Cumulative Cost-Benefit Analysis of Pima County's Drug Treatment Alternative to Prison (DTAP) Program

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Executive Summary

What is the study issue?

The Pima County Drug Treatment Alternative to Prison (DTAP) program provides residential and intensive out-patient drug treatment and recovery support services as an alternative to prison for selected eligible non-violent repeat drug offenders. To implement the DTAP program, the Pima County Attorney's Office collaborates the Pima County Superior Court, Pima County Adult Probation, the Pima County Public Defender's Office, the Pima County Jail, the Pima County Sheriff's Office, the Tucson Police Department, and state and community organizations providing health and behavioral health services, substance use treatment, job development and housing assistance, and varied other support services.

This report updates three earlier assessments of the net budgetary benefit to the Arizona criminal justice system associated with the DTAP program. It assesses (a) whether the DTAP program reduces state and county government spending relative to more traditional prison sentencing, and (b) if so, by how much. The net cost-savings of the DTAP program were estimated on a per-participant basis and a total program basis for the first five cohorts of the program.

What did the study find?

- Ignoring recidivism costs, state and county budgetary costs for DTAP participants were \$15,879 to \$19,785 lower per person than costs for a prison control group. The range in cost-savings estimates depends on DTAP service costs assumptions (see below).
- These per-participant cost savings translated into a total cost savings of \$2.2 million to \$2.75 million for the first five cohorts of the DTAP program.
- Recidivism rates were higher for the prison control group (32%) than for those who entered, but did not successfully complete, the DTAP program (26%), and for those who completed the DTAP program (22%).
- Including recidivism prison costs, state and county budgetary costs for DTAP participants were \$22,718 to \$26,624 lower per person than costs for the prison control group.
- These per-participant cost savings translated into a total cost savings of \$3.2 million to \$3.7 million for the first five cohorts of the DTAP program.
- Including recidivism costs, every \$1 in spending related to the DTAP program reduced combined state and county spending by \$1.36 \$1.44.
- This analysis considers only net costs and cost savings to state and county taxpayers. It does
 not account for other possible program benefits. These may include reduced crime, increased
 tax revenues, reduced expenditures on child welfare services, or improved child development
 and education outcomes. By focusing only on narrow budgetary impacts, and by consistently
 using more conservative estimates of cost savings (see below), the estimates of this study
 likely understate the full net benefit of the DTAP program for the state of Arizona.

How was the study done?

- This analysis estimated costs related to the first five cohorts of DTAP participants: 139 who entered the program between January 1, 2011 and September 30, 2015.
- DTAP program cost estimates were developed for costs of DTAP services provided to participants, DTAP staff costs, hearing costs, program sanction costs, county jail costs, and prison costs. Additional prison costs for DTAP participants who recidivated were also calculated.
- A prison control group of 174 individuals was created through refining a data pull by the Arizona Supreme Court Administrative Office of the Courts (AOC) of court case records of individuals in Arizona (outside of Pima County) with criminal histories between 2011 and 2015 that would have made them eligible for DTAP and who entered prison. In Arizona, DTAP participation is not available outside Pima County.
- Demographics of the control group were quite similar to the DTAP participants. There were
 not statistically significant differences in the race/ethnicity or gender composition of the
 DTAP and control groups. DTAP participants were 3.4 years older on average. In sum, the
 control group members matched the characteristics of individuals who would have been
 eligible had they been arrested in Pima County.
- Estimated control group costs included hearing costs, county jail costs, and prison costs (including recidivism costs).
- All costs, for DTAP participants and the control group, were developed on a per-participant basis and converted to 2022 constant dollars using the GDP price deflator.
- Complete records of DTAP service costs were not available for Cohorts 4 and 5. Average service costs were relatively stable for Cohorts 1 through 3. Service costs for Cohorts 4 and 5 were estimated in two ways.
 - Under the "high cost" estimate, per-participant costs for DTAP participants in Cohorts 4 and 5 were assumed to equal costs of the highest-cost participant from Cohorts 1 through 3. Two high-cost estimates were used: the highest-cost DTAP Completer and the highest-cost Non-Completer. Completers successfully completed the DTAP program, while Non-Completers did not.
 - Under the "average cost" estimate, it was assumed that per-participant service costs for DTAP participants were equal to the average cost per participant from Cohorts 1 through 3. Two average cost estimates were used: the average for DTAP Completers and the average for Non-Completers.
 - The "high-cost" estimate represents an upper-bound estimate for DTAP service costs. These were 36% higher than average costs for DTAP Completers and 59% higher than average costs for DTAP Non-Completers from Cohorts 1-3.

- Of DTAP participants and the prison control group, a small share that recidivated are still serving prison sentences. Prison costs beyond the end of this fiscal year (June 30, 2023) were based on the prisoners' reported release dates. Per capita per day prison costs post fiscal year (FY) 2023 were assumed to rise with the overall rate of inflation in the future, so that inflation-adjusted costs are assumed constant.
- For various estimates, assumptions were made to simplify analysis that <u>understate</u> costs for the prison control group or <u>overstate</u> DTAP costs. Such assumptions would reduce the estimated net cost-savings on the DTAP program and so provide a more conservative estimate of DTAP program cost savings.

Introduction

This report summarizes the methods and outcomes of a cost-benefit analysis of Pima County's Drug Treatment Alternative to Prison (DTAP) program. This effort is an update of a previous cost-study created by the Community Research, Evaluation and Development (CRED) team from 2017, and any changes from that study in methods or available data are noted throughout the report.

DTAP Program Overview

The Pima County Attorney's Office (PCAO) has offered the DTAP program since 2011. DTAP provides residential and intensive outpatient 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 narcotics felony (with the exception of felonies involving methamphetamine for which a second felony offense mandates prison time). DTAP is in its thirteenth year of implementation. As this report focuses on the first five cohorts, the discussion of guidelines and processes that follows will highlight those that were in place during those early years of the program. At the end of this report, we discuss changes in eligibility guidelines and program implementation in subsequent years of DTAP that may have implications for program costs in those years.

