

Amendments to House Bill No. 2
Purple Reading Copy

Requested by Rep. Cobb
For the Committee on Appropriations

Prepared by Mark Lee
February 26, 1995

1. Page B-10, line 11.

Strike: "606,430" "605,849"
Insert: "620,822" "620,241"

This amendment would increase the appropriation for the Voluntary Statewide Genetics Program from \$534,650 each year to \$549,042 each year. Charges imposed on health insurance plans generated revenues averaging \$549,042 during fiscal years 1993 and 1994.

2. Page B-10, following line 9.

Insert: "a. Tumor Registry"

"138,342" (Federal Special Revenue in Fiscal 1996)
"120,249" (Federal Special Revenue in Fiscal 1997)

This amendment would enhance computer capability, data analysis, and information dissemination of the existing tumor registry program.

3. Page B-11, line 7

Insert: "The funds in item 6a are appropriated with the requirement that the development and operation of the tumor registry must be coordinated with all other medical data bases operated by the state so that the sharing of information is facilitated and the duplication of effort is reduced."

Amendments to House Bill No. 2
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EXHIBIT 45
DATE 3-7-95
~~HB~~ 2

Requested by Representative Cobb
For the Committee on House Appropriations

Prepared by Mark Lee
March 7, 1995

1. Page B-10, following line 9.

Insert: "a. Certificate of Need (Biennial)"

"92,246"

(general fund in fiscal 1996)

2. Page B-11, following line 12.

Insert: "The funds in item 6a are contingent on passage and approval of Senate Bill
No. 416."

This amendment is a result of the committee bill to revise the Certificate of Need process. The \$92,246 is additional money necessary to implement the provisions of SB 416.

{Office of Legislative Fiscal Analyst

444-2986}

EXHIBIT 46
DATE 3-7-95
~~HB~~ 2

Amendments to House Bill No. 2
Purple Reference Copy

Requested by Rep. Kadas
For the Committee on Appropriations

Prepared by Mark Lee
March 7, 1995

1. Page B-10, line 9.

Strike: "1,422,683"	"1,337,120"
Insert: "1,460,183	1,374,620"

LFA will amend totals.

This amendment adds a 0.5 FTE and federal funds of \$37,500 each year to perform inspections of food industries participating in interstate commerce. Under a federal contract, sanitary and food safety inspections would be performed by Food & Consumer Safety Bureau personnel. Funds would be supplied through the federal contract.

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Possible Amendments to SRS and Family Services

spending reductions and cuts.	General Fund
1. DD rate reduction from 4% to 1.5%	1,600,000
2. reduction in medicare - new numbers	400,000
3. assumed county special revenue money extra in FY 95 moved to FY 96 and reduce general fund dollars in medicaid by the same amount	2,400,000
4. AFDC and child support, move savings from extra child support collections that would go to general fund to AFDC payments and reduce general fund by the same amount	1,750,000
5. reduction in AFDC total payments due to increase child support collections	400,000
6. eliminate adult dental	964,958
7. eliminate eyeglasses, optometric	658,650
8. eliminate hearing aids	164,900
9. SB reorganization savings	412,500
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total cuts and general fund decreases	8,751,008

Spending possibilities includes some executive requests

10. Children dental to 80% level	545,000
11. children dental to 90% level, an additional amount needed from 80% to 90%	282,628
12. plus additional increase in growth rates	131,075
13. foster care tribal contracts	84,288
14. voc rehab increase numbers to help find and keep jobs	106,000
15. pine Hills ranch	25,000
16. local Health	300,000
17. non assumed county reimbursement for TEAMS and welfare reform	133,188
18. Passport provider rate increase	735,120
19. provider rate increases	561,583
20. transportation rate increase	40,000

Amendments to House Bill No. 2
Purple Reading Copy

Requested by Representative Kasten
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-5.

Strike: Line 4 in its entirety.

Insert: "375,429 general fund fiscal 1996
215,954 federal special revenue fiscal 1996
758,100 general fund fiscal 1997
433,751" federal special revenue fiscal 1997

2. Page B-6.

Strike: Lines 17 through 21 in their entirety.

LFA will amend the totals.

This amendment reinstates the 1.5 percent provider rate increase for developmental disabilities providers that was originally included in the Executive Budget. The Human Services and Aging Subcommittee included a 4 percent rate increase. This amendment also removes language requiring the department to revert general fund savings that would occur if the department is successful in obtaining medicaid reimbursement for personal care costs in group homes or other general fund costs. The department could use the general fund savings for a provider rate increase.

Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 11.

Strike:	"4,710,198"	"7,713,774"	"4,729,872"	"7,611,511"
Insert:	"4,510,198"	"7,913,774"	"4, 7 29,872"	"7,811,511"

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LFA will amend the totals.

This amendment reduces the Operations and Technology Division general fund appropriation by \$400,000 over the biennium and increases federal funds by the same amount to correct a funding error.

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Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 5.

Strike: "78,956,271"

"13,439,808"

Insert: "76,556,271"

"15,839,808"

LFA will amend the totals.

This amendment appropriates an additional \$2.4 million in state special revenue in fiscal 1996 from state assumed counties and reduces general fund by a like amount. This amendment enacts the revised executive medicaid request. The revenue is a one-time carry over of funds from the 1995 biennium.

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-3.

Strike: Line 16 in its entirety.

Insert:	"3,661,702	general fund fiscal 1996
	137,500	state special revenue 1996
	23,333,569	federal special revenue fiscal 1996
	4,340,309	general fund fiscal 1997
	70,000	state special revenue 1997
	24,093,494"	federal special revenue fiscal 1997

2. Page B-3, following line 18.

Insert:	"b. AFDC Benefits	
	14,214,373	general fund fiscal 1996
	1,389,581	state special revenue 1996
	35,981,460	federal special revenue fiscal 1996
	14,018,403	general fund fiscal 1997
	2,535,905	state special revenue 1997
	36,893,510"	federal special revenue fiscal 1997

LFA will amend the totals.

This amendment does two things: 1) funds part of the state share of AFDC payments with child support enforcement state special revenue collections; and 2) reduces total AFDC payments due to enhanced child support enforcement (CSE). The legislature appropriated an additional \$3.4 million (\$1.2 million general fund) over the biennium for enhanced child support enforcement activities. CSE staff estimate that state special revenue collections due to the enhanced activity will generate additional child support enforcement revenue of \$379,726 in fiscal 1996 and \$1,459,452 in fiscal 1997. This amendment increases state special revenue by those amounts to fund AFDC payments and general fund is reduced by a like amount. This amendment also reduces total AFDC payments by \$134,000 total funds (\$37,922 general fund) in fiscal 1996 and \$266,000 total funds (\$77,087 general fund) in fiscal 1997 due to increased child support enforcement efforts. Enhanced collections will allow some single parents to remain independent of public assistance and some families' AFDC payments will be reduced due to receipt of child support income.

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Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 6, 1995

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1. Page B-4, line 5.

Strike:	"78,956,271"	"250,714,853"	"83,519,401"	"260,397,109"
Insert:	"78,113,656"	"248,755,721"	"82,573,418"	"258,280,581"

LFA will amend the totals.

The amendment eliminates medicaid funding for dental, eyeglasses, hearing aids, and audiology services for adults. Since the executive welfare reform proposal already eliminates these medicaid services for adults receiving AFDC (Aid to Families with Dependent Children), these reductions affect adults who are aged, blind, and disabled. This amendment reduces general fund by \$1,788,597 and federal funds by \$4,075,660 over the biennium.

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 11.

Strike: "4,729,872" "7,611,511"
Insert: "4,317,372" "7,199,011"

2. Page B-6, following line 7.

Insert: "Item 8 includes efficiencies and savings of 25.0 FTE, \$412,500 in general fund money, and \$412,500 in federal special revenue in fiscal year 1997 based on passage and approval of Senate Bill No. 345, which reorganizes human services and public health agencies. The executive branch can allocate these reductions among programs in the department of public health and human services. If Senate Bill No. 345 is not passed and approved, the appropriation in item [operations and technology division] is increased by \$412,500 in general fund money and \$412,500 in federal special revenue in fiscal year 1997."

This amendment implements savings included in the fiscal note for SB 345.

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page ~~B-4~~, line 5.
Strike: "78,956,271" "250,714,853"
Insert: "79,031,271" "250,789,853"

2. Page B-4, following line 7.
Insert: "b. Hospital Rate Increase
399,497 general fund fiscal 1996
920,717 federal special revenue fiscal 1996
764,832 general fund fiscal 1997
1,702,368 federal special revenue fiscal 1997

c. Nursing Home Rate Increase
689,332 general fund fiscal 1996
1,588,698 federal special revenue fiscal 1996
1,867,263 general fund fiscal 1997
4,156,166 federal special revenue fiscal 1997

d. Dental Rate Increase - Children's Services (Restricted)
257,304 general fund fiscal 1996
593,006 federal special revenue fiscal 1996
287,952 general fund fiscal 1997
640,926" federal special revenue fiscal 1997

3. Page B-7, following line 20.
Insert: "d. Juvenile Corrections Provider Rate Increase
49,817 general fund fiscal 1996
630 federal special revenue fiscal 1996
99,915 general fund fiscal 1997
1,270" federal special revenue fiscal 1997

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4. Page B-8, following line 5.
Insert: "e. Foster Care Provider Rate Increase
126,002 general fund fiscal 1996
46,304 federal special revenue fiscal 1996
254,360 general fund fiscal 1997
93,302 federal special revenue fiscal 1997

f. Other Providers Rate Increase
7,584 general fund fiscal 1996
15,300" general fund fiscal 1997

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5. Page B-6, following line 7.

Insert: "Funds in item 6d may be used only for rate increases for children's dental services. Funds in item 6d may not be transferred to other uses in the department or to another department."

6. Page B-8, following line 8.

Insert: "The legislature intends that expenditures for all provider rate increases approved by the legislature be limited to the dollar amounts appropriated rather than the percentage increase on which the original estimates may have been based. The department will be in compliance with this provision if the percentage increase or base adjustments approved by the department are limited to the dollar amount appropriated for each provider rate increase."

LFA will amend the totals.

This amendment adds \$1,529,536 general fund and matching federal funds in fiscal 1996 and \$3,289,622 general fund and matching federal funds in fiscal 1997 for provider rate increases that were originally funded in the Executive Budget. The general fund amount of the rate increases is no greater than the general fund included in the original Executive Budget. Therefore, nursing homes do not receive a full 4 percent rate increase and foster care providers receive less than a 1.5 percent increase. The Executive Budget did not include adequate general fund for these providers to receive the full "published" amount of the rate increase. The amendment also adds \$150,000 (\$75,000 general fund) in fiscal 1996 to contract for establishment of hospital rates.

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 6, 1995

1. Page B-4, following line 7.

Insert:	"b.	Rate Increase Children's Dental Services
		128,652 general fund fiscal 1996
		296,503 federal funds fiscal 1996
		143,976 general fund fiscal 1997
		320,463" federal funds fiscal 1997

LFA will amend the totals.

This amendment adds \$282,628 general fund and \$616,966 federal funds over the biennium to increase rates for children's dental services to 90 percent of billed charges. The Executive Budget included funds to raise reimbursement to 80 percent.

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 6, 1995

1. Page B-4, following line 7.

Insert:	"c.	Utilization Increase Children's Dental Services
		59,482 general fund fiscal 1996
		137,088 federal funds fiscal 1996
		71,593 general fund fiscal 1997
		159,352" federal funds fiscal 1997

LFA will amend the totals.

This amendment adds \$131,075 general fund and \$296,440 federal funds over the biennium for increased children's dental services. If dental rates for children's services are increased, more providers will likely agree to serve medicaid-eligible children increasing utilization of services.

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 17.

Strike: "2,326,239"

"2,369,326"

Insert: "2,360,702"

"2,438,252"

LFA will amend the totals.

This amendment adds \$34,463 general fund in fiscal 1996 and \$68,926 general fund in fiscal 1997 to serve 17 clients and 30 clients respectively in extended employment. Extended employment provides long-term support to severely disabled persons so that they can secure and retain employment.

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-7, following line 20.

Insert: "d. Pine Hills Ranch (Biennial/Restricted) 25,000 general fund"

2. Page B-9, following line 3.

Insert: "Funds in item 3d may be used only for a vocational agricultural program at Pine Hills school."

LFA will amend the totals.

This amendment adds \$25,000 general fund over the biennium for start up costs for a vocational agricultural program at Pine Hills School. Language is added so that the funding may not be used for any other purpose.

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, following line 7.

Insert: "b. Local Health Care Providers (Biennial)
1,300,000" federal special revenue

2. Page B-10, following line 9.

Insert: "a. Local Health Care Providers (Restricted/Biennial)
300,000 general fund
300,000" state special revenue

3. Page B-11, following line 12.

Insert: "General fund money in item 6a may be used only to contract for assistance to local health care providers in obtaining medicaid reimbursement."

LFA will amend the totals.

This amendment adds \$300,000 general fund and \$300,000 state special revenue in the Department of Health and Environmental Sciences and \$1,300,000 federal funds in the Department of Social and Rehabilitation Services to help local health care providers access federal medicaid authority to pay for health care for low-income Montanans. The general fund will pay the state match for administrative costs to contract for assistance to local health care providers in obtaining medicaid reimbursement. Local health care providers will fund the 30 percent state match for medicaid benefit costs (\$300,000 state special revenue). Federal matching funds for administrative costs (\$300,000) and federal medicaid benefit match of \$1,000,000 are included in the SRS budget. This amendment implements most of the recommendations of the Maternal and Child Health Care Study.

