

**CUMULATIVE SECOND YEAR COST-BENEFIT ANALYSIS
OF PIMA COUNTY'S
DRUG TREATMENT ALTERNATIVE TO PRISON PROGRAM**

REPORT

Submitted to:

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EXECUTIVE SUMMARY

The Pima County Drug Treatment Alternative to Prison (DTAP) program is three-year probation program that uses a drug court model. DTAP enables drug addicted criminals to plead guilty to an offense and then enter a residential, therapeutic community treatment followed by ongoing drug monitoring with regular court appearances as an alternative to a prison sentence. Persons who drop out of DTAP are imprisoned for violation of the terms of their probation.

The purpose of this study is to assess the costs and benefits or direct cost savings to the justice system of the Pima County DTAP program in the period, 1 January 2011 to 30 June 2013. The assessment is based on the outcomes for the 52 entrants to DTAP who were enrolled in the period 1 January 2011 to 31 December 2012. By 30 June 2013, 9 entrants had graduated from the intensive part of the program, 16 had failed and been sent to prison and 27 were still in the program. In the period to 30 June 2013 the DTAP program had a success rate of 69.2% with 36 entrants still in the program. A further 28 persons entered the program after 1 January 2013. The impact of these entrants will be reviewed in future reports.

The cost savings or benefits from the DTAP program to the justice system in Arizona to 30 June 2013 are summarized below:

- **DTAP program cost \$786,383**
- **Estimated costs in absence of DTAP \$1,795,524**
- **DTAP cost savings \$1,009,141**

Total cost of the DTAP program to the justice system for the period 1 January 2011 to 30 June 2013 is estimated to be \$786,383 or an average of \$15,123 for each entrant. This cost includes incarceration costs for those who failed DTAP.

The cost savings from the DTAP program are estimated by comparing the DTAP costs to the costs incurred by the justice system if those same individuals had rejected the DTAP plea bargain. This would have resulted in incarceration and associated costs. Estimated total costs to the justice system if this had occurred were estimated at \$1,795,524 or \$34,529 per person to 30 June 2013.

DTAP program cost savings to the justice system for those entering in the first two years were estimated to be \$1,009,141 or \$19,406 per entrant.

If DTAP program costs and cost savings are projected out for the full 3 years for those in the program together with incarceration costs, then the DTAP program generates an overall cost savings of \$1,683,404 or an average of \$32,373 per entrant.

The Pima County DTAP program has generated substantial cost savings to the justice system. It is a viable and robust program with the potential for substantially more savings as the program is expanded. These cost savings estimates understate the potential savings to the wider community. Program graduates are supported in finding stable employment, improving their skills in the workplace and engaging once more with their families. As such they pay taxes and reduce the burden of state support for themselves and their families.

A majority of the participants interviewed (both ongoing and graduates) perceived the most helpful aspects of the DTAP program to be the treatment and ongoing support and sense of community from the DTAP team. Most saw it as their “last chance” to address their addiction and self-destructive habits and were motivated to achieve their recovery.

1. Introduction

The Pima County Drug Treatment Alternative to Prison (DTAP) program is a three-year program funded by the United States Department of Justice, Office of Justice Programs, Bureau of Justice Assistance (BJA) and by the United States Department of Health and Human Services, Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration (SAMHSA). This funding covered two objectives with regard to reducing drug addiction and drug-related crime in Pima County. The first is Pima County's Drug Court Enhancement program, which provides additional wrap-around recovery support services to probationers in drug court. The second, and the focus of this cost-benefit analysis (CBA), is Pima County's Drug Treatment Alternative to Prison (DTAP) program.

First Year Report

In December 2012 a report on the first year of the DTAP program was submitted to the Pima County Attorney's Office ¹. This report covered 20 first-year DTAP participants who had entered the program between January 1, 2011 and November 30, 2011. The results of the cost-benefit analysis demonstrated that the first year DTAP program cohort's benefits far exceeded their costs. The costs of the DTAP program from the perspectives of both the State and the Criminal Justice System (CJS) were substantially below those attributed to a control group of non-DTAP participants. From the perspective of the CJS average costs were \$22,837 for DTAP participants and \$30,162 for the control group over the first 10 months of the program.