Eligibility

To be eligible for DTAP participation during the first five years of the program, a potential participant must:

- Have had a pending felony charge for simple possession of a narcotic or dangerous drug and two prior felony convictions for simple possession of a narcotic or dangerous drug, or a pending charge for possession of methamphetamine, with one prior felony conviction;
- 2) Have had a drug addiction;
- 3) Have been facing a mandatory prison sentence;
- 4) Have been motivated for treatment;
- 5) Have had no history of sex or violent crimes;
- 6) Have been a resident of Pima County;
- 7) Have been a citizen or legal resident of the US, and
- 8) Have been an English speaker with at least limited English proficiency.

In the third year of DTAP, there was expansion of the eligible crime type to include drug sales in limited circumstances, and some property offenses related to drugs. In addition, individuals with multiple pending felonies could be eligible if all pending felonies would fall within DTAP eligibility guidelines. Towards the end of DTAP's third year, the eligibility criteria were also expanded to include potential participants with a diagnosis of a serious mental illness, which had previously been an exclusionary criterion.

During the first years of DTAP, eligibility screening was conducted first by PCAO's Narcotics Prosecutor and investigators, and then by Pima County Adult Probation (Probation). The Narcotics Prosecutor oversaw the initial screening and ultimately made the decision of who was offered a DTAP program plea. Following the background screening conducted by PCAO investigators to rule out criminal preclusions to eligibility, potential participants were referred to Probation for further screening and, beginning in DTAP's fourth year, to Pima County's Regional Behavioral Health Authority for clinical assessment.

Two assessments were routinely used in the DTAP screening process: The Adult Substance Use Survey – Revised (ASUS-R) (which was replaced by the American Society of Addiction Medicine (ASAM) screening tool in DTAP's fourth year to be consistent with the tool used in clinical and treatment settings) and the Offender Screening Tool (OST). Program protocol is that participants enrolled in DTAP should be scored as medium high to high risk/need based on these assessments. In addition, potential participants who had, or appeared likely to warrant, a mental health diagnosis in addition to a substance-use disorder diagnosis could undergo additional mental health assessments and psychiatric evaluations to determine the impact of these diagnoses on potential participation. Available pre-sentencing reports, previous history in probation or parole, and a subjective judgment about a potential participant's attitude or motivation were also used to decide whether a potential participant was recommended for DTAP participation.

Court Process

Participants recommended for DTAP were offered a plea agreement that includes a deferred prison sentence; in lieu of prison, defendants accept three years of probation, agree to take part in the DTAP program, and attend twice monthly review hearings with the DTAP judge. These hearings could be lessened to once monthly after a participant has been sober at least 180 days in the community and is compliant in other parts of the program.

Treatment in DTAP

Immediately following their DTAP plea, participants were transported to treatment, which in the first four years of DTAP was exclusively a residential treatment program. Residential treatment was provided by two main providers, Pasadera for men and the Haven for women, with both typically offering a 90-day stay and providing phased treatment programs, advancing over subsequent months. Treatment providers completed a treatment plan and updated it with participants individually and with DTAP partners at Adult Recovery Team (ART) meetings, attended by the Probation Officer, the DTAP Resource Manager and staff from the treatment facility.

In the fourth year of DTAP, with the roll-out of Affordable Care Act provisions designating substance abuse treatment as an essential health benefit, an additional screening component was added to the treatment process. As a component of their role, clinical staff began to screen participants for Arizona Health Care Cost Containment System (AHCCCS) eligibility and support

AHCCCS enrollment if eligible. AHCCCS began to cover the cost of the residential treatment for eligible participants, as long as the treatment was deemed medically necessary via ASAM results.

The fourth year of DTAP also included a small trial of an Intensive Outpatient (IOP) option for DTAP participants who may not have had the level of addiction or need that requires residential treatment. This trial involved IOP at the VA and housing in Old Pueblo transitional housing. IOP became an option for DTAP enrollees in the program's fifth year, but the vast majority of participants were still placed in residential treatment.

Following residential or IOP treatment at the beginning of DTAP, participants typically take part in on-going aftercare treatment, and group and peer support activities, and may return to residential treatment or IOP if deemed medically necessary.

Sanctions and Incentives

The DTAP Judge applies sanctions and incentives in response to participant behavior while in DTAP. Sanctions are meant to be progressive and designed to align with the difficulty or ease of meeting program goals. Short-term jail sanctions, where a participant reports to jail for a number of days, are occasionally applied in response to more serious infractions. Costs for these sanctions are included in the current analysis. Incentives can also be applied to reward participants for achieving goals or engaging in productive behaviors. For the first cohorts, these could include sobriety discs, fee credits, community service credits or additional positive reinforcement from the judge. However, because the number and cost of incentives applied were not systematically tracked, they are not included in the current analysis.

Supportive Services and Coordination of Services

Participants in DTAP interact with a number of agencies while they are in the program. The degree to which these agencies collaborate and share information between themselves, and in turn with participants, is a key to program success. Resource management was overseen by two different agencies in the first five years of DTAP and each tracked treatment and support services for a period of time. These services included residential or IOP treatment, drug testing, educational and job development support, clothing, transportation assistance, dental and vision care, and substance-use disorder aftercare.

Cost Analysis Methods

This report estimates state and county costs to the Arizona criminal justice system associated with operation of the DTAP program. This includes costs associated with the first five cohorts of participants who entered the program between January 1, 2011 and September 30, 2015. Costs considered include costs of providing services to DTAP participants, DTAP program staff costs, hearing costs, county jail costs, and prison costs (including prison costs of recidivism). To assess the net budgetary impact of the DTAP program, these costs are compared to state and county costs associated with a control group. This control group is comprised of offenders arrested and Submitted by the Community Research, Evaluation and Development (CRED) Team, https://norton.arizona.edu/cred

sentenced outside of Pima County over the same time frame as DTAP Cohorts 1-5, but who otherwise met all the eligibility criteria for DTAP participation, and who entered prison. DTAP participation is not available outside Pima County. Members of this control group come primarily from Maricopa County, the state's largest metropolitan county. Pima County is Arizona's second largest metropolitan county. The control group have characteristics of people who would have been eligible for the DTAP program had they been sentenced in Pima County; the main difference is that this control group received traditional prison sentencing without the attendant services and expenses of the DTAP program. Estimated costs for the control group included hearing costs, county jail costs, and prison costs (including prison costs of recidivism).