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 11.

Strike:	"4,710,198"	"1,576,979"	"4,729,872"	"1,564,659"
Insert:	"4,725,266"	"1,561,911"	"4,778,404"	"1,516,127"

This amendment increases general fund by \$15,068 in fiscal 1996 and \$48,532 in fiscal 1997 and reduces state special revenue (property tax revenue from non-assumed counties) by a like amount. This amendment removes non-assumed county support for mainframe processing costs associated with welfare reform.

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 11.

Strike: "4,710,198"	"1,576,979"	"4,729,872"	"1,564,659"
Insert: "4,766,038"	"1,521,139"	"4,807,220"	"1,487,311"

This amendment increases general fund by \$55,840 in fiscal 1996 and \$77,348 in fiscal 1997 and reduces state special revenue (property tax revenue from non-assumed counties) by a like amount. This amendment removes non-assumed county support for mainframe processing costs associated with welfare reform and the Montana Automated Child Care system (MACCS).

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, following line 7.

Insert: "b. Passport Physician Rate Increase
363,120 general fund fiscal 1996
836,880 federal special revenue fiscal 1996
372,000 general fund fiscal 1997
828,000" federal special revenue fiscal 1997

LFA will amend the totals.

This amendment increases monthly reimbursement to primary care physicians who agree to participate in the Passport program. The fee is raised from \$3 to \$5 per medicaid recipient per month. Primary care physicians receive the monthly fee for each medicaid recipient they agree to see as a regular client. The primary care physician approves visits to other physicians and specialists and must be available to give health care advice to each medicaid recipient they agree to accept.

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Amendments to House Bill No. 2
Purple Reference Copy

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, following line 7.

Insert: "b. Transportation Rate Increase (Restricted/Biennial)
40,000 general fund
91,147" federal funds

2. Page B-6, following line 7.

Insert: "Item 6b must be used for rate increases for transportation services. The department must establish the rate increase within the amount appropriated. If the appropriation is not adequate to give all transportation providers a rate increase, the legislature intends that the department identify the highest priority services and allocate the rate increase to those services."

LFA will amend the totals.

This amendment adds \$40,000 and matching federal funds over the biennium for rate increases for medicaid transportation providers. The department may allocate the rate increase among providers and must use the funds for transportation rate increases.

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Amendments to House Bill No. 2
Purple Reference Copy

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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 11.

Strike: "4,729,872" "7,611,511"

Insert: "167,539" "3,049,178"

2. Page B-6, following line 7.

Insert: "Item 8 includes efficiencies and savings of 276.5 FTE, \$4,562,333 in general fund money, and \$4,562,333 in federal special revenue in fiscal year 1997 based on passage and approval of Senate Bill No. 345, which reorganizes human services and public health agencies. The executive branch can allocate these reductions among programs in the department of public health and human services. If Senate Bill No. 345 is not passed and approved, the appropriation for 276.5 FTE in item 8 is increased by \$4,562,333 in general fund money and \$4,562,333 in federal special revenue in fiscal year 1997."

This amendment increases savings due to SB 345 by 10 percent of total personal services and 276.5 FTE in fiscal 1997, based on the average cost and funding for an FTE included in the fiscal note. Savings are included in a single program in SRS, but may be allocated among all programs in the new Department of Public Health and Human Services.

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 11.

Strike: "4,729,872" "7,611,511"
Insert: "2,448,706" "5,330,345"

2. Page B-6, following line 7.

Insert: "Item 8 includes efficiencies and savings of 138.25 FTE, \$2,281,166 in general fund money, and \$2,281,166 in federal special revenue in fiscal year 1997 based on passage and approval of Senate Bill No. 345, which reorganizes human services and public health agencies. The executive branch can allocate these reductions among programs in the department of public health and human services. If Senate Bill No. 345 is not passed and approved, the appropriation for 138.25 FTE in item 8 is increased by \$2,281,166 in general fund money and \$2,281,166 in federal special revenue in fiscal year 1997."

This amendment increases savings due to SB 345 by 5 percent of total personal services and 276.5 FTE in fiscal 1997, based on the average cost and funding for an FTE included in the fiscal note. Savings are included in a single program in SRS, but may be allocated among all programs in the new Department of Public Health and Human Services.

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 11.

Strike: "4,729,872" "7,611,511"
Insert: "4,273,639" "7,155,278"

2. Page B-6, following line 7.

Insert: "Item 8 includes efficiencies and savings of 27.65 FTE, \$456,233 in general fund money, and \$456,233 in federal special revenue in fiscal year 1997 based on passage and approval of Senate Bill No. 345, which reorganizes human services and public health agencies. The executive branch can allocate these reductions among programs in the department of public health and human services. If Senate Bill No. 345 is not passed and approved, the appropriation for 27.65 FTE in item 8 is increased by \$456,233 in general fund money and \$456,233 in federal special revenue in fiscal year 1997."

This amendment increases savings due to SB 345 by 1 percent of total personal services and 27.65 FTE in fiscal 1997, based on the average cost of and funding for an FTE included in the fiscal note. The executive branch can allocate the savings among programs in the new Department of Public Health and Human Services.

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Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-7, line 22.

Strike: "14,165,589"	"15,204,089"	"14,731,108"	"15,333,159"
Insert: "13,782,329"	"14,288,161"	"14,341,352"	"14,423,727"

2. Page B-8, following line 5.

Insert: "e.	At-Risk Child Care (Restricted)
	383,260 general fund fiscal 1996
	915,928 federal special revenue fiscal 1996
	389,756 general fund fiscal 1997
	909,432" federal special revenue fiscal 1997

3. Page B-9, following line 17.

Insert: "Funds in item 4e may be used only to fund child care benefit costs for families who are at risk of becoming eligible for AFDC. Funds in item 4e may not be used for any other purpose, transferred to any other use in the department, or transferred to another department."

LFA will amend the totals.

This amendment creates a line-item, restricted appropriation for at-risk child care benefit costs. Language directs that the appropriation must be used for at-risk child care and the appropriation may not be transferred to another use or to another department.

{Office of Legislative Fiscal Analyst

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Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 6, 1995

1. Page B-4, line 5.

Strike: "250,714,853" "260,397,109"

Insert: "251,636,730" "261,287,432"

2. Page B-7.

Strike: Lines 15 through 18 in their entirety.

Insert: "a. Sex Offender Programs/Secure Care Female Offenders
400,000 general fund fiscal 1996
400,000 general fund fiscal 1997"

3. Page B-7, line 19.

Strike: "c."

Insert: "b."

4. Page B-8, line 5.

Strike: "100,000" "100,000"

5. Pages B-8 and B-9.

Strike: Page B-8, line 21 through B-9, line 1 in their entirety.

Insert: "Funds in item 3a must be spent on secure care for female offenders and treatment programs for sexual offenders. The department may not transfer funds in item 3a to other uses or to other programs or departments. The department shall provide to the 55th legislature the following information about expenditures funded from item 3a: the number of children served, the average cost per child, services provided, the treatment outcomes, and the current placement of children served."

6. Page B-9, line 2.

Page B-9, line 3.

Strike: "3c"

Insert: "3b"

LFA will amend the totals.

The amendment reallocates general fund appropriations in DFS by combining amounts appropriated for sex offender, secure care for female offenders, and the Partnership Project in a single appropriation for sexual offender treatment and secure care for females. This amendment adds \$1.8 million in matching federal medicaid funds to the SRS budget for sexual offender treatment programs and secure care for female offenders. The amendment also adds language restricting the use of the appropriation and requiring DFS to report to the 55th Legislature.

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Requested by Representative Cobb
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Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 5.

Strike: "250,714,853"

"260,397,109"

Insert: "250,960,941"

"261,534,487"

LFA will amend the totals.

This amendment appropriates \$246,088 federal funds in fiscal 1996 and \$1,137,378 federal funds in fiscal 1997 that are transferred from the Medical Assistance Division to the Developmental Disability Division for targeted case management. The request was included in the Executive Budget.

{Office of Legislative Fiscal Analyst

444-2986}

Amendments to House Bill No. 2
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Requested by Representative Cobb
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-6, following line 5.

Insert: "If Senate Bill No. 236 is passed and approved and if the department collects estate recoveries and other savings in excess of \$600,00 in fiscal year 1996 or \$600,000 in fiscal year 1997, up to \$1 million of general fund money and matching federal funds of those excess savings are appropriated each year for independent living and community-based medicaid services."

LFA will amend the totals.

This amendment appropriates up to \$1.0 million general fund and matching federal funds each year for expansion of home and community-based services, if savings due to SB 236 (medicaid estate recoveries) are in excess of estimates included in the Executive Budget and adopted by the legislature.

{Office of Legislative Fiscal Analyst

444-2986}

EXHIBIT 49
DATE 3-7-95
HB 2

Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Kasten
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 6, 1995

1. Page B-4, line 5.

Strike:	"78,956,271"	"250,714,853"	"83,519,401	"260,397,109"
Insert:	"79,416,871"	"251,776,394"	"84,729,854"	"263,091,343"

LFA will amend the totals.

This amendment adds \$1,671,053 general fund and \$3,755,775 federal funds over the biennium to remove savings to the SRS primary care budget added by the Human Services and Aging Subcommittee. The savings were taken in anticipation of the SRS or the Legislative Auditor undertaking audits recommended by the federal Department of Health and Human Services.

{Office of Legislative Fiscal Analyst

444-2986}

Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Barnhart
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-4, line 5.

Strike: "78,956,271"	"250,714,853"	"83,519,401"	"260,397,109"
Insert: "78,955,771"	"250,714,353"	"83,518,901"	"260,396,609"

4

2. Page B-4, following line 7.

Insert: "b. Pediatric Dental Consultant/Orthodontia Consultant
500 general fund fiscal 1996
500 federal special revenue fiscal 1996
500 general fund fiscal 1997
500" federal special revenue fiscal 1997

3. Page B-6, following line 7.

Insert: "Funds in item 6b must be used to contract for orthodontia consultation and pediatric dental consultation for medicaid dental claims, medicaid policy development, and representation of the department in fair hearings."

LFA will amend the totals.

This amendment moves the appropriation for contracted services for orthodontia consultation to a separate line item and directs that the department must contract for orthodontia review and pediatric dental review.

{Office of Legislative Fiscal Analyst

444-2986}

EXHIBIT 51
DATE 3-7-95
HB 2

Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Barnhart
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-6, following line 7.

Insert: "The department shall contract for orthodontia consultation and pediatric dental consultation for medicaid dental claims, medicaid policy development, and representation of the department in fair hearings within the appropriation limits of item 6."

LFA will amend the totals.

This amendment directs the department to contract for orthodontia consultation and pediatric dental consultation. The legislature has appropriated \$1,000 per year for orthodontia consultation in item 6.

{Office of Legislative Fiscal Analyst

444-2986}

Amendments to House Bill No. 2
Purple Reference Copy

EXHIBIT 52
DATE 3-7-95
HB 2

Requested by Representative Barnhart
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-6, following line 5.

Insert: "The department shall perform a statistically valid survey of dentists to determine usual and customary charges for children's dental services during fiscal year 1996. The department shall compute the 1999 biennium cost of establishing medicaid reimbursement for children's dental services at 80% of usual and customary charges based on the survey results. The executive budget must publish by fiscal year the 1999 biennium cost to fund medicaid reimbursement for children's dental services at 80% of survey rates."

This amendment directs the executive to: 1) conduct a survey of dentists to determine usual and customary charges for children's dental services; and 2) compute and publish in the 1999 biennium Executive Budget the cost of medicaid reimbursement at 80 percent of the survey rates.

{Office of Legislative Fiscal Analyst

444-2986}

Amendments to House Bill No. 2
Purple Reference Copy

EXHIBIT 53
DATE 3-7-95
HB 2

Requested by Representative Barnhart
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-7, line 22.

Strike: "14,165,589"	"15,204,089"	"14,731,108"	"15,333,159"
Insert: "14,207,733"	"15,246,233"	"14,773,252"	"15,375,303"

LFA will amend the totals.

This amendment adds \$84,288 each year to support contracts with Indian tribes to administer child protective services on reservations. These funds were included in the Executive Budget request. Contracts are funded 50 percent from the general fund and 50 percent from federal funds.

{Office of Legislative Fiscal Analyst

444-2986}

Amendment To House Bill No.2
Purple Reference Copy

For The Committee on Appropriations

Prepared By The Department of Family Services
March 7, 1995

1. Page B-7.

Strike: Line 10	6,811,582	general fund fiscal 1996
	3,271,080	federal special revenue fiscal 1996
	6,841,432	general fund fiscal 1997
	3,286,416	federal special revenue fiscal 1997
Insert:	6,849,205	general fund fiscal 1996
	3,278,896	federal special revenue fiscal 1996
	6,884,086	general fund fiscal 1997
	3,295,276	federal special revenue fiscal 1997

LFA will amend totals.

This amendment adjusts the rent for the Regional Administration program for current scheduled rent increases in assumed county offices for FY96 and FY97. The increases are 37,623 general fund and 7,816 federal special revenue in FY96 and 42,654 general fund and 8,860 federal special revenue in FY97.

Amendment to House Bill No. 2
Purple Reference Copy

For the Committee on Appropriations

Prepared By The Department of Family Services
March 6, 1995

1. Page B-7, following line 20.

Insert: "d. Foster Care Provider Rate Increase
61,801 general fund fiscal 1996
0 state special revenue fiscal 1996
671 federal special revenue fiscal 1996
129,362 general fund fiscal 1997
0 state special revenue fiscal 1997
1,402 federal special revenue fiscal 1997"

2. Page B-8, following line 5.

Insert: "c. Foster Care Provider Rate Increase
119,753 general fund fiscal 1996
12,167 state special revenue fiscal 1996
49,435 federal special revenue fiscal 1996
250,667 general fund fiscal 1997
24,516 state special revenue fiscal 1997
103,235 federal special revenue fiscal 1997"

LFA will amend totals.

