

WASHINGTON'S JUVENILE BASIC TRAINING CAMP: OUTCOME EVALUATION

The 1994 Washington State Legislature created the juvenile offender basic training camp (BTC) with the intent that a structured incarceration program could instill the self-discipline, self-esteem, and work ethic skills to turn juveniles into law-abiding citizens. Designed and implemented by the Department of Social and Health Services' Juvenile Rehabilitation Administration (JRA) in 1997, the BTC challenges its participants physically while demanding discipline and order.

The juvenile offender basic training camp shall be a structured and regimented model emphasizing the building up of an offender's self-esteem, confidence, and discipline. The juvenile offender basic training camp program shall provide participants with basic education, prevocational training, work-based learning, work experience, work ethic skills, conflict resolution counseling, substance abuse intervention, anger management counseling, and structured intensive physical training. The juvenile offender basic training camp program shall have a curriculum training and work schedule that incorporates a balanced assignment of these or other rehabilitation and training components for no less than sixteen hours per day, six days a week.¹

The legislation authorizing the JRA basic training camp also required an outcome evaluation. JRA contracted with the Washington State Institute for Public Policy (Institute) to conduct this evaluation. The Institute was asked to determine whether the BTC program reduces recidivism and is cost beneficial to taxpayers and crime victims.

This report is divided into five sections. Section I describes how the basic training program is designed and the eligibility criteria for participation. Section II summarizes the available evaluations of basic training camp programs. Section III describes the Institute's outcome evaluation of the program, and Section IV presents the cost/benefit analyses. The conclusions are summarized in Section V.

SUMMARY

The 1994 Washington State Legislature created the juvenile offender basic training camp with the intent that a structured incarceration program could turn juvenile offenders into law-abiding citizens. The Department of Social and Health Services' Juvenile Rehabilitation Administration (JRA) designed and implemented the Basic Training Camp (BTC) located in Connell, Franklin County, Washington. The 120-day residential program is owned and operated by Second Chance, a private, nonprofit organization.

JRA contracted with the Washington State Institute for Public Policy to determine whether the basic training camp program reduces recidivism and is cost beneficial to taxpayers and crime victims. The evaluation compares youth who were eligible for the BTC but were admitted to JRA in 1997, two years prior to the start of the camp, with youth admitted to the BTC between 1998 and 2002.

The findings are as follows:

- Participating in the BTC results in a statistically significant reduction in violent felony recidivism, but not felony recidivism. This results in a \$4,637 estimated savings in tax payer costs.
- It costs the state \$7,686 less to send a youth to the BTC than to a regular institution followed by parole.
- The net result is that the BTC saves taxpayers an estimated **\$12,323**. **When costs avoided to crime victims are considered, the total avoided costs of the BTC are \$22,660.**

¹ RCW 13.40.320

I. JRA'S BASIC TRAINING CAMP PROGRAM²

Program Referral and Eligibility. In each county, a JRA diagnostic coordinator screens all youth committed to JRA. To be eligible for the BTC, a youth must meet the following requirements:

- Have no JRA commitments for a violent or sex offense;
- Have a minimum sentence of less than 65 weeks;
- Have at least 29 weeks of commitment remaining at admittance; and
- Have not been assessed as a high-risk offender, based on the Initial Security Classification Assessment.

Youth are further screened for amenability to the program: those assessed as a high escape risk or with serious behavior problems are not amenable and placed in a more secure institution. Youth judged not amenable may be referred to the BTC at a later date if they show improvement.

Youth meeting the initial eligibility requirements are sent to a JRA institution for intake review. A physical examination by a licensed physician determines whether the candidate is capable of performing the rigorous physical activities and strenuous work assignments. In addition, youth complete a battery of psychological tests to exclude those who require psychotropic medication, need significant mental health intervention, or are a high suicide risk. If there is no other superseding treatment, eligible youth enter the program as space becomes available.

Program Description. The BTC is located in the city of Connell, Franklin County, Washington. This medium-security institution is owned and operated by Second Chance, a private, nonprofit organization that operates several facilities for the Department of Social and Health Services, the Department of Corrections, and the federal government. The facility consists of two temporary, pre-fabricated buildings with

dormitory housing, classrooms, treatment space, and administrative offices. The buildings are enclosed by a security fence.

