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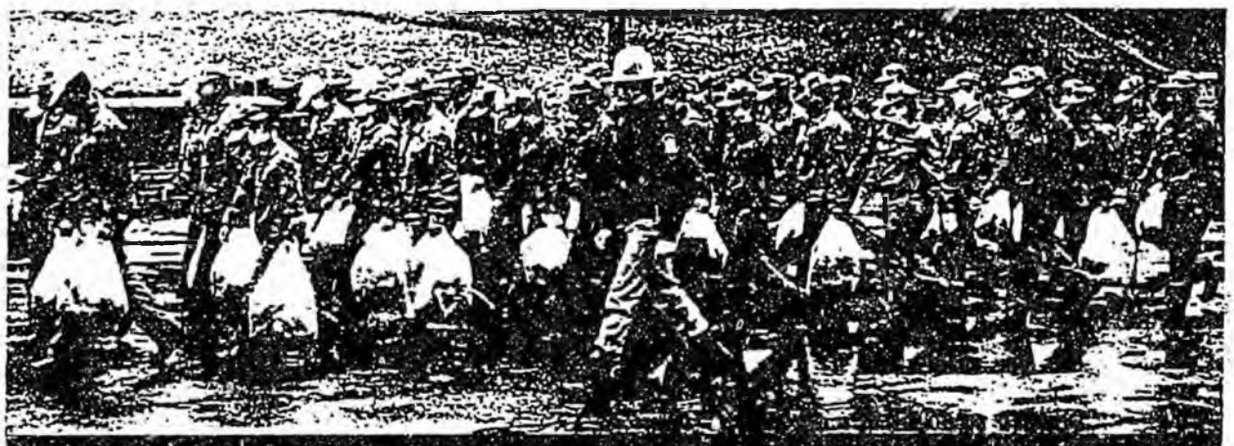

—Photo courtesy New York State, DOCS Today

Boot Camp Prisons Thrive

by Marjorie Marlette

THE LIFE IS RIGOROUS, the privileges few. But the rewards, for young non-violent first offenders, can be great: camp instead of prison; 90 to 180 days of concentrated effort instead of years in an institution; and a chance to detour from a future in crime.

Boot camp prisons in the United States are proliferating. Finding them acceptably

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"Boot Camp Prisons Thrive" - Corrections Compendium

Boot Camp Prisons Thrive

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tough and tax-dollar considerate, state legislatures and congress have established the military-like programs in 27 U. S. systems, a new survey by **Corrections COMPENDIUM** shows. Fourteen more are considering the option.

The programs come by many names: Special Alternative Incarceration Unit; Basic Training Program; IMPACT (Intensive Motivational Program of Alternative Correctional Treatment); RID (Regimented Inmate Discipline); Challenge Incarceration and others, as well as simply "Shock Incarceration" or "Boot Camp."

The regimen of boot camp, widely publicized by the media, is familiar: Days that start at 5—even 4—a.m. Drill and push-ups and obstacle courses. Insistent DIs (drill instructors) in constant persuasion. Harsh, summary discipline for minor infractions. Rigid dress code. Inspected living quarters that must be ship shape. Limited or no TV. Taps at 9 or 10 p.m.

But not all prison boot camps are alike. Though regimented and military inspired, they differ considerably in emphasis and the programs they offer. Almost all require some—and some many—hours of drug treatment, education and psychological counseling; others place the greatest emphasis on the heavy physical training and discipline.

One of the most crucial aspects of the programs—follow-up support in the community—also varies considerably from one system to another.

Since their start, close to 16,000 offenders have completed shock incarceration programs in the U.S. with more than 12,000 graduating from boot camps, according to the **COMPENDIUM** survey.

Current programs can accomodate 4,782 inmates at a time, ranging from 20 in Wyoming to 1,500 in New York. Programs starting after Feb. 1, 1991, will add another 354 to 404 slots.

Shock camp programs are primarily designed for young, non-violent offenders, 17 to 26 years of age, who have never been incarcerated. Some allow older prisoners. And not all are limited to those committing non-violent offenses. Certain categories of prisoners, however—as child abusers, sex offenders, and murderers—are usually ineligible for the programs.

Almost all require some—and some many—hours of drug treatment, education and psychological counseling; others place the greatest emphasis on the heavy physical training and discipline.

Drug offenders make up many of the training squads.

Eight states—Colorado, Kansas, Louisiana, Michigan, Mississippi, New Hampshire, New York and South Carolina—include women in their programs, the **COMPENDIUM** survey shows. Other states and the Federal Bureau of Prisons provide programs only for men.

Courts assign defendants to the camps in 12 systems, corrections departments in 11, and both may in five. If direct from the courts, the penalty is generally instead of a sentence to prison, with a sentence pending if training is not complete. From prison, boot camp completion shortens prison terms.

Almost all are used for offenders convicted of felony offenses carrying a sentence of one year or longer in prison.

Whether boot camps are successes depends on the definition of success. For most, it is too soon to know their long-term effect on preventing recidivism—surely the ultimate goal—but early studies indicate that they do provide as much or more deterrence in a short time as a longer time in prison does for similar offenders.

Idaho, however, with a shock program since 1974 (and some of the components of a boot camp since 1988), has had the longest—and a very positive—experience with shock incarceration.

"Without the program, we estimate our prison population would be more than double," said Deputy Warden Dean Allen at the North Idaho Correctional Institution, where the shock operation is located. (See box on page 8)

One state, Alabama, where participation in the program is mandated, reports that after two years, their recidivism rate is an astonishing 3.65 percent!

Texas, where the boot camp started two years ago, has had a success rate of 89 percent versus approximately 55 percent among regular prison parolees.

As for success in the program itself, for those who started the boot camps, the survey found completion rates ranging from 47.6 percent in Florida to 97 percent in Georgia.

The boot camps have other immediate pluses:

- The emphasis is on change. Almost all offer more counseling and education than the offenders would get in the general prison population.

—Photo courtesy New York State, DOCS Today

Inmates march sharply at Summit, New York Shock Camp.

• For young first time incarcerees, they are almost always safer than prison. There are no experienced cons to school them in crime or press them for sexual favors. There's more staff on hand, more activities, no idle time.

• The demanding exercise and regular meals improve health and stamina. The inmates learn what it's like to get up in the morning and be active all day.

• They also learn what it's like to be drug-free in an environment that demands a lot from them.

• And while the per diem cost is often the same or more than for time behind bars, the brevity of the program means less spent on the individual "recruit."

In a 25-month review of its program, the Florida Department of Corrections estimated a savings of 39,759 inmate days -- conservatively estimated at a cost savings of $1.15 million. "The cost of Boot Camp represents perhaps its most successful aspect...the program is effectively reducing prison time," the DOC report said.

Of the 27 systems authorizing boot camps, eight are starting operation in 1991—Connecticut, Virginia, Wisconsin and the Federal Bureau of Prisons in January; Kansas and Nevada in February; Colorado in March and Pennsylvania later in the year. Ohio also hopes to start a camp this year.

"The cost of Boot Camp represents perhaps its most successful aspect....the program is effectively reducing prison time."

Idaho's is the oldest shock incarceration program. Georgia's, begun in 1983, and Oklahoma's, 1984, are the oldest boot camps.

Other states with boot camps are Alabama, Arizona, Arkansas, Florida, Illinois, Louisiana, Maryland, Michigan, Mississippi, New Hampshire, New York, North Carolina, South Carolina, Tennessee, Texas and Wyoming.

Iowa has a shock probation program in which the judge can remove certain inmates from prison within 90 days of confinement depending on how well they do in prison during that time. Ohio has a shock parole program.

Cost of the programs range from $21 per diem in Alabama (compared to $27 in regular prison), to $67.79 in Connecticut (compared to $56.91 in prison). Some departments gave the same costs for boot camp and prison, and many had no figures available.

Offenders participate in the camps voluntarily in 20 systems; are mandated in seven. In 15 systems, the programs are located in a separate camp or facility, while 10 systems house them in a prison. Three systems do both.

Reasons given for inmates not finishing the training include poor attitude and behavior adjustment, lack of self-discipline and motivation, and disciplinary problems. They may also be medically disqualifed, or new detainers may make them ineligible.

Problems facing the individual programs include difficulties with inadequate or no funding; pressure to keep beds full that does not allow good group intake; not enough beds for the program, and lack of follow-up supervision.

One state reported a problem with corrections dislike of the program, and another said staff selection was difficult because of the need to assign only those individuals who had demonstrated leadership qualities and received favorable psychological testing.

For some, media access had to be limited for a time in order not to disrupt the program, but mostly, the interest of the press was considered a benefit.

New York, with the largest number of boot camp programs, has recently started an intensive "shock parole" program to continue support services for the graduates when they return to the streets. Two parole officers work as a team to supervise 30 parolees. In other systems, post-release supervision may be through regular or intensive probation or parole.

Much has been written about boot camps, in the scholarly as

Marjorie Marlette is editor of Corrections COMPENDIUM.

Idaho's shock incarceration program impacts number in prison

Shock incarceration got an early start in Idaho. Authorized by the State Legislature in 1970 and implemented in 1974, the North Idaho Correctional Institution (NICI) started its short-term treatment program for offenders a decade before other states pioneered the boot camp form of shock imprisonment.

Idaho's program, modified to add boot camp drills two years ago, now has 16 years of operational experience and, says Deputy Warden Dean Allen, "we think we're having a major impact."

He estimates that the state's prison population "would be more than double" without the program.

NICI is located on an old military air force base in the rolling hills of northern Idaho. Judges send felony offenders there for evaluation and risk assessment, but retain jurisdiction for up to six months.

To be eligible, the offenders must be tried as an adult, but the age otherwise is open. The youngest has been 15, the oldest 82. Males convicted of all felonies except Murder I are eligible, but those with previous prison time are not recommended. The length of sentence must be a minimum of 1 year.

The program lasts four months, with an additional 60 days optional.

Of those who participate, about 82 percent are then released on probation, with the other 18 percent retained in prison, Allen said.

Of those released, about 17 or 18 percent come back—11 percent on technical violations, 6 percent on new crimes.

If offenders complete both the NICI program and probation successfully, the original charges against them can be reduced to misdemeanors.

Traditionally, the courts have sent up to 50 or 51 percent of those sentenced to prison through the program. Now, 63.3 percent are coming through it, Allen said.

NICI costs less than other facilities—about $15 to $20 a day compared to $24 elsewhere—and "the cost savings are showing," he said.

The program ordinarily can handle 160 at one time, but has been averaging 220 the past year, Allen said. "For the short duration, people can put up with some inconveniences, can crowd a little," he noted.

By March of 1990 more than 5,000 inmates had gone through the program.

Participation is voluntary, and includes drug/alcohol treatment, literacy and GED classes, and personal counseling, with the overall emphasis on self-esteem issues.

Allen, who worked at the state's penitentiary before coming to the North Idaho institution, finds the shock approach exciting.

"Here," he said, "change not only is expected, it's demanded. It's a whole different emphasis and atmosphere than most prison settings."

□

well as the popular press. Not everyone is enthusiastic about the new sanction.

Among those who urge caution in developing the programs, the concern most often heard is that they will "widen the net" to confine people who would otherwise be placed on regular probation, not just those heading for prison. (Some criminal justice officials view this as a positive, however.)

In the NIJ Reports for November/December, 1990, Doris Layton MacKenzie also notes another question raised by research as "whether the boot camp atmosphere enhances the effect of treatment or whether an intensive treament program alone would have the same effect."

(Dr. MacKenzie, an associate professor at the University of Maryland, is a visiting senior research associate of the National Institute of Justice (NIJ).)

Other concerns have been raised elsewhere:

- Do boot camps have a potential for deterioration of standards and abuse of offenders?
- Do they discriminate if programs are not offered for the physically handicapped offender? In those states without programs for women?
- Could discipline without sufficient due process lead to liability questions?

The National Institute of Justice (NIJ), is planning to do a multi-site study of Shock Incarceration to be released late in 1991.

In earlier research, NIJ's intensive study of the Louisiana shock incarceration program found that shock incarceration programs by themselves may not significantly affect offender behavior or reduce recidivism. Treatment, education, and rehabilitation programs are also needed and may strengthen program impact, the study said.

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Survey

SHOCK INCARCERATION PART I - NUMBERS, COSTS

SYSTEM	HAS SHOCK OR BOOT CAMP PROGRAM	LENGTH OF PROGRAM	WHEN STARTED OR WILL START	FOR MALES, FEMALES, BOTH	HOW MANY CAN PROGRAM HANDLE?	NUMBER WHO HAVE COMPLETED PROGRAM	SUCCESS RATE	PER DIEM COST FOR EACH PARTICIPANT OF	
								SHOCK PROGRAM	PRISON, IF SENT THERE INSTEAD
ALABAMA	Yes	3 mos. with extensions up to 180 days	4/7/88	Males	128	547	83%	$21.00	$29.00
ALASKA	No program								
ARIZONA	Yes	4 mos.	10/88	Males	150	281	86%	Unknown	
ARKANSAS	Yes	105 days	4/90	Males	60	16		Unknown	$25.00
CALIFORNIA	No program, Los Angeles County Jail System developed plans for opening a boot camp program.								
COLORADO	Yes	3 mos.	3/91	Both	100				$43.84
CONNECTICUT	Yes	6 mos.	1/91	Males	100			$67.79	$56.91
DELAWARE	No program, but interested in starting one								
DISTRICT OF COLUMBIA	No program, but interested in starting one								
FLORIDA	Yes	3 mos.	10/87	Males	100	429	47.6%		
GEORGIA	Yes	3 mos.	11/83	Males	250	4,180	97%	$39.82 (average daily costs for all prisons in FY 89)	
HAWAII	No program								
IDAHO	Yes	4 mos. with option of additional 60 days	1970, authorized 1974 started	Males	160	3,745	80%	$25.51	
ILLINOIS	Yes	4 mos.	10/15/91	Both	200	9	77.7%	Unknown	Unknown
INDIANA	No program, but interested in starting one								
IOWA	Has shock probation where the judge can remove certain inmates from prison within 90 days of confinement, depending on how well the inmate does in prison								
KANSAS	Yes	6 mos.	2/91	Both	104			$36.88 (approx.)	
KENTUCKY	No program, but interested in starting one								
LOUISIANA	Yes	90-180 days	2/87	Both	120	470	56.9%	A little less than prison	$24.71
MAINE	No program								
MARYLAND	Yes	6 mos.	8/6/90	Males, female program to start within 2 yrs.	288	N/A	N/A	Unknown	$45.21
MASSACHUSETTS	No program, but under consideration at the county level.								
MICHIGAN	Yes	3 mos.	3/88	Males	120	754	59%	$55.00	$55.00
MINNESOTA	No program								
MISSISSIPPI	Yes	90-120 days	4/85	Both	262	1,736	91%		
MISSOURI	No program, program has been authorized but not funded or initiated.								
MONTANA	No program, but may be interested in starting one								
NEBRASKA	No program, but interested in starting one								
NEVADA	Yes		2/91	Males					
NEW HAMPSHIRE	Yes	120 days	3/5/90	Both	96	13		$48.77	$48.77
NEW JERSEY	No program, in early discussion stages								
NEW MEXICO	No program, likely to start 12/91								
NEW YORK	Yes (5 facilities)	6 mos.	9/87	Both	1,350 males 150 females	1,158 (as of 11/89)	68%	$41.56-$77.26	
NORTH CAROLINA	Yes	90-120 days	10/30/89	Males	90	158	60%		
NORTH DAKOTA	No program								
OHIO	Yes	3 mos.	Shock parole, 1983; hope to start boot camp 1991	Males	100 (projected)				$30.96

Survey

SHOCK INCARCERATION PART I - NUMBERS, COSTS

SYSTEM	HAS SHOCK OR BOOT CAMP PROGRAM	LENGTH OF PROGRAM	WHEN STARTED OR WILL START	FOR MALES, FEMALES, BOTH	HOW MANY CAN PROGRAM HANDLE?	NUMBER WHO HAVE COMPLETED PROGRAM	SUCCESS RATE	PER DIEM COST FOR EACH PARTICIPANT OF	
								SHOCK PROGRAM	PRISON, IF SENT THERE INSTEAD
OKLAHOMA	Yes	3 mos.	1984	Males	150	Unknown	Unknown	$64.39	$48.79
OREGON	No program								
PENNSYLVANIA	Yes	6 mos.	1991	Males	150-200				
RHODE ISLAND	No program, but interested in starting one								
SOUTH CAROLINA	Yes	90 days	6/25/86, shock probation; 6/25/90, changed to shock incarceration; 1/91, 2nd unit started	Both	192 males, 24 females	984 males, 107 females	93% males, 83% females		
SOUTH DAKOTA	No program, currently being reviewed by legislatively established Corrections Commission								
TENNESSEE	Yes	3 mos.	12/89	Males	120	75	74%		
TEXAS	Yes	Up to 3 mos.	1/89	Males	400	1,010	89.2%	$43.40	$42.15
UTAH	No program, but under consideration								
VERMONT	No program								
VIRGINIA	Yes (probation)	3 mos. (followed by supervised probation)	1/91	Males	100				
WASHINGTON	No program								
WEST VIRGINIA	No program, but under consideration								
WISCONSIN	Yes	6 mos.	1/1/91	Males	60	N/A	N/A	Unknown	
WYOMING	Yes	3 mos.	2/90	Males	20	36	90%	$41.00	$41.00
FEDERAL BUREAU OF PRISONS	Yes	6 mos. (intensive) 1-5 mos. (community)	1/91	Males	192				

CANADIAN SYSTEMS - no shock incarceration programs reported

Boot Camp Prisons Thrive

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The Corrections COMPENDIUM survey found that 26 of the boot camps include or will include drug/alcohol treatment programs, 24 offer counseling, and 23 education. All 27 also have work programs. Emphasis on the programs may vary, but once assigned, participation is mandatory.

In New York, while the recidivism rate is nearly the same for shock graduates and a comparable group released from prison, the reasons for return are different. Shock inmates come back more often for technical violations, less for crimes than those released from prison.

Also, the academic programs are showing good results. With education classes mandatory, math and reading levels are being raised and many are passing GED (high school equivalency) exams, the New York DOC reported.

In interviews and letters to staff, some former trainees recall graduation as the high point of their lives.

They found pride and new friends in the program, they said. Though more counseling and vocational education would be a good idea, they considered boot camp a very positive experience.