The purpose of this amendment is to provide an 1.5% provider rate increase for foster care providers based on the foster care budgets approved by the Human Services Appropriation Subcommittee.

EXHIBIT 56
DATE 3-7-95
HB 2

Amendments to House Bill No. 2
Purple Reference Copy

Requested by Representative Barnhart
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-8, following line 14.

Insert: "The department shall report by October 1, 1996, to the legislative finance committee and the joint oversight committee on children and families on placement of foster care children in permanent homes. The report must include the number of foster care children adopted, reunited with their biological families, or placed in out-of-home care and the average length of stay in out-of-home placement in fiscal year 1994 compared to fiscal year 1996. The report must also include a comparison of the cost of adoption, reunification with the family, and out-of-home placement for the same time periods."

LFA will amend the totals.

{Office of Legislative Fiscal Analyst

444-2986}

EXHIBIT 57
DATE 3-7-95
HB 2

Amendments to House Bill No. 2
Purple Reference Copy

Requested by Rep. Cobb
For the Committee on Appropriations

Prepared by Mark Lee
March 4, 1995

1. Page B-5, line 16.
Strike: "with the department of labor and industry"

2. Page B-5, line 17.
Strike: "on the part of the department of labor and industry"

3. Page B-5, line 18.
Strike: "by the department of labor and"

4. Page B-5, line 19.
Strike: "industry"

This amendment changes language in HB 2 to apply to all parties with which the Department of Social and Rehabilitation Services contracts for JOBS training. Current language applies only to contracts with the Department of Labor and Industry.

{Office of Legislative Fiscal Analyst

444-2986}

Amendments to House Bill No. 2
Purple Reading Copy

Requested by Representative Fisher
For the Committee on Appropriations

Prepared by Lois Steinbeck
March 2, 1995

1. Page B-7, line 14.

Strike: "11,070,726"	"355,816"	"301,739"	"11,175,475"	"357,818"	"303,520"
Insert: "10,448,866"	"283,816"	"201,739"	"10,547,248"	"285,818"	"203,520"

2. Page B-7, following line 20.

Insert: "d. Montana Youth Alternatives Program (Restricted)

621,860	general fund fiscal 1996
72,000	state special revenue fiscal 1996
100,000	federal funds fiscal 1996
628,227	general fund fiscal 1997
72,000	state special revenue fiscal 1997
100,000"	federal funds fiscal 1997

3. Page B-9, following line 3.

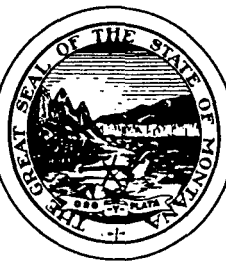
Insert: "The department may not spend funds appropriated in item 3d for the Montana youth alternatives program unless it issues a competitive request for proposals (RFP) to contract for administration of the Montana youth alternatives program. The RFP must be written to allow a variety of contractors to respond. The RFP may not be written so that it excludes qualified, responsible offerors or to favor any provider. The department shall certify to the office of budget and program planning that the RFP process complied with this directive before the appropriation for item 3d may be established on the state budgeting and accounting system."

LFA will amend the totals.

This amendment requires DFS to issue a competitive RFP to contract for administration of the Montana Youth Alternatives Program. The program appropriation may not be established until the department certifies to the Governor's Budget Office that it has met this language.

DEPARTMENT OF FAMILY SERVICES

EXHIBIT 59
DATE 3-7-95
HB 2



MARC RACICOT, GOVERNOR

(406) 444-6900
FAX (406) 444-5956

STATE OF MONTANA

HANK HUDSON, DIRECTOR

PO BOX 8005
HELENA, MONTANA 59604-8005

TO: Appropriations Committee

FR: Hank Hudson, Director
Department of Family Services

RE: Montana Youth Alternatives (Aspen Program)

Date: March 7, 1995

At the request of the Appropriations Committee regarding the Montana Youth Alternatives Program, please find attached the requested information. Please be advised that more detailed information regarding any one of the four phases is available upon request.

MONTANA YOUTH ALTERNATIVES
 Schedule for Implementation
 February 23, 1995

The following task force met at Mountain View School to establish target task completion dates for major transition events:

Tim Marshall	Gordon Birch	Dr. Larry Stednitz
Jim Bauch	Al Davis	John Paradis
Beth McLaughlin	Virgil Dixon	Cindy Mckenzie
Derek Cabrera	Steve Nelson	Chuck Smith
Gale Keil	Cindy Walton	Donna Aldrich
Tim Ferritor	Tom Russ	Becky Bruska

DATE TASK COMPLETED

TASK

- | | |
|-------------------|--|
| February 24, 1995 | Establish building utilization plan for placement of three programs. (Identified responsible parties - Jim Bauch, Tim Marshall, Al Davis, Gordon Birch, Steve Nelson) |
| February 24, 1995 | Post positions for phase I and begin identifying potential candidates of RIF list. Follow with public advertising for positions in Phase 1. All positions will be hired by April 1, 1995. (Identified responsible parties - Virgil Dixon, Becky Bruska, Jim Bauch. |
| March 1, 1995 | Aspen to post and begin screening applicants for Phases 2, 3, and 4. Actual posting will occur by 3/1/95, 4/1/95, and 4/15/95. (Identified responsible parties - Tim Marshall, Gordan Birch, Larry Stednitz) |
| March 1, 1995 | Complete development of Aspen Youth Alternatives major contract including signature of all parties. (Identified responsible parties - Al Davis, Tim Marshall, Mary Ann Akers) |
| March 5, 1995 | Finalize contract between Montana Conservation Corps and Aspen Youth Alternatives. (Identified responsible parties - Tim Marshall, Steve Nelson) |
| March 5, 1995 | Finalize lease contract with Aspen. (Identified responsible parties - Al Davis, Tim Marshall) |

March 7, 1995 RIF complete. (Identified responsible parties - Becky Bruska, Virgil Dixon)

March 10, 1995 Education plan developed. This will involve the education plan for all phases. (Identified responsible parties - Chuck Smith, Tim Marshall, Pine Hills School representative, Office of Public Instruction)

March 10, 1995 Budget for O & A phase complete. Distribution of funds for State responsibility developed in detail by responsibility center. (Identified responsible parties - Becky Bruska, Jim Bauch)

March 15, 1995 Montana Youth Alternatives Advisory Counsel appointed. Representation from the following to be included: Office of Public Instruction, Juvenile Probation, Judicial, County Attorney, Provider, consumer, Montana Advocacy Program, Mental Health Association, DFS Advisory Council, MCC youth, Law Enforcement, Legislator, Board of Crime Control. (Identified responsible parties - Larry Stednitz, Al Davis, Jim Bauch, Steve Nelson)

March 17, 1995 Mission statement and goals and objectives completed for Montana Youth Alternatives Program. Phase goals and objectives will be handled individually by phase staff. (Identified responsible parties - Jim Bauch, Gale Keil, Larry Stednitz, Gordan Birch, Steve Nelson)

March 22, 1995 Youth Court Program description notification. All Youth Courts will have a detailed description of the program. (Identified responsible parties - Larry Stednitz, Jim Bauch, Gale Keil)

March 30, 1995 Staff interviews for Aspen program completed. Recommended that "key" positions be evaluated by state, Aspen, and MCC. (Identified responsible parties - Larry Stednitz, Gordon Birch, Tim Marshall)

April 1, 1995 Food Service and Culinary Arts program finalized. (Identified responsible parties - Becky Bruska, Donna Aldrich, Cindy Walton, Gordon Girch, Steve Nelson)

April 1, 1995 Draft of Phase 1 policy manual completed. (Identified responsible Parties - transition team)

April 1, 1995 Draft of Aspen policy manual complete. (identified responsible parties - Gordan Birch)

April 1, 1995 Draft of Montana Conservation Corps manual complete.
(Identified Responsible parties - Derek Cabrerra, Steve Nelson)

April 10, 1995 Phase I training initiated.

April 14, 1995 RFP completed for Long Term Placement of Females.
(responsible parties - Al Davis, Mary Ann Akers)

May 1, 1995 Quality Assurance system developed and ready to implement.
(Identified responsible parties - Gale Keil, Larry Stednitz, Jim Bauch, Gordon Birch, Steve Nelson)

May 1, 1995 Safety and Emergency Response Team finalized. (Identified responsible parties - Tim Ferritor, Gordan Birch, Tom, Derek Cabrerra)

May 1, 1995 Implementation of Phase IV. (Identified responsible parties - Gordan Birch, Steve Nelson, Larry Stednitz)

May 15, 1995 Implementation of Phase 1. (Identified responsible parties - Transition Team)

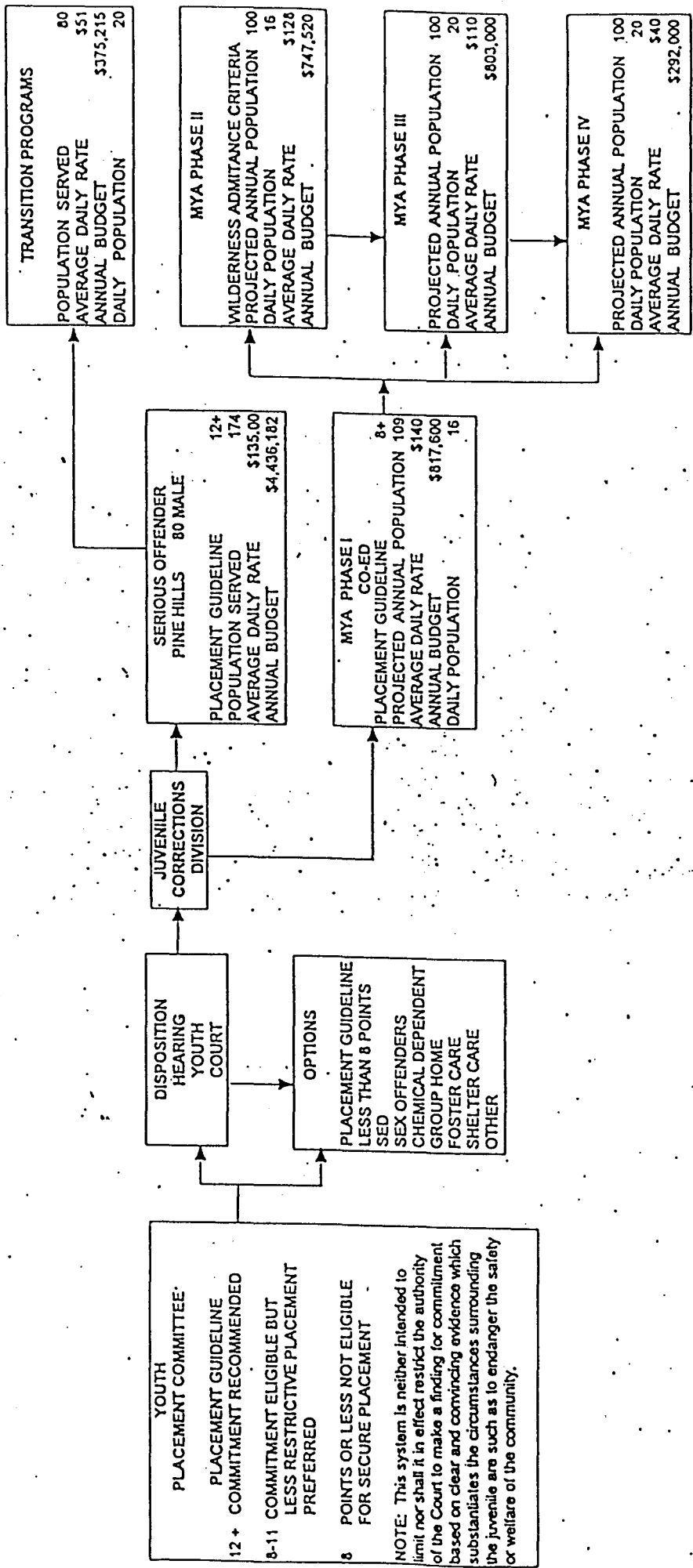
May 30, 1995 All purchasing for program initiation completed. (Identified responsible parties - Donna Aldrich, Becky Bruska, Al Davis, Gordan Birch)

June 15, 1995 Implementation of Phase II Complete. (Identified responsible parties - Gordan Birch, Tim Marshall, Larry Stednitz, Steve Nelson)

July 1, 1995 Implementation of Phase III complete. (Identified responsible parties - Gordan Birch, Steve Nelson, Larry Stednitz)