The key research and policy questions of this report are (a) whether costs associated with participation in the DTAP program are lower than if participants had simply been sentenced to prison under the traditional system and (b) if so, how large are these cost savings. Per-person costs for DTAP participants are compared with per-person costs of the control group. All costs and net cost-savings are reported in 2022 constant dollars, based on the GDP price deflator¹ from the Bureau of Economic Analysis.

This report only considers costs and net cost savings to state and county taxpayers. It does not account for other possible program benefits. These may include reduced crime, increased tax revenues, reduced expenditures on child welfare services, or improved child development and education outcomes. By focusing only on narrow budgetary impacts, the estimates of this study likely understate the true net benefit of the DTAP program for the state of Arizona.

Selection of Control Group

The control group used in previous DTAP cost studies consisted of members involved in the Pima County justice system prior to 2011 when DTAP began. This control group was relatively small and data for them are a decade old. Consequently, a new control group was identified for the current report. Because DTAP is not available outside of Pima County, and all individuals who met DTAP eligibility criteria in Pima County could have been offered the DTAP program, a control group outside of Pima County, within Arizona was identified. The Arizona Supreme Court Administrative Office of the Courts (AOC) pulled a datafile from their data warehouse of court case records of individuals in Arizona with criminal histories between 2011 and 2015 that would have made them eligible for DTAP. This file contained 14,997 records for 1,479 individuals. A close review of these records was undertaken to ensure that only individuals meeting DTAP eligibility criteria who entered prison were included. This review resulted in a

¹ The GDP price deflator is a measure of inflation in the prices of goods and services produced in the United States, including exports. The gross domestic price deflator closely mirrors the GDP price index, although they are calculated differently. More information can be found at https://www.bea.gov/data/prices-inflation/gdp-price-deflator Submitted by the Community Research, Evaluation and Development (CRED) Team, https://norton.arizona.edu/cred 10

final control group of 174 individuals (see Appendix for data extract parameters and data cleaning procedure).

Table 1 below compares race, age, and gender for the DTAP participant and control groups. Observable characteristics were similar between the two groups. DTAP participants on average were 3.4 years older. This difference was statistically significant (p = 0.0031), but it is not certain that an average 3.4-year difference is clinically significant. A higher proportion of DTAP participants were female, 33% compared to 25% for the control group. This difference was statistically significant at the 10% level, but not the 5% level. A higher proportion of DTAP participants were Hispanic, while a lower proportion were White or Black/African American. Yet, no differences in race/ethnicity proportions between the two groups were statistically significant.

Demographics	DTAP Participants (n=139)	Control Group (n=174)	p-value of difference test*
Age in Years	45.9	42.5	(p = 0.003)
Female (%)	33%	25%	(p = 0.10)
Race/Ethnicity			
White (%)	73%	77%	(p = 0.38)
Hispanic/Latino (%)	17%	11%	(p = 0.14)
Black/African-American (%)	6%	10%	(p = 0.23)
Native American / Other (%)	2%	1%	(p = 0.48)
Asian (%)	1%	0%	(p = 0.11)

Table 1: Selected Characteristics of DTAP Participants and the Control Group

* For age, the test is a t-test for difference in means; for other variables, the test is a Chi-squared test for difference in proportions.

Included Costs and Benefits

Table 2 below lists costs included in analyses for DTAP Completers, Non-Completers and the control group, and a discussion of those costs follows. DTAP Completers and Non-Completers have the costs associated with the DTAP program, while the prison control group does not. DTAP Completers, by successfully completing the program, avoid prison time and so, have no prison costs. The control group has prison costs, but no DTAP program costs. DTAP Non-Completers can have the highest per-participant costs among the three groups. Because they begin in the DTAP program, they have associated program costs. But, Non-Completers also have their participation in the program revoked and then must serve prison sentences. In sum, Completers have DTAP program costs, but no prison costs; the control group has prison costs, but no program costs.

DTAP Completer Costs	DTAP Non-Completers	Control Group Costs
Residential Treatment &	Residential Treatment & Support	Jail Time Before Prison
Support Services	Services	 Sentencing Hearings
Staff Costs	Staff Costs	Prison Costs
 Review Hearings 	Review Hearings	 Recidivism Prison Costs
 Sanction Costs 	Sanction Costs	
 Recidivism Prison Costs 	Revocation Hearings	
	 Sentencing Hearings 	
	Jail Time Before Prison	
	Prison Costs	
	Recidivism Prison Costs	

Table 2: Cost Components for DTAP Completers, Non-Completers, and the Prison Control Group

DTAP Service Costs (Completers and Non-Completers)

Reporting on costs of DTAP services was relatively stable for Cohorts 1–3, but there was a large drop-off in reporting for Cohorts 4 and 5 due to a change in agencies responsible for DTAP resource management. There were no reported DTAP service costs after June 23, 2015 (Table 3 shows the marked decrease in service cost data available in Cohort 4 and 5).

Table 3: Reported DTAP Service Costs for Cohorts 1 -5 (Reported Costs for Cohorts 4 and 5 are Incomplete).

Cohort #	Status	Mean	Median	Maximum
Cohort 1	Completers	\$9,425	\$10,634	\$12,902
	Non-Completers	\$8,962	\$9 <i>,</i> 653	\$11,932
Cohort 2	Completers	\$10,147	\$10 <i>,</i> 335	\$12,997
	Non-Completers	\$7,443	\$8,657	\$10,695
Cohort 3	Completers	\$9,173	\$9 <i>,</i> 045	\$10,796
	Non-Completers	\$6,611	\$8,236	\$10,939
Cohort 4	Completers	\$2,809	\$2 <i>,</i> 809	\$8,700
	Non-Completers	\$2,612	\$2,134	\$5,241
Cohort 5	Completers	\$1,499	\$1,200	\$5,503
	Non-Completers	\$387	\$195	\$976

Residential/Rehabilitation services accounted for 74% of reported costs, with Alcohol/Drug Testing accounting for 7%. T-tests of differences in means were conducted for service costs across Cohorts 1 - 3, and no significant differences were found, except for DTAP Completers,

whose costs were lower for Cohort 3 than for Cohort 2.² This suggests that (a) reported costs across the first three cohorts was relatively stable and (b) there does not appear to be any real (inflation adjusted) cost increases across Cohorts 1-3. All costs were converted to 2022 constant dollars using the GDP price deflator.

