

# Triad Drug Treatment Evaluation Project<sup>1</sup>

*Bernadette Pelissier, William Rhodes, William Saylor,  
Gerry Gaes, Scott D. Camp, Suzy D. Vanyur, Sue Wallace  
Federal Bureau of Prisons, Office of Research and Evaluations*

**THE FEDERAL BUREAU** of Prisons (BOP) has provided drug abuse treatment in various forms for almost two decades. The current residential drug abuse treatment programs (DAP) were developed following passage of the Anti-Drug Abuse Acts of 1986 and 1988,<sup>2</sup> both of which reflected an increased emphasis on and resources for alcohol and drug abuse treatment. Participation in DAP compels inmates to identify, confront, and alter the attitudes, values, and thinking patterns that lead to criminal and drug-using behavior. The current residential treatment program also includes a transitional component that keeps inmates engaged in treatment as they return to their home communities.

The Bureau of Prisons undertook an evaluation of its residential drug abuse treatment program by assessing the post-release outcomes of inmates who had been released from BOP custody. The evaluation, conducted with funding and assistance from the National Institute on Drug Abuse, reveals that offenders who completed the residential drug abuse treatment program and had been released to the community for three years were less likely to be re-arrested or to be detected for drug use than were similar inmates who did not participate in the drug abuse treatment program. Specifically, 44.3 percent of male inmates who completed the residential drug abuse treatment program were likely to be re-arrested or revoked within three years after release to supervision in the community, compared to 52.5 percent of those inmates who did not receive such treatment. For women, 24.5 percent of those who completed the residential drug abuse treatment program were arrested or revoked within three years

after release, compared to 29.7 percent of the untreated women.<sup>3</sup> With respect to drug use, 49.4 percent of men who completed residential drug abuse treatment were likely to use drugs within three years following release, compared to 58.5 percent of those who did not receive treatment. Among female inmates who completed the residential drug abuse treatment, 35.2 percent were likely to use drugs within the three-year post-release period in the community, compared to 42.6 percent of those who did not receive such treatment.<sup>4</sup> Overall, females are less likely to relapse or recidivate regardless of treatment.

We also found that women who completed residential drug treatment were employed for 70.5 percent of their post-release period, whereas untreated women were employed for 59.1 percent of the time. No statistically significant effect was found among the men.

The findings for recidivism and drug use three years after release are consistent with the positive results reported in our preliminary report based on six months following release. Drug treatment provided to incarcerated offenders reduces the likelihood of future criminal conduct and drug use as well as increasing the employment rate among women. This study is consistent with the results of other evaluations of prison drug treatment; however, these findings are bolstered by the use of multiple treatment sites, a rigorous research design, a large sample size (2,315), and the opportunity to examine the effects of drug treatment on men and women separately. We note that the effects of treatment in reducing recidivism and drug use were less clear for women than for men. There are several plausible explanations, including

methodological reasons (i.e., smaller sample size, lower overall rates) and substantive differences between the causes of drug abuse in men and women and their respective responses to existing treatment programs. Our treatment curriculum is currently being modified to better address these differing treatment needs.

## Residential Drug Abuse Treatment

This report analyzes the results of the Bureau of Prisons' residential drug abuse treatment programs, which are designed for inmates with moderate to severe substance abuse problems. The Bureau also provides a variety of other substance abuse programs, including drug education and non-residential individual and group treatment. Treatment often continues when an inmate is released from Bureau custody to the supervision of U.S. Probation Service.

The residential drug abuse treatment program includes three stages:

- Stage 1: Drug abuse treatment is provided within the confines of a designated drug abuse treatment unit for 9 or 12 months, depending on the particular program. The treatment strategies employed are based on the premises that the inmate is responsible for and can effectively change his or her behavior.
- Stage 2: Upon successful completion of the unit-based drug abuse treatment program, inmates are required to continue drug abuse treatment for up to 12 months when returned to general population. During this stage of institution drug abuse

programming, known as institutional transition, inmates meet with drug abuse program staff at least once a month for a group activity consisting of relapse prevention planning and a review of treatment techniques learned during the intensive phase of the residential drug abuse program.

