

# **Social and Economic Benefits of a Wilderness Experience Program for Youth-at-Risk in the Federal Job Corps**

**By**

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## **Introduction**

Unemployment rates for 16-19 year olds remain near 20 percent overall and over 40 percent for black youths (Reich, 1994). Founded in 1964, the US Federal Job Corps is a billion dollar annually funded program aimed at alleviating the severe employment, education, and social problems faced by disadvantaged youth--especially those who live in poverty areas. The major goal of the Job Corps is to prepare unemployed, high school dropouts for future employment by providing the opportunity to stay at one of more than 130 residential centers nationwide for up to two years. At no cost to them, enrollees receive room and board, health care and dental services and may take classes to obtain a high school equivalency certificate (GED), receive vocational training, and develop social skills needed to secure and hold a job.

Job Corps enrollees are 16-24 years old, 84 percent are high school dropouts, they average a seventh grade reading level, and have no formal job training (Navarro and Associates, 1990). With their low level of education and job skill training, they have a high incidence of welfare dependence and many have had brushes with the law (Mathematica Policy Research Inc., 1985). Although students can stay in Job Corps for up to two years, many leave the program early or are terminated for disciplinary reasons before completing their educational and vocational training. Those students completing Job Corps are more likely to get a job and social benefits from participating in Job Corps are positively correlated with length of stay in the program (Navarro and Associates, 1990). Thus, reducing early termination rates, increasing education and vocational training completion rates, and otherwise enhancing student performance are Job Corps priorities.

A seven-day backpacking program called Wilderness Discovery (WD) was designed and implemented at four participating Job Corps centers from 1993-1995 to address these problems (Hendee and Russell, 1996). The theoretical notion is that by increasing the self-esteem and sense of personal control of participants, which are effects reported in studies of wilderness experience programs, and especially those serving youth-at-risk (Friese et al., 1996), that students would remain in Job Corps, complete their educational and vocational training, and secure and maintain employment upon completion of Job Corps.

### **Job Corps as an Investment in Youth-at-Risk**

Youth-at-risk are incurring or have the potential to incur direct costs to society in terms of transfer payments, reduced output of goods and services, reduced tax payments, costs associated with drug and alcohol abuse, and criminal activity (Mathematica Policy Research Inc., 1985). The Federal Job Corps program attempts to alleviate these costs to society by investing in altering the life course of economically and socially disadvantaged youth by providing them with educational and vocational training. Job Corps claims success in this endeavor based on research indicating that for every dollar spent in the Job Corps, \$1.46 is returned to society in the form of net social benefits (Mathematica Policy Research Inc., 1985).

A similar benefit/cost evaluation of Job Corps using a specially designed benefit/cost analysis model, found that individuals who were enrolled in Job Corps experienced increases in employment-related outcomes that more than offset the program's substantial costs per participant (Navarro and Associates, 1990). Other studies found that students who participated in Job Corps earned more income, paid more taxes, were less dependent on

welfare and food stamps, achieved higher education levels, and were less involved in serious crimes than adolescents who did not participate (Mathematica Policy Research inc., 1985).

The investment in rehabilitating youth-at-risk using the therapeutic value of wilderness might help increase these benefits to society reported by Mathematica Policy Research Inc. (1985) and Navarro and Associates (1990) in their benefit/costs analyses of Job Corps efficiency. Society would then benefit from a wilderness experience program aimed at making Job Corps more efficient by enhancing student performance through heightening self-esteem and sense of personal control, as well as developing the social skills necessary to participate in the mainstream economy (Russell and Hendee, 1997).

### **Wilderness Discovery in Job Corps**

Wilderness Discovery was tested in a pilot program and study at three Job Corps Centers in the Northwest in 1994, and a fourth Job Corps Center in the East was added in the Summer of 1995 (Russell and Hendee, 1997). WD was specifically designed as a low risk, low stress, soft skills (in contrast to adventure challenge) program that allowed students time for reflection on their role in Job Corps, their life, and their future (Pitstick et al., 1993; Pitstick, 1995). Students shared in cooking and camping chores, frequently convened in community circles to share feelings and decision-making, kept a journal, spent periods of alone-time to reflect. In addition to these soft skill activities participants complete some trail work together to show respect for the wilderness.