Not many "graduates" would say that about their stint in traditional prison. □

Survey

SHOCK INCARCERATION PART II - PROGRAM, REQUIREMENTS

SYSTEM	PARTICIPANT ASSIGNED TO PROGRAM BY		ASSIGNMENT MADE		PARTICIPATION VOLUNTARY?	PROGRAM LOCATED IN		PROGRAM INCLUDES				REQUIREMENTS FOR PARTICIPATION
	COURTS	DEPARTMENT	AS ALTERNATIVE TO PRISON	FROM PRISON		REGULAR PRISON	SEPARATE CAMP OR FACILITY	DRUG/ ALCOHOL TREATMENT	EDUCATION	COUNSELING/ THERAPY	WORK	
ALABAMA	X		X		No	X		X		X	X	No age limits, 1st degree crimes and enticing a child for immoral purposes are exempted, sentence of 15 yrs. or less, class 1 physical condition, and ability to follow directions
ARIZONA	X		X		Yes	X		X	X	X	X	18-25 yrs. of age, Class 2-6 non-violent offenses, specific requirements for physical and mental conditions
ARKANSAS		X		X	Yes	X		X	X	X	X	No age requirements, non-violent crimes, sentence of 10 yrs. or less, 1st time offender, physical and mental health condition must be approved
COLORADO		X		X	Yes	X	X	X	X	X	X	18-25 yrs. of age, not serving and have not served time for a violent offense, free of physical and mental defects
CONNECTICUT	X	X (oversight responsibility)	X		Yes		X	X	X	X	X	16-21 yrs. of age, non-violent, no class "A" felonies, sentenced to 1-3 yrs. (approx.), no prior sentenced or incarceration, physical and mental health must be approved
FLORIDA		X		X	Yes	X		X		X	X	24 yrs. and under in age, non-violent, no sex crimes, sentences 10 yrs. or less, 1st offense, no serious medical or mental health problems
GEORGIA	X		X		Yes	X					X	17-25 yrs. of age, no misdemeanors, sentenced to at least 1 yr., good physical and mental condition
IDAHO	X		X		Yes		X	X	X	X	X	Must be tried as an adult, felonies except murder I, sentenced to a min. of 1 yr., no prior prison time, ambulatory physical condition and not currently psychotic
ILLINOIS	X		X		Yes		X	X	X	X	X	17-29 yrs. of age, light-weight offenses including drug, robbery, theft, burglary, sentenced to 5 yrs. or less, 1st offense, good physical and mental condition
IOWA	Has shock probation where the judge can remove certain inmates from prison within 90 days of confinement depending on how well the inmate does in prison											
KANSAS	X	X	X	X	Yes		X	X	X	X	X	18-25 yrs. of age, primarily property and drug offenses, generally no prior incarcerations, must be physically and mentally capable to participate
LOUISIANA	X (recommendation)	X (final determination)	X		Yes	X		Education and awareness	X	X	X	39 yrs. of age or younger, 1st and 2nd offenders sentenced to 7 yrs. or less, parole eligible, good physical and mental health
MARYLAND		X		X	Yes		X	X	X	X	X	Under 26 yrs. of age, non-violent crimes, sentenced to 5 yrs. or less, first adult incarceration, good physical and mental condition
MICHIGAN	X		X		Yes		X	X	X	X	X	17-25 yrs. of age, excluding rape, murder, armed robbery and arson crimes, no limit on number of offenses, capable of completing the program

Survey

SHOCK INCARCERATION PART II - PROGRAM, REQUIREMENTS

SYSTEM	PARTICIPANT ASSIGNED TO PROGRAM BY		ASSIGNMENT MADE		PARTICIPATION VOLUNTARY?	PROGRAM LOCATED IN		PROGRAM INCLUDES				REQUIREMENTS FOR PARTICIPATION
	COURTS	DEPARTMENT	AS ALTERNATIVE TO PRISON	FROM PRISON		REGULAR PRISON	SEPARATE CAMP OR FACILITY	DRUG/ ALCOHOL TREATMENT	EDUCATION	COUNSELING/ THERAPY	WORK	
MISSISSIPPI	X		X		No, sentence imposed by court, inmate must sign agreement to participate		X	X	X	X	X	No prior adult felony confinement, white collar, property, drug and crimes of aggression that do not involve a deadly weapon and result in a life sentence, 5.2 yrs. average length of sentence, 1 1/4 average per cumulative total offenses, cannot be retarded or have a severe mental disorder
NEVADA	X		X		No		X	X	X		X	Minimum of 18 yrs., non-violent, no prior offenses
NEW HAMPSHIRE	X	X (final approval)	X	X	Yes	X		X		X	X	18-30 yrs. of age, not incarcerated for prior offenses, no crimes of violence and/or assault, must pass complete physical exam
NEW YORK		X		X	Yes		X	X	X	X	X	16-29 yrs. of age, non-violent crimes, time to parole 36 mos. or less, 1st incarceration, good physical and mental health
NORTH CAROLINA		X		X	Yes		X	X	X	X	X	17-25 yrs. of age, sentenced up to 10 yrs., good physical and mental health
OHIO	X (to shock parole)	X (to boot camp)		X	Yes	X		X	X	X	X	18-25 yrs. of age, 3rd and 4th degree crimes, only 1 offense with prison time, good physical condition, normal mental condition
OKLAHOMA		X	X		No	X		X	X		X	18-24 yrs. of age, non-violent crimes, no prior incarcerations, physically and mentally able
PENNSYLVANIA	X		X		No			X	X	X	X	18-35 yrs. of age, 1 time offense, non-violent or substance abuse crimes
SOUTH CAROLINA	X	X	X	X	Yes	X		Education	X	X	X	Less than 26 yrs. of age, non-violent offenses, sentenced not to exceed 8 yrs., must be physically able to participate
TENNESSEE		X		X	No		X	X	X	X	X	30 yrs. of age or less, non-violent crimes, sentence of 6 yrs. (longer for most drug offenders), no prior incarcerations, no disabling disabilities, no major health problems, must understand/comprehend basic instructions, no serious mental problems
TEXAS	X		X		No		X	X	Life skills	X	X	17-25 yrs. of age, sentence of less than 10 yrs., no prior offenses, no physical or mental conditions which would preclude strenuous exercise
VIRGINIA	X (referrals)				Yes		X	X	X	X	X	18-24 yrs. of age at time of the crime, non-violent felonies, 1st adult offense, no pending charges of conflicting offenses
WISCONSIN		X		X	Yes		X	X	X	X	X	24 yrs. of age, physically and mentally fit
WYOMING		X		X	Yes		X	X	X	X	X	19-25 yrs. of age, 1st incarceration
FEDERAL BUREAU OF PRISONS	X (recommended)		X		Yes		X	X	X	X	X	Adults, willing to participate, qualify for min. status

CANADIAN SYSTEMS - no shock incarceration programs reported

1991 Shock Incarceration Survey

Doris L. MacKenzie and Claire Souryal

NIJ Grant 87-IJ-CX-0020

1991 Shock Incarceration Survey + article "Boot Camp Prisons..."

TABLE 2. CHARACTERSITICS OF SHOCK INCARCERATION PROGRAMS, 1991

State	Hours/Day devoted to: PT	Work	V.Ed.	Rehab.	Ed.	Drug Treatment or Drug Education (Hours/Week)	Release Supervision
BOP	2	7	.5	2	1.5	Combination (4.5)	Phased
Alabama	--	--	--	--	--	Treatment (15-21)	Intensive
Arkansas	3	4	0	2.5	1.5	Combination (12.5)	Moderate
Arizona	4	5	0	1.3[a]	1.3[a]	Education (3.3)	Intensive
Florida	4	4	0	1.3	0	Combination (1.3)	Moderate
Georgia	2	8	0	0	3	Education (5)	Varies
Idaho	1	*	*	*	*	Combination (--)	Varies
Illinois	5.5	5.5	1	1	1	Combination (7.5)[b]	Varies
Kansas	2	6	0	1	1	Education (5)	Varies
Louisiana	3	3.5	0	2	1.5	Education (5)[c]	Intensive
Maryland	2	8	0	2	2	Combination (215)[d]	Intensive
Michigan	2	6	0	2	1	Education (3)	Intensive
Mississippi	**	**	**	**	**	Combination (15-25)	Varies
Nevada	1.5	6 - 8	0	***		Combination (--)	Varies
New Hampshire	2	7	2	2.5	2.5	Combination (4)	Intensive
New York	3	6	0	5-6	11[e]	Treatment (18.5)[f]	Intensive
North Carolina	1	10	0	3	3	Combination (7)	Varies
Oklahoma	1.5	4	4[g]	2	4	Combination (76)[d]	Varies
South Carolina	1[h]	7.5[i]	0	****	4[i]	Education (4)[j]	Varies
Tennessee	6	4.5	0	4	4[e]	Combination (7)	Varies
Texas	1	7	0	2	1	Combination (8)[b]	Varies
Virginia	1-2	6	*****	****	3	Education (5)	Intensive
Wisconsin	2	7	0	2.5-3	2.5-3	Treatment (18.5-20)[k]	Intensive
Wyoming	4	3	0	3	0	Combination (21)	Varies

a = number of hours/day three times per week

b = may additionally include individual counseling on an "as needed" basis

c = 3 hours of total of 5 are not "specifically related to substance abuse"

d = total hours spent in drug treatment/education during the entire program

e = total hours per week devoted to activity

f = does not include 9-12 hours per week of therapeutic community activities

g = 8 hours/day for total of 2 weeks

h = 1 hour per day five days a week not including 2 hours/day on Saturday and Sunday

i = number of hours/day five times per week

j = 4 hours per week for total of 4 weeks/ individual psychotherapy or drug counseling offered on "as needed" basis

k = varies according to phase of the program

PT = physical training
V.Ed. = Vocational Education
Rehab. = Rehabilitation
Ed. = Education

Source: Doris L. MacKenzie & Claire Souryal
1991 Shock Incarceration Survey
NIJ Grant 87-IJ-CX-C020

* = based on individual needs assessment
** = varies depending on individual needs and length of time in program
*** = rehabilitation and education combined for 2 hours/day
**** = offered on "as needed" basis
***** = vocational education marked "tentative"
-- = No response (this section)

Boot Camp Prisons: Components, Evaluations, and Empirical Issues*

BY DORIS LAYTON MACKENZIE

Visiting Scientist, National Institute of Justice, Washington, DC

Military-style boot camps, with their rigorous regimes and austere conditions, bring a sense of order and discipline to the lives of youthful, non-violent first-time offenders, and perhaps serve as a deterrent against future crimes. . .These are the sorts of alternative sanctions that the criminal justice system must explore if it is successfully going to deter and contain drug use.

—National Drug Control Strategy
The White House, September 1989

IN THE past few years "boot camp" prisons, otherwise called shock incarceration programs, have proliferated throughout the nation. At the end of 1989 there were at least 21 "boot camp" prisons in 14 state correctional systems. Another 13 states were in the process of or considering developing such programs. Thus, within the next few years, over 50 percent of the state correctional jurisdictions may have boot camp prisons for adult offenders. This does not take into account the additional programs that are being considered in city and county jurisdictions or those being developed for juveniles.

Not only does it look like the number of programs will be quickly growing, but also there is interest in enlarging the purposes of these programs. There have been hearings in the U.S. House and Senate on the topic of boot camp prisons, and in the National Drug Control Strategy the President recommended that the viability of boot camps as an alternative sanction for drug offenders be examined.

Why have these programs attracted this kind of attention? Some have said that their popularity is magnified because they are "media" attractive. Drill instructors yelling in the face of offenders makes for good TV. There are other reasons given for the popularity of these programs: The offenders are receiving their "just deserts." Such programs show the public that the politicians are being tough on crime. Offenders spend only a short time in prisons, thus the programs represent a cost savings. Furthermore, according to some, such treatment addresses the major problems of young offenders—a lack of discipline and no respect for authority. The programs are rehabilitative according to some, while others argue that the programs act as a deterrent. Obviously people expect different things from the programs.

There are enthusiastic advocates of the programs and, conversely, there are equally enthusiastic opponents (Morash & Rucker, 1990; Sechrest, 1989). Some say the programs have the potential for being rehabilitative (MacKenzie, et al., 1989) others reject this possibility (Morash & Rucker, 1990). We see two factors influencing opinions about the program: (1) knowledge and (2) philosophy. Advocates and opponents frequently have a lack of knowledge about the specific components of the programs and current evaluation efforts.

Second, some issues discussed are empirical while others are philosophical. Frequently the two are not separated in debates about the shock programs (see, for instance, Morash & Rucker, 1990). Would offenders rather spend time in a shock program or in a regular prison? Are shock programs cost effective? Do shock programs widen the net? Is there a sufficient number of appropriate candidates for shock who are now incarcerated? These are examples of questions that can and should be examined with empirical research. Other criticisms are philosophical, such as whether shock programs fulfill the "real" purpose of corrections. We can discuss the purpose of corrections, but it cannot be empirically examined. Such questions cannot be addressed through research.

This article is written to describe shock incarceration programs and current evaluation efforts. An attempt is made to identify the questions that can be studied empirically and to describe the results of some preliminary research examining shock programs.

Survey of States

To learn more about shock incarceration programs, we surveyed all 50 state departments of corrections. Programs were considered to be shock incarceration only if they:

(1) were considered an alternative to a longer

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term in prison;

(2) had a boot camp atmosphere, with strict rules and discipline;

(3) required offenders to participate in military drills and physical training; and,

(4) separated offenders in the program from other prison inmates.

Thus they were distinguished from earlier shock probation, shock parole, and split-sentence programs that did not necessarily incorporate all four of these components.

In January 1990, 14 states had one or more shock incarceration programs: Alabama, Arizona, Florida, Georgia, Idaho, Louisiana, Michigan, Mississippi, New York, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. Arkansas, California, Connecticut, Indiana, Kansas, Maryland, Missouri, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Pennsylvania, Wisconsin, and Wyoming were either considering initiating programs or were developing programs.[1]

The second part of the survey was designed to elicit information about shock programs currently operating (MacKenzie & Ballow, 1989). Most of the 14 states reported that the programs were designed for young, nonviolent offenders. Most also said the majority of the participants in their programs were convicted of nonviolent crimes and were serving time on their first felony conviction. Only Michigan said participants in its program were not mostly nonviolent offenders, and Alabama, Idaho, Louisiana, and Michigan shock participants were not necessarily convicted of their first felony. As shown in table 1, the shock programs differ substantially in many other components. In particular they differ in who is responsible for placing offenders in the program, voluntary entry or dropout, location of the program, and release supervision. Ten programs were for males only, three programs included males and females (Louisiana, Mississippi, New York), and one state had separate male and female programs (South Carolina).

Programs also differ greatly in the number of hours devoted to physical training, work, education, or counseling. Programs were classified by us as high or low rehabilitation emphasis based on the proportion of each day that was spent in rehabilitation-type activities (including such activities as counseling, any type of treatment, education, and vocational training activities) versus time spent working. Here, we are distinguishing rehabilitation activities from work and from physical training and drill.

In three state programs (Alabama, Arizona, and Mississippi) shock participants spend an amount of time in rehabilitation activities equal to or greater than the amount of time they spend working. For example, Louisiana offenders spend approximately 4.5 hours in rehabilitation activities, 4 hours working, and 4.5 hours in physical training or drill.

In the "low" rehabilitation programs the participants spend one-half to one-quarter less time in rehabilitation (e.g., in Michigan offenders spend approximately 6 hours per day working, 2.5 hours in rehabilitation activities, and 1.5 hours in physical training and drill). In comparison to offenders in other programs, Georgia participants, who receive less than ½ hour per day of rehabilitation, spend the least amount of time in rehabilitation activities. In Florida, also considered by us to be a low rehabilitation program, offenders spend 1½ hours a day in group counseling. Thus, with the possible exception of Georgia, offenders in all the shock programs spend a fairly large amount of time in rehabilitation-type activities, at least in comparison to offenders serving time in a regular prison.

Overall, the picture that arises in regard to these programs is a common core based on the military atmosphere, discipline, youthful offenders, and an alternative to long-term incarceration, but here the commonality ends. The differences that do exist in programs might be expected to contribute to differences in self-selection effects, net widening, costs, deterrence, or rehabilitation of the offenders.

Multi-Site Study

The shock incarceration programs differ dramatically. Therefore, results of an evaluation based on one shock incarceration program would not necessarily generalize to other programs. For this reason we initiated a multi-site study of shock incarceration programs. The major questions of this research are: (1) Is shock incarceration successful in fulfilling its goals, and (2) What particular components of shock programs lead to success or failure in fulfilling program goals? Evaluating programs in different states permits us to generalize findings from a program in one location to other locations which vary in numerous characteristics. Studying various programs will permit an answer to the second question by enabling the researchers to begin to identify the components of the shock programs which lead to

TABLE 1. CHARACTERISTICS OF SHOCK INCARCERATION PROGRAMS, JANUARY 1990

State	Year Program Began	Number of Programs	Number of Participants	Average Number of Days Served	Placement Authority	Voluntary Entry	Voluntary Dropout	Located in Larger Prison	Release Supervision
Alabama	1988	1	127	90	Judge	no	yes	yes	regular
Arizona	1988	1	150	120	Judge	yes	no	yes	varies
Florida	1987	1	100	90	Judge	no	no	yes	moderate
Georgia	1983	2	250	90	Judge	yes	no	yes	varies
Idaho	1989	1	154	120	Judge	no	yes	no	varies
Louisiana	1987	1	88	120	Corrections Dept./Judge	yes	yes	yes	intensive
Michigan	1988	1	120	120	Judge	yes	no	no	intensive
Mississippi	1986	2	240	110	Judge	no	yes	yes	regular
New York	1987	5	1602	180	Corrections Dept.	yes	yes	no	intensive
North Carolina	1989	1	54	93	Parole Commission	yes	yes	no	varies
Oklahoma	1984	1	150	90	Corrections Dept.	no	no	yes	varies
South Carolina	1987	2	111	90	Judge	yes	yes	yes	varies
Tennessee	1989	1	42	120	Corrections Dept.	yes	no	no	varies
Texas	1989	1	200 (capacity)	90	Corrections	no	no Dept./Judge	no	varies

specific outcomes.

Site Selection

Seven states were asked to participate in the multi-site study: Georgia (GA), New York (NY), Oklahoma (OK), Florida (FL), Texas (TX), Louisiana (LA), and South Carolina (SC).[2] The shock programs in all of these states were similar in the characteristics used to define programs as shock incarceration (see above). Programs selected to participate were similar in two other aspects: (1) the characteristics of offenders admitted to the program (most offenders were youthful, convicted of non-violent offenses, serving time on a first felony conviction), and (2) the length of the program (3 to 6 months). Since most shock programs were similar in boot camp atmosphere, offender characteristics, and program length, the selection of programs similar in these aspects was expected to maximize the generalizability of the results.

However, the shock programs participating in the multi-site evaluation varied in:

- Selection Decisions
- Community Supervision upon Release
- Program Characteristics
- Program Location

These characteristics were identified as factors that might have a major influence on the attainment of the goals of shock incarceration programs as identified by Parent (1989) in the recent National Institute of Justice Issues and Practices report. Sites were specifically selected to vary on these characteristics and they varied as shown in table 2.

Two of the states participating in the evaluation, Texas and New York, are developing programs specifically designed to target drug offenders. The Bureau of Justice Assistance, U.S. Department of Justice, is sponsoring these as innovative programs for drug offenders to begin examining whether such programs are effective methods of handling drug offenders.

For each of the four characteristics on which sites varied (see above) specific hypotheses were developed regarding program effects. Each of these is described below.

Selection Decisions. One might hypothesize that the placement authority might have a major impact on whether the program results in "net widening." Widening the net occurs, at times, when judges have a choice of placing offenders in a program, such as shock incarceration, that is intermediate between probation and prison. If offenders who might normally be given a sentence of probation are sent to the program, more offenders serve time in prison, hence the "net" of prison is widened. In such a case the prison population will not be reduced because offenders sent to the program are drawn from the pool of probationers rather than from the prison bound offenders.

TABLE 2. CHARACTERISTICS OF SHOCK INCARCERATION PROGRAMS PARTICIPATING IN MULTI-SITE STUDY SHOWING DIFFERENCES AMONG PROGRAMS IN THE SEVEN STATES

• Entry Decisions	
Judge:	SC, GA
DOC:	OK, NY
Other:	LA, FL, TX
• Release Supervision	
Intensive:	LA, NY
Moderate or Mixed:	SC, OK, FL, GA, TX
• Rehabilitation Focus	
High:	LA, OK, NY
Low:	SC, FL, GA, TX
• Voluntary Entry	
Yes:	SC, LA, NY, GA
No:	OK, FL, TX
• Voluntary Drop Out	
Yes:	LA, SC, NY
No:	OK, FL, TX, GA
• Located in Larger Prison	
Yes:	LA, SC, OK, FL, GA, TX
No:	NY

If the department of corrections makes the placement decision rather than the judge, net widening would not be expected to be as apt to occur because in this case the participants would be chosen from the group of offenders who are already prison bound.

Whether net widening is a problem depends upon the goals of the program. If the shock incarceration program was developed to give judges a wider range of sentencing options, then net widening would not be considered a problem. The judge may want to sentence offenders to an option that is intermediate between probation and prison. On the other hand, if prison crowding is a problem and the program was developed to reduce the prison population, then net widening, by sending more offenders to prison, presents a problem.

Net widening is used here as an example to demonstrate how components of a program may

influence the effects of the program. Differences in the effect of the shock programs could be expected in other areas, based on the specific characteristics of a program (e.g., number of dropouts, drug treatment, education or work).

Program Characteristics. Shock programs vary in whether or not there is a strong emphasis on treatment such as education, counseling, or vocational training during the time the offenders are incarcerated. If one of the goals of the programs is to change offenders, interest focuses on the importance of treatment as a component of shock programs (MacKenzie, et al., 1989). Three sites participating in the multi-site study, New York, Louisiana, and Oklahoma, require offenders to spend a large portion of each day in treatment activities (see table 2). Offenders in the other four sites spend much less time in treatment-type activities.

A second factor which may be potentially rehabilitative or have a major influence on program success is the voluntary nature of participation. Programs vary in whether offenders must initially volunteer to participate and in whether offenders can drop out once they enter the program. As shown in table 2, in three programs offenders can drop out at any time during the program, while in the other four programs the offender cannot voluntarily drop out. It is hypothesized that the offenders' ability to choose to participate or to remain in the program may influence how they behave upon release. A high drop out rate may also indicate the rigor of the program. An offender who completes a tough program may have a real sense of accomplishment in comparison to an offender who completes a relatively easy program.