Second Year Report

The purpose of this analysis is to extend the cost-benefit analysis to cover all persons who had entered the DTAP program between 1 January 2011 and 31 December 2012. This covers a total of 52 persons who entered the program. As the criteria for selection and entry to the DTAP program were changed from 1 January 2013 more recent entrants were excluded. However, prior entrant DTAP status and costs were continued to be monitored until 30 June 2013.

The analysis is presented in two parts: (i) the costs and benefits associated with program entrants over the period 1 January 2011 to 30 June 2013 and (ii) projected costs and benefits of the program for program entrants over the period until they would be expected to complete the program, (i.e., 3 years from DTAP entry).

Unlike the previous report where an independent control group of persons matching the DTAP entrants was constructed with their post-sentencing costs, the present analysis utilizes the entrants as their own controls. That is, what would have been their incarceration experience and associated costs if they had not accepted their plea bargain and entered the DTAP program? The major assumption here is the length of incarceration. This is based on the sentencing range associated with their plea bargain, but with a supplementary analysis for sentencing based on their original indictment.

The only other major difference from the first report is that the costs are considered from the justice system overall. There is no attempt to separate out those costs that might be assigned to

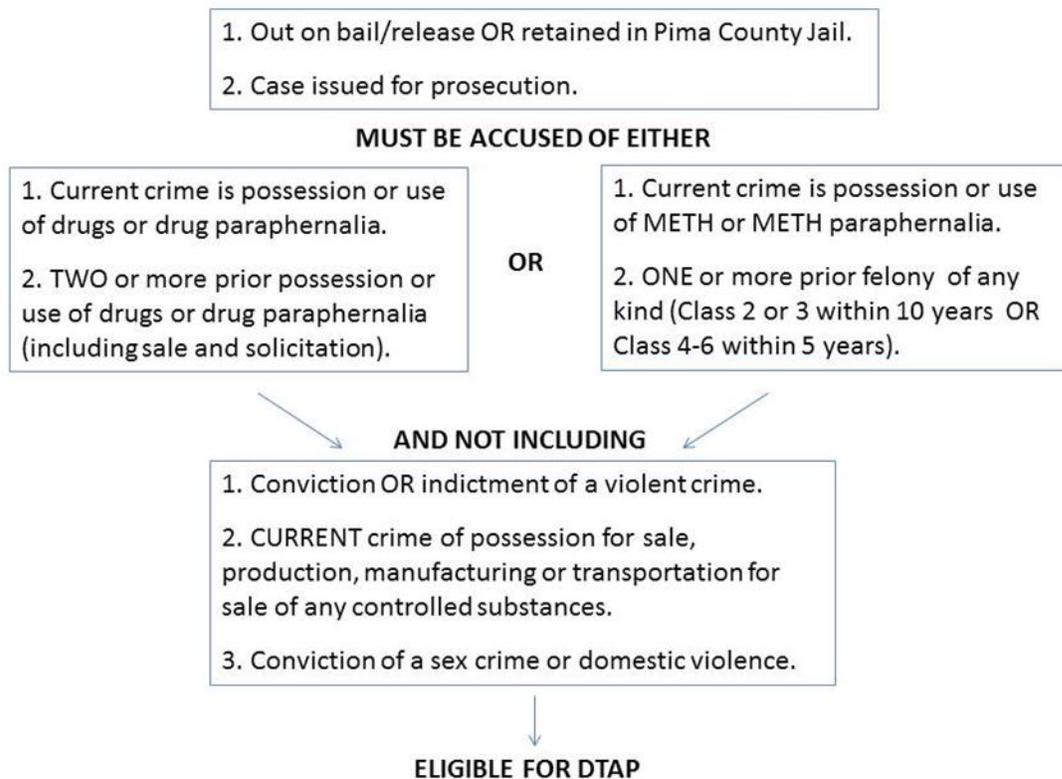
¹ P M Herman, B L Poindexter. Cost-Benefit Analysis of Pima County's Drug Treatment Alternative to Prison (DTAP) Program Final Report. Pima County Attorney's Office. Dec 10, 2012.i

Pima County as opposed to the criminal justice system (CJS) overall. The costs applied are either the same or slightly modified costs (applied only to daily incarceration costs) as those used in the first report. As such a short period of time has elapsed, it was agreed with the county that these costs would still be appropriate. In any event, the main cost driver is incarceration costs (either incurred or avoided) and the adjustment brings these into line with costs for both public and private correctional facilities.