## **Research Question and Methods**

Benefit/Cost analysis addresses program efficiency by systematically comparing the benefits received with the costs of the various resources invested in a program (Sassone & Schafer, 1978). The very nature of wilderness experience programs such as WD are difficult to evaluate using this methodology due to many non-measurable benefits received by the participants (Lates, 1988). To address this limitation, we utilized the existing benefit/cost model developed by Mathematica Policy Research Inc. (1985) to assess the economic efficiency of Job Corps. Simulating the model's valuation methodology, we explored the potential increases in net social benefits possible from Wilderness Discovery as an adjunct to Job Corps, particularly through WD's ability to reduce dropout rates.

In our analysis, the following research question was addressed: What are the projected net social benefits of Wilderness Discovery as an adjunct to the Job Corps program, based on theoretical lines of reasoning and the expert judgments of Job Corps staff serving on Wilderness Discovery Steering Committees and utilizing a benefit/cost model generated by Mathematica Policy Research Inc., (1985)? Four types of data were collected and analyzed: (1) student journals, (2) exit interviews, (3) termination rates of student participants compared with non-participants over a four month period, and (4) focus groups of Job Corps staff who served on WD Steering Committees at each center.

### **1) Student Journals**

Job Corps students participating in WD were given journals to keep a record of their experience during the seven-day back-packing trip. We gave them time during layover days

and after meals, when they could think about pressing issues in their lives and record their thoughts. Using content analysis methods described in Strauss and Corbin (1989) we identified the most frequent themes in their reflections. Pitstick (1995) identified 12 common themes in a qualitative analysis of journals from six Wilderness Discovery trips during 1993. Content analysis of student journals from 30 additional trips in 1994 and 1995 revealed similar themes and reflective comments (Russell and Hendee, 1996).

Reflective comments were defined as any statement or phrase which related (reflected on) the experiences of Wilderness Discovery to the students' situation in Job Corps and their every-day life. Table 1 shows the number of words WD students wrote in the journals and the number of reflective comments they included.

Obviously, students did not average a lot of words in their journals for a seven-day trip, and there were differences between Job Corps centers that reflect WD trip leaders' emphasis on journaling. However, the most striking distinction from analysis is the clear difference between female and male participants, with females writing almost twice as much on the average as the males, and averaging more than twice as many reflective comments per trip than males.

The common themes revealed in the content analysis of journals reflects the rich insights Wilderness Discovery student participants recorded in their journals (see Table 2). The common themes in the journal reflections illustrate the power of the wilderness experience in facilitating insights. For example, the EMPOWERMENT theme reflects a sense of accomplishment. CLARITY/INSIGHT conveys reflections about their lives, and goals they want to achieve. GROUP/INTERPERSONAL SKILLS reflects enjoyment in working together, and the chance to practice the social skills they were learning at Job Corps. These

common themes demonstrate that students felt good about themselves, the experience, and the friends they made.

The Wilderness Discovery experience provided students an opportunity to achieve success in completing something, for perhaps the first time in their lives. It also allowed the students to practice communication and social skills in working together to achieve common goals, and to immediately see the fruits of their labor in setting up a tarp or cooking dinner.

These ideas of student achievement and positive feelings are captured in this quote from a young woman reflecting on her wilderness discovery:

I am setting my dreams on the stars and reaching for all that is in me and I am hoping to find the sunlight as I work at it day-by-day. I want it this way. I have learned a lot about myself on this trip. I've discovered what I truly want out of my life and the ways I am going to use to make this happen. (36—45--01)

## **2) Exit Interviews**

At the conclusion of every Wilderness Discovery trip, each student responded to questions about their Wilderness Discovery experience in a privately recorded interview with a leader at the trailhead. We wanted to hear the story of their experience and what they had learned when it was still fresh in their minds and hearts. The interview began with general items and then moved to more direct questions of what particular things had been learned on their WD trip and how they planned to apply them to their lives at Job Corps.

