
Division, HUD, Room 31, 755-7940

1. Responsible Organization. The Office of Training has 3 divisions:

Support - logistics and facilities  
Management and supervisory training  
\*Programs - technical training

2. Types of Training. Responding to legislative changes, 150 courses are given annually on new programs or changes in existing programs. Political realities make training for new programs the department's top priority.

New courses are designed in 10 weeks. Currently, work is underway on courses to be taught in September and October. Training specialists and subject matter experts prepare information, case studies, tests and other materials as well as serve as instructors.

Headquarters determines who from regional offices attends training courses.

Little emphasis is placed on training new employees in basic subject matter or in retraining older employees. A training needs study has been done to develop a list of subjects for which courses could be developed. Surveying training needs is not an annual occurrence. Ideally, if funds and manpower were available a study which addressed the following would be beneficial:

- identify individual deficiencies
- determine what skills employees should have in various positions
- relate to performance appraisal to identify weaknesses
- develop training courses

3. Career Development. Program training is not related to career development. Necessity to respond to legislation makes it impossible to support training related to career development.

4. Instructors. Instructor training is held every 2 to 3 months as needed for subject matter specialists who teach. There is also training in how to design courses.

Employees are brought to the training center in Columbia, Maryland.

4. Evaluation. HUD evaluates training in several ways by using:

- OPM cost model
- pre and post training testing of students
- happiness reports
- establishing measurable objectives and levels of what is expected from students

WRSC-IWR

28 July 1982

SUBJECT: Interview with Dan Tillman, Director of Technical Development  
Division, HUD, Room 31, 755-7940

- evaluation memorandum - sent to the program area manager contains course objectives and evidence they were accomplished; cost; student test results; summary of reaction questionnaires; and recommendations for improvements.

Of the four levels of evaluation that the department would like to achieve, HUD uses:

- evaluation of classroom learning based on measurable objectives, and
- happiness reports

Two other important evaluation techniques are not used:

- measuring job improvement
- evaluating how training improved mission accomplishment

5. Financing. HUD headquarters pays travel and per diem and regional officer pay salary of students. Instructors are detailed for program offices to training. No tuition is charged.

THOMAS BALLENTINE

22 July 1982

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Mary Ann Ruth, Director of Management Training, IRS, Bldg 6, Crystal Plaza, Corner of Clark and 23rd, Arlington, VA. 557-2210

1. Responsible Organization. IRS technical and management training is administered by the Training and Development Division Office located in Arlington, Virginia. Training is provided for staff at headquarters, in 7 regional offices, 59 district offices and 9 computer centers.

2. Types of Training. Currently IRS conducts 550 training courses. In addition to courses which are taught annually, when new programs are being planned training needs are designed for employees who will be working in the program. Headquarters determines if training is critical or only to be recommended. Training provided by IRS is on subject matter that is not available elsewhere. The program is formally structured and includes a combination of classroom and OJT. Both day and evening sessions are held.

- Technical - within the first year of employment a new agent goes through prescribed phases of training which includes 30 days of OJT, 6 weeks in a classroom, 1 month to 6 weeks OJT and 3 to 4 weeks in a classroom. A similar procedure is followed annually to discriminate new program information. Other types of technical training is prescribed. Employees engaged in certain activities must complete required courses in order to be able to work or to be promoted.
- Management - with 6 months of an assignment new managers/supervisors begin to take a group of required Management Practices Courses which must be completed within a prescribed period of time. Within the first 12 to 18 months on the job it is mandatory for managers/supervisors to complete the Functional Management Training Course. Mid level managers attend OPM seminars. Annually 5 employees are selected to attend management training at Syracuse University for one semester. In a similar program only available for women, 2 employees attend Simmons College where the Harvard Case Study programs is taught.
- Executive - For training executive level employees many attend one or more courses as: OPM Executive Seminars, Treasury Department Seminars, JF Kennedy School, Harvard Business School, Stanford, Darmouth and other universities

WRSC-IWR

22 July 1982

SUBJECT: Interview with Mary Ann Ruth, Director of Management Training, IRS,  
Bldg 6, Crystal Plaza, Corner of Clark and 23rd, Arlington, VA. 557-2210

3. Location of Courses. IRS training courses are taught at the training center, Arlington, Virginia, field training is provided at regional and local sites. High level training for executives is often held in rented hotel space.
4. Career Path. IRS has mandatory training requirements for employees which are related to position held, program and advancement. Representatives from national and regional offices serve on Continuancy Professional Education Councils and monitor training needs of employees.
5. Training Needs. Annually an assessment is made of training needed for recruits and incumbents. The FYxx training program is part of the annual budget review. Requirements for recruit and incumbent training are submitted by local offices to regional offices and forwarded to headquarters. At the lowest level, local offices a. Training Advisory Committee (composed of the training officer and management and union representatives) prepare proposals for training. At headquarters list is prepared ranking training course which will be available during the year. Funding is projected and staffing is identified.