- Stage 3: All inmates who participate in the residential drug abuse program are required to participate in community transitional services when they are transferred from the institution to a Community Corrections Center (halfway house sometimes followed by home confinement) prior to release from custody. The Bureau contracts with community drug abuse treatment providers for group, individual, and/or family counseling as appropriate for individual inmates. Generally, these contractors offer the same type/philosophy of treatment offered in the institution.<sup>5</sup>

The current evaluation focuses on two types of residential treatment programs for alcohol and other drug problems. The first type offers 1,000 hours of treatment over a 12-month period with a staff-to-inmate ratio of 1:12. The second offers 500 hours of treatment over a 9-month period with a staff-to-inmate ratio of 1:24. Most of the subjects in this study participated in the 9-month program.<sup>6</sup>

All residential DAPs are unit-based; that is, all program participants live together—separate from the general population—for the purpose of building a treatment community. Each unit has a capacity of approximately 100 inmates. Ordinarily, treatment is conducted on the unit for a half day in two, two-hour sessions. The other half of the day, inmates participate in typical institution activities (e.g., work, school). During these times, as well as during meals, treatment participants interact with general population inmates.

The goal of the DAP programs is to attempt to identify, confront, and alter the attitudes, values, and thinking patterns that led to criminal behavior and drug or alcohol use. Most program content is standardized and the following modules comprise 450 hours of programming: Screening and Assessment; Treatment Orientation; Criminal Lifestyle Confrontation; Cognitive Skill Building; Relapse Prevention; Interpersonal Skill Building; Wellness; and Transitional Programming. The remaining program hours are structured at the discretion of each program.

Inmates with a recent history of alcohol or substance abuse or dependence are strongly

encouraged to participate in treatment. At the outset of program implementation, there were few additional incentives for residential drug treatment program participation beyond the recovery from dependence or addiction. However, over time various incentives were implemented. These included nominal financial achievement awards, consideration for a six-month halfway house placement for successful DAP program completion, and tangible benefits such as shirts, caps, and pens with program logos to program participants in good standing.

The incentives for drug treatment significantly changed with the passage of the Violent Crime Control and Law Enforcement Act of 1994, which allows eligible inmates who successfully complete the BOP's residential drug treatment program to earn up to a one-year reduction from their statutory release dates.<sup>7</sup>

## Sample

The three-year outcome results contained in this report relate to inmate subjects who were released between August 1992 and December 1997. More than half of these inmates were within one year of release from BOP custody when they completed the program.<sup>8</sup> The sample contained in this report includes 2,315 individuals—1,842 men and 473 women—for whom comprehensive data were available and who were released to supervision.<sup>9</sup>

## Treatment Subjects

Treatment subjects were sampled from 20 different institutions with a residential drug treatment program. This represents approximately 40 percent of the institutions that currently operate residential treatment programs. These institutions represent all security levels, except maximum security, and serve both male and female populations.

The four types of residential DAP participants are as follows: 1) inmates who completed the treatment, 2) inmates who dropped out of their own volition, 3) inmates who were discharged from treatment for disciplinary reasons, and 4) inmates who, for a variety of other reasons, did not complete the program. This last category, in general, comprises inmates unable to complete the residential program because they were transferred to another institution or to a halfway house (CCC), had their sentences shortened toward the end of their incarceration, or spent an extended amount of time on writ or medical furlough. Table 1 provides a breakdown of inmate subjects by gender, treatment and comparison

group assignments, and individual categories within the treatment group.

Of the 948 male subjects who entered unit-based residential treatment, 80 percent completed the treatment program, 4 percent voluntarily dropped out of the program, 7 percent were removed for disciplinary reasons, and 9 percent did not complete treatment for other reasons (as described above).

Of the 245 women who entered treatment, 70 percent completed the treatment program, 9 percent voluntarily dropped out of the program, 8 percent were removed for disciplinary reasons, and 13 percent did not complete for other reasons. The fact that there is a lower percentage of treatment “completers” among women than men may be related to policy differences between treatment sites and differential enforcement of program rules.

## Comparison Subjects

Male and female comparison subjects were drawn from more than 40 institutions, some that offered residential drug abuse treatment programs and some that did not. The comparison subjects consisted of individuals who had histories of moderate or serious drug use and, therefore, would have met the criteria for admission to the residential drug treatment programs. There were 894 male and 228 female comparison subjects.