The interviews were later transcribed and descriptive statistics were tabulated for interview items having objective responses--such as yes or no. Responses that were narrative were content analyzed to identify consistent themes and then analyzed across Job Corps Centers using cross tabulations to search for patterns. The interviews elicited rich insight into

the students' experience and were invaluable as a tool to evaluate the strengths and weaknesses of Wilderness Discovery. The results appear in Table 3 and are described below.

1. WD was different than the students expected (93%). This was true despite a 2 hour pre-trip meeting in which the trip was described in detail, fears and expectations was discussed and an equipment list was distributed. The primary reason given was that the hiking was more difficult than expected (48%), followed by statements that they enjoyed WD more than they anticipated (18%). Students were being challenged physically and mentally, yet it was much more enjoyable than they thought.

2. A community ethic was established on WD. The students said they felt good about their group and the friends they made (96%); they had become better acquainted with the members of their group (53%); and many said the group had become a family and had achieved group goals (20%). WD leaders and Job Corps staff observed that WD participants were able to communicate in a more open manner and felt comfortable discussing and sharing feelings with other students in their group.

3. WD participants felt they learned valuable lessons they would bring back to center and apply to their daily lives (96%). Communicating with other students and authority figures in a more open and non-judgmental manner (33%) was noted by students as a lesson learned on WD, and one they would like to apply to their interactions in the dorm or with Job Corps staff. Others stated they were more confident and motivated (22%) after achieving success on Wilderness Discovery or felt they had accomplished something (14%). The sense of accomplishment from completing as formidable a task as WD was taken by students back to

Job Corps, strengthening their self esteem and confidence that they could complete and advance in their educational standing.

4. Getting away from the stress of the day-to-day routine of Job Corps was seen by students as the most important benefit of visiting the wilderness (35%), followed closely by learning respect for nature and other people (30%). Many students noted that the time away was much needed to reflect on their lives and to get to know themselves better (11%). They also valued the time as a chance to see more clearly their role in Job Corps, to set goals for the future, and to respect and appreciate nature as well as other things--not to take things for granted (10%).

Thus, the restorative aspects of wilderness granted peace and quiet and they returned to Job Corps feeling renewed and refreshed. They learned a metaphor of respect and caring for other people as well as the wilderness, a wonderful insight illustrating the impact the wilderness can have on people.

5. The students said Wilderness Discovery was a good program for Job Corps (100%) and gave many reasons to support this universal view. Comments included: It gives them a chance to think about their role in Job Corps and their future (25%), to get away from the stress of Job Corps and provide time to think (18%). They said it helped students' attitudes and motivation (17%), gave them a chance to find themselves (13%), and gave students a chance to see the wilderness who would not otherwise have had the opportunity (12%).

### 3) Termination Data

To address the question -*What are the effects of participation in Wilderness Discovery on length of stay in Job Corps?* we compared the termination rates of WD participants with a control group of Job Corps students who did not participate in WD. The idea was to see whether participating in Wilderness Discovery--for whatever reason or result, such as heightening motivation, enhancing self-esteem, improved clarity of goals etc.--would result in students staying in Job Corps longer and/or completing their educational and vocational training. We matched the control group with WD participants based on gender, age and length of stay in Job Corps. A random number table (Montgomery, 1976) was then used to randomly select the non-participant control group. This matched list of students (WD participants and their matched pairs) was then checked for termination status at the end of December, four months after the summer season when WD ended.

The 1993 analysis of termination data revealed that 4 months post Wilderness Discovery, twelve students who participated in Wilderness Discovery had resigned or been involuntarily terminated (27 percent termination rate) and nineteen students selected as “controls” (non-participants in the Wilderness Discovery program) had resigned or were involuntarily terminated in the same time frame (42 percent) (see Table 4). Thus, there was *more than a one-third reduction* in termination rates among WD participants ( $42\% - 27\% \div 42\% = 35.7\%$ ). The data show collectively that early termination rates for Wilderness Discovery participants were 23 percent lower than matched control groups of students at Curlew (1993-1994), Timberlake (1994), and Trapper Creek (1994) Job Corps centers.