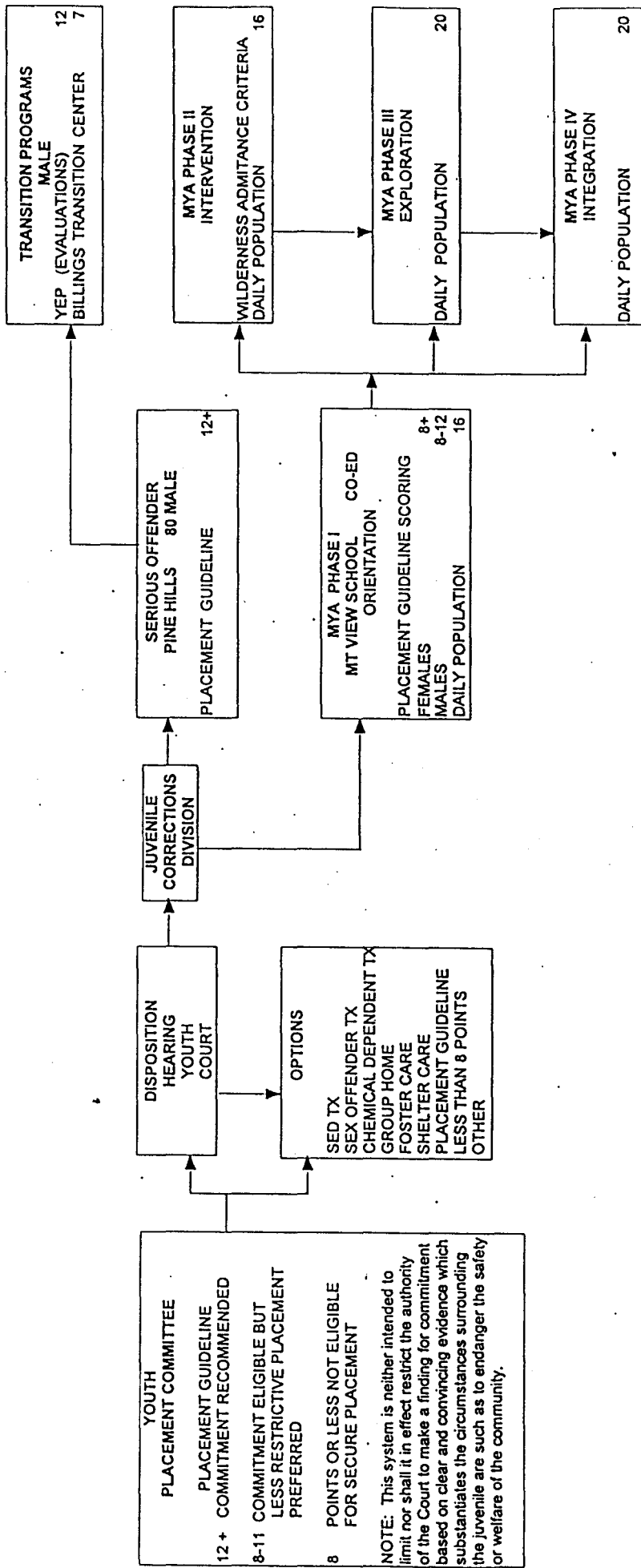
July 1, 1995 Land use permits process complete. (Identified responsible parties - Gordan Birch, Tim Marshall)

JUVENILE CORRECTIONS SYSTEM



MYA TOTAL BUDGET = \$2,261,102

JUVENILE CORRECTIONS SYSTEM



Montana Youth Alternatives

Program Components & Focus

	Orientation	Intervention	Exploration	Integration
Admission Assessment	<ul style="list-style-type: none"> Interview with juvenile Review of history & records Review of aftercare potentials Community resource Potentials Recommendations to placement community 			
Initial Evaluation	<ul style="list-style-type: none"> Physical Evaluation Psycho-Social Assessment Intellectual Assessment Observation of baseline behavior Assessment of systems resources 	<ul style="list-style-type: none"> Peer interaction & effectiveness Individual management skills Communication skills Intervention responsiveness Conflict resolution skills 		
Intervention Planning	<ul style="list-style-type: none"> Individual Intervention Plan Developed Intervention Community Review Intervention plan initiated On-going re-assessment initiated 	<ul style="list-style-type: none"> Intervention Community Review Recommendations for further interventions 	<ul style="list-style-type: none"> Intervention Community Review Recommendations for further interventions 	<ul style="list-style-type: none"> Intervention Community Review
Family Involvement	<ul style="list-style-type: none"> Initial family contact & orientation 	<ul style="list-style-type: none"> Family Response Program Initiated Letter writing assignments Three day family workshop 	<ul style="list-style-type: none"> Family Response Program continued Letter writing assignments continued Family weekend & workshop Short term home visits 	<ul style="list-style-type: none"> Family Response Program continued Family Education Program initiated Student sponsors to visit homes Weekend activities involving families
Aftercare Planning		<ul style="list-style-type: none"> Initial placement planning begins 	<ul style="list-style-type: none"> Aftercare plan fully developed 	<ul style="list-style-type: none"> Orientation to aftercare placement
Academic Assessment	<ul style="list-style-type: none"> Initial assessment of aptitude & achievement Tested for grade level and needs 	<ul style="list-style-type: none"> Continued assessment of content retention and curriculum presentation 	<ul style="list-style-type: none"> Career interest and aptitude assessment Targeted remedial assessment for specific interests 	
Educational Curriculum	<ul style="list-style-type: none"> Computerized tutorial with base line assessment of development and rate of progress Initial introduction to curriculum presentation Individual goals and interests are explored and integrated in the intervention plan 	<ul style="list-style-type: none"> Individualized curriculum delivery Group tutorial exercises Integrated curriculum activities with an applied approach 	<ul style="list-style-type: none"> Individually driven curriculum with and interest in reintroducing the student back to the community resources 	<ul style="list-style-type: none"> Return to public school system with assistance from sponsor & aftercare coordinator
Career/Vocational Planning		<ul style="list-style-type: none"> Initial interest assessment of career/vocational interests 	<ul style="list-style-type: none"> Vocational exploration and specific career expectations 	<ul style="list-style-type: none"> Continued support to explore vocational options
Live Skills Development	<ul style="list-style-type: none"> Initial base line assessment of current skills level Orientation to simple concepts and principles 	<ul style="list-style-type: none"> Community living experience Peer group accountability Experience of basic human interaction and skills in effectiveness 	<ul style="list-style-type: none"> Village economy with real life management expectations Demonstrate personal management skills 	<ul style="list-style-type: none"> Supervision in a community living experience Family education program Monthly workshops on enhancing personal effectiveness
Restitution	<ul style="list-style-type: none"> Options for possible restitution hours explored 	<ul style="list-style-type: none"> Simple, short term projects 	<ul style="list-style-type: none"> Restitution work projects 	<ul style="list-style-type: none"> Continued restitution projects
Emotional Growth Activities	<ul style="list-style-type: none"> Initial assessment of emotional maturity Orientation to program expectations and services Primary emotional growth activities (Journaling, personal histories, etc.) 	<ul style="list-style-type: none"> Intense peer interaction and emotional growth activities Emotional growth curriculum Drug and alcohol counseling Personal & group goal development 	<ul style="list-style-type: none"> Group and individual counseling Peer counseling activities Continued drug and alcohol counseling Personal growth workshops and curriculum 	<ul style="list-style-type: none"> Weekly meetings and contacts Individual sponsor interaction as needed Personal development expectations
Group Processes	<ul style="list-style-type: none"> Initial structured group exercises Daily goals group 	<ul style="list-style-type: none"> Intense structured and non-structured groups Initiative activities 	<ul style="list-style-type: none"> Peer group meetings Daily group sections 	<ul style="list-style-type: none"> Family meetings each week Monthly workshops
Peer Interactions	<ul style="list-style-type: none"> Peer group accountability practiced 	<ul style="list-style-type: none"> Peer group accountability Strong personal responsibility for group success Peer group goals and review 	<ul style="list-style-type: none"> Peer support and buddy system Groups are arranged in family systems Daily chores responsibility of the group 	<ul style="list-style-type: none"> Peer interaction at weekly and monthly meetings Peer accountability
Social Effectiveness		<ul style="list-style-type: none"> Initial experience of effective social skills 	<ul style="list-style-type: none"> Expectation for community involvement 	<ul style="list-style-type: none"> Responsible to be involved in several community activities
Conflict Resolution & Communication Skills	<ul style="list-style-type: none"> Initial instruction on conflict resolution and communication within the immediate peer system 	<ul style="list-style-type: none"> Workshop experience in conflict resolution skills Ground rules and guidelines in effective communication Addressing anger and rage Assess the current level and style of communication 	<ul style="list-style-type: none"> Continued work in conflict resolution skills Family involvement in workshops around conflict resolution and communication 	<ul style="list-style-type: none"> Continued exercises in conflict resolution and communication for both the student and the family
Outcome Assessment	<ul style="list-style-type: none"> Demographical histories Base line assessments 	<ul style="list-style-type: none"> Simple assessment of component strengths and weaknesses Student survey and responses 	<ul style="list-style-type: none"> Continued assessment of program components and philosophy 	<ul style="list-style-type: none"> Follow-up studies concurrent over the following year
Service To Others	<ul style="list-style-type: none"> Expectation for common accountability and chores 	<ul style="list-style-type: none"> Personal services to the peer group Service hours required Allow others to assist them in their term goals 	<ul style="list-style-type: none"> Continued expectation to serve the peer group Opportunities to serve the community Experience in providing support to the community 	<ul style="list-style-type: none"> Involved in community service work Monthly progress reporting Allow the support group to assist them



THE MONTANA YOUTH
ALTERNATIVES
PROGRAM

*A POWERFUL, NEW
PARTNERSHIP FOR MONTANA
JUVENILE CORRECTIONS*

For more information, contact:

Juvenile Corrections Division
Department of Family Services
2260 Sierra Road East
Helena, Montana 59604
(406) 458-2000

MONTANA YOUTH ALTERNATIVES PROGRAM

2260 SIERRA ROAD EAST, HELENA, MONTANA 59604

(406) 458-2000

The Montana Youth Alternatives Program (MYAP) is administered by the Department of Family Services, Juvenile Corrections Division, in partnership with the Montana Conservation Corps, Inc., Bozeman, Mt. and Aspen Youth Alternatives, a division of Aspen Health Services, Loa, Utah. This program is based in Helena, Mt. and consists of four major components: one and three are on the Mountain View Campus; the second program is located in the surrounding mountainous areas; the final program is implemented when the youth returns to live in his/her home community.

Adjudicated youth are referred to the program by local communities through Youth Placement Committees and/or the Youth Courts. The Montana Guideline for Secure Care assessment tool is utilized to provide equitable decisions for placement of juvenile justice youth across and within juvenile court jurisdictions.

The multisystemic approach of MYAP, views the juvenile offender as living in an environment of interconnected systems encompassing individual, family and extrafamilial (peer, school) factors; and program interventions are designed to encompass public safety, accountability and competency building.

PROGRAM DESIGN

MYAP is a high impact, cost effective, family focused treatment model whose primary goal is to provide a program that addresses oppositional and defiant behavior exhibited by the youthful offender. Although the program is designed to focus on the causes for rebellious behaviors, staff also assesses each youth individually, with unique interventions, public safety, restitution, vocational development, personal accountability and reintegration needs.

Treatment planning begins at admission with an intensive assessment of the youth's strengths and needs, and continues throughout all segments of the program.

There are four basic programs which may be used in various combinations or independently.

- **OBSERVATION AND ASSESSMENT - 2-4 week Evaluative Program**
- **INTERVENTION - 2 month Wilderness/Intensive Program**
- **EXPLORATION - 1-2 month Restitution/Service-Work Program**
- **INTEGRATION - 2 month Transition/Aftercare Program**

Each program has specific objectives that are accomplished through a series of developmental steps and components.

The Orientation and Assessment Program is an intense, short-term evaluation period, designed to identify the youth's treatment needs, academic/vocational standing, mental status, and program readiness. Upon completion of all requirements of this program, the youth will be referred to the next component.

Unlike other programs in more traditional settings, MYAP offers a high staff to student ratio model that is flexible, and yet meets the demands of the youth by immediate staff and peer consequences. The wilderness experience is designed to challenge barriers of opposition and defiance as well as develop a more productive rapport. The wilderness experience focuses on extensive group activities supporting effective and functional peer relations. During the wilderness experience each individual will be expected to learn more effective patterns of communication, anger resolution and goal development.

Each phase focuses on specific developmental goals and objectives as well as required service projects and activities. Each group will progress through the wilderness experience as a unit and will be required to complete all expectations and objectives. At the completion of the eight week wilderness experience the students have the benefit of participating with their parents in a structured two day work shop. Over the past eight weeks the parents have been involved with specific assignments that address parenting skills and interpersonal relationships. During the parent weekend each family group will participate in a combination of activities and meetings that address communication, interpersonal relationship and goal structuring.

The following issues are addressed daily during the youth's involvement throughout the program:

- Treatment Planning
- Anger Management
- Drug and Alcohol Education
- Academic/Voc. Assessment
- Family Relationships
- Human Sexuality
- Skills Development
- Victim Empathy
- Problem Solving/Mediation
- Accountability to Self and Others
- Therapeutic Recreation
- Job/Skill Development

Upon completion of the second Program, the youth will return to the Mountain View Campus, and be actively involved with the Montana Conservation Work Crews. The curriculum emphasis of this component are leadership, community service and personal development, actively involving the youth in activities that support career development, acquire work experience, and develop independent living skills. A strong emphasis on academics continues as plans are made for reintegration back to their home communities. Court ordered work restitution is a major portion of this program.

As the youth completes the goals of the third Program, they will transition from the Mountain View Campus, with the emphasis on completing the Aftercare Community Program. A two month Aftercare plan is implemented, involving treatment goals and workshops involving the youth and their families. This process will involve the youth, family members, Probation Officer and Aftercare Staff. Upon completion of this program, the youth returns to the supervision of the Youth Court.

PROGRAM INTENSITY

The youth is evaluated during the two to four week Orientation Program. Staff will establish a baseline of behavior and aptitudes through assessment, testing and concurrent observation with emphasis on the youth's health, counseling, legal involvement, family, substance use and physical needs. An individualized and self paced educational curriculum will begin. The goal of this phase is to assess and prepare the youth for the Intervention Program.