Release Supervision. It has been proposed that even if the shock programs change offenders in a positive manner this change may not persist after the period of incarceration. Offenders spend only a short period of time in the programs and then are returned to their home environments. The problems and difficulties of drugs, criminal companions, lack of support groups, unemployment, etc., remain the same.

Programs such as those in Louisiana and New York, that involve a period of intensive supervision after incarceration, may be more successful in helping offenders make the transition from shock incarceration to the community. The New York Division of Parole has identified aftercare as important for shock parolees and is incorporating an intensive 6-month period of supervision and programing for shock releasees. Employment with pay, substance abuse counseling, offender support group meetings, and urine testing are some of the components of the aftercare program.

Program Location. Another concern with shock programs has been with the staff members—their attitudes toward the work and their treatment of offenders. It was hypothesized that the location of the program might have a major impact on these factors. If a program is located within a larger facility, staff members can be transferred into or out of the programs depending upon their interest and ability. Those that burn out can be fairly easily transferred to another area of the prison. This is not as easily done when the program is located in a separate facility. In such situations staff training and selection may become important factors influencing staff and offender interactions.

Design of the Study

The participants in the multi-site study have had two conferences to plan and coordinate their research activities. At the first conference representatives from each participating state described the shock program and their evaluation efforts to date. The research for the multi-site study was planned, and it was decided to examine the programs in three areas: (1) a qualitative and descriptive analysis; (2) offender change and comparisons and, (3) system changes (including costs and benefits). The final products of the work will be written reports for each state describing the results of the evaluation and a report comparing the results among the states.

During the first conference the qualitative and descriptive analysis was planned, and the state evaluators returned to their home state to complete this portion of the study. Intensive interviews were conducted with staff, offenders serving various sentences, and, where appropriate, judges. Statistical data were collected from department records to describe the shock programs and their participants. This information was used to identify the goals of each program and the important issues related to the program and its development.

Goals of Programs

Shown in table 3 are the goals of the seven shock incarceration programs as identified from interviews and department written material. The goals can be classified into four major areas:

- System Level
- Individual Level
- Public Relations

- Prison Control/Management

TABLE 3. GOALS OF THE SEVEN SHOCK INCARCERATION PROGRAMS PARTICIPATING IN THE MULTI-SITE STUDY

System Level Goals
- Reduce Crowding
- Alternative to Long-term Incarceration
- Less Cost
- Model for County Programs

Individual Level Goals
- Change Offenders: Less Negative Behavior
  - Less Criminal Activity
- Change Offenders: More Positive Attitudes/Behavior
  - Improve Confidence/Responsibility
  - Discipline
  - Motivation
  - Positive Social Values
  - Positive Social Behavior (e.g., Work Ethic)
  - Reduce Drug Use
  - Accountability
  - Respect for Authority

Public Relations
- Improve Image of Corrections
- Politically Acceptable Alternative
- Public Safety

Prison Control/Management
- Clean, Healthy, Secure Environment
- Environment Promoting Rehabilitation
- Positive Offender/Staff Contact
- Offender Accountability

The most consistency in the goals across the seven states was in three system level changes: (1) a reduction in prison crowding; (2) an alternative to long-term incarceration; and (3) cost savings. Only Texas reported a system level goal of having a model program for the counties that were developing programs.

The majority of the states also reported individual level goals. For most, this meant a reduction in criminal activity and some type of positive change. Exactly what type of positive change was expected was hard to define and varied by state. In general, the changes related to increased responsibility, maturity, self control, communication/self disclosure, accountability, motivation, and improved attitudes toward authority. A reduction in drug use by the offenders was a goal of both states with shock programs for drug offenders.

Few states listed public relations as a goal. In these states there was a concern for improving the image of corrections and for public safety.

Only one state, Oklahoma, reported a goal of shock incarceration as a tool for prison control and management. The shock program was considered to be a clean, healthy, secure environment in prison, promoting counseling activities, positive offender-staff contact, and offender accountability. Offenders in this program spend a high proportion of their time in rehabilitation activities. Thus, it was assumed that the focus on offender control was combined with the goal of developing an environment promoting positive changes in the offender rather than just managing the offenders while they are incarcerated.

Preliminary Evaluations

Five states have examined early data from the shock programs within their jurisdictions: Florida, Georgia, Louisiana, New York, and South Carolina. The number of offenders who entered the programs and how they left the program are shown in table 4. Note the differences in the programs in the proportion of offenders who graduate. In South Carolina and Georgia the proportion of those who leave the program without graduating (in comparison to all who have left the program) is low, 5.3 percent and 2.6 percent, respectively (South Carolina Department of Corrections, 1989; Georgia Department of Corrections, 1989). In contrast, in Louisiana, New York, and Florida a higher proportion of the offenders leave prior to graduation, 39.1 percent, 41.9 percent, and 40.7 percent, respectively (Aziz, 1988; Florida Department of Corrections, 1989; MacKenzie et al., 1989).

To our knowledge no state has completed an analysis examining whether the shock program(s) have had an impact on prison crowding. However, if the number graduating per year from a state program is compared to the total number of offenders in prison in the state it is obvious that the numbers graduating make up a very small proportion of the incarcerated population. Although New York with 904 graduates in 18 months may have a large enough number of graduates to have an impact on crowded prisons (table 4), this is not the case in most states.

Of course whether the programs will have an impact on prison crowding depends not only on the number of graduates but also on whether the offenders graduating from the program are drawn from the population of probationers or prisoners. Our assumption is that in states where placement is determined by the department of corrections the offenders in the program are those who would usually be incarcerated. Again this suggests that the New York program may have an impact on prison crowding.

Evaluators in both New York and Florida have completed preliminary cost analyses of their programs. In both the cost of the program was estimated to be slightly higher than the cost of reg-

TABLE 4. NUMBER OF ENTRANTS TO SHOCK INCARCERATION PROGRAMS IN FIVE STATES SHOWING HOW OFFENDERS LEFT THE PROGRAMS (GRADUATION, MEDICAL DISMISSAL, OR OTHER)

	States (months of data)				
	South Carolina (12)	Georgia (54)	Florida (12)	Louisiana (24)	New York (18)
Total Entrants	923		319	507	2299
Active	106		56	49	695
Total Leaving Program	817	3201	263	458	1604
Graduates	675	3117	143	252	904
Medical out	99		13	27	28
Left program	43	84	107	179	672

ular prison but the shorter period of incarceration resulted in an overall cost savings (Aziz, 1988; Florida Department of Corrections, 1989). In Florida this cost savings was estimated to be $1.1 million, and in New York the estimate was $5.1 million for the first 321 inmates. Although this does not take into consideration the additional cost of the aftercare program in New York, it does appear to represent a relatively large cost savings.

There is also some research on individual level issues. Researchers in Louisiana found graduates of the shock programs had more positive social attitudes than those who dropped out and a comparison group in a regular prison (MacKenzie & Shaw, 1990). The offenders felt positive about their experience in the program and their future. Inmates completing the shock program in New York were found to have gained more or at least as much in educational scores as comparison groups who had been in prison longer (Aziz, 1988).

The most often requested statistics are the recidivism rates of graduates of these programs. Some states have reported data on recidivism for shock graduates and comparison groups. Few of the researchers have completed statistical tests, and they caution readers about drawing definitive conclusions before more data can be tabulated. Shown in table 5 are the estimated recidivism rates of the early releasees from four shock programs. The return to prison rates for the shock offenders were higher for the shock graduates in Georgia (no significance tests), while in Florida and New York the rates are lower or approximately the same. There are no significant differences between shock graduates and a parole comparison group on rearrests or failures in Louisiana, nor between shock graduates and probationers for rearrests (MacKenzie, 1989). However, the probationers failed (absconded, jailed, or revoked) less often than the shock graduates.

To our knowledge no empirical research has yet been completed on public attitudes toward these programs. Anecdotally, from new reports and interviews there is the appearance that the public is supportive, but whether this support is because of the punishment or therapeutic nature of the programs is uncertain. Intensive interviews with those who are associated in some way with the programs have, in general, indicated positive attitudes. Reportedly employers prefer to have these offenders because they have good work skills; parents and relatives appreciate the close support and contact with parole agents; corrections officers like the discipline and close interaction with the inmates; dropouts and returnees say they would recommend that program for other offenders. There is also little research on the aspect of prison management or control. However, there is little doubt after viewing these programs that the staff members have more control of offenders in the shock programs than they do of offenders in a regular prison.

Summary

In this article the components of shock incarceration programs were described. The survey of state jurisdictions indicated that approximately 54 percent of the state jurisdictions may have shock programs in the near future. Although the programs all emphasize strict rules and discipline and require physical training and drills, they differ in other ways. These differences are expected to result in differences in the success or failure of programs in reaching their goals.

Both the advocates and opponents of shock incarceration programs are frequently uninformed

TABLE 5. ESTIMATED RECIDIVISM RATES OF EARLY RELEASEES FROM SHOCK INCARCERATION

State	Release Period*	Percent Returned: Shock	Parole Comparison	Probation Comparison
Georgia	1 year	27.1	22.7	
	2 "	39.5	38.3	
	3 "	46.1	44.7	
Florida	1 "	9.1	17.3	
	2 "	18.9	21.4	
New York	1 "	23.0	28.0	
	1 "	19.8 (revoked any reason)	18.5	
Louisiana	9 months	21.1 (abscond/jailed/ revoked)	24.7	12.8
	9 months	24.5 (arrested)	22.5	22.3
National (Young Parolees)	1 year (rearrests)		32.0	
	1 year (reincarcerated)		19.0	

*Return to prison rates unless otherwise noted.

Note: Information is taken from Georgia Department of Corrections, 1989; Florida Department of Corrections, 1989; NY Division of Parole, 1989a; NY Department of Correctional Services, 1989; MacKenzie, 1989; Beck & Shipley, 1987.

about the components of these programs. Those who view the program as a get-tough punishment frequently do not realize that many shock programs incorporate rehabilitation activities. What is surprising about these programs is the support and excitement of the staff and inmates. Even those who violate parole and are returned to prison after graduating from a program report that the experience was valuable. To our knowledge it is very unusual for releasees from regular prison to feel their time in prison has been valuable (Goodstein & Wright, 1989).

At this point there is little empirical evidence to help us make decisions about how successful these programs are in reaching the identified goals. Opponents of these programs frequently cite problems that may occur such as staff abuse of inmates or net widening. We have tried to show how such issues are being (or could be) empirically studied. It is our perspective that any prison holds the potential for abuse of inmates. Whether abuse occurs can be studied and possibly prevented.

Furthermore, can the boot camp atmosphere (the punishment) be combined with rehabilitation activities so that the result is a constructive punishment? Once the offender has received his or her punishment (time in boot camp) will the public be more willing to fund aftercare programs that help the offender during community supervision? Whether the punishment fulfills the public's desire for retribution can be asked as an empirical question.

These issues should be separated from philosophical concerns such as whether nonviolent offenders should ever be incarcerated. One philosophical issue that should be discussed regarding these programs is whether the boot camp atmosphere of these programs is a fair and just punishment. And, is this desire for retribution a legitimate request that should be fulfilled? Or should male-oriented programs such as boot camps be replaced with more benevolent programs emphasizing more "so-called 'female traits' (e.g., sensitivity) (Morash & Rucker, 1990)" (Harris, 1989).

Should these nonviolent offenders spend longer periods of time in a regular prison where there are few constructive activities available, or would it be better to punish them for a short period of time in a boot camp prison? Can this "punishment" be combined with rehabilitation activities to create a constructive punishment? These are philosophical questions that should be discussed.

Knowledge of the components of these programs and how they operate will make the philosophical debates more meaningful.

NOTES

[1]From the number of inquiries we have received about shock incarceration we anticipate that these numbers are rapidly increasing in both state and county jurisdictions.

[2]Cost prohibited us from including all states with programs in the multi-site study.

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BOOT CAMPS

Boot Camp Survey

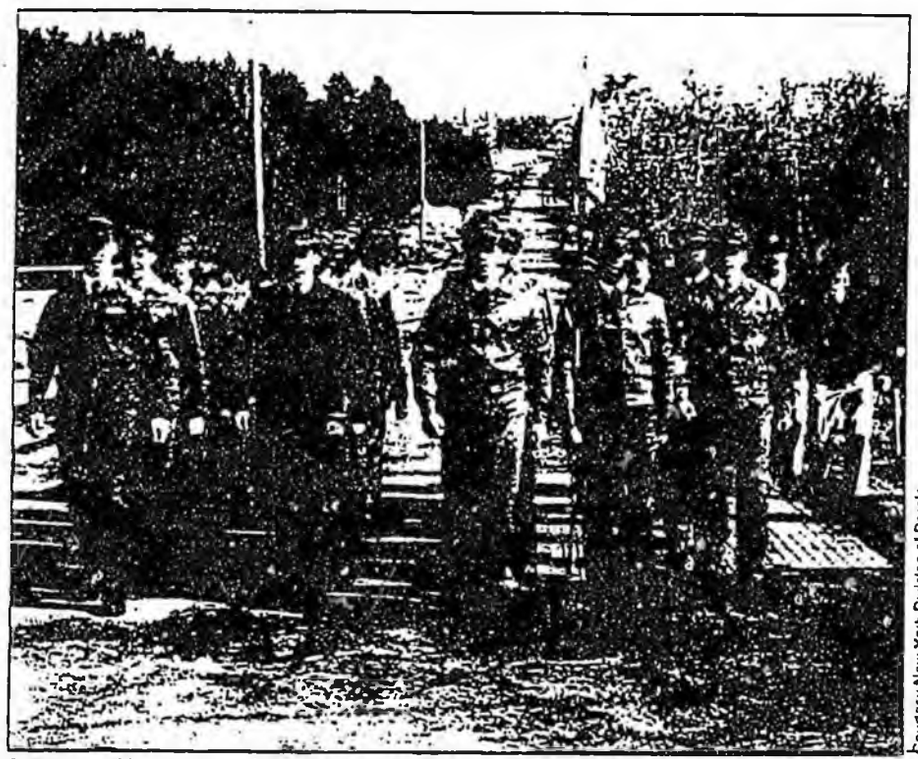
Rehabilitation, Recidivism Reduction Outrank Punishment As Main Goals

by Doris Layton MacKenzie, Ph.D., and Claire C. Souryal

Boot camp prisons continue to grow in number and size. Since their inception in 1983, 34 boot camp programs have been established in 23 states, incarcerating close to 4,000 adjudicated adults. These numbers do not include adult programs operated by cities or counties, or programs developed for juveniles.

The terminology used to identify adult boot camp prisons is often confusing. While the term "boot camp prison" is synonymous with "shock incarceration," some confuse shock incarceration with shock probation or shock parole. The common thread of all three programs is that offenders spend a reduced period of time in prison. In contrast to shock probation or shock parole, however, boot camp inmates are not mixed with regular population inmates. They live in separate housing and are required to participate in military drills, physical training, work and frequently treatment-oriented activities, while this is not necessarily true for offenders in shock probation or shock parole programs.

Beyond the common core—a military atmosphere involving drills, physical training and work—boot camp prisons vary tremendously. There are differences in daily activities, the average number of days served, program size, whether participation is voluntary, release supervision and eligibility criteria. These differences may stem from the distinct correctional goals each program strives to achieve.



Courtesy New York Division of Parole

A survey of boot camps in the United States found that administrators most often named rehabilitation, recividism reduction and drug education as their programs' main goals. Above, boot camp participants march in formation.

Program Goals

In a survey earlier this year at the University of Maryland, we asked boot camp administrators how important 11 goals were to their programs. For each goal, officials listed whether it was very important, important, somewhat important, not important or not a goal.

The goals most often judged very important included rehabilitation, recidivism reduction and drug education. Reducing crowding, developing work skills and providing a safe prison environment were generally considered important

Boot Camp Survey

goals. Deemed somewhat important were deterrence, education and drug treatment. Goals most often believed not important or not a goal included punishment and vocational education.

Despite the strenuous and difficult nature of boot camp prisons, many states do not consider punishment an important program goal.

It is interesting to note that despite the strenuous and difficult nature of boot camp prisons, which is often emphasized by politicians and played up by the media, many states do not consider punishment an important program goal. In fact, four states said punishment is not a goal, three states reported it is a relatively unimportant goal and six states said it is a somewhat important goal. Eight states—Georgia, Kansas, Michigan, Mississippi, New Hampshire, North Carolina, South Carolina and Virginia—did name punishment as an important goal.

Treatment and Rehabilitation

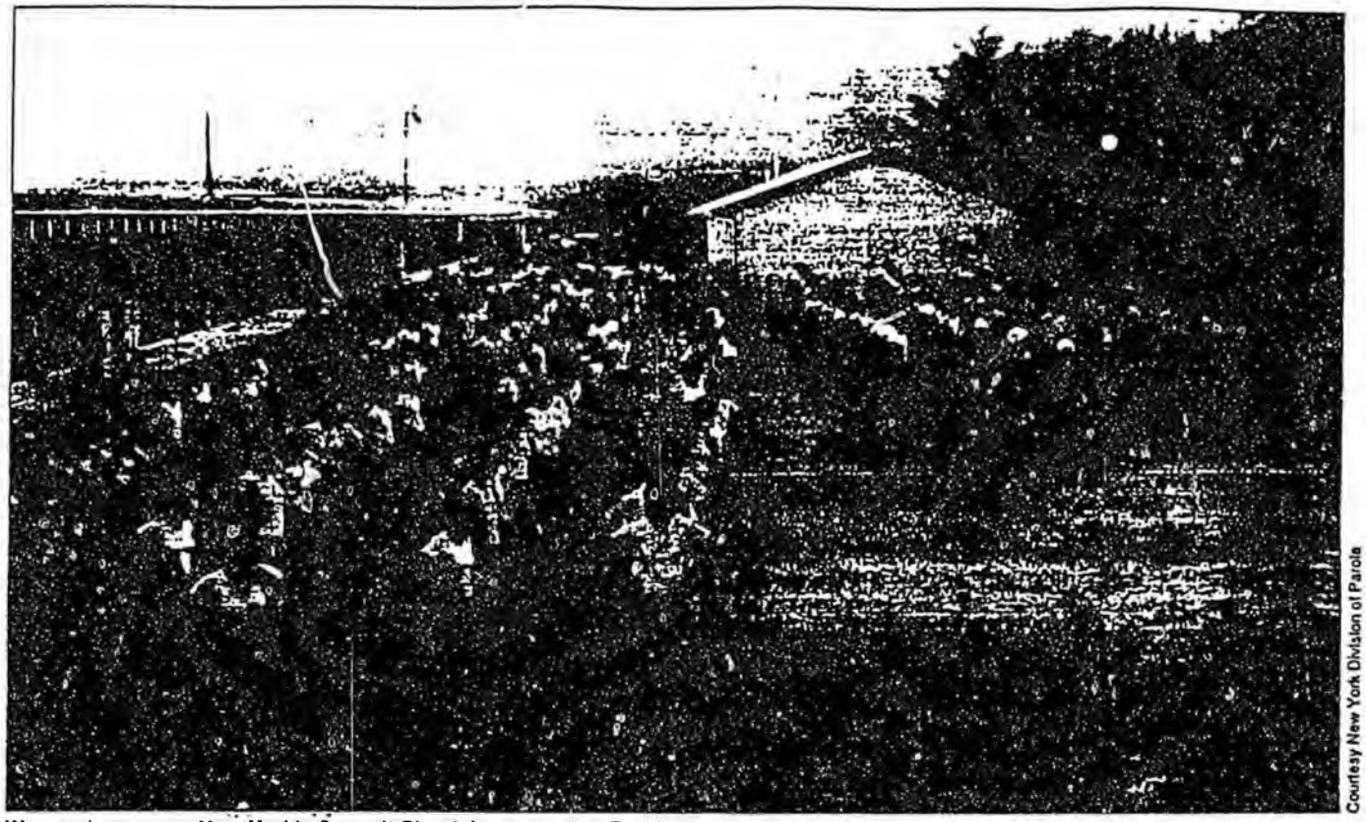
Each program's goals are clearly reflected in the daily schedule of activities. For example, education and drug education are high priority goals in South Carolina's programs. Inmates there spend four hours per day in educational programs and three hours per week in drug education. Drug treatment, in contrast, is not a high priority goal and, therefore, little time is spent in treatment.