Furthermore, based on theoretical, empirical (our study results) and practical reasoning we believe that, not only is a reduction in termination rates from participation in WD plausible and demonstrated, further reductions in termination rates are possible. Greater reductions would be possible if students that were known to be at risk for early termination were selected to participate in WD, and refinements were made in the WD program aimed directly at reducing termination rates.

For example, students with a 30-60 day tenure at Job Corps are known to have a high dropout rate. These dropouts cost the Federal Government \$100 million dollars annually with no measurable benefits returned to society from this investment (Navarro and Associates (1990). WD, by offering a success experience, focused group reflections and discussion in the wilderness about the benefits of remaining in Job Corps and completing their training, would lead to even greater reductions in termination rates in our opinion.

#### **4) Focus Groups of Job Corps Staff**

At the end of the Summer 1995, the WD Steering Committees at each Job Corps Center participated in a focus group exercise to evaluate the success of Wilderness Discovery at their respective centers. The focus group exercise contained two rounds of questions. The first explored how the steering committee perceived that WD benefited the students who participated in WD compared to students who did not participate. The initial questions were open-ended and a discussion was facilitated around the staff responses and ideas about WD benefits. Ratings were then completed to quantify responses using a voting system that allowed

each participant to vote on a benefit they felt impacted the students the most. The top four vote-getting benefits were noted for each Center.

A second round of questions then asked the WD Steering Committees to focus on how benefits to students related to real-life social dynamics. We were especially interested in expert staff opinion linking the effects of WD to variables in the existing Job Corps benefit/cost model developed by Mathematica Policy Research Inc. (1985). This was done to simulate whether enhanced student behavior on Center attributed to WD participation could increase Job Corps effectiveness. That is, would such a simulation identify supplemental benefits over costs attributable to WD as an adjunct to Job Corps.

So we asked the focus groups for their judgments on how they thought participation in WD would enhance the student's future prospects in the following areas: (1) employment and earnings, (2) reduced dependence on welfare and transfer programs, (3) reduced criminal activity, (4) reduced drug and alcohol abuse, (5) an individual's likelihood to terminate the Job Corps program (termination rate—which implies a reduction in the use of alternative services), and (6) improved social skills and well being (Mathematica Policy Research Inc., 1985). These six questions embrace the six critical variables in the benefit/cost model.

The following benefit categories emerged from the responses by WD Steering Committee focus groups conducted at Atlanta, Curlew, Trapper Creek, and Timberlake Job Corps Centers at the conclusion of the WD program in 1995 as to the benefits to those students who participated in WD:

- Accomplishment
- Appreciation/Exposure to New Experience
- Challenge

- Communication
- Healthy Environment
- Reflection and Introspection
- self-confidence
- Self-Esteem
- Teamwork/Cooperation
- Trust and Respect for Others and Authority Figures
- Wilderness and Environmental Awareness

These benefit categories document benefits to students from participation in WD, and support the positive effects we already identified in analysis of student journals, exit-interviews and reduced termination rates. The focus group also identified key social skills learned and practiced on WD that are related to future job possibilities, including: (1) communications (both listening and speaking), (2) problem solving, plus interpersonal, negotiation, and teamwork skills, (3) self esteem, (4) goal setting, and (5) leadership. These data reinforce the notion that a wilderness experience program enhanced performance by students in Job Corps, and could potentially effect Job Corps' ability to prepare young people for a more productive life after Job Corps when they enter the job market.

### **Applying A Benefit/Cost Model to Wilderness Discovery**

The foregoing evidence, including an average 23 percent reduction in termination rates by Wilderness Discovery participants, combined with positive student journal and exit-interview findings, and the post trip enhanced performance of WD participants perceived by Job Corps staff, all suggest positive results from participating in WD. This positive evidence is linked to the Mathematica Policy Research Inc. (1985) model by judgments of the WD Steering Committees of Job Corps staff, supporting the notion that Wilderness Discovery is enhancing the mission of

Job Corps--to prepare eligible young people for meaningful employment. WD directly targets and develops necessary skills that are needed in the job place, thus enhancing a student's employability. These factors form the theoretical basis for potential additions to net social benefits derived from investing in WD as an adjunct to the Job Corps. The theoretical model and its projections are presented in Figure 1.