Upon staff recommendations, the youth will advance to the Intervention Program, which is designed to address behaviors of opposition and non-compliance. Removal from familiar systems that the offenders are used to manipulating, requires them to establish new coping

methods, because they no longer can predict outcomes, their ability to control others is eliminated. The program design is highly recognized for its ability to deal with underlying issues of power and control, where defiant youth are no longer able to manipulate their environment, and must address issues of trust, honesty and personal accountability.

The wilderness experience provides 20-25 hours of group counseling, 2 individual sessions, 14-20 hours of academic studies, 10-15 hours of treatment planning sessions, and 20 hours of occupational and recreational activities weekly. This outdoor setting also enhances personal skill building and problem solving by interacting with peers and authority figures. Successful completion of the program requires a consistent response by the youth both physically and mentally.

As the youth moves into the program with the Conservation Crew, hard work and long days are required, as the program involves community work projects, personal development, and education. Crew Members provide leadership in work ethics and act as role models to the youth, as they focus on treatment issues. The Aftercare program involves the youth's support systems and intensive monitoring of the case plan until time of discharge.

PROGRAM FLEXIBILITY

The treatment milieu allows for the youth to participate in several different combinations of the program without sacrificing effectiveness. A variety of specialized interventions are experienced by the youth through a continuum of several stages over the treatment period.

The length of stay can be adapted to fit the youth's treatment plan needs and court sanctions. The Orientation Program may determine that an older youth might be best served by going directly into the third Program to gain the necessary work skills to become financially independent. While another youth who has a strong family component and community support,

might transition directly out to the Aftercare Program. The format also allows for a youth to be returned to participate in any one of the programs.

PROGRAM INTEGRATION

Beginning with the referral from the local Youth Placement Committee until return to the Youth Court, case managers advocate the participation of several collateral agencies to become actively involved in the overall treatment plans for the offender.

Families are strongly encouraged to accompany the youth to the facility and become active participants in the program plans for the youth. Case workers have ongoing contact with the family and community support systems, apprising them of treatment issues and placement plans. Communication with the educational and legal staff will be continuous while the youth is in the program. Evaluation methods will be pre and post testing, youth court follow up, academic and vocational status, and self and family reporting.

Why The Aspen Wilderness Program?

Wilderness programs offer youth the opportunity to change behavior patterns. They do this through a combination of rigorous outdoor work, counseling, recreation and educational activities. These programs affect many areas in the lives of youth including school participation, drug use, interaction with family and peers, appropriate use of free time and, of course, involvement with the juvenile justice system.

There are a number of evaluations which demonstrate the effectiveness of these programs by tracking recidivism measures. Recidivism may be defined as subsequent arrests, adjudications, and placement in programs that are equally or more restrictive. Using these definitions, evaluators have calculated recidivism rates for programs as low as 5% . 95% of the program's graduates were not placed in programs of equal or more restrictive nature in the year following release. (Eckerd 1993-94 Annual Descriptive Summary) A program based in Texas found that 85% of graduates did not recidivate during the initial six months after their release. (Clagett 1989) Another wilderness program based in Illinois found the program had positive effects on recidivism through the first year of follow-up. These positive effects were both in reducing subsequent arrests and adjudications and in reducing the seriousness of the subsequent offenses. (Castellona and Soderstrom 1992) Finally, a program drawing its population from San Diego compared the recidivism rates of its youth with the rates for a similar group of committed juveniles. The evaluators found that the program graduates were 15% less likely to be arrested than those youth committed to a traditional program during the first year of release. This result was in spite of the slightly more serious prior records of the wilderness program graduates. (Greenwood, 1988)

In addition, wilderness programs have been shown to positively impact many other important factors promoting pro-social behavior. For instance, the ASPEN Program has shown positive effects in the areas of school participation, staying off drugs, using free time appropriately, and not becoming involved with the juvenile justice system. Other programs have been tied explicitly to reduced disciplinary actions in school and increased grade point averages. (Maizell 1989 and Callahan 1990) Also, reductions in school truancy and dropout rates and increases in part-time and full-time employment have been documented. (Eckerd 1993-94 Annual Descriptive Summary) It is of great importance that program graduates have shown the permanence of the program experience by using many of these pro-social behaviors in their home environments: for example, better conflict resolution and communication, increased problem solving skills and resistance to negative peer pressure. (ASPEN and Eckerd) Finally, wilderness programs have traditionally been evaluated based on improving youth's self-esteem and other cognitive and behavioral functioning which has been linked to reduced recidivism. (Culver 1993) These traditional evaluations have concluded that wilderness programs do indeed have positive effects on youth attitudes and behavior. (Fried 1994)

The Impact of a Wilderness Experience on the Social Interactions and Social Expectations of Behaviorally Disordered Adolescents

John J. Sachs and Sidney R. Miller

ABSTRACT

The literature clearly supports the thesis that behaviorally disordered students need to develop appropriate social skills and the ability to cope effectively with stressful situations. Although a majority of the literature has focused on the development of social skills in the school setting, other settings such as wilderness programs appear to be viable alternatives to traditional training programs. The primary goal of this study was to evaluate the impact of a modified wilderness program on the cooperative and aggressive behaviors of seriously emotionally disturbed adolescents utilizing standardized measures and direct observation procedures. The second goal was to apply Bandura's self-efficacy theory as a means to understand and evaluate the impact of this intervention procedure. The results of this study indicate that the behaviorally disordered adolescents who participated in the wilderness program had a significant increase in cooperative behaviors, and that the direct observation procedures were significantly more sensitive to changes in the participants' overt behaviors.

Behaviorally disordered adolescents have difficulty adapting their social interactions to their communities' social mores. Kauffman (1989) states, "Many behavior disorders, though not all, originate or are made worse by the child's or youth's social interactions" (p. 5). To facilitate and promote the development of appropriate social and adaptive behaviors, as well as to improve self-concept, wilderness programs are being explored as an alternative treatment for behaviorally disordered adolescents (Burdal & Buel, 1980; Ewert, 1987; Hobbs & Shelton, 1972; Kelly & Baer, 1969; Porter, 1975; Rawson, 1973; Robb & Ewert, 1987; Smith, 1982).

Although wilderness programs vary in length and scope, the common theme of most wilderness programs is the emphasis on providing the participants with activities that are physically challenging and encourage individuals to go beyond their previously established limits. Evaluations of the therapeutic benefits of wilderness programs have focused primarily upon the positive changes in the participants' self-concepts and self-esteem. A decade ago the research efforts were the subject of criticism (Byers, 1979; Gibson, 1979). Howe (1980) indicated that the recreational field must improve their evaluation procedures in order to meet the emerging trend toward accountability. Witt, Connolly, and Compton (1980) stated, "Nowhere in the overall recreation and park movement has this call been more fervent than in the area of recreation service for special populations" (p. 5). In 1987 Ewert conducted a comprehensive review and analysis of research in outdoor education and echoed the concern regarding the research in the area of wilderness program. In 1989 Ewert stated, "Unfortunately, this need for methodological pluralism has been transformed in reality to an over reliance on paper and pencil measurement of attitudes, most notably self-concept, using a self-report format" (p. 111). In addition, Ewert (1989) indicated that theory-based research would contribute to the body of knowledge in the area of outdoor adventure programs.

The major intent of this article is to evaluate the impact of this type of intervention on behaviorally disordered adolescents' aggressive and cooperative behaviors using a standard-

ized rating scales and direct observation procedures. In addition, Bandura's Self-Efficacy Theory is used as a means to understand and evaluate the impact of a modified survival program by measuring the behaviorally disordered adolescents' expectations for aggressive and cooperative behaviors, and by exploring the relationship between their expectations and their overt behaviors.

Self-Efficacy Theory

In 1977 Bandura introduced a theory of behavioral change known as Self-Efficacy Theory (SET). Bandura indicated that an individual's self-efficacy is dependent upon the individual's personal belief that the individual will successfully complete a particular task. Therefore, an individual's level of self-efficacy determines whether an individual will initiate coping behaviors, and the intensity and the perseverance of these behaviors when confronted with stressful situations. Torgesen (1989) indicated that learning disabled students have low self-efficacies and lower performance expectations. In a comprehensive review of the literature investigating the relationship between a student's self-efficacy and performance, Schunk (1989) stated, "Empirical evidence supports the idea that self-efficacy predicts student motivation and learning" (p. 14). Other researchers have also found a direct relationship between teacher self-efficacy and teacher performance. For example, Gibson and Dembo (1984) compared teachers with low and high self-efficacy and found that teachers with low self-efficacy were less persistent with students exhibiting academic difficulties than were the teachers with a high self-efficacy.

Research in the area of SET has also indicated that improvement in an individual's self-efficacy has a positive effect on the individual's subsequent performance — for example, muscular endurance (Weinberg, Gould, Yukelson, & Jackson, 1981), phobic reaction to snakes (Bandura & Adams, 1977), and smoking cessation (Conditte & Lichenstein, 1981).

What types of activities increase individuals' self-efficacy and their subsequent performances? Bandura (1977) identified four sources and 14 modes of induction that can impact an individual's expectations for success: (a) performance accomplishments, (b) vicarious experiences, (c) verbal persuasion, and (d) emotional arousal. The relationship between these four sources and the well-established wilderness program *Outward Bound* was initially introduced by Harmon and Templin (1980). In 1986 McGowan stated, "Self-efficacy theory contributes to a theoretical framework for behavior change and details the steps by which change can be operationalized in Experiential Programs" (p. 68). These authors indicate that the foundation of SET is inherent in the various wilderness programs (e.g., *Outward Bound* and *Experiential Programs*). Typical *Outward Bound* and wilderness programs include various physically and emotionally challenging experiences — for example, hiking and spelunking, camping in the mountains, initiative activities, and a solo experience (1-3 days alone in the wilderness).

These types of experiences are designed to provide opportunities for the individuals to engage successfully in activities that they perceive as beyond their level of abilities. Wilderness experiences not only correlate with the various modes of modifying an individual's self-efficacy, but they represent what Bandura (1977) believes to be the most powerful means of facilitating positive changes in an individual's self-efficacy. Bandura indicated that individuals' self-efficacy will be enhanced and their defensive behaviors will be reduced if they successfully participate and master activities that are subjectively threatening. In addition, Bandura also believes that when individuals' self-efficacy is enhanced, their self-efficacy will generalize to other situations where they have perceived themselves as inadequate. Therefore, wilderness camping programs that provide successful experiences that challenge individuals' beliefs about their personal abilities could positively influence their beliefs and future performances in other settings and with other tasks.

METHOD

Subjects

The subjects in this study were behaviorally disordered adolescents who were charges of the Illinois Department of Mental Health and were placed in a public school program that

provided comprehensive academic and behavioral interventions. From a population of 50 students, 12 (13 males and 3 females) were randomly selected and randomly assigned to the experimental group ($n = 8$) and control group ($n = 8$). The age range for the subjects was 13.07 to 17.11 with a mean age of 16.01. The subjects' IQ scores ranged from 78 to 112 with a mean IQ of 89.25.

Dependent Measures

The following assessment procedures were employed during this study:

1. direct observation of each student's cooperative and aggressive behaviors in their school environment;
2. teachers' perceptions of the students' conduct problems as measured by the Behavior Problem Checklist (Quay & Peterson, 1979);
3. students' self-efficacy as measured by students completing the Modified Jessor Expectancy Questionnaire (Jessor, Graves, Hanson, & Jessor, 1968); and
4. a microanalysis of the students' expectation scores for cooperative and aggressive behaviors which were compared to the actual frequency of their cooperative and aggressive behaviors.

Direct Observation

Direct observation procedures were implemented to establish the frequency of verbal and physical aggression, and of cooperative behavior displayed by students in their educational setting. Observation of a student's cooperative behavior focused on the following subcategories: (a) group participation, (b) verbal responding, (c) verbal initiation, (d) compliance, (e) ignoring a verbal request, and (f) resisting a verbal request. Frequency of cooperative behaviors was established by computing the number of intervals in which a student exhibited subcategories a-d and subtracting the number of intervals in which that student exhibited subcategories e-f.

A total of 60 hours of observation was completed one week prior to the intervention (baseline), one week after the intervention (short-term), and one month after the short-term evaluation (follow-up). Subjects were observed for a 15-minute interval each day during each of the observational sessions. Each whole interval consisted of a 10-second observation period and a 5-second recording period. The interobserver reliability of the direct observation of cooperative behavior during the training sessions ranged from 86 to 95% with a mean of 90.5%. Interobserver reliability was established by dividing the number of agreements by the number of agreements and disagreements and multiplying by 100 (Alberto & Troutman, 1990). During this study interobserver reliability checks were conducted during 25% of all observation periods by three independent observers and ranged from 88.6 to 95.4% with a mean of 92.5%.

Aggressive behavior was divided into the following subcategories: (a) physical aggression toward objects, (b) verbal aggression toward staff, (c) physical aggression toward staff, (d) physical aggression toward peers, and (e) verbal aggression toward peers. The frequencies of aggressive behaviors were established by computing the number of aggressive behaviors exhibited in all five subcategorical areas. Observation of aggressive behaviors was conducted by the classroom teachers. Interobserver reliability of teachers' observations were conducted by each teacher's aide and the primary investigator. During the training sessions the interobserver reliability ranged from 88 to 92% with a mean of 90%. Interobserver reliability was computed by dividing the smaller number of recorded instances by the larger number of instances and multiplying by 100 (Alberto & Troutman, 1990). During the study the interobserver reliability for aggressive behavior ranged from 90 to 100% with a mean of 94%.