## Outcome Measures

Criminal recidivism and post-release drug use were the primary outcomes of interest in this evaluation. The other outcomes examined were post-release employment and unsuccessful completion of halfway house placement. Because much of the outcome information was obtained from interviews with U.S. probation officers, most of our analyses were conducted with individuals released to supervision. The only analysis which included both supervised and unsupervised subjects was our analysis of one of our indicators of recidivism—arrest for a new offense—because arrest information could be collected on unsupervised subjects from the FBI's National Crime Information Center (NCIC).<sup>10</sup>

Criminal recidivism was defined two ways: 1) an arrest for a new offense or 2) an arrest for a new offense *or* supervision revocation. Revocation was defined as occurring only when the revocation was solely the result of a technical violation of one or more conditions of supervision (e.g., detected drug use, failure to report to probation officer).<sup>11</sup> Although our primary interest is in arrest for a new of-

**TABLE 1.**  
*Type of Subject by Gender*

Type of Subject	Male		Female	
	Number	Percent	Number	Percent
<b>Treatment</b>	948	51.5	245	51.8
12-month Program Graduate	178	9.7	58	12.3
9-month Program Graduate	585	31.7	113	23.9
Drop-out	36	2.0	22	4.6
Disciplinary discharge	67	3.6	20	4.2
Other reason—incomplete	82	4.5	32	6.8
<b>Comparison</b>	894	48.5	228	48.2
<b>Total</b>	1,842	100.0	473	100.0

fense, revocation for a technical violation is a *competing event*. Unless we include the competing event in our measure of recidivism, our results will be biased. Nonetheless, we also examined results for a new offense both for all subjects as well as for supervised subjects only. Separate analyses of all subjects and supervised subjects was done only with the purpose of determining whether the supervision process itself affects recidivism.

Drug use as a post-release outcome refers to the *first* occurrence of drug or alcohol use. This information consisted of four different categories of a violation of a supervision condition as reported by U.S. probation officers: a positive urinalysis (u/a), refusal to submit to a urinalysis, admission of drug use to the probation officer, or a positive breathalyzer test.

Employment information was also obtained through interviews with U.S. probation officers. We used two measures of post-release employment. The first was employment rate, defined as the percent of available time an individual was employed. Each week of post-release supervision was given a value of 40 hours of available work time. The percentage reflects the actual number of hours worked during the supervision period divided by the number of hours available. The second measure was employment level and consisted of the following categories: employed full-time the entire post-release period, employed full-time some portion of the post-release period, employed part-time some or all of the post-release period, and not employed during the post-release period.<sup>12</sup>

The analysis of unsuccessful halfway house completion was limited to those individuals who received halfway house placements. Approximately two-thirds of the subjects received

such a placement. Failure to complete a halfway house placement is the result of a disciplinary infraction, either for a violation of halfway house rules or for criminal activity.

Before examining the effects of treatment, it is important to look at the overall rate of failure for each outcome measure for both treatment and comparison inmates. This overall rate of failure is presented by gender in Table 2, and tells us, for example, that the failure rate for arrest on a new offense or revocation for all subjects (both those who received treatment and those who did not receive treatment) is 49 percent for men and 27.8 percent for women. Overall, these results indicate that for each outcome measure, the percentage with a successful outcome is lower for men with the exception of employment.

**TABLE 2.**  
*Outcome Measure by Gender:  
Three-Year Post Release*

	Percent	
	Male	Female
Arrest for New Offense: All Offenders	34.7	16.1
Arrest for New Offense: Supervised Subjects Only	33.2	16.7
Arrest for New Offense or Revocation	49.0	27.8
Drug Use	55.0	39.8
Employment Rate ( 0–100 Percent )	68.0	59.0
Halfway House Placement Failure	23.0	17.0

## Analyses

The analyses of the effects of residential drug treatment on the various outcome measures controlled for a wide variety of background factors known to be related to recidivism and treatment outcomes, including a number of factors related to drug-using populations that have seldom been examined in previous evaluation studies. These background measures included type of drug used on a daily basis in the year before arrest, drug treatment history, history of drug problem for spouse, mental health treatment history, psychiatric diagnoses of depression and antisocial personality, criminal history, age, race, ethnic status, educational level, employment history, level of supervision (e.g., halfway house placements before release from custody, release to supervision, frequency of urine testing, frequency of contacts with probation officer, frequency of probation officer collateral contacts), pre-release disciplinary infractions, in-prison vocational training, post-release treatment, and post-release living situation.