The model described in Figure 1 illustrates the underlying rationale for the benefit/cost analysis in which the perceived effects of WD on five critical variables in the benefit/cost model were simulated and projected. Very conservative estimates of increases from WD participation in the benefit variables in the Mathematica Policy Research Inc. (1985) (from 1%-5%) benefit/cost model were combined in three scenarios (see Table 5). The resulting benefit/cost analysis generated new benefit/cost ratios suggesting increased net social benefits attributable to WD as an adjunct to Job Corps (Figure 2).

These results show that the overall benefit/cost ratio documented in previous studies of Job Corps (Mathematica Policy Research Inc., 1985; Navarro and Associates, 1990) is increased substantially by slight increases in the five benefit variables that were perceived by Job Corps staff to be affected by participation in WD. This simulation shows that, by increasing certain variables slightly (1%-5%) in reasoned and logical scenarios, the potential returns from investing in a program like WD is great, and could enhance the benefits to society already being attained by Job Corps.

## **Benefit/Cost Analysis of WD as an Adjunct to Job Corps**

The next question in the simulation of Wilderness Discovery as an adjunct to Job Corps was: *Do the estimated benefits of Wilderness Discovery as an adjunct to Job Corps exceed the additional costs?* The variable costs of providing WD per corps member were estimated at \$367 dollars per student per trip in one year, based on a benchmark estimate the University of Idaho Wilderness Research Center developed in 1996 as a basis for proposals to individual centers interested in offering a Wilderness Discovery program to their students. The simulated increase in social and economic benefits of \$740 per corps member per year from participation in WD provides a benefit/cost ratio of 2.01 ( $\$740 \div \$367$ ), indicating in this simulation that, WD as an adjunct to Job Corps would pay for itself through the surplus of simulated benefits to society from participants over estimated costs.

## **Discussion**

Based on our findings and focus group discussions with Job Corps staff, it is concluded that WD directly targets social skills that Job Corps students use in social interactions on center and will need out in the real world upon completion of their training. Even more complex social skills are being required by employers as jobs evolve and change (Law, 1994). A wilderness experience program such as WD can help develop those skills (Hendee and Russell, 1996; Russell and Hendee, 1997).

The following is a list of job skills noted by Council for Economic Development (1990) that will be required for young workers entering the labor market in the 1990's:

- Reading, writing and computation

- Learning to learn
- **Communication: listening and oral**
- Creative thinking and **problem solving**
- **Interpersonal, negotiation, and teamwork skills**
- **Self-esteem and goal setting: motivation and personal career development**
- **Organizational effectiveness and leadership** (p. 187).

The highlighted skills were identified as being enhanced by Wilderness Discovery through the analysis of journals, exit-interviews and by WD Steering Committees. Thus, based on the evidence presented in this study, Wilderness Discovery can increase students' employability by offering them chances to acquire these skills that are needed for the changing labor market.

### **Summary and Conclusions**

Positive impacts on self esteem and sense of personal control from participation in wilderness experience programs are consistently shown in the literature (Friese et al., 1996). Programs for disadvantaged youth like Job Corps might utilize this empowerment to facilitate their education, job training, and rehabilitation of youth-at-risk. This study tested this idea in a study of participants in Wilderness Discovery, a seven-day backpacking program designed for youth-at-risk in the Federal Job Corps. Data were gathered and analyzed from WD participant journals, exit-interviews, termination data, and focus group expert judgments of Wilderness Discovery Steering Committees of Job Corps staff on their perceived effects of the WD on student performance and skills that would enhance their employability.

These positive data were then used to support modest adjustments of 1% to 5% in an existing benefit/cost model designed to determine the net social benefits from Job Corps. The results of the simulation, within the framework of its assumptions, suggests that the WD

program, as an adjunct to the larger Job Corps program, generated benefits twice as great as the variable costs of operating WD.