Teacher Perceptions

Teacher perceptions of the students' conduct problems were measured by having the teachers complete the entire Behavior Problem Checklist (BPC). Although the teachers completed the entire BPC, only the scores from the conduct disorder component were used for this

study because the majority of the items contained in this subscale reflect noncompliant and aggressive behavior. The teachers were unaware of which section of the BPC was being investigated. The test-retest reliability of the conduct problem (CP) subscale of the BPC has been reported as .85 (Evans, 1975) and .89 (Quay & Peterson, 1979).

Social Expectations

The Jessor Expectancy Questionnaire was designed to measure a college student's academic and social expectations (Jessor et al., 1968). The reliability of the social expectations scale was reported by Jessor et al as .92. For the purpose of this present study the language of the questions was modified for an adolescent population. Only a modified version of the Jessor Social Expectations subsection was utilized (MJEQ). The test-retest reliability of the MJEQ was evaluated prior to implementation of the intervention. A total of 30 behaviorally disordered adolescents who would not be included in the experimental study were selected from local school districts and administered the MJEQ twice within a 2-week period. The resulting test-retest correlation for the MJEQ was .72.

Microanalysis of Cooperative and Aggressive Behavior

In addition to assessing the students' general social expectations, two questions were added to the MJEQ to measure the students' expectations for aggressive and cooperative behaviors. The students were asked what were their expectations for aggressive and cooperative behaviors during the following school week. The test-retest correlations for these two items were .74 and .42. Although the reliability of the MJEQ and these two additional questions are considered to be too weak to make educational decisions, they are considered acceptable for exploratory research (Nunnally, 1967). Consequently, these instruments are considered acceptable to explore the relationship between students' expectations and their observed behavior. Exploration of the relationship between expectations and actual behavior was accomplished by implementing a microanalysis procedure utilized by Bandura (1977) and Kazdin (1979). Specifically, the students' expectation scores for aggressive and cooperative behavior were compared to their actual level of behavior as measured by the direct observation procedures.

Data Collection Procedures

The direct observational procedures previously discussed were employed for 5 consecutive days prior to the intervention (baseline), for 5 consecutive days immediately after the intervention (short-term), and for 5 consecutive days after the completion of the project (one month follow-up). The students' classroom teachers completed the entire BPC following each observational period. The MJEQ was completed by the control and experimental groups one day prior to the baseline, short-term, and follow-up sessions.

Treatment

The wilderness camping experience was provided to the experimental group in Shawnee National Forest in southern Illinois. The base camp was established in an isolated section of the forest and was within 5 minutes of an emergency fire trail. The subjects were unaware of this emergency route. All wilderness activities occurred within a 5-mile radius of the base camp.

The natural environment of the national forest enabled the leaders to provide the subjects with the following activities: (a) hiking; (b) spelunking (caving); (c) trail making; (d) setting up campsites; (e) initiative activities in which students were presented problems to be solved by the physical and/or mental effort of the group (e.g., the island activity requires that all participants stand in a circle that is too small for them unless they develop a plan of action and physically cooperate); (f) trust exercises activities that required the participants to complete an activity in which their success was totally dependent upon another individual (e.g., a student would climb onto a platform and then fall backwards with only the group to ensure her/his safety); and (g) relaxation exercises (e.g., the participants were encouraged to use relaxation techniques when confronted with activities that they indicated were threatening or too difficult for them).

1991

The Effects of Wilderness Camping and Hiking

on the Self-Concept and the Environmental Attitudes and Knowledge of Twelfth Graders

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ABSTRACT: The purpose of this research was to determine what effect a challenging 6-day wilderness experience would have on the self-concept, and the knowledge of and attitude toward the environment, of 61 12th-grade students. The experimental and control groups were pre- and posttested with the Tennessee Self-Concept Scale (TSCS), the Coopersmith Self-Esteem Inventory (SEI), and an environmental attitude and knowledge questionnaire. Statistical analyses of the pre- and posttest results indicated a significant increase for the experimental group on 3 of 10 measures of self-concept in the TSCS, on 2 of 5 measures in the SEI, and in environmental knowledge. No change in attitude was found for the participants. The control group did not significantly change their scores on any of the measures. The data indicated that changes in self-concept and environmental knowledge can occur from short-term wilderness experiences. Further research into determining the qualities of programs that are effective in causing positive changes in the participants is recommended.

Most wilderness challenge programs are designed to encourage participants to reach beyond their present behavior and accomplish a task that they may have thought themselves incapable of handling. Outdoor activities such as those offered by Outward Bound schools are examples of this level of experience. The intent of these programs is to bring the individual to a better understanding of him or herself in relation to the environment and to provide the opportunity for growth in knowledge, ability, and self-concept (Bacon 1987;

Groves 1981; Marsh, Richards, and Barnes 1986; Rentz and White 1967; Richards 1976; Tschakert 1986).

The Outward Bound challenge experience has provided the setting for most of the research on the effects of experience-based and challenge-experience programs on such factors as self-concept, academic achievement, locus of control, and physical fitness. The purpose of Outward Bound and similar programs is to bring students into close confrontation with themselves and their physical, social, and natural environments. Program de-

signers vary activities in order to maximize the number and type of demands placed on each student and the group as a whole. Researchers studying participants in Outward Bound programs lasting from 21 to 26 days have generally found significant changes in global or overall self-concept (Benson 1981; Bertolami 1981; Clifford and Clifford 1967; Koepke 1974; Leiweke 1976; Marsh 1986; Marsh and Richards 1988a; Marsh, Richards, and Barnes 1984; Richards and Richards 1981; Smith 1971; Stremba 1977; Winkie 1976). Of these, only Marsh et al. (1984), Smith (1971), and Stremba (1977) used a matched control group for comparison. In addition to alterations in overall self-concept, positive changes in specific facets of self-concept as measured by the instrument of choice occurred in both high school- and college-aged participants in Outward Bound programs (Jones 1978; Nye 1976; Risk 1976; Wetmore 1972). In a controlled study of 170 high school students, Jones measured changes in the Physical and Personal scales of the Tennessee Self-Concept Scale (TSCS). Similarly, both Nye and Wetmore reported significant changes in nine categories of the TSCS in populations of 82 and 291 students, respectively. Risk reported increases on six scales of the TSCS in a small sample size of 11 students with no control. The subjects in these studies ranged in age from 16 to 47 years, although most were of college age. A long-term study of high school students in an Outward Bound-type physical education program called Project Adventure reported results that varied from the observation of subjective changes in relationships and skills (Smith 1973) to an overall increase in general self-concept and increases in six scales of the TSCS (Fersch and Smith 1973). A controlled study of 12 individuals enrolled in a living and learning program at Dartmouth College reported no change in self-concept over a 1-year period (Jernstedt and Johnson 1983). These studies were of long-term programs (21 days to 12 months) as opposed to short-term programs (less than 21 days), and only a few studies (Cook 1980; Gillis 1981) concentrated on the effects of short-term experiences on such variables. In his study of a 3-day outdoor training program, Cook

(1980) found that such a program was not effective in developing greater self-concept. In a study of 23 8th- to 12th-grade students participating in 3 weekends of camping and construction, Gillis (1981), using the TSCS, found no significant change in self-concept. Gillis identified the shortness of the experience as a possible primary factor in the results.

Research has been limited and generally inconclusive in the area of environmental attitude changes as a result of an outdoor education program. In one empirical study on environmental attitude, Shepard and Speelman (1986) sought to determine whether or not any measurable impact on environmental attitudes occurred as a result of attendance by campers (aged 8-14 years) at a 4-H camp that included outdoor education programs. Results indicated that a positive learning experience took place; however, the experimental treatment seemed to have no significant effect on environmental attitudes, as measured by Shepard and Speelman's (1986) own questionnaire. A study by Perdue and Warder (1981) of 20 university students (no control group) reported a positive change in attitude after 17 days of backpacking in the wilderness. Gifford, Hay, and Boros (1982) demonstrated that a positive change in environmental attitudes occurred in 136 individuals enrolled in a college environmental studies program that included a limited amount of outdoor experience. Ignatiuk (1978) claims that exposure to field-trip activities has a positive effect on students' attitudes toward certain environmental concepts. Addressing the issues of duration of the experience, he concluded that only field trips in excess of 2.5 days in duration were significant in changing students' attitudes. Furthermore, his results indicated that field trips of 5 days' duration exhibited the greatest effect in changing students' attitudes. According to Simpson (1985), in an article that essentially presents the limitations of the value of wilderness experiences in promoting environmental ethics, many educators automatically assume that a wilderness trip will bring an individual closer to the natural world, which will, in turn, instill an environmental ethic. Simpson goes on to suggest that in spite of the intentions and enthusiasm of the instructors, the short-term wilderness trip may not be a means for creating a positive environmental ethic in the value systems of the trip participants. In a summary of research, Simpson noted that the body of literature is sparse and that the testing procedures are unsophisticated or inadequately conducted. He maintains that results available for 5- to 17-day programs are inconclusive and often contradictory.

As the research indicates, a change in measured self-concept may or may not occur as a result of participating in a wilderness-based program. Where no such change occurs, one has to question what the determining factors are. Research indicates that it could be the length of the trip or the quality of the experience. The

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results may even depend upon the instruments used to measure self-concept.

In this study, our purposes were to test the following null hypotheses: (a) a high-quality short-term wilderness experience will have no effect on measures of self-concept of high school students, (b) a high-quality short-term wilderness experience will have no effect on responses to a questionnaire on environmental attitudes and knowledge, and (c) measures of change in self-concept using the TSCS will not differ from measures of change in self-concept using the Coopersmith Self-Esteem Inventory (SEI).

Method

Subjects and Setting

The participants in the present study were 16- to 18-year-old high school students enrolled in their senior year at a secondary high school in the Central Okanagan School District in British Columbia. The students came from both rural and urban settings and represented a normal distribution of achievement. The experimental group consisted of 61 students (27 males and 34 females) who volunteered to participate in the wilderness experience. The control group consisted of the remaining 16 students in the senior class (12 males and 4 females) who chose not to participate.

The camping program that the experimental group participated in is part of an 11-year tradition that offers a unique and challenging wilderness experience to all 12th-grade students at the school. Preparation for the trip began in May 1989. Groups consisted of 8 to 10 students and two adult leaders experienced in this type of activity. Each group had the responsibility of planning and organizing its own equipment and food. From the beginning of September 1989, students were given information by their group leaders regarding equipment, menu planning, safety, environmental etiquette, National Park rules and regulations, and wilderness survival. The departure date was September 23, 1989. The activity included 6 days of hiking and camping in an alpine and subalpine region of the Canadian Rockies. In this area, which provides a combination of beautiful scenery and challenging hiking, the groups traveled between altitudes of 3,500 and 10,000 feet (1,100 and 3,000m). The participants carried all their own equipment and food while hiking from 5 to 10 miles (8 to 16 km) to a new tenting location each day. The control group did not participate in any type of group experience during the period between pre- and posttesting.

Measurement

The TSCS (Fitts 1965) consists of 90 items classified into 15 areas representing combinations of internal and

external facets of self-concept. Test-retest reliability coefficients for this instrument range from .62 to .92 (Fitts 1965; Marsh and Smith 1982; Shavelson and Bolus 1982). Some validity studies reveal that the major dimensions of self-concept as measured by the TSCS remain independent of each other in at least four or five areas (Gellen and Hoffman 1983; Levin and Karni 1978; Tzeng, Maxey, Fortier, and Landis 1965; and Vacchiano and Strauss 1968). Marsh and Richards (1988b) offered consistent support for the Family, Social, and Physical scales but less consistent support for the other scales; Roffe (1981) reported a more-unidimensional construct of the TSCS through factorial analysis. For the purposes of this study, we chose as variables the Physical, Ethical, Personal, Family, Social, Self-Criticism, Identity, Self-Satisfaction, Behavior, and Total self-concept scales to observe and measure pre- and post-wilderness-experience situations. These variables, in our opinion, have more to do with the effects of the experience than some of the other variables that the test measures when used as a clinical instrument.

The SEI (school form) consists of 50 questions related to attitudes in four different areas of activity: peers, parents, school, and personal interests. The subscale titles for each area are Social Self, Home, School, and General Self. A total score is calculated by adding the subscale scores. An eight-question Lie scale is incorporated into the school form as an index of defensiveness. The test-retest reliability coefficient for the SEI ranges from .70 to .88 (Coopersmith 1967; Marsh and Smith 1982; and Shavelson et al., 1976). Distinctiveness of the subscales is supported by Coopersmith (1967). However, Marsh and Smith (1982), Shavelson et al. (1976), and Wylie (1979) have argued that the construct validity of the SEI is weak.

The Cross Regional Environmental Attitude Survey (Ignatiuk 1978) and questions created by the authors to test knowledge of environmental principles, National Park regulations, and wilderness camping procedures furnished a body of questions that function as the environmental attitude and knowledge questionnaire used in this study (see Appendix for complete questionnaire).

Testing consisted of the use of the SEI, the TSCS, and the environmental questionnaire, with both groups of subjects before and after the wilderness experience. Both groups of students completed the first administration of the pretest for the SEI on June 16, 1989. The subjects then completed the TSCS and the environmental questionnaire on September 15, 1989. Keeping introductory and explanatory remarks to a minimum, and avoiding the use of the phrase *self-concept*, we were able to keep bias to a minimum during the administration of the test. Under similar conditions, we carried out all posttesting on October 15, 1989. To minimize the Hawthorne effect, we did not reveal the purpose of the evaluations to the students until after the posttest.