2. Entry to the DTAP Program

Figure 1 provides a flowchart of the requisite criteria by which an individual is determined to be eligible for entry to DTAP. The program provides residential drug treatment and needs-based wrap-around recovery support services in lieu of prison to selected non-violent repeat drug offenders who are motivated to change their behaviors and for whom this is at least their third offense. DTAP participants face a mandatory prison sentence if they 'fail' the program.

Figure 1



In practice relatively few offenders meet DTAP entry criteria; as such, the program is small and focused. There has to be agreement by program administrators that the entrant is likely to complete and benefit from the program. This is balanced against concerns for public safety, to include the exclusion of persons with a conviction or indictment of a violent crime, current crime possession of possession for sale, production, manufacturing or transportation for sale of any controlled substance or conviction of a sex crime.

3. DTAP Entrant Classification

The analysis recognizes three groups of DTAP participants. These are:

- (i) **DTAP Graduates:** persons who completed their initial DTAP period of residential treatment and the post-treatment special probation monitoring of their drug status. These persons are considered as ‘DTAP graduates’ and, as of 30 June 2013, are on standard probation until the end of the 3 year DTAP program (n = 9)
- (ii) **DTAP Failures:** persons who failed to meet the requirements of the special DTAP probation and have been returned to prison (n = 16)
- (iii) **DTAP Ongoing:** persons who have completed their initial DTAP period of residential treatment and, as of 30 June 2013, remain in the DTAP special probation program (n=27)

Costs are estimated for each group together with costs for ‘own controls’. Cost savings are the difference between these costs for each group and for all groups overall.

4. DTAP Own-Controls

Estimation of benefits that might accrue to DTAP enrollment requires identifying a control group as proxy for the costs expected to be incurred if these respondents (or a similar group matched by enrolled respondent characteristics) had not entered the program. In the first report this was accomplished by identifying a group of drug offenders in Pima County who were arrested in the period just before DTAP became available, and who were judged to have been eligible had DTAP existed at that time. These were identified by searching Pima County Superior Court case records starting from the date just prior to the start of the DTAP program (31 December 2011) and working backward in time until 50 control cases were identified.

In this report, it was decided to use entrants as their own-controls. When a potential participant in the DTAP program is identified, they are offered a plea bargain. A plea agreement is entered into to defer a potential prison sentence. As a class four felony, the plea agreement lists the statutory sentencing range. This includes a mitigated sentence, an aggravated sentence and a presumptive sentence. For the control group the mid-point of the statutory plea bargain sentencing range is taken as the basis for estimating their likely incarceration costs. The costs of incarceration will, of course, dominate the own-control costs. It is the avoidance of these costs which drive the direct or justice system savings.

Alternatively the analysis could have focused on the sentencing range under their initial indictment. This is a less conservative approach which generates greater DTAP cost savings. The difference between the two approaches is substantial. The average period (based on mid points of range for each entrant) assumed to be served by own-controls under the plea agreement is 2.43 years compared to 4.58 years if the initial indictment were used.

5. Cost Components

Until the point at which a defendant is determined to be eligible for DTAP and agrees to a plea bargain, both DTAP participants and own-controls follow the same path through the CJS. This

path through includes an arrest, placement in the Pima County Jail, initial appearance, release on bail or retention in jail until a case is issued for prosecution (Figure 1).

The costs and benefits included in this analysis begin at the point in time when the DTAP entrant and own-control deviate in their interactions with the CJS.

Once a case has been issued the PCAO attorney, with assistance from the Pima County Sheriff's Department (PCSD) and the Pima County Probation Department (PCPD) review the case and determine if the defendant is a DTAP candidate. If the PCAO decides the Defendant is a DTAP candidate, they are given the opportunity to accept a DTAP plea through their Defense attorney. Those who accept plead guilty to drug possession and enter DTAP.