If experiential education is to remain robust and a leader in designing and implementing alternative ways of educating young people, new approaches to outcome based program design and evaluation are needed. While the benefit/cost analysis applied to this study is not a new method, its applications to simulate and evaluate the effects of a wilderness experience program as an adjunct to Job Corps is unique. This evaluative framework helps document the idea that designing a wilderness program around desired outcomes, in this case enhanced employability, and designing an evaluation to address these desired outcomes, wilderness experiences may be justified for more than just the enhanced self-esteem of participants. Wilderness experience programs can be strategically deployed to help prepare economically and socially disadvantaged youth for enhanced life prospects by developing their social, problem solving, and goal setting skills, as well as enhancing self-esteem and confidence to help them get and keep a meaningful job.

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**Table 1: Average number of words, and average number of reflective comments per student recorded in student journals on Wilderness Discovery trips during 1994-1995 at four Job Corps Centers**

<b>Journal Analysis</b>	<b>Job Corps Centers</b>				<b>Average</b>
	<b>Atlanta</b>	<b>Curlew</b>	<b>Timberlake</b>	<b>Trapper Creek</b>	
Number of Words Ave./Trip	377.9	292.5	542.3	354.0	391.6
Number of Reflective Comments Ave./Trip	1.7	1.7	1.6	1.5	1.5
Number of Words <b>Male</b> Students Ave./Trip	320.8	204.3	291.1	344.67	290.2
Number of Words <b>Female</b> Students Ave./Trip	384.5	533.0	980.7	378.0	569.1
Number of Reflective Comments <b>Male</b> Students Ave./Trip	1.0	.57	1.1	1.4	1.0
Number of Reflective Comments <b>Female</b> Students Ave./Trip	2.2	2.7	3.0	1.8	2.2

**Table 2: Content themes analyzed in student journals for 1994-1995 Wilderness Discovery participants at four Job Corps Centers from the analysis of student journals 1994-1995**

<b>Content Theme</b>	<b>Description</b>	<b>Example</b>
EMPOWERMENT	Expressions of self-confidence, self-esteem, and a sense of personal power to take control and responsibility in one's life	"The group made me a leader and I was at the head and I made sure the trail was safe for everybody to walk on it. I was proud and I felt good because I was not afraid of the edges."
CLARITY	A clear view about some aspect of ones life; a new perspective or insight into problems that were previously ambiguous.	"Now that I look back on my experience out here in the wilderness and how I have a sense of well-being I never had. All my troubles have left me for the time being. It gives more thought to ones dreams, ones future, and to ones self. To me it has been a time of planning, a time of thought of what I want to do with my life."
PEACEFULNESS/ HARMONY	References to feelings of peace, serenity, stress release, and harmony often in response to wilderness conditions.	"I realized that time is really no necessity when your in the wilderness. I can't believe how relaxed I am here, I just feel so free."
WILDERNESS/ NATURE	Comments about the wilderness, feelings directly invoked by wilderness, and respect for the wilderness.	"I'm very thankful that we are able to have places like the wilderness, to be able to sit where it is peaceful and no one bugs you."
GROUP/ INTERPERSONAL SKILLS	Comments about the influence of community and team building activities.	"I think the other people are doing really well for not doing this before. We all stick together and help each other out which usually does not happen at Job Corps which I think is really neat."
METAPHOR	Metaphors about ones life, society, empowerment, communication, and religion.	The picture on the other page is of a mountain scene, I feel I am just like one of the many pine trees in the wilderness just starting to branch out, learning many things and trying to do the very best I can. I feel like there is nothing I can't do at Job Corps.
CREATIVE EXPRESSION	Poems, creative writing that demonstrate insight into personal growth.	Today I watched the water on the rocks. The rocks block the water so the water flows around the rocks. The water and the rocks are working together. We are like the water and the rocks. Some of us are like rocks, and other people have to go around us. But we can work together. We are like the water and the rocks.