Because of the large drop-off in reported costs for Cohorts 4-5, two alternative approaches were used to estimate costs for Cohorts 4-5. The first, a *high-service-cost estimate*, assumes costs for all Cohort 4-5 participants equaled those of the highest cost Cohort 1-3 participants. The service costs for every DTAP Completer in Cohorts 4-5 were assumed to be the same as the costs for the DTAP Completer with the highest costs from all of Cohorts 1-3 (\$12,997). Service costs for every DTAP Non-Completer in Cohorts 4-5 were assumed to be the same as the costs for every DTAP Non-Completer in Cohorts 4-5 were assumed to be the same as the costs for the DTAP Non-Completer with the highest costs from all of Cohorts 1-3 (\$11,932). This high-service-cost estimate represents an upper bound estimate of Cohorts 4-5 service costs. It effectively assumes that average costs for Cohort 4-5 Completers was 36% greater than the average for Cohort 1-3 Completers and that average costs for Cohorts 4-5 Non-Completers was 59% greater than Cohort 1-3 Non-Completers.

An average-service-cost estimate was also developed that assumed that service costs for every DTAP Completer in Cohorts 4-5 were the same as the average of costs for all DTAP Completers from Cohort 1-3 and that service costs for every DTAP Non-Completer in Cohorts 4-5 were the same as the average of costs for all DTAP Non-Completers from Cohort 1-3.

Table 4 reports the two alternative estimates for DTAP Completers and Non-Completers as well as the weighted average for all DTAP participants in Cohorts 4-5. Per-participant service costs vary by nearly \$4,000 between the two assumed measures.

DTAP Service Costs: High Service Costs Assumptions (\$2022 constant)					
DTAP All \$12,476					
Completers	\$12,997				
Non-Completers	\$11,932				
DTAP Service Cost: Average Service Cost Assumptions (\$2022 constant)					
DTAP All	\$8,570				
Completers	\$9,579				
Non-Completers	\$7,517				

Table 4: Alternative DTA	P Service Costs per-Pai	rticipant Assumption fo	r Cohorts 4-5
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² The null hypothesis that mean service costs for Cohorts 1 and 2, Cohorts 1 and 3, and Cohorts 1 and 3 were equal could not be rejected ($p \le 0.05$). Likewise, the null hypothesis that mean service costs for DTAP Non-Completers in Cohorts 1 and 2, Cohorts 1 and 3, and Cohorts 1 and 3 were equal could not be rejected ($p \le 0.05$). The null hypothesis that mean service costs for DTAP Completers in Cohorts 1 and 2 and Cohorts 1 and 3 were equal could not be rejected ($p \le 0.05$). The null hypothesis that mean service costs for DTAP completers in Cohorts 1 and 2 and Cohorts 1 and 3 were equal could not be rejected ($p \le 0.05$). The null hypothesis that mean service costs for DTAP completers in Cohorts 2 and 3 were equal could be rejected ($p \le 0.05$). The null hypothesis that mean service costs for DTAP completers in Cohorts 2 and 3 were equal could be rejected ($p \le 0.05$), however.

DTAP Staff Costs (Completers and Non-Completers)

Gross DTAP staff costs include both salary and Employee Related Expense (ERE) (e.g., benefits). Fiscal year (FY) costs were converted to 2022 constant dollars by dividing FY costs into four quarterly costs, then deflating based on quarterly GDP deflator estimates. The number of persons in the DTAP program in each quarter was determined based on dates of their entry into and exit from the program. These were used to calculate DTAP costs per participant for each year. Over time, the number of people from any of Cohort 1 to Cohort 5 began to decline as participants from Cohort 6, Cohort 7, etc. began to enter the program. Members of Cohorts 1-5 accounted for 100% of participants from FY 2012 to FY 2015; 46% of participants in FY 2016; 21% of participants in FY 2017; 10% of participants in FY 2018; 5% of participants in FY 2019; and 0% of participants thereafter. Separate estimates were made for Completers and Non-Completers on a simple percapita, per-guarter basis, and then converted to annual per capita costs. Staff costs were higher for Completers as they tended to be in the program for more quarters (Table 5).

	DTAP Staff Costs
DTAP All	\$6,914
Completers	\$8,684
Non-Completers	\$5,066

Table 5: Average per Capita Staff Costs for DTAP Participants

DTAP Sanction Costs (Completers and Non-Completers)

Jail sanction costs were calculated using the number of days sanctioned individuals spent in Pima County jail as well as reported Pima County jail cost estimates. FY 2012 estimates came from the Herman and Poindexter (2012) DTAP report, while later years come from reported figures from Pima County for FY 2012-2018³. We could not obtain estimates for FY 2015. In their place we used the simple average of costs from FY 2014 and FY 2016. Jail costs were comprised of two elements: (a) a first-day cost, which includes booking and (b) subsequent daily costs for each additional day in jail (see Table 6).

Hearing Costs (Completers and Non-Completers)

Hearing Costs for DTAP Completers

DTAP participants were required to attend a review hearing every two weeks to satisfy probation requirements, to assess their progress, and to address any challenges. The number of hearings attended by each participant was estimated by first calculating the number of days in the program (as program exit date minus program entry date). Days in the program were converted into number of hearings by dividing by 14. In theory, participants in jail because of

³ Pima County Inmate Billing Rates for Fiscal Year 2013, 2014, 2016/17 and 2018 were included in Memorandum to the Pima County Board of Supervisors and were previously available on-line. These memoranda are no longer available on-line. Submitted by the Community Research, Evaluation and Development (CRED) Team, https://norton.arizona.edu/cred 14

sanctions, could have missed hearings. We did not attempt to calculate the number of missed hearings and deduct these from the estimated total number of review hearings. Failing to make deductions for missed review hearings leads to a slight overstatement of DTAP hearing costs.