Sixteen states consider academic education an important or very important program goal. Consequently, offenders in these programs spend one to four hours per day in academic programs. Vocational education, on the other hand, is rarely deemed an important goal. Only two states—Idaho and Illinois—consider vocational education an important goal, and neither devotes much time to it. Preliminary information from Louisiana and New York suggests shock programs positively influence offenders' attitudes and staff and inmate relationships and may influence educational achievement.

Reducing Recidivism

All but three states rate recidivism reduction as an important or very important goal. Differences in programs seem to reflect the way in which states intend to reduce recidivism. Programs that focus on rehabilitation may, for example, target educational deficits as a key problem in offenders' lives. By increasing offenders' educational levels, these programs may expect to reduce recidivism.

Continued next page



Courtesy New York Division of Parole

Women inmates at New York's Summit Shock Incarceration Facility do early-morning group exercises. New York has the largest boot camp program in the nation with about 1,500 inmates in five programs.

BOOT CAMP SURVEY

Continued

An alternate strategy is practiced by other programs, such as Georgia's. Offenders in boot camps there spend little time in educational or treatment-oriented activities. By requiring long hours of work and physical training, the state may hope to affect the recidivism rate through deterrence rather than rehabilitation. Consistent with this perspective, Georgia ranks punishment, reducing recidivism and deterrence as its most important program goals. In contrast, the goals of education, drug education and drug treatment are all deemed relatively unimportant.

At this point, no state has reported a statistically significant difference in recidivism when boot camp graduates' performance is compared to that of similar offenders serving different types of sentences. Interestingly, recent studies by the corrections departments in New York and Georgia—two states that are opposites in their emphasis on rehabilitation—conclude that boot camp releasees do "no worse" th .. offenders who had served a longer period of time in prison. Although both states found slightly lower recidivism rates for boot camp participants, the differences were not statistically significant. In other words, there was little difference in recidivism despite New York's strong emphasis on education, counseling and drug treatment and Georgia's strong emphasis on work. In both states, 20 to 30 percent of boot camp graduates and comparison groups returned to prison within the first year of community supervision.

All boot camp prisons report having incorporated some sort of drug treatment and education into their program plan.

The recidivism results are preliminary and should not be considered conclusive at this point. New York has identified the transition to community life as a difficult period for these offenders and has improved aftercare services during community supervision. Georgia, on the other hand, has proposed increasing the rehabilitation or educational components of its boot camp programs.

Impact on Prison Crowding

For boot camps to successfully reduce prison crowding, two conditions must be met—there must be a sufficient number of eligible offenders entering and completing the programs and offenders must be drawn from a population of prison-bound offenders, not from those who would otherwise be sentenced to probation.

Continued on page 94

Continued from page 92

Most programs to date do not meet the first qualification—they simply are too small to affect crowding. Only two states—New York (1,500) and Texas (400)—have more than 300 beds for boot camp programs, which nonetheless represents a small proportion of the total prison beds.

Whether states meet the second qualification may depend on who decides which offenders are placed in boot camp programs.

Courtesy New York Division of Parole

Boot camps generally hold young, first-time, non-violent offenders ages 17 to 25. Rigid discipline and attention to detail are critical elements of most programs.

This differs from state to state. In Georgia and Arizona, for example, judges sentence offenders directly to boot camp programs, and if offenders are denied entry or are dismissed they return to the court for resentencing. With this decision-making structure, it might be expected that a higher proportion of the boot camp entrants are selected from those who would otherwise receive probation.

In other states, such as New York, Maryland or Tennessee, offenders are sentenced to the Department of Corrections, which decides who is eligible and suitable for the program; those considered unsuitable are sent to a traditional prison. In this scenario there is a higher probability that entrants are drawn from prison-bound offenders. However, the size of these programs, and therefore the impact on crowding, may be limited by restrictive eligibility requirements and high failure or dropout rates.

Types of Offenders

While the components of shock programs and the emphasis placed on treatment or rehabilitation vary substantially, the types of offenders placed in the programs are very similar. Offenders sentenced to boot camp are generally young, first-time, non-violent felons. Most states, for example, restrict participation to offenders between the ages of 17 and 25, although a few have maximum age limits of between 25 and 30 years of age. Only three states allow offenders over 30 to enter boot camp prisons: Alabama has no age limit and Louisiana and Mississippi have age limits of 39 and 62, respectively.

Most boot camp programs restrict participation to inmates convicted of non-violent offenses.

More than half of the programs further restrict participation to offenders convicted of non-violent offenses. The remaining 10 states report that both those convicted of violent and non-violent offenses are eligible for participation. Preliminary data from the multi-site study reveals that despite violent offenders' potential eligibility, the majority of participants are convicted of non-violent offenses.

Restrictive eligibility criteria, particularly if offenders are drawn from those who are prison-bound, can severely limit the number of available entrants. In response to such problems, Louisiana made its criteria less restrictive to fill beds that initially had been empty.

Drug Offenders

The association between drugs and crime is a strong one, particularly when young offenders are involved. Not surprisingly, program evaluations reveal that many offenders in boot camps have drug problems. Officials in Mississippi, for example, have found that 90 to 95 percent of their participants are drug users. At least four states report that their programs were specifically designed for non-violent, drug-involved offenders.

For boot camps to reduce prison crowding, there must be a sufficient number of offenders completing the programs, and they must be drawn from a population of prison-bound offenders.

In response to offenders' needs, all boot camp prisons report having incorporated some sort of drug treatment and education into their program plan. In fact, in nine states drug treatment is a legal program requirement. As might be expected, the particular drug treatment/education strategy adopted by each program varies considerably.

Some programs focus solely on drug education, while others emphasize treatment. More specifically, seven programs teach only drug education, three programs emphasize treatment and 13 programs combine treatment and education in some fashion. In our survey, most respondents rated drug education as a more important goal than drug treatment.

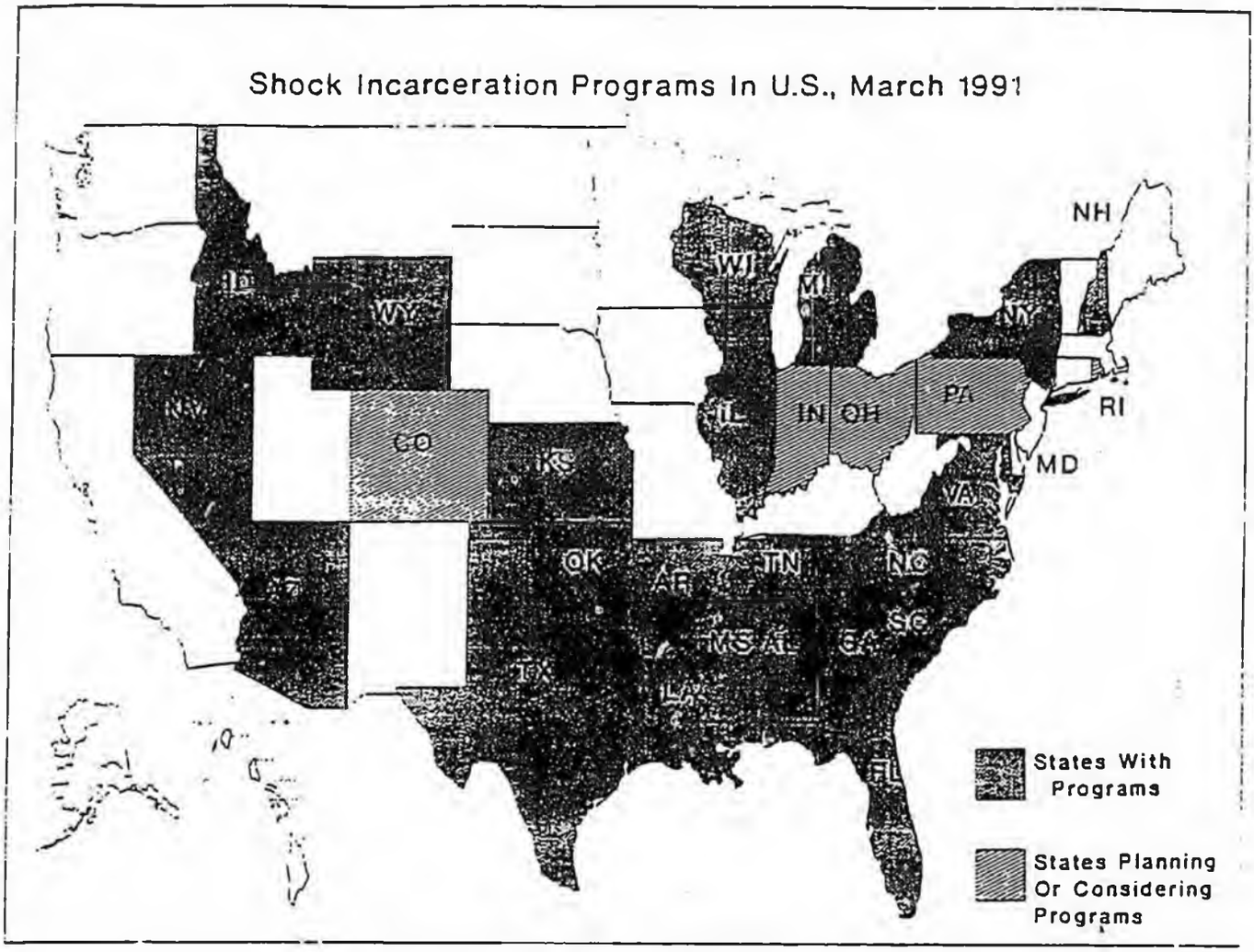
An examination of the availability of and time spent in specific components of drug treatment and education underscores this difference in emphasis. For example, in virtually all programs inmates receive at least several hours of drug education per week. The availability of individual psychotherapy, group psychotherapy, drug counseling and relapse prevention training, however, was far more limited.

Other program differences include the number of days spent in drug treatment and education, which ranges from 12 to 180 days, whether the drug treatment and education program is administered by program staff or an outside agency and whether all inmates participate.

NIJ Study

The National Institute of Justice recently began a national boot camp study that focuses on two major questions: Are boot camps successfully fulfilling their goals, and what particular components of boot camp programs lead to success or failure? The evaluation will compare eight unique

Continued next page



BOOT CAMP SURVEY

Continued

state programs for men in Florida, Georgia, Illinois, Louisiana, Oklahoma, New York, South Carolina and Texas, and one program for women in Oklahoma.

The participating programs were selected because they varied in several ways, including selection decisions, community supervision upon release, program characteristics and program location. Researchers hope to isolate the specific components of programs that lead to the fulfillment of program goals. Each participating program is evaluating its own program and coordinating this evaluation with the other states so the methodology, data collected and data analysis can be compared across states.

While it is clear that many offenders sentenced to boot camps need drug treatment and education, it is not clear whether these programs are the most effective way to provide it. The U.S. Department of Justice's Bureau of Justice Assistance is currently funding four innovative or enhanced boot camp programs for drug offenders in Texas, New York, Illinois and Oklahoma. The sites are participating in the NIJ's study. Results from these studies should be available in 1992.

REFERENCES

Flowers, G.T., T.S. Carr and R.B. Ruback. 1991. Special alternative incarceration evaluation. Department of Corrections. Atlanta, Ga.

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MacKenzie, D.L., and D. Parent. 1991. Shock incarceration and prison crowding in Louisiana. *Journal of Criminal Justice*. 19:225-237.

MacKenzie, D.L., and J.S. Shaw .90. Inmate adjustment and change during shock incarceration: The t of correctional boot camp programs. *Justice Quarterly*. 7(1):125-50

Doris Layton MacKenzie, Ph.D., is an associate professor at the University of Maryland's Institute of Criminal Justice and Criminology in College Park, Md. A visiting scientist at the National Institute of Justice, she is the director of the NIJ study of shock incarceration. Claire C. Souryal is a graduate student in the Institute of Criminal Justice and Criminology and is working as a research assistant on the NIJ study.

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO. HB 105

Revision Date:
Dept. Affected: Department of Corrections
Title: "An Act providing for incarceration for nonviolent, youthful first offenders....."
BRU: Institutions; Statewide Programs
Component:
Sponsor: Rep. Willis
Requestor: Rep. Willis
COMPONENT SERIAL NO. 1560 1555

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY94	FY95	FY96	FY97	FY98	FY99
PERSONAL SERVICES	768.0	768.0	768.0	768.0	768.0	768.0
TRAVEL	24.4	24.4	24.4	24.4	24.4	24.4
CONTRACTUAL	319.0	319.0	319.0	319.0	319.0	319.0
SUPPLIES	167.0	167.0	167.0	167.0	167.0	167.0
EQUIPMENT	20.0	20.0	20.0	20.0	20.0	20.0
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS Prisoner gratuities	94.0	94.0	94.0	94.0	94.0	94.0
TOTAL OPERATING	1,392.4	1,392.4	1,392.4	1,392.4	1,392.4	1,392.4
CAPITAL	1,750.0	-0-	-0-	-0-	-0-	-0-
REVENUE FUND SOURCE:						

FUNDING: (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	3,142.4	1,392.4	1,392.4	1,392.4	1,392.4	1,392.4
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
TOTAL						

POSITIONS:

FULL-TIME	16	16	16	16	16	16
PART-TIME						
TEMPORARY						

Estimate of current year (FY93) impact: $ -0-

ANALYSIS: (Attach a separate page if necessary)

Please see attached fiscal analysis

Prepared by: Dana LaTour
Phone: 465-3376
Division: Commissioner's Office
Date: 2/25/93
Approved by Commissioner: Lloyd G. Rupp
Date: 2/25/93
Agency: Department of Corrections

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Fiscal Note- Corrections

This Bill provides for the establishment of a boot camp program within the Department of Corrections. The boot camp is to serve as an alternative correctional facility for first time, youthful, nonviolent offenders. The target age of these offenders is 18 - 26.

The bill also creates a Boot Camp Advisory Board whose purpose is to review and provide advice to the Department concerning the operation of the boot camp.

The department has determined that the boot camp could be established on state owned farms in the Matanuska Valley. These farms were developed by private citizens through the use of State agricultural loans. The developers of these farms have defaulted on the loans and the ownership of the property has reverted to the State. The Department of Corrections proposes to redevelop these farms in the following steps:

(1) Set up portable, modular units for inmate housing and support services;

(2) Bring in 50 inmates initially, with the goal of placing 150 - 200 inmates in the boot camp in the future;

(3) Rebuild the farm by clearing and tilling the land, repairing or upgrading the buildings and otherwise preparing the properties for turnkey operation;

(4) Substance abuse counseling and programs will be a part of the daily routine for the inmates, in conjunction with community providers or contractors, including AA and others;

(5) Once the farm is back in shape, the modular units are moved to the next farm and the process is repeated.

The costs of developing and operating a pilot program for 50 inmates is as follows:

Personal Services:

CO III	65.0
Probation Officer II	55.0
10 CO II's	555.0
Food Service Manager	51.0
Admin Assistant	42.0
TOTAL PERSONAL SERVICES	**768.0**
TOTAL TRAVEL	**10.0**

(Operating costs continued)

Contractual

Professional Services	203.0
Communication	4.0
Transportation	40.0
Subscriptions	1.0
Utilities	60.0
Repairs/Maint	5.0
Rentals/Leases	4.0
Other Services	2.0
TOTAL CONTRACTUAL	**319.0**

Commodities

Office Supplies	3.0
Food $50 x 1800	90.0
Clothing	10.0
Non-Food Supplies	9.0
Repair/Maint Supplies	50.0
Other Commodities	5.0
TOTAL COMMODITIES	**167.0**
TOTAL EQUIPMENT	**20.0**
INMATE GRATUITIES 50 X $7.50 Day X 250 Days	**94.0**
TOTAL OPERATING COSTS	**$1,378.0**
CAPITAL BUDGET EXPENDITURES	**$1,750.0**

Boot Camp Advisory Board

The bill provides for the establishment of an eight member advisory board whose responsibility includes providing advice and review of the boot camp program. It is assumed that the board will meet 4 times a year in the Anchorage area. It is also assumed that 4 of the 8 members will resiue in the Anchorage area.

4 trips x 2 days x 4 Anchorage members x $100 per diem	=	$3200
4 trips x 2 days x 4 mc mbers x $100 per diem	=	$3200
4 trips x 4 members x $500 airfare	=	$8000
Total travel expenses		**$14,400**

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO. HB 105

Revision Date: February 2, 1993
Title: "...providing for incarceration for nonviolent, youthful first offenders in boot camps..."
Sponsor: Representative Willis
Requestor: Representative Willis

Department Affected: Department of Law
BRU: Prosecution
Component: All

COMPONENT SERIAL NO. 0085 through 0090

EXPENDITURES/REVENUES:

OPERATING	FY 94	FY 95	FY 96	FY 97	FY 98	FY 99
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE FUND SOURCE:						

FUNDING:

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-
FULL-TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART-TIME						
TEMPORARY						

Estimate of current year (FY93) impact: -0-

ANALYSIS: (Attach a separate page if necessary.)

Please see the attached analysis.

Richard L. Peques

Prepared by: Richard I. Peques, Director
Division: Administrative Services Division
Phone: 465-3672
Date: February 2, 1993

Richard L. Peques for

Approved by Commissioner: Charles E. Cole, Attorney General
Agency: Department of Law
Date: February 2, 1993

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FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO. HB 105

ANALYSIS (Continued):

This bill amends AS 12.55 and AS 33.30 to provide for incarceration for nonviolent, youthful first offenders in boot camps operated by the Department of Corrections. This is a sentencing alternative that would be available to courts after the conviction of a defendant. Consequently, the bill will not have a fiscal impact on the Department of Law.

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO. HB 105

Revision Date:
Dept. Affected: Health and Social Services
Title: An Act providing for incarceration of non-violent youthful first offenders in boot camps.
BRU: Alcoholism and Drug Abuse SUCS.
Component:
Sponsor: Willis, Bunde
Requestor:
COMPONENT SERIAL NO.

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY94	FY95	FY96	FY97	FY98	FY99
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL						
REVENUE FUND SOURCE						

FUNDING: (Thousands of Dollars)

1002 Federal Receipts	0	0	0	0	0	0
1003 GF Match	0	0	0	0	0	0
1004 GF	0	0	0	0	0	0
1005 GF/Program Receipts	0	0	0	0	0	0
1006 GF/MHTIA	0	0	0	0	0	0
Other	0	0	0	0	0	0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY93) impact: 0

ANALYSIS: (Attach a separate page if necessary)

Correctional officers will provide alcohol and other drug abuse treatment education and counseling services.

The boot camps are for adult offenders who are under the age of 26 years.

There is no fiscal impact anticipated on the Department of Health and Social Services.

Prepared by: Suzanne Perry
Phone: 465-2071
Division: Alcoholism and Drug Abuse
Date: 2-12-93

Approved by Commissioner: Theodore A. Matta, MD, MPH
Date: 2/23/93
Agency: Department of Health & Social Services

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Ø Fiscal Note - H+SS - Alcoholism + Drug Abuse

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO. HB 105

Revision Date: _____
Title: "An Act providing for incarceration for nonviolent, youthful first offenders in boot camps . . ."
Sponsor: Representatives Willis and Bunde
Requestor: (H) HES

Department Affected: Administration
BRU: Public Defender Agency
Component: Public Defender Agency

COMPONENT SERIAL NO. 1631

EXPENDITURES/REVENUES:

OPERATING	FY 94	FY 95	FY 96	FY 97	FY 98	FY 99
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE FUND SOURCE:	0	0	0	0	0	0
FUNDING:						
1002 Federal Receipts	0	0	0	0	0	0
1003 GF Match	0	0	0	0	0	0
1004 GF	0	0	0	0	0	0
1005 GF/Program Receipts	0	0	0	0	0	0
1006 GF/MHTIA	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0
POSITIONS:						
FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY93) impact: _____

ANALYSIS: (Attach a separate page if necessary.)