The BTC is divided into six phases. The first three phases, lasting 120 days, occur at the residential facility, while the final three phases take place during parole. The participants, or "trainees," are expected to complete the requirements of each phase within an allocated time period. Trainees unable to meet these expectations are placed "on notice" for up to ten days and given assistance to achieve the requirements. Trainees who do not complete the requirements by the end of this period may be expelled from the camp.

Phase One: Confrontation (30 days duration). This phase is modeled after a military basic training camp, where the trainees wear a uniform, have their hair cut short, and participate in rigorous physical exercise routines.

Phase Two: Education and Training (60 days duration). Trainees learn to demonstrate proficiency in basic skills, such as developing and sharing awareness of personal characteristics, needs, and relationships.

Phase Three: Community Orientation and Transition (30 days duration). In this final phase of confinement, the trainee must identify and develop a support system and plan for independent use of skills.

Phase Four: Community Monitoring and Reintegration (four weeks minimum). Upon entering the community, trainees are placed on electronic monitoring and have a curfew.

Phase Five: Community Self-Reliance (four weeks minimum). Electronic monitoring ends, but curfew requirements continue.

Phase Six: Community Independence (remainder of sentence). The final phase of the program includes weekend curfew check-ins with parole staff, parole staff contact youth twice weekly, periodic urinalysis, and mandatory full-time educational and/or vocational programs.

² Juvenile Rehabilitation Administration. (December 1996) *Juvenile offender basic training camp*. Report to the Legislature. Olympia, WA: Department of Social and Health Services.

II. REVIEW OF THE EVALUATION LITERATURE

To place this BTC study in context, we reviewed boot camp evaluations conducted in the United States. We identified ten juvenile and ten adult boot camp evaluations. Our primary interest was in the juvenile boot camp evaluation literature; adult studies are for information purposes only and are analyzed separately.

To be included in our analysis, the evaluation required a boot camp treatment group and a reasonable comparison group. We graded the quality of each study, giving greater weight to findings from random assignment evaluations and less weight to evaluations with matched control groups.³ As shown in Appendix A, four of the ten studies employed random assignment and were judged level “5” studies (the highest research design rating), while the other six were level “3” studies, employing matched comparison groups.

After grading each study, we analyzed the results using standard meta-analytic techniques. We determined the average effect of boot camps on recidivism rates of juvenile and adult offenders. The details of this analysis are provided in Appendix A.

Two findings emerged from our review of boot camp evaluations:

- Juvenile boot camps have not been successful in reducing the recidivism rates of participants. In fact, the average effect for the ten reviewed studies was an *increase* in the chance that participants will recidivate by about 10 percent.
- Adult boot camps, on average, appear not to affect subsequent recidivism rates of participants.

³ The Institute uses a modified version of the University of Maryland scale for quality of research. Random assignment is a “5,” and a simple pre-post program comparison is a “1.” L. Sherman, D. Gottfredson, D. MacKenzie, J. Eck, P. Reuter, and S. Bushway. (1997) *Preventing crime, what works, what doesn't, what's promising*, Chapter 2. Washington, DC: U.S. Department of Justice.

III. INSTITUTE'S OUTCOME EVALUATION

The Institute was asked to determine whether Washington's BTC program reduces recidivism. To best answer this question, eligible youth would be randomly assigned to either the BTC or a control group.⁴ Any outcome differences between the two groups could then be attributed to the program.

This approach is not feasible because the BTC has been in operation since 1997, and a random assignment evaluation cannot be conducted retrospectively. Thus, the only feasible design is to form a comparison group of similar youth who were not sent to the BTC and to statistically control for the differences between the two groups. This design ranks as a 3, employing matched comparison groups.

The BTC Group. The BTC opened on April 7, 1997. Youth admitted to the camp between April 1997 and March 1998 are excluded from the evaluation, since the BTC was just establishing its program. Five cohorts, which include youth for whom recidivism, the outcome of interest for this evaluation, can be measured, are included in the study.⁵ The first cohort includes youth admitted between April 1998 and March 1999. Youth in the last cohort were admitted between April 2001 and March 2002.