Costs per hearing for Cohorts 1 and 2 were based on the Herman & Poindexter (2012) and McGuire et al. (2017) reports. Costs per hearing were adjusted upward over time based on pay raise data for Pima County employees (see Table 6). Effective 8/21/2016, eligible employees received a pay increase of 2% to 6% based on employees' hourly rate. Costs of hearings after 8/21/2016 were adjusted upward by 6%. Effective 6/30/2018, eligible employees received a pay increase of 2.5%. Costs of hearings after 6/30/2018 were increased by another 2.5%. All costs were converted to 2022 constant dollars.

Hearing Costs for DTAP Non-Completers

DTAP Non-Completers also had review hearings every two weeks. The estimated number of review hearings attended was the number of days between when they entered the program and their program revocation date, divided by 14. We did not calculate the number of missed hearings for those in jail for sanctions and deduct these missed hearings from the estimated total number of review hearings. Failing to make deductions for missed review hearings leads to a slight overstatement of DTAP hearing costs. Costs per hearing were adjusted over time in response to Pima County salary increases in the same manner as for Completers (see above).

Non-Completers had additional hearings and associated costs. DTAP participants who failed to meet the requirements of the program attended revocation hearings before being sent to prison. There were three types of hearings: (i) initial application on petition to revoke probation hearing, (ii) violation hearing, and (iii) violation/change of plea hearing. The baseline costs for each of these hearings were obtained from the McGuire et al. (2017) report, which in turn were developed based on the Herman and Poindexter (2012) report. Following McGuire et al. (2017), we assumed each DTAP Non-Completer attended one of each of the three hearing types (i), (ii), (iii) above. Increases in costs per hearing were adjusted upwards based on Pima County salary increases in the same manner as for Completers (see above).

Jail before Prison Costs for DTAP Non-Completers

Direct jail costs were calculated from the number of days in jail times the daily Pima County Jail costs. The number of days in jail was calculated based on the difference between the DTAP participant's revocation date and their prison entry date. As with earlier studies, jail before prison costs include costs of transportation to prison. The baseline for these transportation costs were based on the Herman and Poindexter (2012) and McGuire et al. (2017) DTAP reports (Table 6). It was assumed that these costs rose with the rate of inflation so that real costs were

\$31.08 per person in 2022 constant dollars. Transportation to prison costs accounted for less than 12% of total jail before prison costs, with jail costs representing 88% of the total.

Prison Costs for DTAP Non-Completers

Prison costs for each DTAP Non-Completer were calculated as number of days in prison times the average per capita cost of prison per day from the Arizona Department of Corrections, Rehabilitation, and Reentry FY 2020 Operating Per Capita Cost Report⁴. Estimates of the number of days in prison were based on the reported day of entering prison and the reported day exiting prison. The per capita costs of prison per day for DTAP Non-Completers ranged from \$79.33 to \$87.41 per person per day in 2022 constant dollars (see Table 6), with a weightedaverage overall cost of \$80.77 per person per day. DTAP Non-Completers spent an average of 601 days in prison (slightly less than one year and eight months). Prison costs for DTAP Non-Completers were \$48,515 per participant. Averaged over all DTAP participants (both Completers and Non-Completers), the average was \$23,734 across all participants.

Costs for the Control Group

Hearing Costs (Control Group)

The sentencing hearing cost for the control group was based on Herman and Poindexter (2012) who estimated duration of the hearing in minutes multiplied by the salaries including benefits for the Judge, Prosecutor, Court Reporter, Clerk for the Judge, Pima County Sheriff's Office Deputy Bailiff, and adult probation officers plus transportation to and from the court house plus one hour of time for the Defense attorney. These figures served as the baseline estimates, which were then converted to 2022 constant dollars. For the control group we did not adjust costs upward based on Pima County salary increase as we did with DTAP participant hearing costs. While the control group members were selected from a similar time span as DTAP participants there is variation over when hearings occur. As county employee costs increase over time, so do hearing costs. This would mean that if control group members had hearings more recently they would have higher costs per-hearing purely on the basis of the later date of the hearing. To control for this potential timing effect, we did not adjust the costs of later control group hearings upward as we did for the DTAP participants. This avoids upwardly biasing control group hearing costs. By having no cost adjustments, our hearing costs are actually a lower bound estimate of control group hearing costs. This would lead to a small understatement of DTAP cost savings.

Jail before Prison Costs (Control Group)

Direct jail costs were calculated from the number of days in jail multiplied by the daily Pima County Jail costs. The number of days in jail was calculated based on the difference between

⁴ Arizona Department of Corrections, Rehabilitation, and Reentry. FY 2020 Operating Per Capita Cost Report; Retrieved from https://corrections.az.gov/sites/default/files/documents/reports/adcrr-percapcostreport fy2020-final.pdf Submitted by the Community Research, Evaluation and Development (CRED) Team, https://norton.arizona.edu/cred 16

the control group member disposition date and their prison entry date. As with earlier studies, jail before prison costs include costs of transportation to prison. The baseline for these transportation costs were taken from the Herman and Poindexter (2012) and McGuire et al. (2017) DTAP reports. It was assumed that these costs rose with the rate of inflation, so that real costs were \$31.08 per person in 2022 constant dollars (see Table 6).