**Table 3: Responses to selected exit interview questions at the conclusion of each D trip at four Job Corps Centers, 1994-1995**

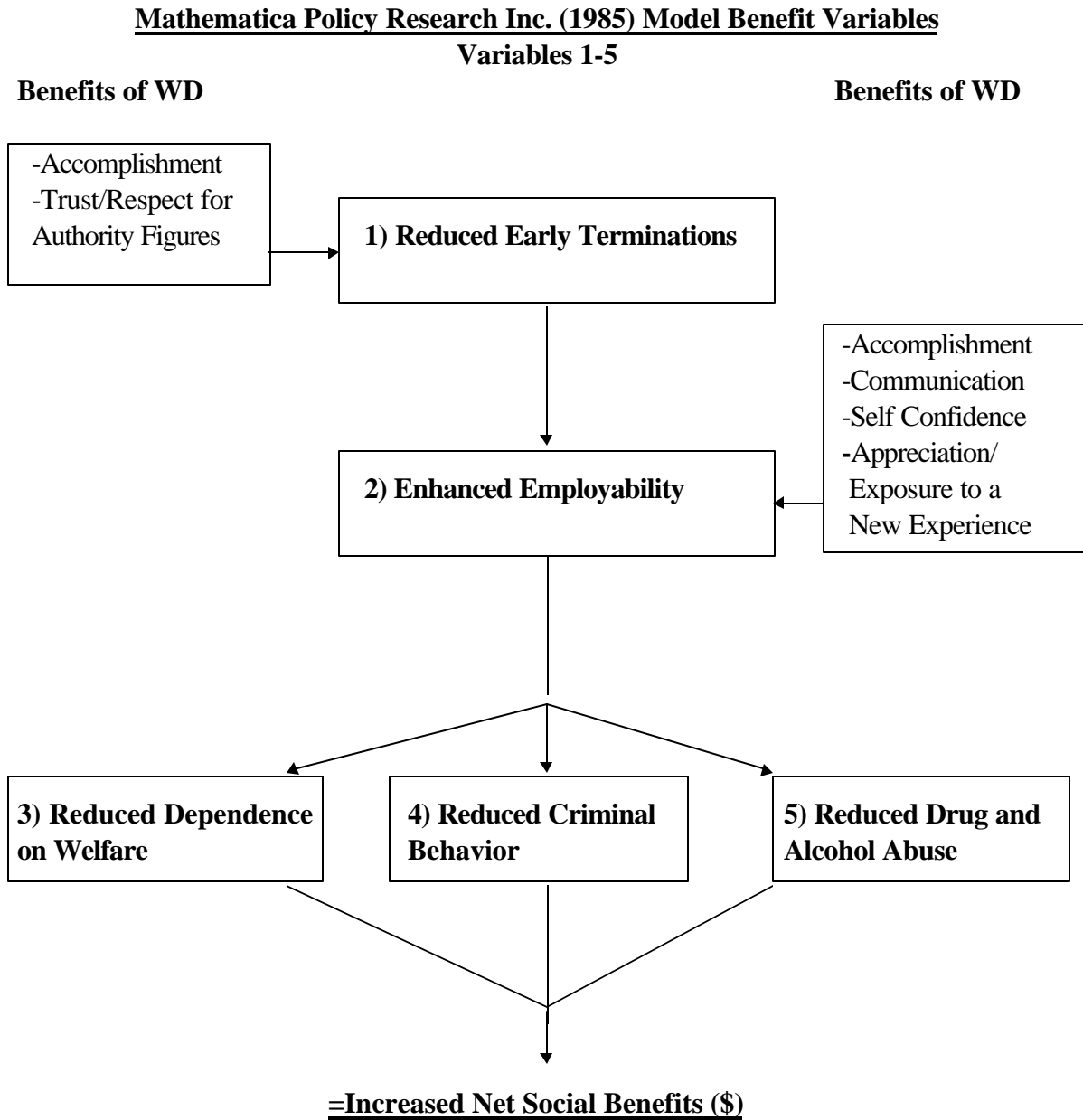
<b>Exit Interview Question</b>	<b>Yes</b>	<b>No</b>	<b>Most Frequent Reasons Given by Percent Mentioning</b>
1. Was the experience different than you expected it to be?	93%	7%	<ul style="list-style-type: none"> <li>• Hiking more difficult (48%)</li> <li>• Enjoyed it more than anticipated (18%)</li> </ul>
2. How did you feel about the group and the goals accomplished as a group?	96% (Good)	4% (Bad)	<ul style="list-style-type: none"> <li>• Became better acquainted with trip participants (53%)</li> <li>• We became like a family (20%)</li> </ul>
3. Will you apply something learned on WD to your daily life back at center?	96%	4%	<ul style="list-style-type: none"> <li>• More confident and motivated or felt accomplished something (36%)</li> <li>• Communicate more openly with others (35%)</li> </ul>
4. What benefits are there from visiting the wilderness?	NA	NA	<ul style="list-style-type: none"> <li>• Getting away from the stress of life (35%)</li> <li>• Learning respect for other people and nature (30%)</li> <li>• Time to reflect and know oneself better (11%)</li> <li>• Not take things for granted (10%)</li> </ul>
5. Is WD a good program for Job Corps?	100%	0%	<ul style="list-style-type: none"> <li>• Think about life and role in Job Corps (25%)</li> <li>• Get away from stress and think (18%)</li> <li>• Positive effect on attitude and motivation (17%)</li> <li>• Chance to find self (13%)</li> <li>• Chance to see wilderness for persons previously not given the opportunity (12%)</li> </ul>