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TABLE 1.—*t* Tests for Homogeneity of TSCS Pretests Between Experimental and Control Groups

Variable	Experimental (<i>n</i> = 60)		Control (<i>n</i> = 16)		<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Physical	70.53	11.22	70.62	8.95	30.64	.974
Moral/ethical	69.82	10.42	73.62	6.68	39.33	.085
Personal	68.83	10.29	68.50	7.78	32.45	.889
Family	67.83	9.42	67.43	8.61	28.18	.876
Social	69.08	10.03	68.12	8.55	28.62	.712
Self-criticism	34.40	5.27	32.06	5.25	24.86	.142
Identity	122.03	16.88	125.12	10.30	41.81	.376
Self-satisfaction	114.93	16.79	116.38	23.59	19.79	.829
Behavior	109.35	14.57	112.94	8.50	44.18	.214
Total	343.75	45.39	348.31	33.91	32.90	.670

TABLE 2.—*t* Tests for Homogeneity of the SEI Pretests Between Experimental and Control Groups

Variable	Experimental (<i>n</i> = 57)		Control (<i>n</i> = 11)		<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
General	18.75	3.75	18.91	2.66	20.28	.872
Social	6.84	1.31	5.91	1.70	12.85	.139
Home	5.26	2.37	6.23	1.56	22.19	.089
School	4.53	2.17	5.27	2.15	15.06	.310
Total	70.77	14.96	72.73	11.96	17.95	.660

TABLE 3.—*t* Tests for Homogeneity of the Environmental Questionnaire Between Experimental and Control Groups

Variable	Experimental (<i>n</i> = 59)		Control (<i>n</i> = 16)		<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Attitude	14.76	7.58	17.00	8.18	23.45	.339
Knowledge	37.86	14.27	45.75	13.38	26.34	.051

Data Analysis

The self-concept subscale totals were calculated for each student. [We obtained scores for the environmental questionnaire by subtracting the respondent's total score from the "ideal" score.] Hence, a low score indicated greater environmental knowledge, or a more positive environmental attitude. We used *t* tests to analyze the prescores of the control and experimental groups to determine if homogeneity existed between the two groups of students tested. We also applied analyses of variance (ANOVA) to the pre- and posttest scores from

the SEI, the TSCS, and the environmental questionnaire, for both groups.

Results

Analysis of the data collected in this study are presented in the following order: (a) analysis of pretest scores of the experimental and control groups; (b) analysis of TSCS results within the experimental and control groups, comparing pre- and posttest scores on each of the 10 scales used; (c) analysis of SEI results within the experimental and control groups, comparing pre- and

posttest scores on each of the five scales used; and (d) analysis of the environmental questionnaire results within the experimental and control groups, comparing pre- and posttest scores on attitude and knowledge.

Analysis of Homogeneity of Pretest Scores

The *t*-test results for the TSCS, the SEI, and the environmental questionnaire verified that measures of self-concept, environmental attitude, and knowledge for the experimental group and the control group were equivalent at the beginning of this study (see Tables 1, 2, and 3).

Analysis of TSCS Results

Mean pre- and posttest scores on the TSCS are presented for the experimental group in Table 4, and analyses of variance results for pre- and posttest subscale scores on the TSCS for the experimental group are presented in Table 5. The results indicate a statistically significant increase ($p < .001$) in scores between the pre- and posttests. The results of *t*-tests carried out between pre- and posttest scores indicate that these changes occurred for the Identity and Behavior subscales scores and the total self-concept score at a level of significance of .05. It should be noted that mean scores for the experimental group in all subscales showed an increase from pre- to posttest. The results for the *t*-tests are presented in Table 6. The change in score from pre- to posttest for both groups is presented in Figure 1. Results for mean scores, ANOVA, and *t*-tests for the control group on the TSCS appear in Tables 4, 5, and 6, respectively. Analyses indicate that no statistically significant differences in self-concept existed between pre- and posttest scores for the control group. Mean scores of the control group actually showed a decrease in four of the scales from pre- to posttest.

Analyses of the SEI Results

We present mean scores of the pre- and posttests of the SEI for the experimental group in Table 7 and analyses of variance results for pre- and posttest subscale scores in Table 8. The results indicate a significant increase between pre- and posttest scores ($p < .001$). The *t*-tests carried out between pre- and posttest scores indicate a significant increase ($p < .01$) for General and Total self-concept scale scores. It is noted that mean scores in all subscales for the experimental group showed an increase from pre- to posttest (see Table 9). The changes in score from pre- to posttest for both groups are shown in Figure 2. Analyses indicate that no statistically significant differences in self-concept existed between pre- and posttest scores for the control group. Mean scores for the control group actually showed a decrease in two of the five subscales from pre- to posttest.

Analysis of the Environmental Questionnaire Results

Mean scores for pre- and posttests of the environmental questionnaire appear for the experimental group in Table 10. Analysis-of-variance results for pre- and posttest subscale scores indicate a statistically significant increase ($p < .05$) between pre- and posttest scores (see Table 11). The results of *t*-tests carried out between pre- and posttest scores for the experimental group indicate a statistically significant increase ($p < .01$) for knowledge but not for attitude (see Table 12).

The changes in score from pre- to posttest for both groups are shown in Figure 3. Results for the mean scores, ANOVA, and *t* tests for the control group on the environmental questionnaire did not show significant changes in either attitude or knowledge (see Tables 10, 11, and 12). Analyses indicate that no significant differ-

TABLE 4.—Mean Pretest and Posttest Scores and Standard Deviations for Experimental and Control Groups for the TSCS

Variable	Experimental group (<i>n</i> = 60)				Control group (<i>n</i> = 16)			
	Pretest		Posttest		Pretest		Posttest	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Physical	70.53	11.22	72.97	8.99	70.62	8.95	71.38	8.09
Moral/ethical	69.82	10.42	72.90	8.01	73.62	6.68	71.06	7.52
Personal	68.83	10.29	71.82	7.18	68.50	7.78	68.00	8.40
Family	67.83	9.42	70.12	8.97	67.43	8.61	68.06	6.77
Social	69.08	10.03	71.63	7.91	68.12	8.55	66.50	9.54
Self-criticism	34.40	5.27	35.23	6.52	32.06	5.25	33.81	6.01
Identity	122.03	16.88	128.11	10.42	125.12	10.30	127.44	12.63
Self-satisfaction	114.93	16.79	118.88	13.76	116.38	23.59	110.56	17.32
Behavior	109.35	14.57	115.23	12.45	112.94	8.50	113.88	11.38
Total	343.75	45.39	361.92	33.07	348.31	33.91	351.81	37.58

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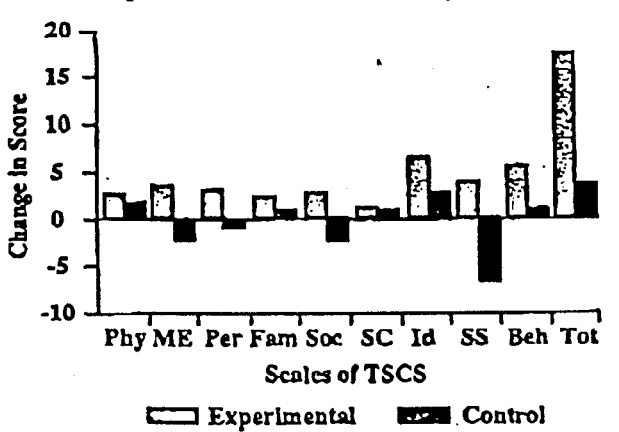
TABLE 5.—Summary of Analysis of Variance Between Pretest and Posttest Scores on the TSCS for Experimental and Control Groups

Source	SS	df	MS	f ratio	p
<i>Experimental group (n = 60)</i>					
Subscale (A)	8721942	9	969104.6	3632.128	<.0001
Pre-post (B)	6984.157	1	6984.1857	26.1761	<.0001
A × B	6635.843	9	737.3159	2.7634	.0033
Within	314841.3	1180	266.8146		
<i>Control group (n = 16)</i>					
Subscale (A)	2307749	9	256416.5	1112.048	<.0001
Pre-post (B)	.3125	1	.3125	.0014	.9706
A × B	525.6875	9	58.40972	.2533	.9858
Within	69174.11	300	230.5804		

TABLE 6.—t Tests Between Pretest and Posttest Mean Scores for Experimental and Control Groups for the TSCS

Variable	Experimental group (n = 60)			Control group (n = 16)		
	Pretest	Posttest	p	Pretest	Posttest	p
Physical	70.53	72.97	.194	70.62	71.38	.810
Moral/ethical	69.82	72.90	.074	73.62	71.06	.328
Personal	68.83	71.82	.068	68.50	68.00	.866
Family	67.83	70.12	.192	67.43	68.08	.822
Social	69.08	71.63	.128	68.12	66.50	.625
Self-criticism	34.40	35.23	.447	32.06	33.81	.390
Identity	122.03	128.11	.020	125.12	127.44	.585
Self-satisfaction	114.93	118.88	.162	116.38	110.561	.435
Behavior	109.35	115.23	.019	112.94	113.88	.795
Total	343.75	361.92	.014	348.31	351.81	.789

FIGURE 1.—Change in Score From Pretest to Posttest for the Experimental and Control Groups for the TSCS



Note. Phy = Physical, ME = Moral/ethical, Per = Personal, Fam = Family, Soc = Social, SC = Self-criticism, Id = Identity, SS = Self-satisfaction, Beh = Behavior, and Tot = Total.

ences existed for attitude and knowledge between pre- and posttest scores for the control group.

Discussion

This study's first null hypothesis, which stated that a short-term wilderness camping experience has no effect upon the self-concept of high school students, as measured by the TSCS and SEI, was rejected. The results of this study clearly show that students who participated in the 6-day wilderness experience had statistically significant increases in certain aspects (General Self, Total, Identity, and Behavior Subscales) of self-concept. The only available study of a short-term wilderness experience (Gillis, 1981), in which the TSCS was used, found no statistically significant changes in self-concept. The activity that Gillis studied took place over 3 consecutive weekends, and it is conceivable that this kind of program may not have as great an impact as a program of 6 consecutive days. There are also some qualitative differences between the activity that is the

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TABLE 7.—Mean Pretest and Posttest Scores and Standard Deviations for Experimental and Control Groups for the SEI

Variable	Experimental group (<i>n</i> = 57)				Control group (<i>n</i> = 11)			
	Pretest		Posttest		Pretest		Posttest	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
General	18.75	3.75	21.49	3.87	18.91	2.66	21.54	3.80
Social	6.84	1.31	7.05	1.23	5.91	1.70	5.73	1.95
Home	5.26	2.37	5.79	1.95	6.23	1.56	6.73	1.85
School	4.53	2.17	4.70	2.04	5.27	2.15	4.82	2.68
Total	70.77	14.96	78.07	14.20	72.73	11.96	77.64	15.59

TABLE 8.—Summary of Analysis of Variance Between Pretest and Posttest Scores on the SEI for Experimental and Control Groups

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>f</i> ratio	<i>p</i>
<i>Experimental group (n = 57)</i>					
Subscale (A)	404836.3	4	101209.1	2125.471	<.0001
Pre-post (B)	683.1196	1	683.1196	14.3461	.0002
A × B	1058.386	4	264.5966	5.5567	.0002
Within	26665.66	560	47.61725		
<i>Control group (n = 11)</i>					
Subscale (A)	796.2832	4	19907.08	460.4246	<.0001
Pre-post (B)	59.64542	1	59.64542	1.3795	.243
A × B	113.5777	4	28.39443	.6567	.6235
Within	4323.636	100	43.23626		

TABLE 9.—*t* Tests Between Pretest and Posttest Mean Scores for Experimental and Control Groups for the SEI

Variable	Experimental group (<i>n</i> = 57)			Control group (<i>n</i> = 11)		
	Pretest	Posttest	<i>p</i>	Pretest	Posttest	<i>p</i>
General	18.75	21.49	.0002	18.90	21.54	.078
Social	6.84	7.05	.381	5.91	5.73	.825
Home	5.26	5.79	.202	6.27	6.73	.542
School	4.53	4.70	.660	5.23	4.82	.680
Total	70.77	78.07	.009	72.73	77.64	.435

subject of this study and the camping-construction activity that Gillis studied.

In comparing the results of the present study with those of studies of long-term wilderness programs that used the TSCS instrument, we found similarities. For example, Fersch and Smith (1973), Nye (1976), Risk (1976), and Wetmore (1972) all found statistically significant changes in the same subscales of the TSCS that we found changes in (Identity, Behavior, and Total self-concept). However, those same authors also re-

ported statistically significant changes in additional facets of self-concept, whereas participants in this study showed increases that were not statistically significant in those areas. In one study involving a 21-day Outward Bound program, Benson (1981), using the TSCS, showed a statistically significant increase only in Total Self-Concept. In another Outward Bound study, Jones (1978), also using the TSCS, found statistically significant increases in the Physical and Personal areas of self-concept. In a study that used the SEI, Marsh and Richards (1988b) found

positive increases in the School self-concept scale for students participating in an Outward Bound program. Although the present study showed an increase for these scales, they were not statistically significant.