Activity	Costs*
Hearings (Pima County Costs)	
Review Hearing	\$26.61-\$27.92 per hearing
Initial application on petition to revoke probation	\$76.89-\$80.65 per hearing
Violation hearing	\$68.62-\$71.99 per hearing
Violation/change of plea hearing	\$90.32-\$94.75 per hearing
Disposition/Sentencing for controls w/o transportation	\$105.40-\$110.56 per hearing
Jail Costs (Pima County)	
First Day in jail	\$287.35-\$363.40 per day
Subsequent Days in jail	\$102.49-\$119.12 per day
Transportation to prison from jail	\$31.08
Prison costs (depending on year of sentence)	\$79.33-\$87.41 per day

Table 6: Unit Cost Estimates and Actual Costs for DTAP Program and Control Group Cost

*Cost ranges are given for the years 2011-2023 in 2022 dollars

Prison Costs (Control Group)

Prison costs for each control group member were calculated as number of days in prison times the average per capita cost of prison per day from the Arizona Department of Corrections, Rehabilitation, and Reentry *FY 2020 Operating Per Capita Cost Report⁵*. The number of days were based on reported day of entering prison and the reported day of exiting prison. The control group members spent an average of 730 days (two years) in prison. The per capita costs of prison per day for the control group ranged from \$79.33 to \$87.41 per person per day in 2022 constant dollars, the same as for DTAP Non-Completers (see Table 6). The weightedaverage overall cost was less, however, \$80.10 per person per day. This is because costs vary year-to-year and control group members spent relatively more time in prison in lower-cost years. Thus, part of the difference in prison costs between DTAP Non-Completers and the control group is simply a function of *when* members were in prison. To make the relative costs more comparable, control group costs per person per day were calculated using the same

 ⁵ Arizona Department of Corrections, Rehabilitation, and Reentry. FY 2020 Operating Per Capita Cost Report; Retrieved from https://corrections.az.gov/sites/default/files/documents/reports/adcrr-percapcostreport_fy2020-final.pdf
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average cost as DTAP Non-Completers to remove this timing effect. Prison costs for the control group were \$58,978 per participant.

Results

Cost Analysis without Recidivism Costs

Under the high DTAP service cost assumption, per capita costs for DTAP participants were on average \$15,879 **lower** than for the control group (Table 8). Under the average DTAP service cost assumption, per capita costs for DTAP participants were on average \$19,785 **lower** than for the control group (Table 7). Per capita costs are highest for the DTAP Non-Completers as they have both DTAP program costs and prison costs. Per capita costs are lowest for DTAP Completers as they avoided prison costs.

Table 7: Mean Costs per Person for DTAP Participants and Prison Controls from the Criminal	
Justice System Perspective (\$2022 constant)	

Costs per Person (High DTAP Service Cost Assumption)								
	DTAP Service Costs	DTAP Staff Costs	Sanction Costs	County Hearing Costs	Jail Before Prison	Prison Costs	Total Costs	DTAP Net Cost
DTAP All	\$12,476	\$6,914	\$1,783	\$1,185	\$130	\$23,734	\$46,222	
Completers	\$12,997	\$8,684	\$1,613	\$1,337	\$-	\$-	\$24,630	
Non-completers	\$11,932	\$5,066	\$2,105	\$1,028	\$ 267	\$48,515	\$68,912	
Control group	\$-	\$-	\$-	\$111	\$3,013	\$58,978	\$62,101	
								\$(15,879)
	Costs	per Perso	n (Average	DTAP Serv	ice Cost As	sumption)		
	DTAPDTAPSanctionCountyJailPrisonTotalDTAPServiceStaffCostsCostsCostsPrisonCostsCostsCosts							DTAP Net Cost
DTAP All	\$8,570	\$6,914	\$1,783	\$1,185	\$130	\$23,734	\$42,316	
Completers	\$9,579	\$8,684	\$1,613	\$1,337	\$-	\$-	\$21,21	
Non-completers	\$7,51	\$5 <i>,</i> 066	\$2,105	\$1,028	\$267	\$8,515	\$64,497	
Control group	\$-	\$-	\$-	\$111	\$3,013	\$58,978	\$62,101	
								\$(19,785)

Based on the comparison of DTAP program and control group costs, it is estimated that every dollar spent on DTAP participants saved \$1.34-\$1.47 in state and county spending had DTAP participants been in the traditional prison-sentencing system (Table 8). The low estimate \$1.34 per dollar estimate is under the high DTAP service cost assumption, while the \$1.47 per dollar

estimate is under the average DTAP service costs assumption. We estimate that over the first five cohorts with 139 participants, the DTAP program saved a total of \$2.2 million to \$2.75 million (depending on DTAP service cost assumptions (Table 8).

	DTAP Cost Savings per Participant	Cost Savings per Dollar of DTAP Spending	Total Cost Savings for Cohorts 1 to 5
High DTAP Service Cost Assumption	\$ 15,879	\$ 1.34	\$ (2,207,173)
Average DTAP Service Cost Assumption	\$19,785	\$ 1.47	\$ (2,750,107)

Table 8: DTAP Program Cost Savings per Participant, per Dollar Spent, and Total (\$2022 constant)

Cost Analysis with Recidivism Costs

Recidivism Prison Costs for DTAP Completer and Non-Completers

Recidivism prison costs for each DTAP Completer and Non-Completer were calculated as the number of days in prison multiplied by the average per capita cost of prison per day from Arizona Department of Corrections, Rehabilitation, and Reentry *2020 Operating Per Capita Cost Report⁶*. In most cases, the number of days in prison was based on reported day of entering prison and the reported day of exiting prison. Three DTAP Completers and one Non-Completer have not yet been released from prison. For these individuals, days in prison were calculated based on scheduled release dates.

DTAP Completers who recidivated averaged more days in prison than Non-Completers who recidivated, but recidivism rates were lower for Completers. Among DTAP Completers, 22% recidivated, with an average of 901 days in prison. Among, Non-Completers, 26% recidivated, with an average of 787 days in prison. The number of recidivism days in prison averaged over all DTAP Completers (including those that did not recidivate) was 200 days. The number of recidivism days in prison averaged over all DTAP Non-Completers (including those that did not recidivate) was higher, 211 days.

The per capita costs of prison per day for DTAP Completers and Non-Completers ranged from \$79.87 to \$87.41 per person per day in 2022 constant dollars, with a weighted-average overall cost of \$85.67 per person per day. The most recent cost data were for FY 2020. It was assumed that inflation-adjusted prison costs have remained constant from FY 2020 onward.

⁶ Arizona Department of Corrections, Rehabilitation, and Reentry. FY 2020 Operating Per Capita Cost Report; Retrieved from https://corrections.az.gov/sites/default/files/documents/reports/adcrr-percapcostreport_fy2020-final.pdf
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Recidivism Prison Costs for the Control Group

The recidivism rate for the control group was 32%. Among recidivists, the average number of days in prison was 887 days. Because prison costs per capita per day vary year-to-year, part of the difference in prison costs between DTAP participants the control group is simply a function of when members were in prison. To remove this time-of-sentencing effect, and to make the relative costs more comparable, control group costs per person per day were calculated using the same average cost as DTAP participants, \$85.67 per person per day. Recidivism prison costs for the control group were \$24,458 per participant, averaged over the entire control group.

