



**REVIEW OF AGENCY TREATMENT EFFECTIVENESS**  
**FISCAL YEAR 2008**



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Submitted in compliance with Texas Human Resources Code, Section 61.0315(a)

**REVIEW OF AGENCY TREATMENT EFFECTIVENESS**  
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## EXECUTIVE SUMMARY

This report presents the results of tracking subsequent justice system involvement, through Fiscal Year 2008, for youth who had participated in TYC's specialized treatment programs. Specifically, this study tested the hypothesis that specialized treatment programs are more effective than basic treatment alone for youth with specialized needs. Results showed that youth who participated in TYC programs between July 2000 and June 2007 had some success in reducing repeat criminal behavior.

- Youth who participated in sex offender treatment were 62% less likely to be rearrested for a violent offense within one year and 18% less likely to be incarcerated for any offense after three years.
- Youth placed in specialized mental health treatment programs were 11% less likely to be arrested for any offense.
- Enrollment in the Capital & Serious Violent Offender program had no statistically significant effect due to small sample sizes; however, youth enrolled in this program were 36% less likely to be arrested for any offense and 68% less likely to be arrested for a violent offense.
- As a group, females who received specialized treatment were less likely to be incarcerated within one year.

It is important to note that all youth in this study participated in programs prior to the implementation of reforms made as a result of Senate Bill 103.

While the agency has made major strides in developing and implementing a general treatment program, called CoNEXTions<sup>®</sup>, only the chemical dependency specialized treatment program has undergone major review. All other specialized treatment programs have yet to undergo in-depth assessment of their content and service delivery. In the agency's December 2008 "Final Report on the Progress and Impact of Senate Bill 103", I stated my commitment to continue to build on the agency's reforms that focus on service delivery systems and service enhancements. Specialized treatment programs are one of the major priorities for the upcoming fiscal year. Areas in which improvements can be made are the development and full implementation of best practices and evidence-based models, increasing enrollment and completion rates, and demonstrating positive treatment outcomes across the board, not only through residential, but also through re-entry service delivery.

Programs of excellence are occurring throughout TYC, and it is important to acknowledge those efforts and expand them to statewide application. Improvements to treatment programs will become evident as youth begin to complete these programs and incorporate new lessons and skills into their lives as they return to communities throughout Texas.

Respectfully,

Cheryl K. Townsend  
Executive Commissioner

**INTRODUCTION**

The mission of the Texas Youth Commission is to promote public safety by operating juvenile correctional facilities and by partnering with youth, families, and communities to provide a safe and secure environment where youth in the agency’s care and custody receive individualized education, treatment, life skills and employment training and positive role models to facilitate successful community reintegration. In support of this mission, Texas Human Resources Code, Section 61.0315(a), mandates that the Texas Youth Commission:

...shall annually review the effectiveness of the commission's programs for the rehabilitation and reestablishment in society of children committed to the commission, including programs for sex offenders, capital offenders, children who are chemically dependent, emotionally disturbed children, and females.

This report presents the results of tracking youth who had participated in TYC’s specialized treatment programs through FY2008. All youth included in this study were identified during the agency’s intake process as having a need for at least one type of specialized treatment program offered by the agency and had release dates on or earlier than June 30, 2007.

**The agency offers four specialized treatment programs: Sexual Behavior, Capital & Serious Violent Offender, Chemical Dependency, and Mental Health.** Treatment need was assessed using assessment instruments, interviews, medical examinations, and information from the committing court. Youth were placed in treatment based primarily on the youth’s offense and risk of future criminal behavior or because of a mental health treatment need. In addition to basic and specialized treatment, all youth in TYC participated in educational and/or vocational programs.

**YOUTH CHARACTERISTICS**

The characteristics of youth committed to TYC are not typical of the general population. Many of the characteristics are highly correlated with a probability of future criminal behavior. Most of these characteristics are static risk factors and cannot be changed. Examples of static risk factors are prior juvenile justice history, prior placements, IQ scores, and history of abuse and neglect.

Non-static factors and protective factors can be changed. Examples of these factors are education level, peer relationships, gang membership, and substance abuse.

Interventions can improve non-static and protective factors and reduce the influence of the unchangeable static history. However, even when youth committed to TYC make progress on non-static and protective factors, the risk of future criminal behavior is higher than that of the general population and community-based juvenile justice populations.

PROFILE OF TYC COMMITMENTS FY2008	
Prior Felony Referrals ...	100%
IQ Less than 100 ...	83%
Parents Unmarried, Divorced or Separated ...	77%
On Probation at Commitment ...	73%
Prior Out of Home Placements ...	58%
Family History of Criminal Behavior ...	49%
Self-Reported Gang Member ...	40%
Chemically Dependent ...	36%
Special Education Eligible ...	36%
History of Abuse or Neglect ...	33%
Serious Mental Health Diagnosis ...	32%
Median Education Achievement ...	Five Years Behind