Both youth who did and did not graduate are included in the BTC group. The inclusion of youth who did not graduate is necessary to avoid a bias favoring the BTC program group. If BTC program failures are excluded, the BTC and comparison groups differ not only by their participation but also by motivation and abilities.

⁴ R. Barnoski. (December 1997) *Standards for improving research effectiveness in adult and juvenile justice*. Olympia: Washington State Institute for Public Policy.

⁵ Measuring recidivism involves a follow-up period during which the youth has the opportunity to commit a new offense and an adjudication period during which youth who commit a crime can be arrested and processed by the criminal justice system. To fully measure recidivism requires an 18-month follow-up period and, for JRA youth, a 6-month adjudication period. Barnoski, *Standards for improving research effectiveness*.

⁷ Multivariate logistic regression.

Exhibit 1 displays the five cohorts of BTC youth. Since the start of basic training camp, 86 percent of the youth completed the 120-day residential phase of the program.

Exhibit 1
Youth Assigned to Basic Training Camp

Cohort	Began Basic Training Camp	Number of Youth	Percent Completed 120 Days
April 1997*	April 1997 to March 1998	85	79%
April 1998	April 1998 to March 1999	110	85%
April 1999	April 1999 to March 2000	108	91%
April 2000	April 2000 to March 2001	90	83%
April 2001	April 2001 to March 2002	51	94%
Total		444	86%

* Excluded as the start-up cohort.

The Comparison Group. The comparison group consists of 384 youth released from JRA confinement during the two years prior to the start of the BTC, between August 1, 1995, and July 31, 1997. Since the residential phase of the BTC lasts 120 days, the August to July period corresponds to the period when youth who completed the BTC would have been released to the community. JRA's administrative database was queried to select youth who met the program eligibility requirements.

Ideally, the additional amenability requirements should be applied to the comparison group. However, the information used in the amenability screen is not available retrospectively in the administrative databases. Because the amenability screen cannot be applied to the comparison group, there may be a bias toward higher recidivism rates for the comparison group. Statistical techniques are employed to reduce this bias.⁷

Description of the Study Groups. A number of variables are available in statewide databases that may help adjust for systematic differences between the BTC and comparison groups. These variables include basic demographic factors plus the JRA Initial Screen Classification Assessment

(ISCA)⁸ and a number of criminal history risk factors. The Community Risk Assessment (CRA) is an assessment that measures institutional progress. As such, the CRA is an outcome and cannot be used as a statistical control variable.

A criminal history score was computed using the Institute's criminal justice data base.⁹ In addition, a count of prior convictions is obtained from the JUVIS¹⁰ data.

Exhibit 2 displays statistics describing the comparison and BTC groups on several key variables.

Exhibit 2
Examination of the BTC and Comparison Groups

	BTC	Comparison
Number of Youth	359	384
Male Gender ($p < .06$)	87%	91%
Ethnicity/Racial Background:		
African-American (<i>ns</i>)	13%	16%
Asian-American (<i>ns</i>)	4%	4%
European-American (<i>ns</i>)	64%	61%
Native-American (<i>ns</i>)	5%	6%
Unknown (<i>ns</i>)	14%	14%
Average Age at Release (<i>ns</i>)	16.6	16.4
Average ISCA Score ($p < .08$)	38.1	39.5
Average Prior JRA Commitments ($p < .01$)	1.3	1.7
Average Prior Juvenile Detentions (<i>ns</i>)	2.2	2.2
Average Prior Felony Adjudications ($p < .01$)	3.0	3.5
Average Prior Violent Felony Adjudications (<i>ns</i>)	0.3	0.3
Average Residential Stay Days* ($p < .01$)	178.4	245.0
Training Camp Days**	113.7	na

ns means not statistically significant at .05 probability level.

* The average period of confinement for the BTC sample exceeds 120 days because some youth fail and serve their full sentence in another JRA institution.

** Some youth fail the program before completing 120 days.

⁸ R. Barnoski. (September 1998) *Juvenile Rehabilitation Administration assessments: Validity review and recommendations*. Olympia: Washington State Institute for Public Policy.