Effects of Recidivism on Overall Costs

Other recidivism costs estimated in earlier reports were not estimated here. These were jail before prison costs and hearing costs. These were excluded for two reasons. First, combined, these costs only accounted for 1% of the difference in DTAP and control group per person costs in the McGuire et al. (2017) DTAP report. In McGuire et al. (2017), these costs were \$173 per person larger for the control group. Second, these costs assumed that DTAP participants and control group members spent a similar time in jail before prison, on average and had similar costs of transportation to hearings. For the present study, we did not have data on these costs.

Recidivism rates were higher for the prison control group (32%) than for those who entered, but did not successfully complete, the DTAP program (26%), and for those who did complete the DTAP program (22%). Not surprisingly, recidivism prison costs were highest for the control group, lower for DTAP non-completers and lowest for DTAP completers (Table 9).

Including recidivism prison costs, state and county budgetary costs for DTAP participants were \$22,718 lower (under the high DTAP service cost assumption) to \$26,624 lower (assuming average DTAP service costs) per person than costs for a prison control group. These per-participant cost savings translated into a total cost savings of \$3.2 million to \$3.7 million for the first five cohorts of the DTAP program. Including recidivism costs, every \$1 in spending related to the DTAP program reduced combined state and county spending by \$1.36 -\$1.44. Under the average service cost assumption, total costs for the DTAP non-completers were actually lower than for the control group.

Table 9: Cost Differences between DTAP Participants and Control Group with Added Recidivism
Costs, with Cost Differences per Participant, per DTAP Dollar Spent, and Total Differences for
Cohorts 1-5 (Constant \$2022)

Costs per Person (High DTAP Service Cost Assumption)							
	Total Costs less Recidivism Costs	Recidivism Costs	Total Costs	DTAP Net Cost	Dollars Saved per Dollar of DTAP Spending	Total Cost Savings from DTAP for Cohorts 1-5	
DTAP All	\$ 46,222	\$ 17,620	\$ 63,842				
Completers	\$ 24,630	\$ 17,024	\$ 41,655				
Non-Completers	\$ 68,912	\$ 18,174	\$ 87 <i>,</i> 086				
Control group	\$ 62,101	\$ 24 <i>,</i> 458	\$ 86,560				
				\$(22,718)	\$1.36	\$3,157,749	
Costs per Person (Average DTAP Service Cost Assumption)							
	Recidivism Costs	Recidivism Costs	Total Costs	DTAP Net Cost	Dollars Saved per Dollar of DTAP Spending	Total Cost Savings from DTAP for Cohorts 1-5	
DTAP All	\$ 42,316	\$ 17,620	\$ 59 <i>,</i> 936				
Completers	\$ 21,212	\$ 17,024	\$ 38,237				
Non-Completers	\$ 64,497	\$ 18,174	\$ 82,671				
Control group	\$ 62,101	\$ 24 <i>,</i> 458	\$ 86,560				
				\$(26,624)	\$1.44	\$3,700,683	

Discussion

Based on these results, the DTAP program reduces state and county government spending relative to more traditional prison sentencing. Ignoring recidivism costs, state and county budgetary costs for DTAP participants were \$15,879 to \$19,785 lower per person than costs for a prison control group. These per-participant cost savings translated into a total cost savings of \$2.2 million to \$2.75 million for the first five cohorts of the DTAP program. Including recidivism prison costs resulted in even larger savings; state and county budgetary costs for DTAP participants were \$22,718 to \$26,624 lower per person than costs for the prison control group. These per-participant cost savings of \$3.2 million to \$3.7 million for the first five cohorts of the DTAP program. It is worth noting again that the methodology used for this study leads to a conservative estimate of cost savings.

In addition to cost savings, DTAP also works to reduce recidivism. Recidivism rates were higher for the prison control group (32%) than for those who entered, but did not successfully Submitted by the Community Research, Evaluation and Development (CRED) Team, https://norton.arizona.edu/cred 21 complete, the DTAP program (26%), and for those who completed the DTAP program (22%). These and cost savings calculations are based only on those involved in DTAP in its first five years; it is likely that these impacts persist in subsequent cohorts (discussed further below).

Comparison with Previous Cost Report Projections

The estimated cost savings from DTAP per participant for Cohorts 1-5 from this current study were lower than estimates from the earlier McGuire et al. (2017) report for Cohorts 1-2 but higher than their estimates for Cohorts 1 only (Table 10). Table 10 converts the McGuire et al. estimates, which were in 2016 constant dollars, to 2022 constant dollars. A main difference is differences in assumed DTAP service costs for Cohorts 4-5. Under the average cost assumption, estimates from the current study are within 5% of the McGuire et al. report. Recall also that this current analysis made some simplifying assumptions that would reduce estimated DTAP program cost savings. Given that, the results are quite close.

Table 10: Comparison of DTAP per Participant Costs Savings between Current Study and the
Previous McGuire et al. (2017) report (Constant \$2022)

	Cost Savings (\$2022 constant)
Without Recidivism	
McGuire et al. (2017)	
Cohort 1 Only	\$14,426
Cohorts 1-2	\$20,867
Current Study	
Cohorts 1-5 (high DTAP service costs)	\$15,879
Cohorts 1-5 (average DTAP service costs)	\$19,785
With Recidivism	
McGuire et al. (2017)	
Cohort 1 with Recidivism	\$16,303
Current Study	
Cohorts 1-5 (high DTAP service costs)	\$22,718
Cohorts 1-5 (average DTAP service costs)	\$26,624

McGuire et al. (2017) only accounted for recidivism costs for Cohort 1 because, at the time that was the only cohort where such costs could be estimated. They predicted that recidivism cost estimates would increase over time as more cohorts were included and "as more data on recidivism become available." This prediction appears correct. With recidivism data collected for more cohorts (Cohorts 1-5) and for a control group over a longer time frame recidivism cost estimates are indeed greater. Recidivism costs in this current study contribute more to overall program cost savings than the McGuire et al. estimates that were based on Cohort 1 alone.