Prepared by: John Salemi, Public Defender
Division: Public Defender Agency
Phone: 279-7541
Date: _____

Approved by Commissioner: Nancy Bear Usera
Agency: Administration
Date: 2/22/93

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Ø Fiscal Note - Admin - Public Defender

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO. HB 105

Revision Date:
Title: "An Act providing for incarceration for nonviolent . . ."
Sponsor: Representatives Willis, Bunde
Requestor: House HESS

Department Affected: Administration
BRU: Office of Public Advocacy
Component: Office of Public Advocacy
COMPONENT SERIAL NO. 43

EXPENDITURES/REVENUES:

OPERATING	FY 94	FY 95	FY 96	FY 97	FY 98	FY 99
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE FUND SOURCE:	0	0	0	0	0	0
FUNDING:						
1002 Federal Receipts	0	0	0	0	0	0
1003 GF Match	0	0	0	0	0	0
1004 GF	0	0	0	0	0	0
1005 GF/Program Receipts	0	0	0	0	0	0
1006 GF/MHTIA	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0
POSITIONS:						
FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY93) impact: None.

ANALYSIS: (Attach a separate page if necessary.)

Prepared by: Brant McGee, Public Advocate
Division: Office of Public Advocacy
Phone: 274-1684
Date:

Approved by Commissioner: Nancy Bear Usera
Agency: Administration
Date: 2/22/93

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FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

Bill No. HB 105

Revision Date:
Title: An Act providing for incarceration of nonviolent, youthful first offenders
Sponsor: Willis
Requestor:

Department Affected: Alaska Court System
BRU: Trial Courts
Components:
COMPONENT SERIAL NO. 768

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 94	FY 95	FY 96	FY 97	FY 98	FY 99
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS & CLAIMS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL						
REVENUE FUND SOURCE:						

FUNDING: (Thousands of Dollars)

1002 FEDERAL RECEIPTS						
1003 GF MATCH						
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/PROGRAM RECEIPTS						
1006 GF/MHTIA						
OTHER						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

Estimate of current year (FY 93) impact: None

ANALYSIS: (Attach a separate page if necessary)
No fiscal impact.

Prepared by: C. S. Christensen III, Staff Counsel
Division: Alaska Court System
Phone: 264-8228
Date: 03/05/93

Approved by: Arthur H. Snowden, II, Administrative Director
Agency: Alaska Court System
Date: 03/05/93

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

Rev 1/93

Fiscal Note - Courts

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO: HB 105

Revision Date: _____ Dept. Affected: Public Safety

Title: "An act providing for incarceration for first offenders" BRU: Alaska State Troopers

Component: Detachments

Sponsor: Representatives Willis

Requestor: House HESS COMPONENT SERIAL NO. 799

EXPENDITURES/REVENUES: (Thousands of Dollars) (inflation not included)

OPERATING	FY 94	FY 95	FY 96	FY 97	FY 98	FY 99
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL	0.0	0.0	0.0	0.0	0.0	0.0
REVENUE FUND SOURCE:	0.0	0.0	0.0	0.0	0.0	0.0

FUNDING: (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY 93) impact: $ _____

ANALYSIS: (Attach a separate page if necessary.)

No fiscal impact is anticipated.

Prepared By: Francis C. Allan Phone: 269-5691

Division: Alaska State Troopers Date: 3/23/93

Approved by Commissioner: [signature] Date: 3/26/93

Agency: Richard L. Burton, Dept. of Public Safety

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Ø Fiscal Note - Public Safety

HB

106

HOUSE COMMITTEE REPORT

(9)

Date Referred: January 29, 1993 FURTHER REFERRALS: Finance

Date of Committee Action: 4-14-93

The HEALTH, EDUCATION AND SOCIAL SERVICES Committee considered: HB 106

HOUSE BILL NO. 106 EDUCATION TECHNOLOGY PROGRAM

"An Act establishing the Alaska education technology program; and providing for an effective date."

RECOMMENDATIONS: [X] the same title
be replaced with CS HB 106 (HESS) [ ] a new title

[ ] have attached amendments(s)
[ ] do pass
[ ] do not pass
[X] no recommendations
[ ] individual recommendations
[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of Intent

ATTACHES NEW FISCAL NOTE(s): (Dept) APPROVES PREVIOUS: (Dept/Date)

3 [X] fiscal impact Education (2), Revenue [ ] fiscal note(s) _____

[ ] zero fiscal note _____ [ ] zero fiscal note(s) _____

SIGNING DO PASS	DP	OTHER RECOMMENDATIONS	DNP	NR	AM
Betty Davis	X			✓	
Tom Brice	✓			X	
				X	
				X	
				X	
		Harley Allberg	✓		

Tom Brice
CHAIRMAN'S SIGNATURE

Alaska State Legislature

House of Representatives

COMMITTEE ON HEALTH, EDUCATION AND SOCIAL SERVICES

DATE: MARCH 10, 1993

PLACE: Capitol Room 106

SUBJECT OF MEETING:

*HB 106: EDUCATION TECHNOLOGY PROGRAM

*HB 107: APPROP: EDUCATION TECHNOLOGY PROGR

STUDENT PRESENTATION ON COMPUTERS IN SCHOOLS

NAME	REPRESENTING	BUSINESS/PERSONAL MAILING ADDRESS	ZIP	(H) PHONE	(W) PHONE	DO YOU WANT TO TESTIFY?		WHAT SUBJECT/ WHICH BILL?
Karen Jordan	Juneau Public Schools	AK Society for Technology in Ed. 11575 Mendenhall Loop Rd	99801	789-1803	463-1967	(Y)	N	HB 106/107
Jason Ohlson	Univ of Alaska	11120 Glacier Hwy Juneau AK	99801	463-3655	784-4414	(Y)	N	HB 106/107
Jack Detzel	Delta/Greely School District	Pouch 1 Delta Junction AK	99737	895-4939	895-4696	(Y)	N	HB 106/107
Pam Rule	Delta/Greely School Dist	Box 597 Delta Jct, AK	99737	895-4766	895-4657	(Y)	N	HB 106/107
						Y	N	
Sharon Mucklin	Anch. School District	315 5th St Juneau	99801		586-9513	(Y)	N	HB 106/107
Karen Crane	DOE Kenai				465-2910	(Y)	N	HB 106/107
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	

LTN:100-R0: LEGISLATIVE TELECONFERENCE NETWORK PAGE 01
03/11/93 09:55:00
TCN: 30324 DATE & TIME: 03/10/93 15:00 TO 17:00 STATUS:7 STATS. IN

**** ORDER SUMMARY ****
SPONSOR: HRES HOUSE HEALTH, EDUCATION AND SOCIAL SERVI CHAIRS: TOOHEY
PURPOSE: PUB PUBLIC HEARING BUNDE
CONTACT: LYNN SMITH TEL#: (907)465-6025
CHAIRING SITE: JUNEAU CAPITOL CAP106

SPONSOR REMARKS(PUB): TESTIMONY:Y ALLOWED 5 MINUTE LIMIT
TCN REQUESTED ON 03/10/93 AND HAS 5 UPDATES

**** AGENDA ****
1 HB 106 EDUCATION TECHNOLOGY PROGRAM
2 HB 107 APPROP: EDUCATION TECHNOLOGY PROGRAMS

**** PARTICIPATING LIOS ****

	ANC	ANCHORAGE	3111 C STREET		LOCATION STAFF
	BAR	BARROW	COURTHOUSE #365		LOCATION STAFF
	BET	BETHEL	301 WILLOW ST.		LOCATION STAFF
*	JNU	JUNEAU	CAPITOL	CAP106	LOCATION STAFF
	SOL	KEN/SOL	34824 KALIFONSKY		LOCATION STAFF
	TOK	TOK LIO	MP 1314 AK. HWY		LOCATION STAFF

PARTICIPANTS IN:BETHEL BET

1	BOB	MEDINGER	LKSD		TSFY. HB 106
	BOX 1063		BETHEL	AK 99559	(907)543-4876

PARTICIPANTS IN:JUNEAU JNU

1	TEST	1			TSFY. HB 106
				AK	(907)000-0000

PARTICIPANTS IN:KEN/SOL SOL

1 MR.	DICK	SWARNER (2)	KPSD		TSFY. HB 106
	148 N. BINKLEY		SOLDOTNA	AK 99669	(907)262-5846

PARTICIPANTS IN:TOK LIO TOK

1 MR.	CHARLES	MILLER	TCC		OBSV. HB 106
	P.O. BOX 126		TOK	AK 99780	(907)883-5181
2 MR.	PAT	HUNT	AGSD		TSFY. HB 106
	P.O. BOX 888		TOK	AK 99780	(907)883-5161
3 MR.	BILL	MILLER	UCB		OBSV. HB 106
	P.O. BOX 2262		DOT LAKE	AK 99737	(907)882-2693

University of Alaska Southeast
Juneau • Ketchikan • Sitka

School of Education, Liberal Arts and Science
Juneau Campus

March 10, 1993

To: Representative Kay Brown

From: Jason Ohler
Director, Educational Technology Program
University of Alaska Southeast

Re: HB 106, Education Technology and HB 107, Bonds for Educational Technology

Dear Representative Brown:

For seven years I have been directing a program whose primary mission is to empower teachers and students with technology in effective, creative, educationally sound, and culturally appropriate ways. In seven years I have watched as a fascination with Apple IIe computers and VHS players on the part of a few educators has grown into a desire by many to use advanced computers, telecommunications, multi-media, and other technologies to make education more meaningful, relevant, and responsive to the age in which they live.

Seven years ago Alaska had an edge in educational technology. It is my observation that Alaska has lost that edge and that teachers are frustrated with the lack of technology that they need in order to teach the skills that they know their students need to enter today's work force. It is also my observation that most educators believe that technological proficiency needs to be a basic component of a well-rounded education and that the tools needed to make this happen are, by and large, simply not there.

Your proposal offers a real chance to regain lost time and lost ground. It offers a real opportunity not only to replenish classrooms with much

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needed learning technology, but also to draw educators into the process of planning for technology and examining the best ways to use it to serve their students, school districts, and ultimately the public. I commend you on your foresight in this area and urge legislators to support your proposal.

Please let me know if I can be of further assistance.

Jason Ohler

Jason Ohler
Director, Educational Technology Program
University of Alaska Southeast
Phone: 463-5685, Fax: 586-1691, UACN: JFJBO

Rep. Kay Brown

Talking notes/education technology

House HESS Committee

3-10-93

• Introduction

Thank you for hearing HB 106 and HB 107, which would establish an education technology program for the state.

• Overview

An infusion of technology in Alaska schools will provide benefits to students, teachers, and society.

Nationally, we are moving toward a concensus that -- as the Congressional Office of Technology Assessment put it -- "appropriate assignment of new technologies within effectively organized schools could make a big difference in academic performance."

It is being widely recognized that the power of the computer is needed in every classroom in order to **free teachers to spend more quality time teaching** students, to **improve student performance** by allowing intensive, individual electronic instruction for each student, and to **prepare students to work in the electronic global work place.**

Mastery at using computers is now required in virtually every service, profession, science, and art. Students must get a fundamental grounding in how to find out what they need to know and how to perform their work in the context of an electronic world.

Recommendations for **Alaska 2000** included a comprehensive technology program; however, these elements are not included in the Governor's bills. (reference Association of Alaska School Boards, letter of Feb. 23, which recommends a program like the one that would be established by these bills.)

Major concerns: **cost and equity.**

We know that equipping high-tech schools will be expensive, and high costs to date have greatly limited the number of students who can participate and benefit. In the Lower 48 much of the new technology is concentrated in affluent suburban schools systems, where educational opportunities are already greater than in many urban and rural districts.

A majority of Alaska students get no opportunity to work with computers at school, and only a small fraction, about one-tenth of them, work with a computer every day.

This is frustrating in that for several years I and a number of other legislators have been **working to increase state support** for technology in schools in our districts. Substantial direct grants for Anchorage schools have now been vetoed by two governors. Former Gov. Cowper suggested that it was **unconstitutional** to fund computers for only some schools. That is what led me to develop a statewide approach to the problem.

HB 106/HB 107 would establish a comprehensive education technology program on an **equitable basis for all schools** in the state.

- **Benefits**

Benefits of education technology are discussed at length in *How to Shape Up Our Nation's Schools: Three Crucial Steps for Renewing American Education*, by Terrel H. Bell and Donna L. Elmquist, and in *Power On: New Tools for Teaching and Learning*, by the congressional Office of Technology Assessment.

I'd like to say a few words about Dr. Bell, who came to Juneau in 1991 to testify in favor of HB 203/204, which I sponsored in the 17th legislature. He was U.S. Secretary of Education from 1981-85 under President Reagan, and has been a leading advocate of education reform. His book is the best articulation I have seen of the benefits of education technology.

Bell and Elmquist write that "electronic instruction is the future of education." They say that technology should be the catalyst for restructuring education. "Schools must be modernized and pushed into the level of effectiveness that other aspects of business and industry have attained."

Interactive technologies have been used in American schools on a limited basis for more than 30 years, and a body of research has been accumulated about the results. The OTA said in its 1988 report that studies conducted to look at the effectiveness of Computer-Aided Instruction (CIA) show that elementary level students who received brief daily CAI lessons as a supplement to instruction showed **gains equivalent to 1 to 8 months of instruction over their peers who received traditional instruction only**. Other

findings show that CAI is **more effective at raising achievement among low-achieving students** than for average or high-achieving students.

Students **complete material faster** with CAI than with traditional instruction, sometimes as much as 40 percent faster. Increases in student **attendance, motivation, and attention span** have also been reported in most studies.

Major benefits include:

* **improve student achievement.** Effective learning requires that a student actively participates, engages in serious independent work, and receives regular and frequent feedback, instead of passively receiving instruction. Modern technology can help free students from the cycle of passivity. This assumes high-quality software that incorporates effective teaching practices and organization of the curriculum.

Student benefits and how technology is used in schools:

*__drill and practice__ to master basic skills (traditional application, used successfully for many years -- reading and math)

* **individualized instruction.** Students move at own pace. intelligent tutoring systems. keep exact records of student progress.

*__simulation__ in science, mathematics and social studies

*enhancing **problem-solving** abilities

*understanding **abstract math and science concepts** (microcomputer-based laboratories, graphing)

* **manipulation of data** (ability to create, search and use databases for individual and class projects)

*__writing skills__

* computer skills for **general purposes, and for business and vocational training** -- prepare students to function in an increasingly technological world

*increase student **awareness of the outside world** (E-mail, databases).

* **cooperative learning**. telecommunications technology makes new ways of communicating and sharing possible. potential to work in small teams in the classroom.

* **distance learning** has many possibilities to improve the quality of education in Alaska due to telecommunications advances.

* **access and communication** for **traditionally unserved populations** of students (such as special education), especially in **rural areas**, and for people with **disabilities** (such as speech synthesizers and other devices).

Technology is **not meant to replace the teacher but to place more responsiblity on the student** for independent learning under the teacher's guidance and observation. The professionally trained **teacher is indispensable** in attaining the outcomes described, and only a skilled teacher can integrate and orchestrate all the learning activities into a well-executed program of teaching and learning. (Bell/Elmquist)

* **improve teacher efficiency**. In addition to test scoring, recording progress, communicating with parents, and preparing lessons, teachers have many mandated administrative and clerical responsibilities. Computer systems can enhance teachers' abilities to do their jobs more effectively. Computers and appropriate software can **simplify routine paperwork, complete report forms, monitor each student's progress, track learning deficiencies and strengths, as well as tutor students**. These capabilities enhance the quantity and quality of interaction between teachers and students.

Technology also can enable them to share information with other educators, interact with the outside world and bring that world into the classroom.

Can't over emphasize the importance of **teacher training**. Unless teachers understand the tools and how to use them, the potential of technology will not be realized.

• **Why technology hasn't taken hold in our schools**

Bell and Elmquist:

*expensive and difficult to acquire

*technology used only in small-scale ways or as an afterthought, rather than as part of a plan to enhance productivity and transform school practices.

***training of teachers frequently neglected**

*necessary changes in management have not been made

*many advocates of technology have failed to realize that teaching is a human, complex activity requiring a great deal of interaction with students.

Summary of bills

During several years of work with teachers, educators, parents, DOE personnel, school districts, technology specialists and others, I've developed the proposals in HB 106/HB 107. (Draft CS for HB 106, Ford 2-16, makes minor changes, mostly related to libraries; new language is marked.)

Briefly, these bills would:

• establish the **Alaska Education Technology Program** in the Department of Education. The program must include

(1) **technical assistance** to districts, schools and libraries for the purpose of planning for, purchasing, using and evaluating the results of education technology;

(2) **training** for teachers and other employees in the use of education technology;

(3) a plan for **coordinating and expanding existing networks** for educational uses.

• establish the **Alaska Education Technology Fund**; the commissioner of Revenue is the treasurer of the fund.

The **purpose of the fund** is to (1) enhance the quality and equity of education at public elementary and secondary schools by **providing a portion of the money needed to purchase and maintain education technology** in classrooms; (2) provide **training** in the use of education technology to help students achieve student performance standards; and (3) provide **access to networks** for public schools.

• require a **local match for funding**; the sliding scale formula proposed in the Governor's HB 82 (local match for construction and major maintenance grants) is proposed for the education technology fund.

The requirements for an application are outlined in detail (beginning at page 4, line 20). Before a grant is awarded **a school must prepare a comprehensive plan** explaining how it will use the technology to improve student performance, how it will train teachers and other instructional personnel in curriculum application and implementation, and how it will evaluate program.

• establish an **Education Technology Committee**, consisting of the director of the division of libraries, archive and museums and seven members appointed by the Governor.

The seven include four educators with demonstrated education technology experience from districts of varying sizes; one university and one DOE employee with demonstrated experience; and one employee of the Department of Administration with telecommunications expertise.

• require the committee to develop appropriate guidelines to ensure an **equitable distribution of funds** over a five-year period. (page 8, line 18)

• amend the "**school report card**" requirement to include a report on "uses of education technology by classroom teachers that have improved student performance and the results of periodic evaluations of education technology" acquired under the Alaska Education Technology Fund program. (page 2, line 30)

• require the DOE to conduct, before accepting applications for funds

(1) a **survey of education technology resources** in public schools and libraries in the state; and

(2) **statewide planning and grant writing seminars** available to all public schools, districts and libraries. (page 9, line 20)

Funding

I recommend that the State spend about **$10 million a year for five years ($50 million total) to implement a statewide technology program:**

***$40 million from G.O. bonds,** and

***$10 million from the General Fund** to cover non-bondable costs such as teacher training ($2 million GF per year).

While a G.O. bond approach is incorporated in HB 107, the program could be funded with cash.

Fiscal notes

HB 106

• DOE, libraries -- 74.0 in first year for support for State Library.

• DOE, program support -- 132.8 in first year for program support.

HB 107

• Revenue, Treasury Management -- 256.5 to support GO bond issuance.

The additional General Fund costs that I mentioned could be funded through a fiscal note to the bill establishing the program.

Why bond?

*difficult to get all General Funds in one year. continuing appropriations are legally questionable and clearly not binding.

* knowing the amount up front helps ensure an equitable distribution

* let the people decide. I think it is appropriate to ask the public whether they wish to borrow money to make this opportunity possible. Based on the reaction I've received from students, parents, teachers, school board members and administrators around the state, I'm optimistic about the chances for passage. Anchorage voters approved bonds for school library technology in 1991. reference polls, DOE statewide survey supporting education technology.

* the state's debt service obligations are declining rapidly; this amount of debt can be issued responsibly. Note at page 1, lines 11-13 of HB 107, the bonds may not be issued in amounts that will cause the debt service on the bonds to exceed five percent of projected unrestricted GF in the years when the bonds are repaid.

We have an **opportunity to be leaders** in the effort to bring technology into the classroom. **Because of our small population**, it is within our ability to provide this opportunity equitably for all our children. I welcome your support, and I'd be happy to provide any additional information.

JOSTENS LEARNING CORPORATION™

REPRESENTED BY: JOSTENS LEARNING / ALASKA, INC.
6311 DEBARR ROAD, SUITE L2C, ANCHORAGE, AK 99504-1775
907 333-1353 24 HOUR MESSAGE 800 221-7927, EXT. 4459
FAX: 907 333-0707

March 9, 1993

The Hon. Cynthia Toohey, Co-Chair, and
The Hon. Con Bunde, Co-Chair
House Health, Education and Social Services Committee
via fax 465-2278

Dear Ms. Toohey and Mr. Bunde:

I am writing in support of HB 106, Education Technology and HB 107, Bonding which I understand you will hear tomorrow.

As is stated in the bill's Findings and Purpose: "education technology has the potential to improve the academic performance of students..."

It most certainly does, and if through the assistance provided by this legislation school districts select good instructional software and available staff development, it has been demonstrated time and again that our kids will show meaningful learning improvement. On request I will be glad to provide you with dozens of pertinent reports from school districts across the country and now similar reports from a few of Alaska's school districts are available.