**Table 4: Comparison of the percent reduction in termination rates of Wilderness Discovery participants vs. controls at Curlew 1993, Curlew 1994, Timberlake 1994 and Trapper Creek 1994 Job Corps centers.**

	Percent of Group Terminated		Difference	Percent Reduction in Termination Rates*
	Participants	Controls		
<b>Job Corps Centers</b>				
Curlew 1993	27%	42%	15%	36%
Curlew 1994	23%	34%	11%	32%
Trapper Creek 1994	33%	40%	7%	18%
Timberlake 1994	27%	27%	0%	0%
<b>Average Percent Reduction in Termination Rate</b>	<b>27.5%</b>	<b>35.8%</b>	<b>8.3%</b>	<b>23.2%</b>

\*The termination rates for treatment vs. control were compared statistically using a product multinomial non-parametric model because the data was non-normal. The results suggest a significant statistical difference (p-value <.10) across centers with a p-value of .1083 when the 1995 Timberlake Job Corps Center was dropped from the analysis.

**Figure 1: How WD benefits to students perceived by Job Corps Staff affect the Mathematica Policy Research Inc. (1985) model and increase net social benefits**



**Table 5: Percent adjustment of five benefit/cost variables in the Mathematica Policy Research Inc. (1985) benefit/cost model in three scenarios to simulate the effects of WD as an adjunct to Job Corps \***

<b>Benefit Variable</b>	<b>Mathematica Policy Research Inc. (1985) Definition</b>	<b>Multiple Scenario 1</b>	<b>Multiple Scenario 2</b>	<b>Multiple Scenario 3</b>
<b>Variable 1</b> —Employability	OUTPUT PRODUCED BY CORPSMEMBERS	2%	3%	5%
<b>Variable 2</b> --Welfare Dependency	REDUCED DEPENDENCE ON WELFARE	2%	3%	3%
<b>Variable 3</b> --Criminal Behavior	REDUCED CRIMINAL ACTIVITY	1%	2%	2%
<b>Variable 4</b> --Drug/Alcohol Abuse	REDUCED DRUG/ALCOHOL ABUSE	1%	2%	3%
<b>Variable 5</b> --Retention Rate	REDUCED UTILIZATION OF ALTERNATIVE SERVICES	5%	5%	5%

\*Multiple Scenario 1 assumes a more conservative increase in the value of the benefit variables, and Multiple Scenarios 2 and 3 increase the benefit variables slightly higher to explore the sensitivity of variables to net social benefits

**Figure 2: Potential increases in net social benefits per student per year under three multiple combinations of benefit variable increases of 1% to 5%, simulating additional benefits attributable to WD as an adjunct to Job Corps**