The decision to develop a new training course is shared by the Training and Development and a program office. A task force is appointed to describe the basic concepts, knowledge abilities and skills required.

A review is made of similar training in private industry and other organizations. Equipment vendors are identified. Courses are often developed by Service employees. Contractors are used for subject areas such as ADP which are rapidly changing.

6. Instructors. IRS depends heavily on employees as full and parttime instructors. The Service recognizes that instructors and managers should both possess characteristics of leadership, communication and interest. Resident Lead Instructors are relieved of their regular duties for 1 to 2 years and put into a training position at one of the regional training centers. Following the training assignment the instructor is assured of a promotion.

Contract instructors are used in courses on rapidly changing technology such as ADP.

7. Instructor Training. Instructors of technical subjects are given 80 hours of training in teaching techniques. Employees who teach management and executive courses complete the basic 80 hour course as well as a 3 to 4 day course for teaching supervisors. In addition, course design and gaining and simulation workshops are available to Service instructors.

8. Financing. Headquarters allocates training funds to regional centers on the basis of the preceding year and advanced listing of personnel to be trained in the forthcoming fiscal year. Tuition charges are not used. Executive training is centrally funded.

WRSC-IWR

22 July 1982

SUBJECT: Interview with Mary Ann Ruth, Director of Management Training, IRS,  
Bldg 6, Crystal Plaza, Corner of Clark and 23rd, Arlington, VA. 557-2210

9. Evaluation. Students are evaluated during practical exercises. Tests are also used as indicators. Students are flunked out of IRS courses. Usually, however, the instructor will notify the student's supervisor or OJT coach about weaknesses which need attention. A new employee's training record is certified by his supervisor or OJT coach.

10. Future Plans. The Service is working on plans to shorten classroom hours and reduce travel costs. The goal is to make 25 to 30 percent training self-instruction through the use of video taped instruction packages and desk guides. Currently, per-reading is often required prior to attending the classroom sessions of a course.

26 July 1982

## MEMORANDUM FOR THE RECORD

SUBJECT: Interview with Ms. Louie Pectol, Director of Employee Development,  
USGS National Center, 1A328 - 860-6123

1. Types of Training. The Survey provides a wide variety of training for its employees. Although there are no required courses that an employee must attend for career advancement, Survey employees attend training provided by:

- local colleges and universities: Both technical and undergraduate courses and MA and PhD degrees (6-7 from each division annually) a university may be hired to tailor a course to USGS needs and teach it at a center or a university
- professional societies
- in-house courses conducted at 6 field research centers from 2 days to 1 week in length
- courses provided by industry=petroleum engineering taught by oil company

The Survey has many close links to colleges and universities through professors who are employed to do research, students who work with field survey parties, and USGS employees who teach evening courses at local institutions. It is not unusual for individual employees to seek out training and pay for it.

2. Responsible Organization. There is a Training Committee at the Survey headquarters and at field divisions. The committee at headquarters makes policy for the entire Survey and plans training for the 3000 employees at the National Center.

An training needs survey is submitted each September to determine courses for the next fiscal year. The Director of Employee Development evaluates needs and determines which subjects are better for individual and group training

3. Career Path. Annually each Survey employee fills out a development plan with counseling from his immediate supervisor. The plan includes an individual's training needs.

WRSC-IWR

26 July 1982

SUBJECT: Interview with Ms. Lovie Pectol, Director of Employee Development  
USGS National Center, 1A328 - 860-6123

4. Location and Scheduling of Courses. Colleges, universities, Survey offices, industrial facilities. Courses are scheduled on a month-to-month basis and announced in the monthly training bulletin.

5. Instructors. Both Survey employee and contractor instructors are used. Problems have occurred with employee instructors among them: subject matter specialists may be poor teachers, employees are taken away their regular duties.

Training Specialists in field offices have been delegated procurement authority with a limit of \$10,000. Using a limited bidders list, a contract is awarded on the basis of the lowest bid that meets the needs of the Survey. The result is a much speedier procurement process.

6. Evaluation. The OPM standard evaluation is used for individuals enrolled in college or university courses.

Vendors have their own evaluation procedures.

There is no student testing during group training. Students evaluate the course. The Supervisor of a student evaluates improvements in the employees' performance as a result of training.