This bill's reference to improved academic performance as an objective should encourage student use of computers and other technology in ways in which you and I do not work with these machines.

Basically, you and I use computers as tools; we have, for the most part, already acquired our basic communication skills and have less need of the very sophisticated core subject integrated instructional software on the market today.

Students need access to both. If it were merely a case of exposing students to basic computer use as is common in the workplace, such could be fully accomplished in the final semester of high school and this bill would be unnecessary.

I very much hope that you will work towards a favorable vote in House HESS. Thank you.

Sincerely,
Jostens Learning/Alaska, Inc.

Rob Lapham
President

FEB 16 1993

8-LS0223\E
Ford
2/16/93

NEW TEXT Underlined

DELETIONS IN Brackets [ ]

CS FOR HOUSE BILL NO. 106( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

EIGHTEENTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES BROWN, Ulmer, Davidson, Bunde, B.Davis, Carney, Nordlund, Brice, Nicholia, Davies, Willis

A BILL

FOR AN ACT ENTITLED

"An Act establishing the Alaska education technology program; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. FINDINGS AND PURPOSE. (a) The legislature finds that

(1) 75 percent of the labor force in the state is unprepared to deal with rapidly changing technology;

(2) the education system and publicly funded libraries can help in creating a trained and productive labor force;

(3) education technology has the potential to improve the academic performance of students, to prepare students for work in a technological society, and to assist with education reform;

(4) schools and publicly funded libraries lack adequate hardware, software, and training for students, patrons, and educators in education technology;

(5) in order to implement effective education technology programs, teacher

training and active participation is essential;

(6) an equitable distribution of education technology is necessary to ensure that all public school students in the state receive comparable educational opportunities; [.]

(7) equal access to information in libraries is important to all citizens of the state.

(b) It is the purpose of this Act to establish the Alaska education technology program, to provide teachers, library staff, and other instructional personnel with training in how to apply education technology in meeting instructional objectives, and to provide the necessary equipment and materials to effectively utilize education technology within the adopted curricula throughout the rural and urban schools and in publicly funded libraries of this state.

* Sec. 2. AS 14.03.120(e) is amended to read:

(e) A district shall, by October 31 of each year, provide to the state board, and make available to the public, a report on the performance of each public school and public school students in the district. The report must be entitled "School District Report Card To The Public" and must be prepared on a form prescribed by the department. The report must include

(1) the percent of district students in the top and bottom quarter of standardized national achievement examinations; results under this paragraph shall be disclosed in a manner that does not reveal the individual identities of students;

(2) the percent of students who are not promoted to the next grade;

(3) student, parent, and community member comments on the school's performance;

(4) the annual percent change in enrollment and the percent of enrollment change due to student transfers into and out of the district;

(5) attendance, retention, and graduation rates;

(6) the ways in which meaningful parent involvement in school performance was achieved;

(7) a summary and evaluation of the environmental education curriculum described in AS 14.30.380;

(8) uses of education technology by classroom teachers that have improved student performance and the results of periodic evaluations of education

technology acquired under AS 14.30.810;

(9) other indicators of school performance required by the state board; and

(10) [(9)] other indicators of school performance selected by the district.

* Sec. 3. AS 14.30 is amended by adding new sections to read:

ARTICLE 12. ALASKA EDUCATION TECHNOLOGY.

Sec. 14.30.800. ALASKA EDUCATION TECHNOLOGY PROGRAM. (a) The Alaska education technology program is established in the department. The program must include

(1) technical assistance to a district, a public school, or a publicly funded library for the purpose of planning for, purchasing, using, and evaluating results of education technology;

(2) training for employees of a district, public school, or publicly funded library in the use of education technology in the classroom or library; and

(3) a plan for coordinating and expanding existing networks and investigating the development of new networks for educational uses, including the University of Alaska computer network, Star Schools, Livenet, public television, rural Alaska television, and library networks sharing systems; the plan required under this paragraph shall be developed in consultation with the Department of Administration and must be consistent with AS 44.21.315(c).

(b) In administering the program required under this section, the department may pool grant money or other money available from each district or publicly funded library in order to make a bulk purchase of education technology or to provide necessary training.

Sec. 14.30.810. ALASKA EDUCATION TECHNOLOGY FUND ESTABLISHED. (a) The Alaska education technology fund is established in the department. The purpose of the fund is to (1) enhance the quality and equity of education at public elementary and secondary schools by providing a percentage of the project or grant money needed to purchase, install, and maintain education technology in classrooms; (2) provide training in the use of education technology to help students

achieve student performance standards; (3) provide access to networks for public schools and publicly funded libraries through the University of Alaska computer network, the Department of Administration computer network, or other means consistent with the program developed under AS 14.30.800 and AS 44.21.315(c); and (4) provide a percentage of the cost of education technology, including computer and resource sharing systems, to publicly funded libraries. Money in the fund may be used to provide grants or may be expended by the department for projects that further the purposes described in this subsection. The fund consists of legislative appropriations to the fund and public or private donations made for the purpose of the fund.

(b) A project or grant application may be submitted to the department by a school district on behalf of a public school, or by a publicly funded library. The department shall fund projects approved by the committee or award grants from the fund to a school district for a public school, or to a publicly funded library selected by the committee. Money in the fund that consists of proceeds from the sale of general obligation bonds may not be awarded to a school district, a public school, or a publicly funded library as a grant.

(c) As a condition of funding a project or awarding a grant, the department shall require the school district or publicly funded library to pay that percentage of the cost of the project or grant required under AS 14.30.820.

(d) A project or grant application submitted by a school district under (b) of this section must include

(1) educational goals and objectives;

(2) the sum of money to be provided by the department and by the school district;

(3) a comprehensive plan for using the education technology selected to achieve the educational goals and objectives;

(4) a description of the relationship between the application and the district's goals for student performance outlined in the report submitted under AS 14.03.120;

(5) required initial and ongoing training for teachers to effectively use the education technology in the classroom;

(6) a description of the education technology proposed to be purchased;

(7) a proposed budget;

(8) a description of local efforts or resources that will be contributed;

(9) provisions for site preparation, equipment security, and required technical and maintenance support;

(10) criteria and methods that will be used to periodically evaluate and document progress in achieving the educational goals and objectives;

(11) a description of local partnerships that are or will be involved in the planning, implementation, or evaluation of the project; and

(12) documentation of the process used by the public school to develop the plan.

(e) A project or grant application submitted by a publicly funded library under (b) of this section must include

(1) library goals and objectives, including how the education technology will improve services of the library or access to resource sharing;

(2) the sum of money to be provided by the department and by the publicly funded library;

(3) a comprehensive plan for using the education technology selected to achieve library goals and objectives;

(4) required initial and ongoing training for library personnel to effectively use the education technology;

(5) a description of the education technology proposed to be purchased;

(6) a proposed budget;

(7) a description of local efforts or resources that will be contributed;

(8) provisions for site preparation, equipment security, and required technical and maintenance support; and

(9) whether the library participates in a resource sharing system;

(10) documentation of the process used by the library to develop the plan.

(f) The board shall adopt regulations that allow a school district, a public school, or a publicly funded library to obtain education technology under a permit or

lease with the department, for a project approved under AS 14.30.840(b).

(g) The department shall administer grants awarded under this section and shall include a report on the projects receiving funds as part of the department's annual report.

[SCHOOL DISTRICT]

Sec. 14.30.820. REQUIRED PARTICIPATION IN GRANT PROGRAM. (a) In order to receive a grant or have a project funded under this chapter, a school district or publicly funded library must provide a percentage share of the project cost, as determined under (b) or (c) of this section.

(b) The required participating share for a city or borough school district or a publicly funded library in a city or borough school district is based on the district's full value per ADM, which is calculated by dividing the full and true value of the taxable real and personal property in the district, calculated as described in AS 14.17.025(a)(1), by the district average daily membership, for the same fiscal year for which the valuation was made. The district's full value per ADM determines the district's or publicly funded library's required participating share, as follows:

Full Value Per ADM	Participating Share
$1 - $100,000	5 percent
100,001 - 200,000	30 percent
200,001 - 600,000	45 percent
over 600,000	55 percent

(c) The required participating share for a regional educational attendance area or publicly funded library in a regional educational attendance area is 3.8 percent. The required share may be satisfied by federal or local money, locally contributed labor, material, or equipment, or money from other sources. If a regional educational attendance area or publicly funded library can demonstrate in writing that it is unable to provide the required participating share, or that the requirement to provide a participating share will jeopardize receipt of federal assistance, the commissioner may waive all or a portion of the required participating share.

[FUNDING]

(d) State funds provided under AS 14.11 may not be used as a source of the required participating share under (b) or (c) of this section.

Sec. 14.30.830. POWERS AND DUTIES OF THE COMMISSIONER OF

REVENUE. The commissioner of revenue is the treasurer of the fund and has the following powers and duties under this section:

(1) to act as official custodian of the cash and investments belonging to the fund by securing adequate and safe custodial facilities;

(2) to collect the principal and income from investments owned or acquired by the state treasury and deposit the amounts in separate principal and income accounts for the fund:

(3) to invest and reinvest the assets of the fund as provided in this section and as provided for the investment of funds under AS 14.25.071;

(4) to exercise the powers of an owner with respect to the assets of the fund;

(5) to do all acts, whether or not expressly authorized, that the commissioner of revenue considers necessary or proper in administering the assets of the fund;

(6) to maintain accounting records of the fund in accordance with investment accounting principles and with distinction between the principal and income accounts of the fund;

(7) to engage an independent firm of certified public accountants to annually audit the financial condition of the fund's investments and investment transactions;

(8) to enter into and enforce contracts or agreements considered necessary for the investment purposes of the fund;

(9) to report to the department the condition and investment performance of the fund.

Sec. 14.30.840. EDUCATION TECHNOLOGY COMMITTEE. (a) The Education Technology Committee is composed of the director of the division of libraries, archives, and museums and seven members appointed by the governor. The governor shall appoint

(1) four members who are educators with demonstrated education technology experience;

(A) one from a district with 15,000 or more students:

(B) one from a district with at least 6,000 but less than 15,000 students;

(C) one from a district with at least 1,000 but less than 6,000 students; and

(D) one from a district with less than 1,000 students;

(2) one member with demonstrated education technology experience who is employed by the University of Alaska;

(3) one member with demonstrated education technology experience who is employed by the department; and

(4) one member with expertise in telecommunications employed by the Department of Administration.

(b) The committee shall review project and grant applications and approve project funding or award grants to a school district or a publicly funded library from the fund. In reviewing project or grant applications the committee shall consider the completeness and consistency of the application in meeting the requirements of AS 14.30.810(d) and (e). In funding projects or awarding grants to a district or library, the committee shall incorporate the applicant's plan for utilizing education technology. In funding projects or awarding grants, the committee shall develop appropriate guidelines to ensure an equitable distribution of project and grant funds over a five-year period. The committee shall recommend to the department the best method for providing statewide teacher training and training to other instructional personnel on the application and implementation of education technology as a part of the classroom curriculum or library use.

(c) Members of the committee serve without compensation but are entitled to receive per diem and travel expenses authorized for boards and commissions under AS 39.20.180.

Sec. 14.30.900. DEFINITIONS. In AS 14.30.800 - 14.30.900,

(1) "average daily membership" has the meaning given in AS 14.17.250;

(2) "committee" means the Education Technology Committee;

(3) "district" has the meaning given in AS 14.17.250;

(4) "education technology" means instructional equipment and materials that are used to enhance the quality and effectiveness of teaching and learning, and to enhance access to information in libraries, including hardware, software, and telecommunications;

(5) "fund" means the Alaska education technology fund;

(6) "publicly funded library" means a library eligible for a grant under AS 14.56.310.

* Sec. 4. Notwithstanding AS 14.30.820(b) and (c), enacted in sec. 3 of this Act, the required participating share

(1) for a city or borough school district or a publicly funded library in a city or borough school district with a full value per average daily membership of more than $100,000 is 15 percent less than required under AS 14.30.820(b) in the school year beginning in 1993, 10 percent less than required under AS 14.30.820(b) in the school year beginning in 1994, and five percent less than required under AS 14.30.820(b) in the school year beginning in 1995; and

(2) does not apply in a regional educational attendance area or to a publicly funded library in a regional educational attendance area for the school year beginning in 1993; for the school year beginning in 1994, the required participation is one percent and for the school year beginning in 1995, the required participation is 2.4 percent.

* Sec. 5. Before accepting project or grant applications under AS 14.30.810(b), enacted in sec. 3 of this Act, the Department of Education shall conduct

(1) a survey of education technology resources in public schools and publicly funded libraries in the state; and

(2) statewide education technology planning and grant writing seminars, available to all public schools, school districts, and publicly funded libraries.

* Sec. 6. AS 14.03.120(e)(8); AS 14.30.810, 14.30.820, 14.30.830, 14.30.840, and 14.30.900 are repealed June 30, 2000.

* Sec. 7. This Act takes effect July 1, 1993.

2/19/93

HB 106

Education Technology Program

Sponsor Statement

Background

Alaska must prepare its children to compete in the global marketplace. The computer revolution that has transformed the way industry and government conduct business is creating new demands on America's educational system. Mastery of computers is now required for virtually all occupations, regardless of whether they are technical, professional, entry-level or executive-level.

Expanding the use of technology in classrooms is an important aspect of education reform. Because teachers and students will not learn the desired skills without ongoing, intensive access to technology, state support is needed to help districts acquire needed hardware, instructional software and other technologies for library and classroom use.

Educational leaders agree that computers in the classroom can aid in the instruction of numerous subjects. Classroom access to telecommunication networks enables cost-effective use of "distance delivery" techniques, expanded access to libraries, and cooperative projects among schools.

Summary

Briefly, these bills would:

- establish the **Alaska Education Technology Program** in the Department of Education. The program must include
  (1) **technical assistance** to districts, schools and libraries for the purpose of planning for, purchasing, using and evaluating the results of education technology;
  (2) **training** for teachers and other employees in the use of education technology;
  (3) a plan for **coordinating and expanding existing networks** for educational uses.

Sponsor Statement

• establish the **Alaska Education Technology Fund**; the commissioner of Revenue is the treasurer of the fund.

The **purpose of the fund** is to (1) enhance the quality and equity of education at public elementary and secondary schools by **providing a portion of the money needed to purchase and maintain education technology** in classrooms; (2) provide **training** in the use of education technology to help students achieve student performance standards; and (3) provide **access to networks** for public schools.

• require a **local match for funding**; the sliding scale formula proposed in the Governor's HB 82 (local match for construction and major maintenance grants) is proposed for the education technology fund.

The requirements for an application are outlined in detail (beginning at page 4, line 18). Before a grant is awarded a **school must prepare a comprehensive plan** explaining how it will use the technology to improve student performance, how it will train teachers and other instructional personnel in curriculum application and implementation, and how it will evaluate program.

• establish an **Education Technology Committee**, consisting of the director of the division of libraries, archive and museums and seven members appointed by the Governor. The seven include four educators with demonstrated education technology experience from districts of varying sizes; one university and one DOE employee with demonstrated experience; and one employee of the Department of Administration with telecommunications expertise.

• require the committee to develop appropriate guidelines to ensure an **equitable distribution of funds** over a five-year period. (page 8, line 14)

• amend the "**school report card**" requirement to include a report on "uses of education technology by classroom teachers that have improved student performance and the results of periodic evaluations of education technology" acquired under the Alaska Education Technology Fund program. (page 2, line 28)

• require the DOE to conduct, before accepting applications for funds
(1) a **survey of education technology resources** in public schools and libraries in the state; and

(2) **statewide planning and grant writing seminars** available to all public schools, districts and libraries. (page 9, line 13)

Funding

The proposed total cost to the State is **$10 million a year for five years ($50 million total):**

***$40 million from G.O. bonds,** and

***$10 million from the General Fund** to cover non-bondable costs such as teacher training ($2 million GF per year).

The General Fund costs will be shown as a fiscal note to the bill establishing the program.

The companion bill proposes a G. O. bond issue of $40 million, to be considered by the voters in 1994.

Feb. 19, 1993

SECTIONAL ANALYSIS

HB 106

An Act Establishing the Education Technology Program

Section 1

Findings and Purpose.

Section 2

The "School District **Report Card To The Public**" requirement in AS 14.03.120(e) is amended to include a report on "uses of education technology by classroom teachers that have improved student performance and the results of periodic evaluations of education technology acquired" under the program established in this bill.

Section 3

The **Alaska Education Technology Program** is created in the Department of Education. The department will offer technical assistance to schools and publicly funded libraries in planning, purchasing, using and evaluating results of education technology. The department will provide training to school and library employees in the use of education technology. The department will develop a plan for coordinating and expanding the use of existing networks and investigating the development of new networks for educational uses.

The **Alaska Education Technology Fund** is established in the Department of Education. Proceeds of the fund will be used to provide a portion of the money needed to purchase, install, and maintain education technology for use in Alaska public and secondary school classrooms, provide training for teachers and other instructional personnel in the use of the technology, provide network access for public schools and publicly funded libraries through the University of Alaska computer network or other means, and provide a portion of the money needed to purchase computer and resource sharing systems for public libraries.

Sectional Analysis

The fund consists of legislative appropriations to the fund and public or private donations made for the purpose of the fund. The Commissioner of Revenue is designated as treasurer of the fund.

The items that must be included in an application to fund a project or grant are specified for schools and libraries. Before a grant or project is awarded a **school must prepare a comprehensive plan** explaining how it will use the technology to improve student performance, how it will train teachers and other instructional personnel in curriculum application and implementation, and how it will evaluate program. Publicly funded libraries must provide a plan explaining how the project will improve the services of the library or access to resource sharing and how it will provide ongoing training for library personnel in the effective use of education technology.

Money in the fund that consists of proceeds from the sale of G.O. bonds may not be awarded as a grant. The state board shall adopt regulations that allow a school district, a public school, or a publicly funded library to obtain education technology under a permit or lease with the department; this provision will enable the department to purchase equipment with G.O. bond monies and then allow the equipment to be used by a school, district or library under a lease or permit. Grants can be awarded for training (G.O. bond funds cannot be used for training).

The Department of Education shall include in its annual report a report on the projects receiving education technology funding.

A school district or publicly funded library must provide a share of the project cost in accordance with a formula specified in AS 14.30.820 (b) and (c). Section 4 of the bill provides a transitional phasing in of this formula. This is the same formula proposed in the Governor's HB 82 (local match for school construction and major maintenance grants).

The duties of the Commissioner of Revenue with respect to the fund are outlined.

An **Education Technology Grant Committee** is created consisting of seven members appointed by the governor and the director of the Division of Libraries, Archives and Museums. The seven include four educators with demonstrated education technology experience from districts of varying sizes; one university and one DOE employee with demonstrated experience; and

one employee of the Department of Administration with telecommunications expertise.

The Committee shall review and approve project and grant requests using specified criteria.

The committee shall develop appropriate guidelines to ensure an equitable distribution of project and grant funds over a five-year period.

Members of the Committee serve without compensation but are entitled to receive per diem and travel expenses.

Terms are defined.

Section 4

This section provides a transitional phasing in of the local match requirement established in AS 14.30.820 (b) and (c).

Section 5

Before accepting project or grant applications, the Department of Education shall conduct a survey of existing education technology resources. The department also shall conduct statewide education technology planning and grant writing seminars available to all public schools, school districts and publicly funded libraries.

Section 6

Sunset clause. The Alaska Education Technology Program established by this legislation is repealed June 30, 2000.

Section 7

Effective date of July 1, 1993.

opinion

Today's Schools Need High-Tech Teaching Tools

Terrel H. Bell

Our failure to address the antiquated state of education is largely responsible for the economic predicament we find ourselves in today. While 10 percent of the American workforce may be the best-prepared in the world, 90 percent is widely considered to be among the least-qualified of any industrial nation. With the Cold War behind us, the wars of the future will be trade wars characterized by technology, competitiveness, creativity, quick response and rapid change. Victory can be achieved only by a learning society.

How can we prepare our children for the technological world of today, with the educational theories and tools of yesteryear? Just as the abacus was replaced by pencil and paper, the slide rule and the hand-held calculator, education too must keep pace with the technological revolution that surrounds us. Today's knowledge explosion requires schools to fundamentally change the way teachers teach, and the way students learn. Any supermarket checker is supported by more sophisticated technology than our teachers, whose methods of teaching have remained virtually unchanged since Gutenberg.