The most common methodological problem in drug treatment evaluation results from the process of selection into treatment, i.e., selection bias. All inmates with substance abuse problems are strongly encouraged to participate in treatment, but only some agree to do so. Thus, there is an element of self-selecting into the programs. This fact makes it difficult for the researcher to disentangle the effects of treatment from the effects of other differences between the treated and untreated groups (e.g., comparison group) that are reflected in the decision to opt for treatment. Therefore, we used three different methods of analyses to assess treatment effectiveness. One method compares all individuals who were treated to those who were not treated and does not control for selection bias. The second and third methods provide alternative methods of controlling for selection. The results across the three methods were consistent.

All analyses, unlike our preliminary six-month report, were done for males and females separately. With the complete sample and the longer follow-up period, the sample size and failure rate for women was sufficiently large to allow for separate analyses.<sup>13</sup> In addition, our review of the literature suggests that the process of change from a drug using and criminal lifestyle to one without drug use and criminal activity may differ between men and women. Background data on

female drug abusers within the Bureau of Prisons corroborated significant gender differences found by other researchers.

## Findings—Residential Drug Abuse Treatment

The effects of unit-based residential treatment on post-release outcomes described below are the differences in outcomes between treatment and comparison groups after controlling for various background factors and for self-selection into treatment.

### Recidivism

*Arrest for New Offense*—Men who had received unit-based residential treatment had a lower probability of being arrested in the 36-month follow-up period than did comparison subjects. The probability of arrest for all individuals who entered and completed treatment was 30.6 percent as compared to a probability of 37.6 percent for untreated men (see Table 3, first row of results). However, we found no difference between treated and untreated women: the probability of arrest for both groups was 16 percent. When we analyzed only those offenders released to supervision, we continued to find a difference between treatment and comparison subjects but only for men (see Table 3, second row of results).

*Arrest for New Offense Or Supervision Revocation*—The primary indicator of recidivism was arrest for new offense or supervision revocation. When outcome was defined as arrest for new offense or supervision revocation, residential drug treatment effects also were found. The probability of arrest for men released to supervision who entered and completed treatment was 44.3 percent as compared to a probability of 52.5 percent for untreated subjects (see Table 3, third row of results). Men who received and completed residential treatment were 16 percent less likely to recidivate. Although the results for women were not statistically significant, the difference between the treated and comparison group suggests that treatment helped to reduce recidivism among women. Among women who completed residential drug abuse treatment, 24.5 percent were likely to be arrested for a new offense or have supervision revoked within 36 months after release compared to 29.7 percent among untreated inmates; inmates who completed residential drug abuse treatment were 18 percent less likely to recidivate in the first six months following release than those who did not receive treatment (see Table 3, third row of results).

**TABLE 3.**

*Estimated Three-Year Outcomes for Treated and Untreated Offenders with a Drug Abuse Problem: Men and Women*

Outcome	Failure Rates (percent)			
	Men		Women	
	Without Treatment	With Treatment	Without Treatment	With Treatment
Arrests, all offenders	37.6	30.6	16.0	16.1
Arrests, supervised subjects	35.3	30.3	17.5	15.3
Arrest or revocation, supervised subjects	52.5	44.3	29.7	24.5
Relapse to drug use	58.5	49.9	42.6	35.0
Employment rate	68.6	70.5	59.1	68.6

### Drug Use

The results for drug use show that individuals who participated in a residential drug abuse treatment program were less likely to have evidence of post-release drug use than were comparison subjects. Among male inmates who completed residential drug abuse treatment, 49.9 percent were likely to use drugs within 36 months after release compared to 58.5 percent among untreated inmates (see Table 3, fourth row of results); that is, those male inmates who completed residential drug abuse treatment were 15 percent less likely to use drugs 36 months following release than those who did not receive treatment. Among female inmates who completed residential drug abuse treatment, 35.0 percent were likely to use drugs within 36 months after release compared to 42.6 percent among untreated inmates (see Table 3, fourth row of results); female inmates who completed residential drug abuse treatment were 18 percent less likely to use drugs in the 36 months following release.

### Post-Release Employment

We found no significant differences for either measure of post-release employment – employment rate or level of employment – among men when comparing treated to comparison inmates. However, we found significant differences for women for both measures of post-release employment. Women who completed residential treatment were employed 68.6 percent of the post-release period and untreated women were employed 59.1 percent of the time.