Program evaluation is the weakest part of Survey training.

7. Financing. Training is funded by the National Center. No tuition program is used. For individual training divisions have authority to approve training at a local university. Division Chiefs have, authority to approve up to 80 hours of individual training per year without going through the regular contractual process. Attendance is usually at courses given by a local college or university or a professional society. This authority has been granted because of the interest in technical training and the need to keep up with changes in a field.

8. Future Planning. The Survey is working on an automated training scheduling system some what like airlines use for reservations.

The kinds of training to maintain the skill mix of the workforce, facilitate changes from one field to another and changes from traditional cartographic methods to automated cartography are being studied.

THOMAS BALLENTINE

9 December 1982

WRSC-IWR

MEMO FOR RECORD

SUBJECT: interview with John Zottoli, Office of Personnel Management

1. Zottoli's interest is sales of OPM training courses. Consequently, most of our conversation was on ways OPM could provide training for Corps personnel. Several catalogs were obtained which list courses that may be of interest. Courses may be taken in several locations: regional training centers, Washington, or at locations designated by the Corps. Regarding the third option, OPM will teach an existing course at a site(s) designated by the Corps or develop new course material in conjunction with Corps subject matter specialists. In addition, OPM has independent study courses on a variety of subjects.
2. OPM has the capability of developing profiles of competent personnel and matching training to skills that are needed to attain competence. OPM contracts with video and motion picture film producers may be used by the Corps. Corps personnel may enroll in OPM's training course on presentation techniques.
3. Zottoli thinks there are problems if promotion is related to training. Rather, promotion should be related to demonstrations of competence and work performance at a higher level than previously demonstrated. Zottoli suggested creation of a cadre of potential managers, preparing to assume supervisory positions. After assignment to a cadre, members are required to take certain training courses, participate in on-the-job training and work on special assignments such as instruct classroom training. Screening takes place throughout the process.
4. On the subject of evaluation, Zottoli recommends use of the Participant Action Plan Approach. Toward the conclusion of a training course, students are asked to make a contract with themselves to put a part or all of what they learned into use soon after returning to the office. An actual situation is described in writing and discussed in the class.

THOMAS B. BALLENTINE

APPENDIX E:  
DATA ON LONG-TERM TRAINING

APPENDIX E:  
DATA ON LONG-TERM TRAINING

The Planning Associates Program

The Water Resources Planning Associates Program is conducted for the Corps at the Board of Engineers for Rivers and Harbors (BERH). The lone member of the first class graduated in 1962. Altogether, and including the participants who will finish in 1983, the program will have graduated 253 PA's.

Geographically, the distribution of PA's at the time they were in the program is summarized below. A complete tabulation of the distribution of graduates by year and sponsoring office is given in Table 1.

Sponsoring Office	Total Number FY 62 - FY 83	Percent
LMVD	22	8.7
MRD	18	7.1
NED	3	1.2
NAD	26	10.3
NCD	27	10.7
NPD	27	10.7
ORD	32	12.6
POD	2	0.8
SAD	30	11.9
SPD	17	6.7
SWD	40	15.7
OCE	4	1.6
Labs/Other	5	2.0
		100.0 %

Table 1

Distribution of Graduates of the Water Resources Planning Associates Program by Division and Year

	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	Total
LMVD					3	1	3		1	1	1			1	2	2	2	1	2		1	1	22
MRD			1	1	1			2	1			1	2	1	2		3		1		1	1	18
NED		1	1															1					3
NAD		1		2		1		1	2		2	2	3	2	1	1	1		1	2	2	2	26
NCD		1			1		2	1	3	2	2	2	2	2	2			1	1		2	3	27
NPD			1		2	1	2		1	1	3	2	2	2		3	1	2	2		1	1	27
ORD	1			1		2	3	3	2	2	1	3	2	1	1	2	1	1	5			1	32
POD																	1					1	2
SAD			1				1	1	1	1	1	1			4		3	4	3	3	2	4	30
SPD		1			2	3		1		1	1	1	1		2	1	1	1	1	1			17
SWD			2	1	1	2	1	3	2	2	3	4	3	2	2	4	1		3	3	1		40
OCE														1		1		1		1			4
Labs/Other						1				1	1						1	1					5
TOTAL	1	4	6	5	10	11	12	12	13	11	15	16	15	12	16	14	15	12	14	15	10	14	253

E4

By discipline, most PA's have been Civil Engineers and prior to FY 72, they were nearly exclusively so. The representation of disciplines of the 179 PA's who graduated over the period FY 71 through FY 83 is listed below:

Discipline	Number of PA's FY 71 - FY 83
Civil Engineer	107
Hydraulic Engineer	15
Landscape Architect	9
Regional Economist	9
Outdoor Recreation Planner	6
Economist	6
Community Planner	6
Ecologist	5
Biologist	4
Environ Resources Spec	3
Environmental Planner	2
Geographer	1
Marine Biologist	1
Cultural Resources Spec	1
Wildlife Biologist	1
Operations Research Anal	1
Sanitary Engineer	1
Total 179	

With few exceptions, graduates of the program have remained with the Corps and several have gone on to key positions within the BERH and various Corps offices. Through FY 79, 60 percent of the graduates were still with the same Corps office that sponsored them for the program and only 8 percent were no longer in Corps employment.

Approximately every two years, BERH conducts a survey of PA graduates to assess and update the impact of the training on the careers of all those who had completed it up to that time. Results of the 1982 survey will not be completed until early spring 1983. However, results of the 1980 survey (graduates from FY 62 - FY 79) were summarized in the 1980 Planning Associates Annual and are presented in the following tabulations. According to the 1980 survey, 70 percent of the graduates have been promoted at least once and 30 percent have been promoted twice since graduation.

Summary of main points of the 1980 survey of PA's:

• Distribution of promotions among PA graduates.

<u>Number of Promotions per PA</u>	<u>Number of PA's</u>	<u>Total Number of Promotions</u>
1	79	79
2	43	86
3	14	42
4	3	12

• Distribution of geographical changes among PA graduates.

<u>Number of Moves per PA</u>	<u>Number of PA's</u>	<u>Total Number of Moves</u>
0	120	0
1	50	50
2	26	52
3	4	<u>12</u>
Total		114

• Distribution of PA's by position responsibility.

Section Chiefs	31
Branch Chiefs or Assistants	42
Division Chiefs or Assistants	10
Office of the Chief of Engineers	10
Board of Engineers for Rivers & Harbors	10
Office of the Secretary of the Army	<u>1</u>
Total	104

Sufficient data has been compiled from the 1982 survey to list, by reason, the number of PA's who have left the Corps service:

Deceased	6
Retired	7
Currently working for other Federal agencies	10
Left Federal Service for employment elsewhere	10

Programs Through Academic Institutions

The Corps also offers long-term training to planners through the Civil Works Fellowship Program and Locally-Sponsored Funding. Unlike the Planning Associates Program, these programs provide for training of all types of civilian employees and that is obtainable at academic institutions. The Civil Works Program is specifically set up for graduate level study. This section presents data on participation in these academic programs over the last five years (FY 79 - FY 83).

During that time period, 138 employees have enrolled in these programs, of which 42 (30 percent) were in planning-related activities. By comparison, 65 completed the PA Program between FY 79 and FY 83). The distribution of these participants by originating office is given below:

Office	Total Number FY 79 - FY 83	Total Number in Planning Activities
LMVD	14	3
MRD	2	0
NED	0	0
NAD	5	5
NCD	10	4
NPD	9	5
ORD	11	6
POD	0	0
SAD	26	8
SPD	11	7
SWD	7	2
OCE	2	1
LABS	41	1
	138	42 (30%)

By year, participation has been as follows:

Year	Total Number Corps Wide	Total Number in Planning Activities
FY 79	26	15
FY 80	28	6
FY 81	24	8
FY 82	30	7
FY 83	30	6
	138	42

The 42 employees in planning activities pursued long-term training in the areas listed below. Thirty-six percent took training in water resources planning.

Water Resources Plng	15	Social and Land Use Analysis	1
Water Resources Engr	1	Land Economics	1
Water Resources Mgmt	2	Planning	1
Public Admin in WR Plng	1	Natural Resources Econ	1
Hydraulic Engr	3	Business Concepts	1
Coastal Engr	2	Operations Research	1
Civil Engr	1	Engr Mgmt/Production Plng	1
Environ Sci/Studies	2	Aquatic Ecology	1
Anthropology	1	Marine Science	1
Cultural Res. Mgmt	1	Water Quality	1
Resource Mgmt	1	Marine & Atmos Sci	1
		TOTAL	42

The most-attended institution was Colorado State University (which offers a water resources planning program), with 13 students. Next, with three students, was Stanford University, which also offers a water resources program. All of the remaining 26 planners attended well-respected institutions scattered across the country.