If the Pony Express had not lost sight of its focus — that it was in the information delivery business, and not in the horse business — it would still be in competition today. Let's not sit idly by and watch the United States suffer the same fate as the Pony Express.

A lesson for political leaders in the benefits of educational technology can be found just outside the nation's capital in Prince George's County, Md. This predominantly working class suburb was once viewed as the thorn of Washington, D.C., flanked by the rosy affluence of neighboring Montgomery and Fairfax Counties. Today, it enjoys new respect through its commitment to educational technology in the public school system.

Since beginning to invest in education, Prince George's has experienced an increase in the test scores of its children over the past six years—to the point where it is gaining rapidly on Montgomery and Fairfax Counties. As a result of Prince George's County's commitment to technological and scientific education, a child can start off in a magnet school with special programs in 13 areas (including talented and gifted, science, math and technology, French, Montessori and creative and performing arts), go to the county's Challenger Center, win a place at a special science-oriented high school, and move on to any of the state's colleges and universities. And as the quality of its school system rises, so does Prince George's County's allure to businesses.

Any supermarket checker is supported by more sophisticated technology than our teachers.

I would like to emphasize that there is no substitute for a good teacher. Teachers, in the past, were successful because they did not have to deal with the knowledge explosion that we have today. We must acquire a means of teaching that can keep up with this knowledge explosion, meet the individual needs of students, provide equal opportunity for learning, individualize instruction to the maximum extent possible—and we must do so without hesitation!

Technological innovations can help teachers "teach smarter" and increase student performance. No longer must some students be assigned unproductive "seat-work" to keep them busy while the teacher is trying to meet other students' needs. Educational software ultimately decreases the student/teacher ratio, as it increases higher-order thinking and problem-solving abilities. And it is much more affordable to update than to continuously replace textbooks.

We have found that in mathematics, reading, science, language arts and even in English for Speakers of Other Languages (ESOL), dramatic gains in motivation, performance, cooperation and independent study were realized across the board by students using instructional technology. By allowing each student to control his or her own pace of instruction, both low-achieving and high ability students come to know success.

In Dalton, Ga., "the Carpet Capital of the World," the community was threatened when the workforce, 56 percent of whom had less than a high-school education, was faced with having to master the manufacturing technology critical to survive in today's marketplace. Since embarking on a far-reaching and highly innovative educational-improvement partnership that embraced computer technology, the high-school dropout rate in the area has fallen from 43 percent for 1983-86 to 35 percent for 1987-90.

In Washington, D.C., the Women's Leadership Group and the Metropolitan Boys & Girls Club made a generous donation to a children's club located in the heart of the drug world. They gave the club a variety of technology tools—camcorders, computers, desk top publishing equipment. Using computers, the children conceptualized and produced a teen TV video and supplemental materials. The program, called "Stop Having Babies," dealt with the growing problem of teenage pregnancies. The children developed a rap song and participated in role playing. They also used the computer to create the graphics for the TV program. Forty packages containing the video and print material were made and presented before some 50,000 of the boys and girls from athletic programs throughout the district.

These are but a few examples of communities that are making strong commitments to education reform by bringing instructional technology to the classroom. They realize that they are in the people business—not the pencil business, not the paper business, not the bookbinding business. The simple fact is that we cannot talk about education reform, and long-term economic recovery, without talking about the application of technology in the classroom.

Terrel H. Bell is an author, lecturer and educational consultant. As U.S. Secretary of Education in the Reagan administration he established the National Commission on Excellence in Education.

Backup Articles

Ten Smart Lessons For the '90s

BY THERESE MAGEAU

DURING THE 1980s, WE RUSHED COMPUTERS INTO CLASSROOMS WITHOUT A CLEAR VISION OF HOW BEST TO USE THEM. NOW WE HAVE THE CHANCE TO DO IT RIGHT.

Ten years ago only a cadre of teachers, software developers, and hardware manufacturers understood the potential of the microcomputer to change how we teach and learn. Since then, educational technology has evolved from the obsession of a few techno-enthusiasts into a priority for all education. Some observers complain we haven't moved fast enough. Others lament that we've moved too fast to implement the new technology effectively. Many teachers are afraid of the technology; administrators often lack a clear vision of the role technology should play in their schools. But as John Kernan, CEO of Jostens Learning Corp., the educational software giant, points out, "Technology has actually moved into the schools faster than any other major change in the instructional process." Now it's not just the fervent hope of the technological vanguard that American education will enter the Information Age—it's inevitable.

The successes and failures of the 1980s have yielded a rich lode of experience. *AGENDA* contacted 10 who have been on the front lines of the educational-technology movement to find out what they've learned about implementing technology in our schools. Here's what the past decade has taught them.

1 Resistance to change is one of the largest obstacles to implementing technology.

PHILIP GRIGNON, Superintendent, South Bay Union Schools, Imperial Beach, Calif.:

"It's ironic that a profession that is supposed to lead America into the twenty-first century is so resistant to twenty-first-century technology. But we tend to model those things that were modeled for us, and teachers were taught to deliver the curriculum by standing up in front of a classroom and lecturing. There's no room in that model for integrating technology into the classroom. You have to give teachers a lot of hands-on experiences for them to change their teaching, and during those experiences you have to give them a lot of TLC, because if you spook them once you'll never get them back."

Therese Mageau is an associate editor of Electronic Learning *magazine.*

[illegible]

After a decade of intensive technology purchases, virtually every school in America has at least one computer (and most have a videocassette recorder, too).

HARDWARE IN SCHOOLS

Public schools with at least one computer:[1]

1981: 18%
1984: 86%
1987: 95%
1991: 98%

Average number of computers per 30 students:[1]

1984: 0.6
1987: 1.15
1990: 1.53

Predicted numbers of installed computers in schools (public and private):[2]

By June 1991:
3.5 million
(33 per school)
By June 1994:
4.8 million
(44 per school)

Schools with installed modems:[2]

1988-1989: 25%
1991-1992 (predicted): 50%

Schools owning video equipment in 1990:[2]

VCRs: 91%
Interactive video equipment: 10%
Videodisc players: 18% (doubled since 1989)
Satellite dishes: 15% (doubled since 1989)

Sources: 1. *Power On!*, Office of Technology Assessment, U.S. Congress, 1987. 2. LINK Resources.

2 Technology can inspire and motivate tired teachers.

DONOVAN MERCK, Director of the Office of Educational Technology, California Department of Education:

"Many of our teachers become revitalized when they can use more exciting tools. At first there's an aversion to using technology, but we're hearing over and over about teachers who were thinking about getting out of the business who got excited again after they started using technology. When they saw their students learning, when they had creative tools in their own hands, and when their administration supported them, they wanted to remain in the profession."

3 Technology can be a catalyst for much broader reforms in the American education system.

JOHN KERNAN, CEO and Chairman of the Board, Jostens Learning Corp., Minneapolis, Minn.:

"We're finding that progressive school districts use technology programs to jump-start much bigger reform activities, like teacher empowerment, new governance ideas, new approaches to curriculum and instruction. While technology might represent only 20 percent of a much bigger project, it's the 20 percent that will get people excited. For instance, if a school district is interested in site-based management, the average person probably can't understand that. So progressive school districts will put a lot of technology at the site level, let the site make the decisions about technology, and then use the technology as an example of turning power over to schools."

4 Technology should be bought only to address a specific need.

LINDA ROBERTS, Project Director, U.S. Congress, Office of Technology Assessment, Washington, D.C.:

"Based on major assessments we've done for Congress, we've learned that you have to think about the educational problems you're trying to solve before you think about what technology is appropriate. Many schools made significant investments in technology and then were suddenly faced with a problem: what do we do with it? There is clear evidence that needs have to drive technology investments."

5 Technology alone is not the solution.

BOB TINKER, Chief Scientist, Technical Education Research Centers, Cambridge, Mass.:

"So many people thought that if you threw technology at education, problems would go away. Nothing could be further from the truth. It takes good educational practices and a lot of hard work to figure out how best to use technology to really improve student learning. In fact, it's far easier to develop new technology than it is to know how to use it effectively in education."

6 Educational software should maximize the unique capabilities of the computer, not just recreate a textbook on disc.

P. KENNETH KOMOSKI, Executive Director, EPIE Institute, Hampton Bays, N.Y.:

"We are slowly learning how to design software that exploits the potential of the computer rather than mimics a textbook. And we are learning how to use that well-designed software. But I don't think it's happening in as many places as it needs to be happening in order to

have an immediate impact on education. Computing, like every other technology that's come into education in the last 40 years, has caused a lot of excitement but no real fundamental change. Until we learn how to bring about systemic changes that will really enable us to fully utilize a technology as powerful as computing, we will never fully exploit its potential."

Buying technology without the input of teachers will guarantee that it will not be used.

RICHARD THOMPSON, Mississippi State Superintendent of Education:

"In the late '70s and early '80s we rushed to get computers in the hands of students. I believe that was the wrong decision. Where we've seen technology make a genuine difference is when we've given computers to the teachers first. Tapping the potential of technology means starting with and listening to your teachers."

18

Teachers must receive sustained training to implement the new technology successfully.

BOB HUGHES, Corporate Director, Education Relations, Boeing Company, Seattle, Wash.:

"In-service teacher training is critical. In business, approximately 2 percent of the operating budget goes toward employee training. Likewise in schools, 2 percent of a district's budget should be spent on teacher training. The districts that have made the most progress in implementing technology are those that have dedicated a part of their budget and time to in-service training. One of the most significant methods of in-service training is to put computers in teachers' hands to take home—that provides an enormous amount of training you don't have to pay for."

19

Technology can help equalize opportunity for all students.

SHARON BELL, Chief Information Officer, New Orleans Public Schools:

"Education should mirror the needs of society and prepare students for their future in that society. In an industrial society, people with capital have power. In an information age, people with information have power. Educational technology gives the 'have nots' the opportunity to access and manipulate information, and to make decisions based on that information. When that occurs, the 'have nots' become the 'haves.' No other technology has given our disenfranchised students that opportunity."

10

The school context cannot be ignored when new technology is designed.

ELLIOT SOLOWAY, Professor, Electrical Engineering and Computer Science, University of Michigan:

"You can't design software and hardware in some lab and then put it in schools and expect it to work—because it won't. That method works with consumer technology but not in schools. The overriding lesson we've learned is: Whatever the technology, we must recognize the constraints that schools must deal with. And that means involving teachers, students, administrators, and parents. This is absolutely paramount. High technology alone is not the solution, because it ignores the roles of teachers, parents, and administrators." ■

COMPUTER-USING TEACHERS

You may find a computer in every school in America, but technophile teachers are far harder to come by. Fewer than one in four elementary school teachers, and one in seven secondary school teachers, has yet to begin using computers in his or her teaching.

ELEMENTARY SCHOOLS

Computer-using teachers, as percentage of all teachers

22%

Of these computer-using teachers, the breakdown is:

Classroom teachers (grades 1-6)
72%

Special-education teachers
9%

Other teachers
30%

SECONDARY SCHOOLS

Computer-using teachers, as percentage of all teachers

14%

Of these computer-using teachers, the breakdown is:

Core-content area teachers
63%

Computer-science/vocational-education teachers
33%

Special-education teachers
6%

Other teachers
24%

Percentages add up to more than 100 due to teachers' multiple roles and computer types.

Source: Market Data Retrieval

Schools in search of top-notch programs and equal education are forging new paths in technology.

Learning across the miles

by Angela M. Mimms

Chuck Duncan stood before his physics students and announced a quiz.

"Ah, Chuck," the students groaned.

A typical high school reaction perhaps. But the setting was not so typical. Duncan was conducting his class from a TV studio in Lexington, Ky., more than 100 miles away from the the groaning students at Raceland (Kentucky) High School.

Along with hundreds of students in other schools. Raceland classmates watched Duncan on a television in front of their classroom and logged their quiz answers on computerized keypads, which transmitted them instantly to their teacher. To get students even more involved, Duncan talked by telephone with students during the day's lesson.

The concept of learning over distance has been around since the 1800s, beginning with correspondence courses. But today's technology has given the concept a new identity — one that incorporates computers, satellites, fiber optics, compressed video and the like to link students and teachers across states, the country, even the world.

Increasingly, distance learning programs like Kentucky Educational Television's Star Channels are opening doors to new worlds and a quality education for a growing number of primary and secondary school students. Many states laud the programs for enabling them to offer advanced courses to rural schools limited by budgets, teacher certification or location. The programs also help urban and suburban districts make the best use of a limited number of teachers in specialized courses such as Japanese.

"We see telecommunications and information technologies being considered as probably one of the best ways to solve education problems today," said Ronald F. Bosco, president of Federal Engineering Inc., a consulting firm that works in distance learning technology.

Every state is involved in some kind of distance learning project. Here are just a few examples of the opportunities they afford:

- North Dakota students in small, rural schools for the first time are taking courses in Spanish, German, anatomy and advanced English thanks to a telecommunications program that allows teachers and students to see and hear each other.
- South Carolina students, through the state's educational television network, questioned crew members on an archaeological research vessel as they recovered artifacts from the wreck of a Civil War vessel.
- A fiber optic distance learning network in Mississippi provides high school students in four rural schools the chance to study subjects such as German, creative writing, statistics

and probability, and computer applications.

- The Nebraska Department of Education has teamed up with Nebraska Educational Telecommunications to broadcast Japanese language courses by satellite to more than 1,800 high school students in 23 states.
- In Arizona, Glendale Union High School District's distance learning network offers advanced placement courses, which allow high school students to earn college credit.
- Minnesota high school students can get a jump start on their college education by taking courses for college credit on the state's two-way interactive television network.

And back at Raceland High School in Kentucky, students are taking German, Latin, physics, discreet math and statistics courses by satellite that the school otherwise wouldn't be able to offer.

To principal John P. Stephens, the distance learning program has "made a tremendous difference."

To find out how, just ask the students. Raceland sophomore Shannon Seals is taking physics to get a step up on the engineering degree he plans to pursue in college. Junior McRae Stephenson, in her second year of German, recently qualified as a finalist in a competition to study in Germany for a year.

If not for the German class, she never would have been interested in the competition, she said. "Through the satellite system, we get so many opportunities we would never have here in Eastern Kentucky."

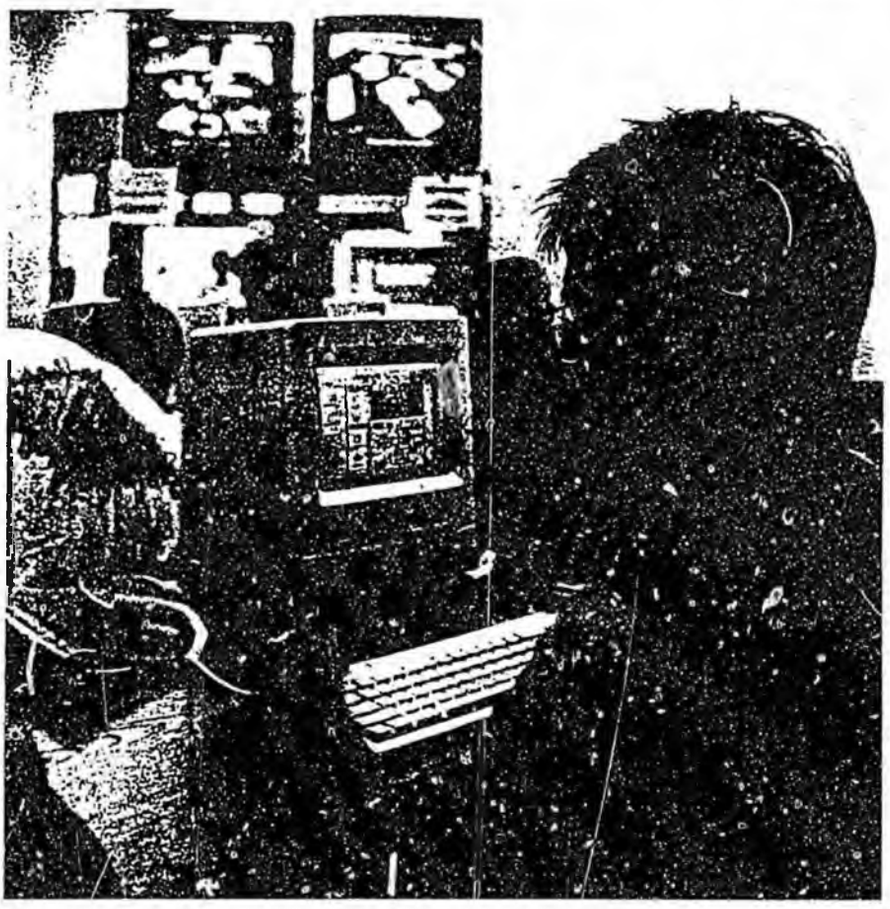


Photo courtesy of the Glendale Union High School District

Students in the Glendale Union High School District in Arizona take a computer programming class via the district's interactive video network.

A matter of motivation

The desire for quality and equality motivate distance learning programs.

In sparsely populated North Dakota, where some schools graduate only one student a year, educational inequities were found to exist, said Kathryn Pederson, executive secretary of the North Dakota Educational Telecommunications Council and assistant director of instructional technology. To offer more courses to rural schools, the state installed two-way interactive video and audio systems. Groups of four to 10 schools are hooked up with each other so that they can share teachers and become part of a "classroom without walls."

"They're widening their world," Pederson said.

Besides sharing teachers, students are forging new relationships, even traveling to other schools to cheer for their basketball teams. One student who lingered after hours in the video classroom wasn't brushing up on his Spanish. He was asking a girl out from a town 20 miles away.

"The strengths of four little communities go into one big community," Pederson said.

The technology also works in less rural settings.

The 12,000-student Glendale Union High School District makes its headquarters just outside Phoenix. An enrollment drop forced the district to cancel classes, especially advanced placement classes with low enrollment. The district solved the problem by installing a two-way interactive video network that links its nine schools and administrative offices. Students in four locations can enroll in a class taught by one teacher from any of the other schools.

So far, student response to the program has been good, said Bruce

Florence, communications specialist with the district.

Florence and others maintain distance learning works. In fact, a growing body of scholarly literature leaves no question that the technology is effective, said Harry Miller, president of the United States Distance Learning Association.

Peter Chant, director of educational services for the Nebraska ETV Network, said students in the network's Japanese language courses have scored higher on tests than students in Japanese courses taught in a traditional classroom. Why? TV classes generally are small and attract highly motivated students. Also, the technology's novelty may get students to concentrate more, he said.

Another benefit of distance learning is that it makes the best use of an exceptional teacher. "With distance learning technology, you can multiply that teacher," Bosco said.

To a generation raised on television, video games and computers, distance learning has high-tech appeal.

"I like it a lot better because you get to do so much more stuff than a regular classroom," said McRae, from Raceland High School. Her class takes video tours of Germany and talks with other German classes around the state. One-on-one tutor sessions by phone give students a chance to practice speaking the language, she said. And the students support each other.

"It's like a team thing instead of learning on your own," McRae said. "If someone gets really lost, the rest of the class kind of pulls them along. . . . And that wouldn't happen in a regular classroom."

Teacher Beverly Waddell enjoys the classes too. As Raceland's satellite facilitator, she runs the classes and ensures students are working.

"I'm learning right along with the kids," she said.

Teachers and staff benefit in other ways. Terry Pound, associate director of short-distance learning for South Carolina Educational Television, said the state cut costs and travel time when it trained 140 bus drivers scattered among five high schools over the state's television system. A telephone in each training room allowed drivers to call in with questions and comments. The state also has a pilot program that reduces teacher travel by employing distance learning equipment for staff development sessions.

Dollars and drawbacks

Money ranks as both a drawback and a benefit among distance learning programs. Depending on the type of equipment and extent of a project, the programs can cost anywhere from thousands to millions of dollars.

> *"It's like a team thing instead of learning on your own."*
>
> McRae Stephenson
> Raceland High School Junior
> Kentucky

For instance, a school could install a computer-based distance learning program that includes audio but no television for less than $15,000, said Richard T. Hezel, president of Hezel Associates in Syracuse, N.Y. Then there's Iowa, which is installing a $93 million statewide fiber optics network. Distance learning will be only one of its functions.

But factoring distance learning's cost over several years makes the initial price tag less imposing. And in the long-run, distance learning can help schools that can't afford specialized teachers.