⁹ R. Barnoski. (March 2004) *Assessing risk for re-offense: validating the Washington State juvenile court assessment*. Olympia: Washington State Institute for Public Policy.

¹⁰ JUVIS is the statewide database of criminal history for the juvenile courts that is maintained by the Administrative Office of the Courts.

Demographics

- The percentage of males in the BTC is slightly lower than in the comparison group ($p < .06$).
- The racial/ethnic composition of the BTC and the comparison groups are not statistically different.
- There is no statistically significant difference between the groups for age at release.

Risk Scores and Criminal History

- The average ISCA scores of the comparison group are slightly higher than the BTC group ($p < .08$).

Criminal History

- Youth in the comparison group had more prior JRA commitments and felony adjudications ($p < .01$), but not detention dispositions, than the BTC study group.

Length of Stay

- The average length of residence in a JRA institution is shorter for the BTC than the comparison group.

These differences indicate that the comparison group has a higher risk for re-offending. Because of the differences, multivariate analyses are required to isolate the effect of the BTC.

In Exhibit 3, the recidivism rates for each cohort are shown. The start-up cohort, April 1997, has a recidivism rate that is higher than the comparison group. The next three cohorts have successively lower recidivism rates, but the 2001 cohort's rate is similar to the comparison group. However, we cannot attribute these differences to the BTC until we conduct the multivariate analysis.

Exhibit 3
Actual 24-Month Recidivism Rate by Cohort

Cohort	Total	Felony	Violent Felony
Comparison	74.0%	48.2%	15.9%
April 1997	74.1%	60.0%	22.4%
April 1998	65.5%	42.7%	7.3%
April 1999	60.2%	39.8%	5.6%
April 2000	61.1%	35.6%	7.8%
April 2001	78.4%	47.1%	17.6%

Impact of BTC on Recidivism. The comparison group includes youth who may or may not have been accepted into basic training camp based on eligibility and amenability criteria. To partially compensate for this and other potential differences between the comparison and BTC groups, the variables shown in Exhibit 2 are included in a multivariate analysis to statistically control for these differences. Separate analyses are conducted using total recidivism (misdemeanor and felony), felony, and violent felony recidivism as the outcome. Three approaches are employed:

- (1) All BTC youth versus the comparison group youth.
- (2) Each cohort of BTC youth versus the comparison group youth.
- (3) A matched sample of BTC and comparison group youth.

Appendix B contains a detailed description of the logistic regression results.

(1) All BTC Youth: The results from the multivariate analysis of all BTC youth versus the comparison group are shown in Exhibit 4. A negative parameter estimate indicates the BTC group is estimated to have a lower recidivism rate than the comparison group.

The parameter estimate for the BTC study group is not statistically significant when the outcome measure is total and felony recidivism. The BTC study group had a lower violent felony recidivism rate than the comparison group; this is a statistically significant difference.

Exhibit 4
BTC Study Sample Results:
Impact of BTC on 24-Month Recidivism

Type of Recidivism	BTC Parameter Estimate	Comparison	BTC	Percent Change
Total	-0.275 (ns)	74.3%	69.6%	-6.4%
Felony	-0.112 (ns)	44.0%	42.8%	-2.7%
Violent Felony	-0.612 ($p < .02$)	10.4%	5.8%	-44.5%

ns means not statistically significant at .05 probability level.

(2) BTC Cohorts: To further explore if later cohorts of BTC youth had statistically significant reductions in recidivism, each cohort was included as a separate treatment effect in the multivariate analyses. Exhibit 5 displays the parameter estimates for each cohort.

The April 1999 cohort had a total recidivism rate that was significantly lower than the comparison group. All the cohorts, except 2001, had violent felony recidivism rates significantly lower than the comparison group. None of the cohorts had a statistically significant impact on felony recidivism.

**Exhibit 5
Cohort Results:
Impact of BTC on 24-Month Recidivism**

Type of Recidivism	Parameter Estimate			
	April 1998	April 1999	April 2000	April 2001
Total	-0.320	-0.536*	-0.303	0.648
Felony	-0.104	-0.132	-0.280	0.213
Violent Felony	-0.889*	-1.053*	-0.887*	0.565

* Statistically significant at least at the .05 probability level.