Following sentencing the DTAP participant is transported to the residential treatment facility to begin their 90-day program with 3 years on probation. The own control counterpart faces incarceration.

The cost of reviewing and investigating cases which are considered for DTAP are not separately accounted for in this CBA. Defendants on both the DTAP and control paths require effort by the PCAO, PCSD and PCPD. Determining if there is a substantial cost difference between the two paths is beyond the scope of this report. No personnel from the PCAO, PCSD or PCPD are completely dedicated to processing DTAP candidates at this time.

DTAP Program Costs

The major costs incurred for those in the DTAP program are for (i) residential treatment; (ii) case management, including optional psychiatric evaluation, and (iii) prison costs for those who have violated their DTAP probation and are incarcerated for the completion of their plea bargain deferred sentence with credit for time served.

The mandatory residential treatment program covers a 90-day substance abuse treatment, with separate private providers for male as opposed to female participants. Two providers are contracted to the County with each organizing their programs by 30-day phases. Each phase has a set of tasks or assignments based on the subject's treatment plan. Each phase must be completed successfully in order to move on to the next phase. If the participant completes the three phases they are released back into the community to a family residence or transitional housing. All residential treatment costs are those actually incurred.

After completion of residential treatment the DTAP participant moves to a family residence or transitional housing. Transitional housing costs and associated living expenses are included on a case-by-case basis as needed and are generally categorized by the DTAP program as Case Management costs. Again, all Case Management costs are the actual costs incurred for each DTAP participant. In the DTAP program the cost of medical care is provided through other funding sources such as Arizona Health Care Cost Containment System (AHCCCS). DTAP does, however, provide healthcare costs that would not be provided to inmates by the Arizona

Department of Correction (ADC) such as eye examinations and glasses, as well as dental work needed to increase the likelihood of employment.

Table 1 summarizes the residential treatment and case management costs for the three DTAP groups. Residential treatment costs range from \$5,977 for failures in the DTAP program to \$7,074 for those ongoing with graduates having incurred on average \$6,463. Case management costs are more variable given drop-outs from DTAP and the varying length of time those ongoing have been in the program. Average costs range from \$1,061 for DTAP failures to \$2,880 for those who have graduated.

TABLE 1

DTAP PROGRAM: AVERAGE RESIDENTIAL TREATMENT AND CASE MANAGEMENT COSTS, PERIOD 1 JANUARY 2011 TO 30 JUNE 2013

DTAP Group	Residential Treatment Costs	Case Management Costs
Graduates	\$6,463	\$2,880
Failures	\$5,977	\$1,061
Ongoing	\$7,074	\$1,736

Other DTAP Program Costs: Review Hearings and Incarceration

Review Hearings

The staff cost of DTAP review hearings is calculated based on the costs utilized in the first study. Based on actual length of the hearing and salaries, the cost of a DTAP review hearing is calculated to be \$21.68 per participant per review hearing. As the DTAP participant progresses through the program, the court may decide that the DTAP review hearings be reduced.

For the DTAP review hearing cost, the actual number of hearings attended by each participant was used for the period for all entrants. Hearings were separately identified for “pre-sentence hearings” – which is before being transported to residential treatment for DTAP probation to begin – and “post sentence hearings” which included every hearing between the time they were admitted into DTAP and the time they were revoked. For those who failed, an allowance is made for two days Pima County jail time before being transferred to the state prison system: \$225.86 for the first day and \$91.90 for the second day. Then for those who had not yet graduated it was assumed hearings would occur twice a month and that graduation would occur on average 18 months into the program.

When a DTAP participant graduates from the program, the individual no longer attends DTAP review hearings and costs for these hearings cease. However the monthly probation cost of \$65

per month continues until the end of the three-year probation sentence. In this analysis these probation costs, following discussion with DTAP staff, are assumed to be paid by the program participant.

It is worth emphasizing that overall, the costs contributed by review hearing and jail time are far outweighed by the three major cost components of prison time, residential treatment and case management.