Certain authors (Perdue and Warder 1981; Marsh, Parker, and Barnes 1984) have claimed that there may be a Hawthorne, halo, or experimenter acquiescence effect—that is, subjects try to make the program or themselves look good; or a cognitive dissonance effect—that is, time, money, and effort expended by the participants influence their ratings. Marsh et al. (1984) called this phenomenon post group euphoria (PGE). If it exists, PGE introduces a source of invalidity of the self-concept responses because the observed changes may not reflect the impact of the intervention. Marsh et al. (1984) have claimed that if changes for the distinct scales are different in magnitude, then there is support for a PGE bias. If differences for the various measures

vary in size or appear to act independently, then support for a PGE bias is tenuous. The results of this study indicate positive changes in all scales; however, the magnitude of the differences varies from a 3% to a 15% increase between pre- and posttest scores. Also, changes of smallest magnitude occurred in School and Home self-concept, where one would not expect as great a shift. These observations seem to rule out Marsh's PGE bias as a cause for the increase in self-concept scores.

In the control group, decreases in mean scores occurred in 2 of the 5 scales of the SEI and 4 of the 10 scales of the TSCS. One scale (Social) was common to both instruments. One reason that the Social scale score decreased for the control group on both instruments may have been the group's feeling of being "left out" of a major event that brought a tighter cohesiveness to the experimental participants.

The pattern of changes in self-concept that we observed in this study seems to support the multidimensionality of self-concept as purported by various writers. Using the TSCS, SEI, and other instruments, we also observed that some aspects of self-concept may increase while others decrease. The results of this study, however, do not support the hypothesis that certain facets of self-concept can be moved independently of the total, as stated by Marsh, Smith, Barnes and Butler (1983), because the scores on Total self-concept increased significantly, in addition to significant increases in the independent scales of the TSCS test.

Even though the separate scales of self-concept have been identified conceptually, can be reliably measured, and may, in fact, measure different self-referents (Roffe 1981; Shavelson and Bolus 1982), arguments for multidimensionality or unidimensionality of self-concept seem to depend on the construct of the instrument used to measure self-concept and its ability to separate responses into different areas. Furthermore, support for the validity of the TSCS and SEI instruments provides support for the interpretation of the intervention effects. Low scores on the Lie scale on the SEI lend support to the honesty and the validity of students' responses to the questions. Validity tests for these instruments show some degree of multidimensionality, al-

FIGURE 2.—Change in Score From Pretest to Posttest for the Experimental and Control Groups for the Coopersmith SEI

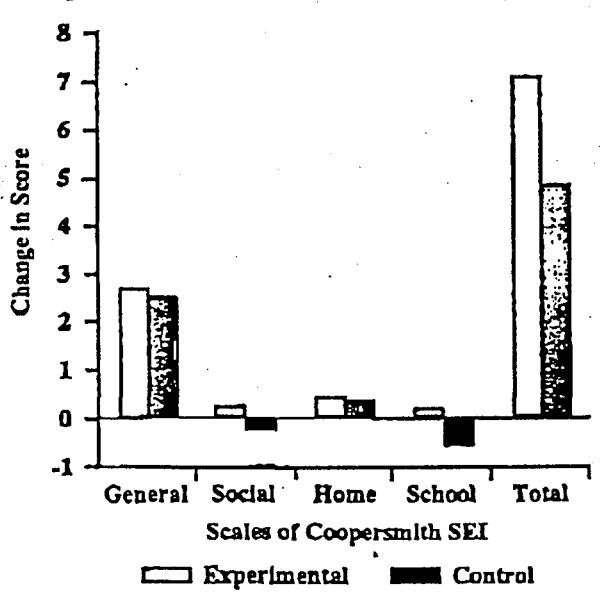
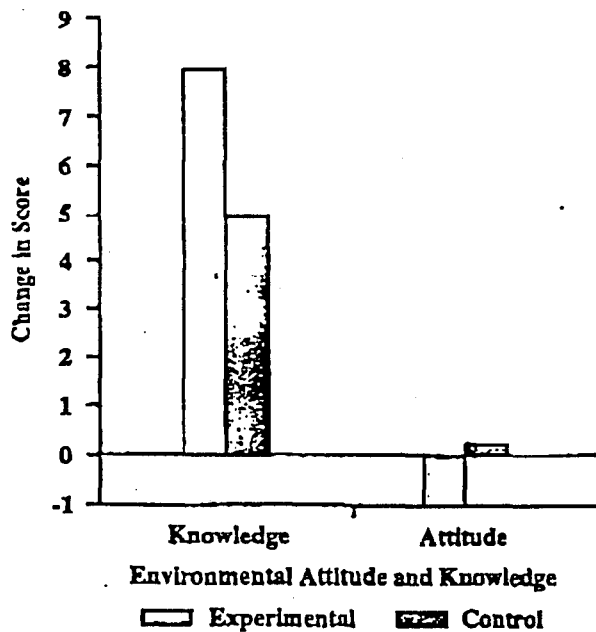


TABLE 10.—Mean Pretest and Posttest Scores and Standard Deviations for Experimental and Control Groups for the Environmental Questionnaire

Variable	Experimental group (n = 59)				Control group (n = 16)			
	Pretest		Posttest		Pretest		Posttest	
	M	SD	M	SD	M	SD	M	SD
Attitude	14.76	7.58	15.52	8.60	17.00	8.18	16.81	7.42
Knowledge	37.86	14.27	29.59	16.01	45.75	13.38	45.75	10.74

FIGURE 3.—Change in Attitude and Knowledge Scores for the Experimental and Control Groups for the Environmental Questionnaire



though there is a lack of agreement about the complete independence of each of the scales on both instruments (Gellen and Hoffman 1984; Marsh and Richards 1988a, 1988b; Marsh and Smith 1982; Roffe 1981; Shavelson et al. 1976; Vacchiano and Strauss 1968; Tzeng et al. 1965). Therefore, the researchers cannot arrive at absolute conclusions about the specific effect of intervention on the separate facets of self-concept in this study.

The results of the present study lead the researchers to reject the null hypothesis that a short-term (6-day) wilderness experience cannot move certain aspects of self-concept in a positive direction, as measured by the TSCS and the SEI. The results of this study do not support the conclusion made by Gillis (1981) that programs involving subjects for longer periods of time are more successful in affecting self-concept change than programs that are of shorter duration. Gillis goes on to state that experiences of longer duration provide more time for subjects to change self-concept because more activities can be offered and there is more time for interaction with the group and the environment. A study of the relationship between the length of a field trip and the change in students' attitudes toward environmental concepts (Ignatiuk 1978) found that attitudes are signif-

TABLE 11.—Summary of Analysis of Variance Between Pretest and Posttest Scores on the Environmental Questionnaire for Experimental and Control Groups

Source	SS	df	MS	f ratio	p
<i>Experimental group (n = 59)</i>					
Subscale (A)	20378.17	1	20378.17	136.7604	<.0001
Pre-post (B)	831.5631	1	831.5631	5.6215	.0186
A × B	1203.766	1	1203.766	8.1377	.0047
Within	34318.55	232	147.9248		
<i>Control group (n = 16)</i>					
Subscale (A)	11025	1	11025	105.8506	<.0001
Pre-post (B)	115.5625	1	115.5625	1.1095	.2964
A × B	100	1	100	.9601	.3311
Within	6249.375	60	104.1563		

TABLE 12.—t Tests Between Pretest and Posttest Mean Scores for Experimental and Control Groups for the Environmental Questionnaire

Variable	Experimental group (n = 59)			Control group (n = 16)		
	Pretest	Posttest	p	Pretest	Posttest	p
Attitude	14.76	15.52	.611	17.00	16.81	.948
Knowledge	37.86	29.59	.004	45.75	40.56	.240

Note. A lower number indicates a greater knowledge or a more positive attitude.

icantly changed when students are exposed to at least 2.5 days of field trip activities. The optimum duration appears to be about 5 days, because increases are not as great in field trips of longer duration. Research on comparisons between short-term and long-term experiences is, however, inconclusive. For example, Simpson (1985) declares that rather than the duration of the wilderness experience, it is more likely the quality of the experience that determines whether a person's values and perceptions can be altered. Although Simpson addresses the development of an environmental ethic, it is possible that one's perception of self-concept could be altered under similar influences. Richards (1976) also discussed the quality of the experience and its effects in developing self-concept in the individual. This supports the idea that the quality of the experience might be as important or even more important than its duration (Lemmons 1985; Maloney, Ward, and Braucht 1973; McRae 1985). Simpson (1985) has stated:

If the determination of values is a series of singular unique events, then perhaps the special quality of wilderness would be one such unique event. Just as the sight of a struggling, dying sparrow might leave a lasting impression on the young boy who needlessly shot it, so might a personal contact with wilderness hold a powerful memory in the mind of a person on a wilderness trip. (p. 27)

Simpson suggests that elementary and secondary school teachers are in a good position to act as outdoor educators. Teachers have the opportunity to provide not only a wilderness experience but also ongoing experiences that would more likely touch the day-to-day lives of the participants. This can occur within the various disciplines by reinforcing the wilderness experience through curricular references. This day-to-day interaction could help to counteract some of the factors that may confound the effects of short-term experiences.

Perdue and Warder (1981) claimed that measurements of attitude taken immediately after a wilderness experience might decrease if a negative activity is associated with the experience. For example, uncomfortable sleeping conditions, bad weather, strenuous activity, personality conflicts, and a myriad of other factors may profoundly affect the impressions of participants in the wilderness experience. In an evaluation of recreational activities and their relationship to life satisfaction, Russell (1987) maintained that the value of a recreational activity is more determined by its satisfaction to the participant, rather than its frequency of engagement. Therefore, some of the discrepancies in the research could occur because of participants' dissatisfaction with the experience.

The second hypothesis of this study stated that a short-term wilderness camping experience has no effect on responses to a questionnaire on environmental attitudes and knowledge of high school students. The results of this study, which show a change in knowledge

but not in attitude for the participants, are not consistent with those that have shown a positive change in environmental attitude (Gifford, Hay, and Boros 1982; Ignatiuk 1978; Perdue and Warder 1981). The present results, however, are in agreement with the findings of Shepard and Speelman (1986), who were not able to record any change in attitude as a result of 3- to 5-day camping experiences. We found no studies that tested for specific knowledge of facts pertinent to ecology, National Parks, National Park regulations, and camping skills. We therefore reject the null hypothesis for changes in knowledge but accept it for changes in attitude.

The third hypothesis stated that there will be no difference between measured responses of subjects on the TSCS and the SEI. A comparison of the results of these two instruments reveals that all mean scores on both the TSCS and the SEI for the experimental group of students increased. The researchers found statistical significance in both instruments for General and Total scale scores. These results seem to indicate that both instruments reflect similar changes in self-concept and that either instrument could be used to measure changes in self-concept.

There appears to be enough evidence in the present study and collectively in the literature to indicate that changes in self-concept can occur as a result of participation in a short-term or a long-term wilderness experience. Evidence for changes in attitude and knowledge is not as plentiful, nor as consistent. The researchers recommend that the focus of further research be on the content and design of the programs in order to achieve preplanned desired objectives. Lemmons (1985), Porter (1975), and Truitt (1976) outline several models of program development for experiential programs in which there is an emphasis on planning. Ignatiuk (1978) and Nash (1980) outline what they consider to be characteristics of good trips, but empirical studies identifying the important qualities of these experiences seem to be lacking. Ignatiuk recognizes that trips resulting in a more positive outcome are ones that are well planned, have well-developed objectives, and include some type of follow-up activity. We believe that further exploration into the causal relationship between field trips and their impact on self-concept and environmental attitude is necessary for identification of the characteristics of successful wilderness experiences. Among the most critical factors investigated should be the determination of optimum length and intensity of the wilderness trip, as well as identification of the specific activities included in the program. Identification of leader attributes that would foster growth in individual student self-concept through participation in wilderness experiences is another area of potential study. We suggest that more studies should measure changes in attitude and knowledge as a result of participation in wilderness activities. We feel that there is a need for the development and refinement of a

reliable environmental attitude and knowledge survey instrument. It may be possible to apply some method of class teaching strategy that would be successful in achieving the type of positive attitudes noted in students who participated in field trips (Gifford et al. 1982; Smith 1987; Thomas 1987). More studies need to be done on the effects of short-term wilderness experiences, with special attention given to the type and quality of the activity, because results that are available from studies of short-term experiences are not consistent. Furthermore, it is our contention that there should be a retest after a longer time lapse (i.e., 2 to 6 months) to determine if the changes that do occur in the participants in wilderness experiences are short- or long-term in nature.

Richards (1976) claimed that one of the basic objectives of a well-designed course should be the provision for social and psychological learning opportunities as a prerequisite for full and integrated growth to take place. Richards reported:

It is the integration of development of self-concept, increased skill and physical ability, decision making and group processes, continual close and honest feedback from the group and leader, and confrontations with nature and self, that are most likely to make possible to the individual the learning of the social skills and knowledge of self that forms the base from which a process of self-actualization can be launched. (p. 11)

We agree that the designers of the programs should present students with challenges of increasing difficulty and place them in positions of independent goal setting to optimize the prospects of raised levels of aspiration, incentive, and achievement. The concept *wilderness learning* implies that provision of the proper experiences in a wilderness situation leads to a better understanding of self and that guided discovery in a nurturing atmosphere is likely to maximize growth in self-concept and knowledge (Richards 1976).

We recognize the following limitations of this study. The specific characteristics of the group studied and the group's size do not control for external validity because the study included a small, unique population. Replications of this study should be made with students from a variety of locations, from other grade levels, and different socioeconomic backgrounds. In addition, the relatively small size of the control group may not account for randomness. The short time period between pre- and posttests may not take into consideration the possibility of changes that require more time to develop than that encompassed by the study. Proof exists that multiple completions of an instrument in a relatively short period of time may result in a testing effect. However, in this study, the fact that the changes in the control group were not consistent with the changes in the experimental group would tend to rule this out as a source of error.

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