Funding sources for distance learning vary. Some states, such as North Dakota, have appropriated millions over several years to establish programs. The private sector contributes money and resources to many programs, while some schools participate in a matching funds system with their state.

Among other potential drawbacks is scheduling. Conflicts arise when a school subscribes to a course that doesn't correspond with the school's class schedule. For instance, courses offered through national distance learning networks go to schools in several states that run on different schedules.

Also, technology isn't fail-safe. Extreme weather can knock out satellite signals, and faulty equipment can prompt sound problems.

In addition, the more popular a program becomes, the less interactive it becomes. Raceland's McRae said a satellite course is frustrating when she has to wait for answers by phone rather than talking to a teacher in the room. Some programs, such as Glendale Union's in Arizona, solve that problem by opting for a program that serves only a limited number of schools and uses a microphone system that allows students to talk directly to teachers.

Not having a teacher in the classroom is difficult for some students, Pederson said. And it can be hard for a teacher to readily identify when a student has a problem.

Some teachers may believe distance learning threatens their jobs, but that isn't true, said Nancy Klinck, editor of *TechTrends*, a magazine published by the Association for Educational Communications & Technology. "You can never replace a classroom teacher."

Essential elements

Despite the drawbacks, distance educators believe the benefits of a well-planned program are worth the effort. They offer suggestions for schools considering such technology.

"Make sure that you have something worth sending," Florence said. A good instructional program and the need for the technology is essential.

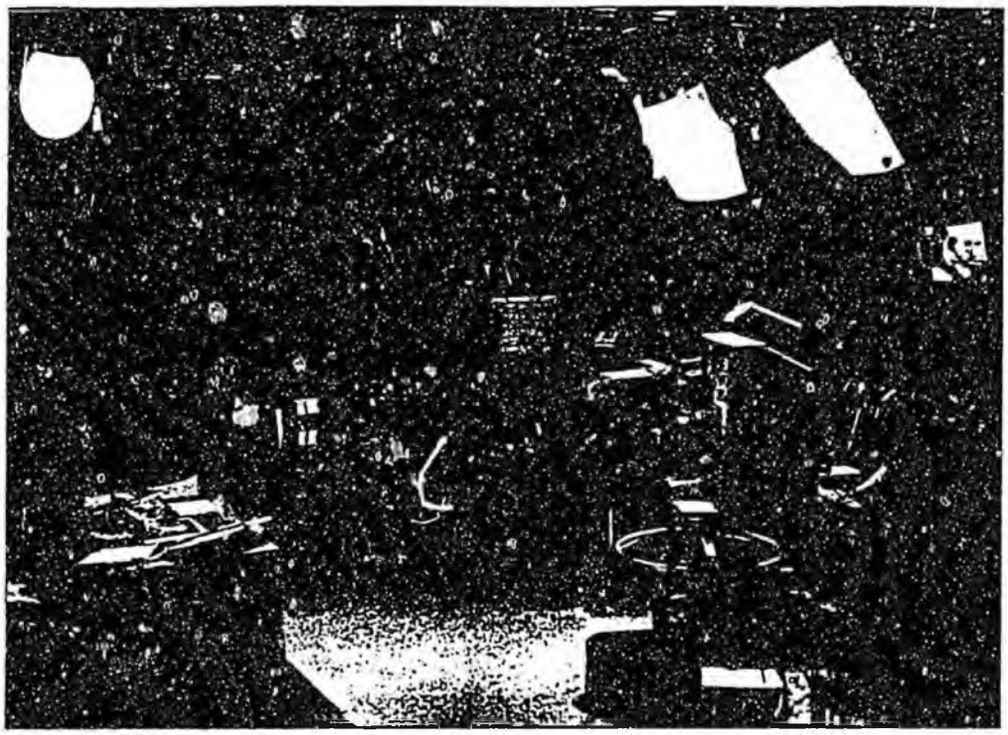


Photo courtesy of Nebraska ETV

Teacher and crew take to the studio to produce a live Japanese class in Nebraska.

For distance learning to be successful, the courses demand exceptional teachers who are comfortable in front of a camera, Klinck said. Students must be motivated. And instructions and language should be clear and concise. Also, visuals presented on video need to be large enough that students can read and understand them.

Robert Young, director of the Division of Distance Learning for Mississippi Educational Television, advocates a lot of planning and training in preparation for this new way of learning and teaching. Also, he said, it is important to evaluate and revise programs.

A fast-moving future

Distance learning technology took off in the 1980s driven primarily by money and inspiration from the federal Star Schools program, which helped launch programs such as Kentucky's, said Miller, of the United States Distance Learning Association. Projects used to be easy to keep track of, he said, but with an increasing number of schools employing today's fast-changing technology, that task is getting harder.

For the future, Miller expects a move from large broadcast satellite networks to smaller programs that promote more interactivity. There's also growth in computer-based distance learning by which a teacher can communicate by computer and telephone with small classes at distant sites. Teachers can transmit images to students' computers, and teachers and students can send comments back and forth.

Miller said he thinks computer-based distance learning is developing more slowly because it's not as similar to a traditional classroom setting as televised courses. But the technology is less costly and is gaining greater accceptance as more teachers work with it.

Klinck said she expects increased cooperation among schools and industry on distance learning programs. And she said more universities will work with local schools to prepare students for college. High school students in some areas, for instance, already can access state university libraries via distance learning technology.

The day may be coming when more traditional classroom courses incorporate distance learning into their curricula, Bosco said. For instance, a French class might hold a video teleconference with someone in France to enhance a lesson.

Educators see great potential for the technology. Glendale Union hopes to include students from Indian reservations and juvenile corrections departments in its distance learning courses. Businesses also could use the technology for staff training during evenings and Saturdays as could fire departments that don't want their crews far away in case of an emergency.

"It's unlimited," Florence said. "It's just a matter of our imagination and energy." □

TAKING A STAND

Computerized education connects students with their future

The computer revolution is spreading to America's public schools. And Alaska must keep its students competitive in our new electronic world.

America's leading educators tells us that classrooms in the near future will look and feel very different. Students will be seated in front of computer terminals and keyboards, learning math, reading, science and other subjects at their own pace. The teacher will be free to roam the room and help students who need it most. Students who quickly grasp the subject will be free to zoom ahead.

Students will be actively engaged in the learning process by interacting with the computer — answering questions, seeking more information, communicating with students in other countries, learning new languages and examining elaborate illustrations of everything from maps to geological formations.

The evidence is unquestionable that the Nintendo and MTV generations respond enthusiastically to computers in the classroom. But beyond the fact that they like it, they need it. Computers are everywhere in the working world. We will be failing our children if we don't get them ready for what lies ahead.

Kay Brown

Today, a majority of Alaska students get no opportunity to work with computers at school, and only a small fraction, about one-tenth of them, work with a computer every day.

Like any new advancement in education, the new technology — software programs and hardware — is costly. Our educators must have adequate training on how to integrate the new technology into the classroom. I estimate that it will cost about $100 million to pay for technology and teacher training for every public classroom in Alaska.

The evidence is unquestionable that the Nintendo and MTV generations respond enthusiastically to computers in the classroom. But beyond the fact that they like it, they need it. Computers are everywhere in the working world. We will be failing our children if we don't get them ready for what lies ahead.

Unfortunately, in this era of declining oil revenues, local property tax owners in Alaska are hard-pressed to pay for this and other necessities. State government must help our local schools.

The importance of this matter led me to sponsor House Bills 203 and 204. House Bill 203 creates a state Educational Technology Fund, which will serve as a source of money and create a process for fair and rational distribution of the technology. House bill 204, in its current form, calls for asking voters to approve $83 million in general obligation bonds to pay for software and hardware for our public schools. An additional $20 million appropriation from the general fund would be needed over several years for adequate teacher training.

Critics tell me this proposal is too expensive. I don't buy it. Many visionaries in Alaska don't even blink an eye at the prospect of paying $100 million for a new road or railroad extension that would benefit a mere fraction of our population. They think nothing of paying that much or more for new ports, electric interties and hydroelectric projects.

Let's reorder our priorities. I argue that $100 million to benefit every student in Alaska is not "too expensive." Helping our kids get the best possible education is more important, or at least just as important, as any of those other projects.

If you feel the same way, I urge you to contact your local legislator and voice your support for these House bills. This legislation has received strong public support so far. But, because the proposal is expensive, it needs as much support as possible. We need to make the Legislature confident that the public is likely to approve such a bond issue.

If we fail to keep up with advancements in education technology, Alaska students will be the losers. Whether we like it or not, computers in the classroom are the wave of the future.

The situation reminds me of the car mechanic who tells me, "Pay me now or pay me later." We can help our local school districts pay for these improvements or we can do nothing and watch our students fall behind. We can pay now. Or our kids will pay later.

Kay Brown represents downtown Anchorage in the Alaska House of Representatives.

The Seattle Times *The Seattle Post-Intelligencer*

SUNDAY
March 7, 1993

In less than a decade, personal computers have gone from technological curiosities to everyday necessities.

Yet, as with any change that comes so fast and furious, the PC leaves many people adrift and befuddled.

Nowhere is this more true, perhaps, than in schools and with children. Most schools have computers, but they use them to varying degrees.

Many children have them at home; most do not.

The word is that computers can revolutionize learning, but it's not clear when and how this is done.

Many parents aren't sure what is happening with computers in school classrooms, and how these machines affect their children.

A TOOL FOR LEARNING

With this in mind, The Times today begins an occasional series on computers and their role in educating children.

The series, for the most part, will be a practical guide to issues ranging from how to purchase hardware and software to what different schools are doing to blend technology with learning.

It also will examine the larger questions:

How are computers changing the way children learn? What is the role of the teacher?

We begin the series today by looking at what the advent of the personal computer has meant for schools and how this tool for learning works.

After years of being ignored, misused or unaffordable, computers are becoming common tools for learning

by Paul Andrews
Times business reporter

In the beginning, the computer was extolled as Plato's wand – a magical learning tool to impart the wisdom of the Greeks, cure humankind's ills and make us all smarter.

Charles Babbage's original "Analytical Engine," conceived more than 150 years ago, had at its heart his youthful pledge "to leave the world wiser than I found it."

The early large, room-sized IBM mainframe computers in the 1960s and 1970s found some of their biggest clients to be timesharing systems at schools and universities. Apple's educational discounts helped jump-start the personal-computer revolution with the Apple II.

But the personal-computer revolution that created the post-industrial Age of Information in the 1980s has failed to live up to its press releases -- in the classroom, at least.

Not all schools could afford computers. Those that could watched them languish in end-of-the-hallway labs used largely for playing video games.

Teachers looked askance at machines they did not understand and suspected could replace them. Students who latched onto computers proved possessive and unsharing, as well as predominantly white, middle-class and male.

Concerns grew that the computer was dividing the educational – and, consequently, social – landscape into haves and have-nots. Suburban schools bought more computers than those in urban or rural locations. Students whose professional parents had computers in the home, usually were more familiar with them than their classmates were.

Policymakers are warning America's reputation for innovation and economic leadership is on the line

Educators, social scientists and, most of all, parents were dubious of the computer's value as an educational tool. The computer was turning out to be less a Plato's wand than a Luddite's revenge.

That was the '80s.

This is the '90s.

A high-tech booster occupies the White House. Educational software is booming, with 1992 sales up more than 50 percent from the previous year. More computers are turning up in classrooms – every classroom, not just "the lab." An electronic information service just for youngsters – called KidStar – is in the works.

Parents are asking, are my kids learning enough about using a computer? Do I need one at home? Which kind, and what software? How can I help my school with computers?

Policymakers are warning that America's reputation for innovation and economic leadership is on the line.

"Nations that stop trying to 'reform' their education and training institutions and choose instead to totally replace them with a brand-new, high-tech learning system will be the world's economic powerhouses through the 21st century," writes consultant Lewis Perelman in his hotly debated new book, "School's Out," written at Seattle's Discovery Institute, an independent think-tank.

At a conference last month in Washington, D.C., sponsored by the Discovery Institute, attendees watched a science instructor broadcast a lesson from Kentucky by satellite to more than 500 schools in small, rural and economically

Please see **COMPUTERS** on A 14

The computer comes of age in the schools

COMPUTERS

continued from Page 1

disadvantaged communities in 28 states. Classrooms could communicate with the teacher by phone; in the not-too-distant future, they will be able to see each other as well as converse.

Spurred by a technology levy passed in November 1991, Seattle Public Schools are in the midst of a sweeping computerization project.

The short-term goal: A computer for every teacher, linked by a wired network with a computer lab so that teachers and students can exchange files and electronic mail.

The long-range goal: a computer for every kid, networked not only within the school but around the globe through telephone and satellite connections.

Already some trailblazing schools are tying into the Internet, an international network of idea sharing, electronic pen pals and vast databases carrying whole libraries of information accessible through a few typed commands.

In other words, an electronic classroom of the world.

Already, bright spots abound:

At High Point Elementary in West Seattle, with 65 percent minority students, teacher Jill Schultz's fifth-graders help each other program animated "cartoons" using Hypercard, a Macintosh program. Greg Litton demonstrates a tiger slinking across a prairie. On Elizabeth Warren's screen, the sun arcs across a blue sky.

"The white kids are in no way ahead of the blacks, and the special-education kids are always showing other kids how to do things," said Schultz, whose charges have used their computers to write thank-you notes to speakers, design posters and publish a school newspaper.

The computer, Schultz said, is a "great equalizer" not only among peers but between teachers and students.

At North Seattle's private Lakeside Middle School, where four out of every five students have access to a computer at home, sixth-graders Rafi Finegold and James Steven do a collaborative drawing using a program that allows Macintosh Classic computers to share screens.

Hawthorne Elementary teacher Jay Franco is the driving force behind opening Seattle schools' computer labs to the public.

Book reports are put into a schoolwide database, and both Lakeside High and Middle schools will soon have electronic libraries.

"We focus on computers as a tool for everything else we do, not just an aside," said Leo Santiago, history teacher and computer director at the middle school.

At Nathan Hale High School, in northeast Seattle, a massive rewiring project is about to begin that will install fiber optic cable – thin glass strands bearing pulses of light containing information equivalent to thousands of phone connections – throughout the school. The project will put the school at the forefront of the anticipated digital revolution offering hundreds more cable-TV channels, many of them carrying sophisticated data services such as viewer-selected video on demand.

The school wants to tie into global networks, virtually eliminating "the inequity to accessing information in the classroom that's been such a problem for at least the past 200 years," said Currie Morrison, technology coordinator.

In Issaquah, consultant and parent Mike Bookey helped transform a technological backwater into a laboratory of the future beginning in 1989. With money from a $3 million levy, high-school students installed their own computer network, linked together the district's 1,200 computers and tied the whole thing into Internet, where they communicated with electronic pen pals in Europe and Japan.

District parents were so impressed they voted another $6 million technology levy.

"I was just one parent trying to get something going," said Bookey, now in demand for speeches and consulting throughout the country. "It's amazing what the kids themselves can accomplish if we just get the hell out of the way."

In Seattle, underprivileged kids are bused after school to the Union Gospel Mission Youth Center in Holly Park, where extracurricular computer time awaits them.

And four pioneering elementary schools in southeast Seattle involved in a broad-based "Powerful Schools" project – Hawthorne, Whitworth, Orca and Muir – as well as Colman Elementary, plan in April to open their computer lab doors one night a week to "all K-12 learners, including adults without a high school diploma," said Jay Franco, Hawthorne's computer teacher and a driving force behind the project.

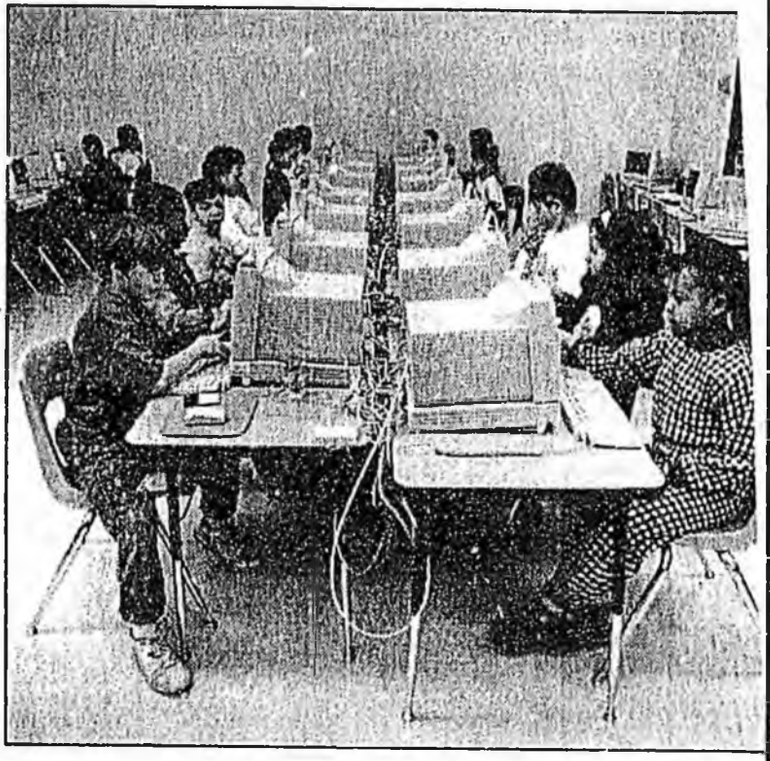
Such successes are still the exception. The scourges of the '80s – new computers gathering dust, or lack of any computers at all – still blacken far too many schools.

But the age of the learning tool has arrived. The computer is becoming not just an instrument of knowledge, but of communicating and sharing.

The purpose of education is not, to fill a bucket but to light a fire, wrote W.B. Yeats. In the classroom of the '90s, the computer is the match.

Jimi Lott / Seattle Times

The computer is a 'great equalizer' not only among peers but between teachers and students, said High Point Elementary teacher Jill Schultz.



Thanh-Thuy Nguyen, 8, left, gets a computer disk from teacher Jill Schultz at High Point Elementary in West Seattle. Above, students at the school work in computer class.

ANCHORAGE SENIOR HIGH SCHOOL AMONG REGISTERED VOTERS
BY
GENERAL DEMOGRAPHICS, BEHAVIORS AND PERCEPTIONS

COLUMN PERCENTS
NOVEMBER 19TH THROUGH DECEMBER 10TH, 1992
SAMPLE SIZE = 1,074; MARGIN OF ERROR = + OR - 2.99%

	ANCHORAGE SENIOR HIGH SCHOOL ATTENDANCE BOUNDARIES:						TOTAL COL %
	East	West	Ser- vice	Bart- lett	Di- mond	Chug- iak	
COMBINED PROPOSITION - 50% OFF:							
For	66.9%	74.0%	76.7%	74.0%	65.7%	68.6%	71.0%
Against	30.1%	21.1%	20.7%	23.7%	30.2%	28.6%	25.6%
Don't Know	3.1%	4.9%	2.6%	2.3%	4.1%	2.8%	3.5%
COMBINED PROPOSITION - 70% OFF:							
For	71.3%	77.4%	80.1%	80.4%	71.1%	77.2%	75.9%
Against	26.2%	18.2%	17.5%	18.1%	25.5%	20.9%	21.2%
Don't Know	2.5%	4.4%	2.4%	1.5%	3.3%	1.9%	2.9%
HIGHEST BOND VALUE:							
$170 Million or less	24.8%	21.7%	17.4%	24.9%	28.1%	28.5%	24.0%
$171-2 Million	29.1%	30.5%	24.0%	30.7%	15.5%	27.7%	26.4%
$173 Million or more	14.7%	10.6%	16.1%	19.3%	13.2%	6.7%	13.6%
Don't Know	31.5%	37.1%	42.5%	25.1%	43.2%	37.1%	36.0%
SEPERATE OR COMBINED BONDS?							
Separate	58.2%	67.5%	68.2%	62.7%	65.7%	79.0%	65.8%
Combined	34.0%	28.8%	26.5%	31.8%	26.0%	17.2%	28.4%
Don't Know	7.8%	3.7%	5.3%	5.5%	8.3%	3.8%	5.8%
TECHNOLOGICAL BOND?							
Yes	61.2%	67.0%	71.3%	71.8%	63.4%	66.7%	66.5%
No	37.5%	27.8%	25.0%	24.4%	32.4%	31.4%	30.0%
Don't Know	1.3%	5.2%	3.7%	3.8%	4.2%	1.9%	3.5%
TOTAL ROW PERCENT	20.0%	22.8%	14.3%	15.5%	17.6%	9.8%	100%