Incarceration

Average daily costs of incarceration under Arizona state jurisdiction are assumed to be \$62.50. This covers the years 2011 to 2013 including per capita costs in state prison complexes and contract prison beds which ranged from \$59.57 to \$65.74 for 2012. Failure to remain in the DTAP program results in mandatory incarceration. Estimated post-failure incarceration was 2.12 years with an average time served credit of 121 days (0.33 years).

6. Results

Cost-benefit estimates for the DTAP program are presented (i) for those who entered in the first two years of the program (1 January 2011 through 31 December 2012) and for whom costs were incurred in the period to 30 June 2013 and (ii) as projections for all those who entered the program either to the end of the 3 year program participation period or, for controls, to the assumed end of their period of incarceration. In both cases actual and projected costs incurred for program participants are matched against estimated costs of incarceration for these same participants if they had not accepted the plea bargain for entry to the DTAP program. Note that for controls the expected length of incarceration is based on the average expected plea bargain (not indicted) sentence range. This difference is only relevant for the extended model.

(i) DTAP Costs and Benefits: 1 January 2011 to 30 June 2013

Costs incurred in the DTAP program are presented in Table 2 for the three DTAP groups. In each case the costs incurred are matched against the estimated costs the individuals would have incurred if they had not accepted the plea bargain. All costs are from the date of entry to the DTAP program.

For those persons who have graduated from DTAP the primary cost components are the residential and case management costs (costs of hearings are minimal) while for those who are ongoing in DTAP it is the sum of residential costs plus costs incurred to 30 June from case management (which are ongoing). For those who have failed DTAP the main cost components are the residential costs (and they may not have completed the residential program) plus any case management costs incurred and the costs of subsequent incarceration. Costs for own controls are overwhelmingly the costs of prison. Actual costs are used for the residential program and case management. These cost components are combined for each participant with average and total costs calculated for (i) DTAP participants and (ii) own controls.

Costs incurred over the period to 30 June 2013 for those entering DTAP in the two years to 31 December 2012 are \$786,383 for the program itself and an estimated \$1,795,524 for the controls over the same time frame. The net savings are \$1,009,141. Average cost per DTAP

Participant is \$15,123. This includes an average cost of \$9,872 for DTAP ‘graduates’, \$9,390 for those ‘ongoing’ in DTAP as of 30 June 2013 and \$27,750 for those who ‘failed’ DTAP and were subsequently incarcerated.

TABLE 2

DTAP COSTS AND BENEFITS 1 JANUARY 2011 TO 30 JUNE 2013

	Graduated from DTAP (n=9)	Discharged from DTAP (n=16)	Ongoing in DTAP as of 30 June 2013 (n=27)	Overall
DTAP Participant (average cost)	\$9,872	\$27,750	\$9,390	\$15,123
Control (average cost)	\$40,304	\$39,720	\$29,528	\$34,529
Net cost savings (average costs)	\$30,431	\$11,970	\$20,138	\$19,406
DTAP Participant (total cost)	\$88,852	\$444,004	\$253,528	\$786,383
Control (total cost)	\$362,735	\$635,522	\$797,267	\$1,795,524
Net cost savings (total costs)	\$273,883	\$191,518	\$543,739	\$1,009,141

(ii) Projected DTAP Costs from 1 January 2011

Results are presented for the “graduates”, “failures” and “ongoing” DTAP Participants projected to the 3 years of the program or estimated length of incarceration for those who failed and the own-controls, in Table 3. The cost elements for each DTAP category and controls are the same as for Table 1, but in this case projected out to 3 years for DTAP graduates and those ongoing, and to the projected end incarceration date for those who failed. Costs for controls are the costs for prison time until assumed release. It should be emphasized that the estimates provided for controls are sensitive to the expected period of incarceration. The estimates here are based on the plea bargain. Control costs would be substantially higher if expected incarceration were based on their indictment sentence range².

TABLE 3

DTAP PROJECTED COSTS AND BENEFITS FROM 1 JANUARY 2011

	Graduated from DTAP (n=9)	Discharged from DTAP (n=16)	Ongoing in DTAP as of 30 June 2013 (n=27)*	Overall
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² The overall cost saving estimate for all three groups in the DTAP program where control costs are based on the indictment sentence range is a control overall cost of \$5,441,862 less \$1,210,497 for DTAP participants or a net saving of \$4,231,365.