(3) Matched Sample: To further reduce systematic differences between the BTC and comparison groups, juveniles in the two groups were matched on the following characteristics: ISCA score, gender, ethnicity, age at release, and criminal history score. A subset of 234 youth from the BTC was matched to youth in the comparison group. Multivariate logistic regression was then conducted to estimate the impact of the BTC on recidivism rates. The results, shown in Exhibit 6, again indicate that the BTC reduces violent felony, but not felony, recidivism. The parameter estimates for total and felony recidivism rates are closer to being statistically significant than in the total sample analyses. That is, the matching technique indicates a larger impact of the BTC on recidivism.

**Exhibit 6
Matched Sample Results:
Impact of BTC on 24-Month Recidivism**

Type of Recidivism	BTC Parameter Estimate	Comparison	BTC	Percent Change
Total	-0.376 (ns)	78.9%	72.0%	-8.8%
Felony	-0.244 (ns)	47.3%	41.3%	-12.7%
Violent Felony	-0.877 ($p < .01$)	11.0%	4.9%	-55.5%

ns means not statistically significant at .05 probability level.

IV. ESTIMATED COSTS AND BENEFITS

The analyses thus far indicate there is a statistically significant reduction in violent felony recidivism for BTC youth, but not in felony recidivism.

Confinement in juvenile boot camps is shorter in duration than confinement in other JRA institutions. Youth admitted to the BTC average 178 days of confinement compared with 245 days for the comparison group. The average period of confinement for the BTC sample exceeds 120 days because some youth fail in the program and are required to serve their full sentence in another JRA institution. Of the 178 days, 114 are spent at the camp, and 64 days are spent in other JRA institutions.

JRA indicated that, as of May 2004, the cost per day for BTC is \$207 compared with \$178 for the other JRA institutions combined.¹²

¹² These costs can vary depending on the number of youth in the JRA facilities.

Youth, who are not sex offenders, are normally assigned to one of three types of parole, depending upon their ISCA score:

- Transition parole of 30 days for youth with an ISCA of 0 to 36.
- Enhanced parole of 140 days for those with ISCA scores of 37 to 46.
- Intensive parole of 182 days for those with an ISCA score greater than 46.

Based on their ISCA, youth in the BTC sample would have an average parole of 109 days. Their actual average parole was 145 days. That is, BTC youth spent an additional 36 days on parole. Parole costs approximately \$25 per day.

Combining all costs, JRA spends \$38,688 per youth admitted to BTC versus \$46,374 for youth in the comparison group. Thus, JRA saves \$7,686 by sending a youth to the BTC.

As shown in Exhibits 4 and 6, the BTC produces a statistically significant reduction in violent felony recidivism. Therefore, in addition to the \$7,686 savings to JRA, there are also future costs that will be avoided as a result of the reduction in violent felonies.¹³ The savings to taxpayers amount to \$4,637 and the costs avoided to crime victims are \$10,337. Thus, the total avoided costs of the BTC are \$22,660 per youth.

V. CONCLUSIONS

The outcome evaluation of JRA Basic Training Camp finds:

- Youth sent to the Basic Training Camp have lower recidivism rates than similar youth not sent to the BTC. However, these differences in recidivism cannot be attributed to the effect of the BTC. Multivariate analyses, which control for systematic differences between the comparison and BTC samples, find a statistically significant reduction in violent felony recidivism by the BTC, but not felony recidivism. The three methods of analysis result in similar findings.
- The residential stay for youth admitted to the BTC is shorter and less costly than the length of the comparison group's stay. However, BTC youth spent more time on parole. As a result, it costs the state \$7,686 less to send a youth to the BTC than to a regular institution followed by parole.

¹³ We computed the avoided costs of the reduction in future violent felonies using the Institute's benefit-cost model. For a full description of the model, see: S. Aos, R. Lieb, J. Mayfield, M. Miller, and A. Pennucci. (2004) *Benefits and costs of prevention and early intervention programs for youth*. Olympia: Washington State Institute for Public Policy.

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Document No. 04-08-1201



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