### CCC Placement Failures

Approximately two-thirds of the individuals received a halfway house placement (CCC) before their release from BOP custody. Results indicate that treatment completion had no effect on whether male or female inmates successfully completed their halfway house stay. However, our ability to assess the effects of residential treatment on halfway house placement completion is hampered because offenders who pose particularly high risks for re-arrest are often not released through a CCC.

### Summary

The results of this three-year follow-up of residential drug abuse treatment programs suggest important and exciting possibilities for the treatment of inmates with substance abuse problems. Male inmates who entered, received, and completed residential drug abuse treatment were 16 percent less likely to be re-arrested or have their supervision revoked (and be returned to prison) than inmates who did not receive such treatment; the comparable figure for female inmates is 18 percent. This reduction in recidivism is coupled with the 15 percent reduction in drug use for male treated subjects and the 18 percent reduction in drug use for female treated subjects. We also found improved employment among women after release. Women who completed residential drug abuse treatment were employed 68.6 percent of their post-release period and untreated women were employed 59.1 percent of the time. Although the results for recidivism and drug use are not statistically significant for women, the sample size of women was smaller, their overall failure

rate was lower, and there is evidence in the research literature that there are gender differences in treatment needs, treatment processes and relapse. Specifically, it appears that women's drug abuse or dependence is caused by substantially different factors than those for men. Our findings of a lower percentage of women who use drugs and are arrested or revoked after release, despite the greater number of life problems among women, is consistent with results of previous studies.<sup>14</sup> The Bureau of Prisons is now modifying our drug treatment programs for females based upon best practices for treatment of females in public and private sector programs. We will continue to monitor progress around the country in enhancing drug abuse treatment paradigms for female offenders and modify our programs accordingly.

These results strongly suggest that the Bureau of Prisons' residential drug abuse treatment programs make a significant difference in the lives of inmates following their release from custody and return to the community. This evaluation has been methodologically rigorous and has revealed significant positive effects on recidivism, drug use, and employment in post-release outcomes for a three-year follow-up period.

## Endnotes

<sup>1</sup>This article forms the Executive Summary of the "Triad Drug Treatment Evaluation Project Final Report of Three-Year Outcomes: Part 1," issued by the Federal Bureau of Prisons, Office of Research and Evaluations, in September 2000. The complete report can be found on the Bureau of Prisons' web site, at [www.bop.gov](http://www.bop.gov).

<sup>2</sup>The Anti-Drug Abuse Act of 1986 laid the groundwork for the drug treatment programs and the Anti-Drug Abuse Act of 1988 contained provisions for the funding of these programs.

<sup>3</sup>Among female inmates, while the effect of treatment was not statistically significant, the failure rate for recidivism of treated inmates compared with untreated inmates suggested a positive effect for treatment.

<sup>4</sup>The drug failure rates for women suggested a positive effect for treatment but did not reach statistical significance.

<sup>5</sup>Community transitional services also are offered to inmates who have not completed any drug abuse treatment in the institution or who have received treatment other than the residential program but still require transitional drug treatment services.

<sup>6</sup>The 12-month programs are no longer operational.

<sup>7</sup>This early release provision presents issues of disparity for Bureau inmates. The disparity arises when, for example, two inmates convicted of the same offense serve different prison terms because

the inmate who has been diagnosed with a substance abuse problem receives a one-year reduction on his/her sentence and the inmate without a substance abuse problem serves the entire sentence. In effect, many perceive this one-year reduction as a reward for drug-abusing behavior.

<sup>8</sup>Typically, inmates enter a residential drug abuse treatment program 36 to 24 months before release from BOP custody. This allows inmates to complete treatment and transition into community-based treatment with minimal interruption to their treatment program, and to benefit from the sentence reduction, if eligible.

<sup>9</sup>Approximately 12 percent of the subjects were not released to supervision.

<sup>10</sup>Thus, in this analysis only our sample size was 2,640 subjects.

<sup>11</sup>A violation of a condition of supervision does not always result in a revocation.

<sup>12</sup>Individuals not in the work force due to retirement, disability, and homemaking were excluded from this analysis.

<sup>13</sup>We were not able to conduct separate analyses for most of the results presented in the 6-month preliminary report.

<sup>14</sup>We note that separate analyses of men and women are rare and little is known about the differential impact of treatment on men and women. We refer the reader to the literature review contained in the full report for additional information on gender differences.