DTAP Participant (average cost)	\$11,933	\$48,795	\$11,920	\$23,279
Control (average cost)	\$51,340	\$57,620	\$55,923	\$55,652
Net cost savings (average costs)	\$39,347	\$8,825	\$44,003	\$32,373
DTAP Participant (total cost)	\$107,940	\$780,722	\$321,834	\$1,210,497
Control (total cost)	\$462,064	\$921,916	\$1,509,920	\$2,893,901
Net cost savings (total costs)	\$354,124	\$141,194	\$1,188,086	\$1,683,404

Note: *The assumption here is that all those ongoing in DTAP remain in DTAP until they graduate and move to standard probation to complete their 3 years

Projected costs for those who entered DTAP (n=52 participants) are \$1,210,497 (or an average projected cost of \$ 23,279). These comprise average costs: (i) \$11,933 for DTAP graduates; (ii) \$48,795 for DTAP ‘failures’; and (iii) \$11,920 for those ongoing in the DTAP program. Note the key assumption here is that those ongoing continue and graduate from the program. Estimated average cost for controls is \$55,652. Estimated cost savings, where DTAP participants have a projected cost of \$1,210,497 and controls \$2,893,901 is \$1,683,404 or \$32,373 per DTAP participant.

7. Discussion

Whether the cost-benefit assessments are restricted to 30 June 2013 or projected to include all program completers and for controls completing their projected prison terms, the DTAP program results in substantial cost savings to the justice system. This reflects, primarily, the costs of incarceration avoided. Staff and associated costs for reviews and drug monitoring are only a small fraction of overall costs. Substantial changes to these costs would make no difference to the overall conclusions as to DTAP program savings.

Incarceration costs are substantial both on a daily basis and cumulatively over actual and projected sentencing periods. These cost savings also reflect the success of the DTAP program in achieving its rehabilitation objectives. In total, of those who entered the DTAP program (n = 52) only 16 were discharged and subsequently incarcerated (30.7%). This yields a combined graduate and participant retention rate of 69.3% through to 30 June 2013. Although the number enrolled in the DTAP program in its first two years is small, the programs impact in terms of cost savings is significant. For each person enrolled, the net cost savings of control costs minus actual or projected costs are (i) for the period to 30 June 2013 \$19,406 and (ii) for projected costs a saving of \$32,373.

These costs are based on plea bargain sentencing; as such they are conservative. If control costs based on indictment sentencing were used, then the cost savings would be substantially higher at \$4,231,365 rather than \$1,683,404.

In an important sense, the DTAP program costs and the cost savings associated with the program are only capturing the 'direct' costs to the justice system. For those who graduate from the program, and to include also those who are ongoing within the program, there are 'indirect' benefits to themselves, their families and to the wider community. If they are employed, they are paying taxes; they are potentially able to look after themselves and their families and can move away from support programs funded by the state; their probability of recidivism is expected to be low compared to those who don't take a plea bargain; and they have gained self-esteem.

In this context, it is of interest to consider how DTAP graduates themselves view the program and its impact. In early 2013 a series of focus groups and interviews were conducted with 33 current DTAP program participants³. Of these 26 were ongoing in the program (5 in jail pending a petition to revoke) and 7 were graduates. The graduates responded that they were satisfied with their lives, saying "life is great" and they "love their sobriety". While their satisfaction with various aspects of their lives was mixed (e.g., low to moderate satisfaction with financial position and education), all of them reported not needing assistance from the DTAP program at the time of the interview while emphasizing the importance of having good social support. Some felt they might need or could benefit from continued social support and advice after probation, for transportation and early termination from probation.

A majority of the participants interviewed (both ongoing and graduates) perceived the most helpful aspects of the DTAP program to be the treatment and ongoing support and sense of community from the DTAP team. Most saw it as their "last chance" to address their addiction and self-destructive habits and were motivated to achieve their recovery.

³ JBasta Consulting. Participant Perspectives about the Drug Treatment Alternative to Prison Program (DTAP) Year Three. Pima County Attorney's Office, July 8, 2013 (Draft), p. iv.