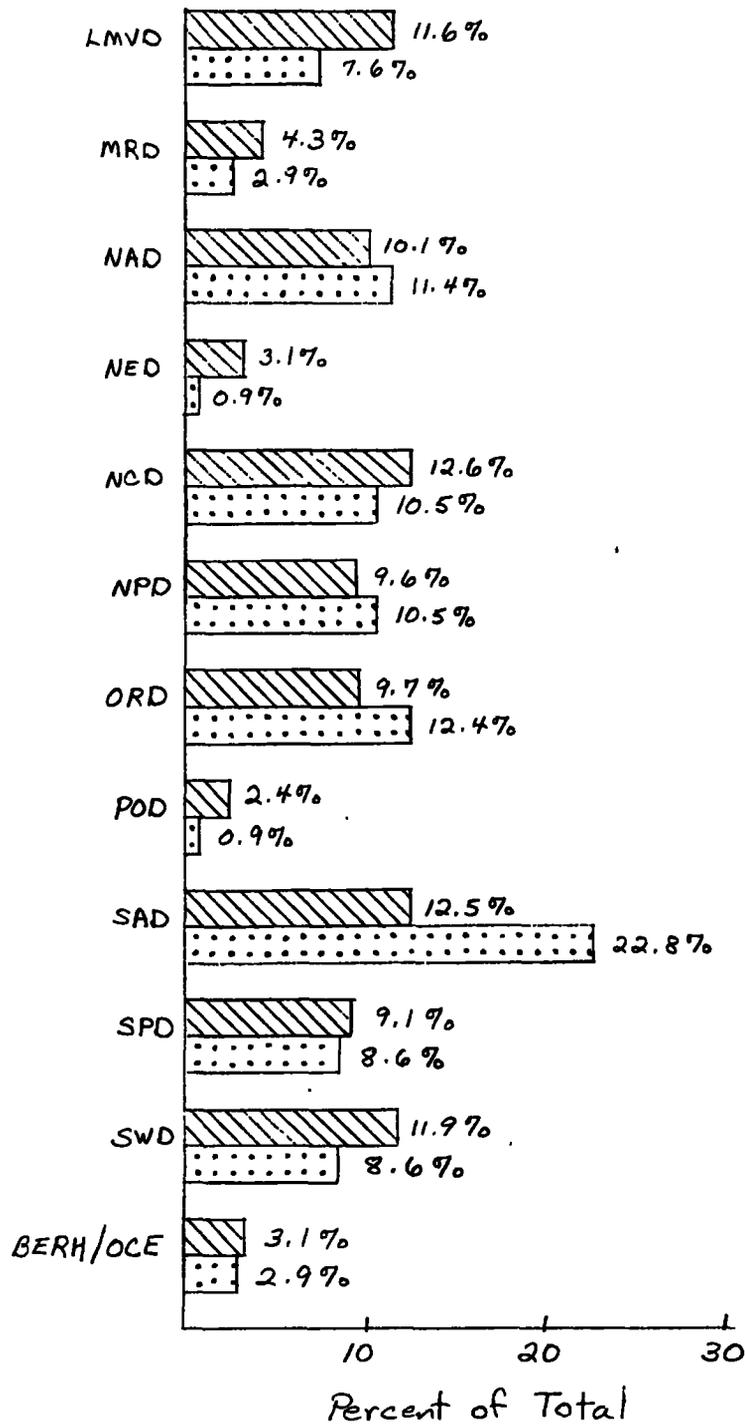
#### Proportionate Participation by Planners

This appendix reports the number of planners that have completed the PA Program and that have recently completed long-term training available at academic institutions. An examination of the data from FY 79 through FY 83 shows that the proportionate participation of planners and non-planners in the long-term training programs is about half and half. In fact, slightly

more than half of those in long-term training programs have been planners:

Long-Term Training	Participation FY 79 - FY 83		
	Planners	Non-Planners	Total
Academic Institutions	42	96	138 ( 68%)
Planning Associates	65	-	65 ( 32%)
Total	107 (100%)	96 ( 47%)	203 (100%) (100%)

It is also interesting to consider the relative proportion of the planning workforce that have participated in long-term training. This can be roughly approximated by comparing, for each office, the percent of the total 1982 professional planning workforce with what percentage of planners in long-term training from FY 79 - FY 83 came from that office. These percentages are displayed on Figure 1. In general, it appears that participation in long-term training is proportionate to the size of the professional planning staff. However, at least by this estimate, participation from SAD is strikingly high while that from LMVD is, proportionately, the lowest.



Professional Planners, August 1982

Planners Participating in Long-term Training, FY 79-83  
(Civil Works Program, Locally-Funded, and Planning Associates)

Figure 1. Proportionate Participation of Planners in Long-term Training.