Changes to the DTAP Program for Cohorts Six through 13 and Implications for Future Cost Estimates The costs estimated in this report are for those participants who were part of the first five cohorts of DTAP. Changes in eligibility guidelines and program implementation in subsequent years of DTAP may impact these estimated costs. The changes most likely to impact costs of the program, which are discussed below, relate to eligibility, treatment, the role of the judge and the duration of DTAP. If these changes can successfully increase DTAP program completion and reduce recidivism for participants at higher risk than those in earlier cohorts, the benefits for the criminal justice system could increase over time.

Eligibility criteria have changed since the first years of the program. Changes include allowing an exception for prostitution offenses from the no sexual offenses exclusion, and allowing a past history of violent offenses that would have previously been excluded (e.g., consider potential participants with a history of residential burglary more than seven years from current date of offense; consider a history of weapons offenses more than 10 years previous; and consider those with misdemeanor domestic violence offenses).

The clinical screener and type and provider of treatment for the DTAP program has also evolved over the course of the program. The role of clinical screener moved from Probation to behavioral health providers contracted by AHCCCS to coordinate behavioral health care for the region in DTAPs fourth year, and Probation ceased conducting pre-plea screening in DTAP's fifth year. The OST (Offender Screening Tool), a criminogenic risk assessment, was no longer administered as part of the pre-plea screening process, but instead following a plea once Probation began supervising a participant. A Clinical Resource Manager was added to DTAP, and this position was responsible for all clinical screening during the eligibility screening process and for clinical case management following enrollment in DTAP. The majority of treatment costs are now covered by AHCCCS, with grant funding covering personnel and wrap-around services. These changes would need to be considered in future cost studies.

The DTAP Judge has also changed numerous times over the course of DTAP with implications for costs. Later judges differed in their use and length of jail sanctions, with much longer (and costlier) jail sanctions being common in certain years. Other judges limited the number of participants who could be seen at each court session, resulting in participants being seen less frequently than every two weeks, with lesser associated hearing costs.⁷

An additional change that may meaningfully impact costs across DTAP is the decrease in the duration of the DTAP program. For those involved in the first five cohorts, DTAP was a three-

⁷ Both of these practices, jail sanctions longer than three to five days, and appearance at status hearings less frequently than every two weeks during the first phase of the program, run counter to the National Association of Adult Drug Courts Best Practice Standards. For more information see NADCP [The National Association of Drug Court Professionals] (2013). Adult Drug Court Best Practice Standards, Volume 1, p. 38. Retrieved from: <u>https://allrise.org/wp-content/uploads/2023/06/Adult-Drug-Court-Best-Practice-Standards-Volume-I-Text-Revision-December-2018.pd</u>

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year program, with costs incurred across those years. In later years, participants began to exit DTAP as a "successful early-term" completer. These participants needed to spend a minimum of 18 months in DTAP but then, based on program compliance and days of sobriety, DTAP staff could decide the participant was ready to complete the program early. Future costs studies should examine the impact of decreasing the length of time in DTAP for DTAP Completers.

A considerable limitation for future costs studies is the lack of accessible, systematic tracking of program activities and associated costs. Following a change in Regional Behavioral Health Provider (RBHA) provider in 2015, activities and costs were no longer accessible to the DTAP team. While these costs are undoubtedly tracked internally by the AHCCCS-contracted providers, discussions to access de-identified data have not borne fruit. To enable future costs studies, these would a) need to be made available to the DTAP team, or b) the DTAP team would need to systematically track these activities and costs themselves.

The current study, like previous DTAP cost analyses, focuses on narrow budgetary impacts and does not account for other possible program benefits. To better assess the full net benefit of the DTAP program for the state of Arizona, the program may wish to track broader employment, education, and family outcomes so that future analyses may be able to include estimates of benefits such as increased tax revenues, reduced expenditures on child welfare services, or improved child development and education outcomes.

References

Arizona Department of Corrections, Rehabilitation, and Reentry. FY 2020 Operating Per Capita Cost Report; Retrieved from

https://corrections.az.gov/sites/default/files/documents/reports/adcrrpercapcostreport_fy2020-final.pdf

Herman, P., Poindexter, B. (2012). *Cost-Benefit Analysis of Pima County's Drug Treatment Alternative to Prison (DTAP) Program Final Report*. Submitted to the Pima County Attorney's Office. December 2012.

Maimon Research LLC (2013). *Cumulative Second Year Cost-Benefit Analysis of Pima County's Drug Treatment Alternative to Prison Program Report.* Submitted to the Pima County Attorney's Office. September 2013.

McGuire, E., Schaller, J., Deirdre Avery, D., Walsh, M. (2017). *Cumulative Cost-Benefit Analysis* of Pima County's Drug Treatment Alternative to Prison (DTAP) Program. Submitted to the Pima County Attorney's Office. January 2017

Appendix

The authors worked with personnel from the Administration Office of the Courts (AOC) to identify Arizona criminal justice system cases within their data warehouse to comprise a new control group. The data extract parameters for this data pull, which would identify individuals throughout Arizona with charges which would have made them eligible for DTAP, are shown below.

Data Extract: Control Group

- A. Exclude individuals with cases filed from calendar year 2001 to 2015 with a charge with a case category of homicide, sex offenses, kidnapping, robbery, aggravated assault, weapons offense, and public order and felony classification (F1, F2, F3, F4, F5 and F6), as well as exclude individuals with drug offense with a felony classification of F2 or F3.
- B. Include individuals with cases filed in calendar years 2011 to 2015 with a first occurrence of one charge,
 - a. with a drug offense of ARS of 13-3405, 13-3407, 13-3408 or 13-3415 (and any subsections)
 - b. with a felony classification of (F4, F5, F6, FM or F) and
 - c. a disposition of guilty.
- C. Prior to the first occurrence stipulated in section "B" of section Comparison Group, include individuals with at least two prior occurrences in the preceding 10-years who have the same criteria in Comparison Group section "B-1, B-2 & B-3".