## HYPOTHESIS

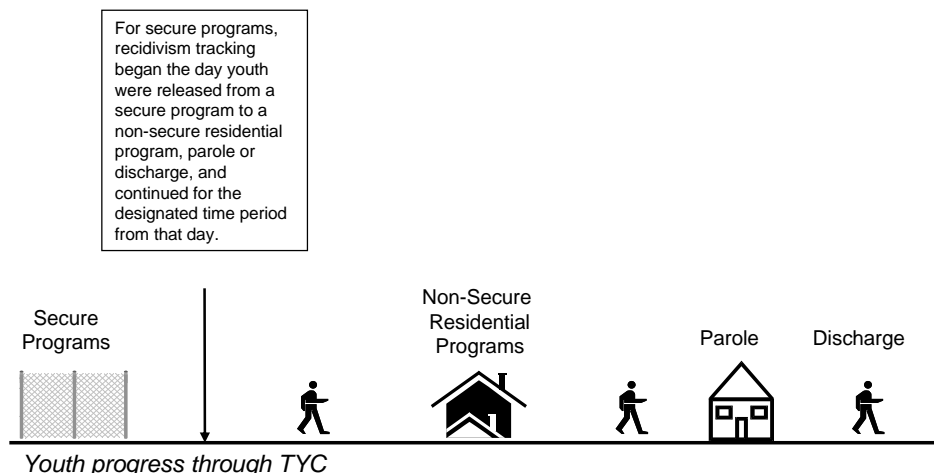
The current study was designed to determine whether specialized treatment programs reduced recidivism more than TYC’s basic treatment program.

*Hypothesis:* Specialized Treatment is more effective than basic treatment. After statistically controlling for differences among youth, youth with specialized needs who received specialized treatment had lower recidivism rates than did youth with comparable needs who did not receive specialized treatment.

## METHODOLOGY

This review examines recidivism of youth in TYC specialized treatment programs by tracking subsequent involvement in the juvenile and adult criminal justice systems. Recidivism is a general term describing a ‘return to criminal or delinquent behavior’ and can be defined in multiple ways. Therefore, caution is advised when comparing rates across different studies or justice systems. As depicted and defined below, this study used multiple measures of recidivism to capture different types of recidivating behavior at various points in time after release from a secure location.

### Recidivism Tracking Starting Point



Youth were tracked for up to three years from the date of release from a secure residential program to a non-secure residential program or parole or discharged from the agency.

***The specialized treatment analyses applied the following measures:***

**Arrest Rate for Violent Offense:** The percent of youth in the cohort who were released from secure programs that, within one year, was known to have been arrested for any new violent offense. Violent offenses are those for which a youth committed to TYC would be classified as a ‘Violent Offender’. These are generally felony level offenses defined in the Texas Penal Code as being committed against persons. Some specific examples are aggravated offenses, sexual assault, murder, assault, robbery, arson, and non-violent offenses committed with intent to commit a violent offense.

**Arrest Rate for Any Offense:** The percent of youth in the cohort who were released from secure programs that, within one year, was known to have been arrested for any offense or technical violation.

**Incarceration Rate for Any Offense:** The percent of youth released from secure programs that, within one or three years (depending on the cohort), were known to have been incarcerated in secure juvenile confinement or an adult prison facility for any offense or technical violation.

Data on youth with an initial release from secure confinement over two different five year periods were tracked to calculate measures at one and three years after release. The two cohorts had some overlap as depicted in the chart below. Note that the release periods for the groups overlap and, therefore, contain duplicate cases.

**2008 SAMPLE SELECTION AND TRACKING**

Cohort Sub-Group	Release Period	Tracked for One Year After Release Date with Cohort Tracking Ending...	Tracked for Three Years After Release Date with Cohort Tracking Ending...
3 Year	July 1, 2000-June 30, 2001	NA	June 30, 2004
3 Year	July 1, 2001-June 30, 2002	NA	June 30, 2005
1 & 3 Year	July 1, 2002-June 30, 2003	June 30, 2004	June 30, 2006
1 & 3 Year	July 1, 2003-June 30, 2004	June 30, 2005	June 30, 2007
1 & 3 Year	July 1, 2004-June 30, 2005	June 30, 2006	June 30, 2008
1 Year	July 1, 2005-June 30, 2006	June 30, 2007	NA
1 Year	July 1, 2006-June 30, 2007	June 30, 2008	NA

Characteristics of each youth in the sample included: assessed as 'high need' for specialized treatment by TYC and initial release from a secure program during the established time frame. Only those youth with an initial release from secure confinement were included in order to exclude youth who may have participated in specialized treatment during one stay but not another.

The analysis compared the percent of youth that recidivated within defined intervals of time following their release dates. Each measure had a comparison and control group. The control group consisted of youth with an initial release during the specified time period and had been assessed with a high need for a specialized treatment program, but who were not assigned to a program.

The treatment group consisted of youth meeting the same criteria but who were enrolled in a specialized treatment program for at least one day. Youth did not need to complete the specialized treatment program in order to have comparability with the control group, who did not have corresponding completion criteria.

**WHAT IS THE PREDICTED RATE?**

**The likelihood of re-offending based on certain characteristics like age at first referral and gang membership.**

Similar to actuarial tables used by the health care industry to identify a person's probability of developing heart disease based on characteristics such as blood pressure, smoking, age, and gender; or by the insurance industry to identify a driver's probability of being involved in an accident based on age, prior accidents, marital status, and distance from work.

Youth with different probabilities to recidivate and with different characteristics were accounted for by creating a 'probability to recidivate' variable for each youth based on individual characteristics and history in TYC. The resulting probability was a control variable in the analysis.

The probability of recidivating was calculated for each youth and an overall expected value established for the treatment and control groups. The difference between the predicted and actual values was the means by which the effectiveness of treatment was determined.<sup>1</sup>

The reason for controlling these differences is illustrated on the following page. For this hypothetical example, Program A initially appears to be more effective than Program B. However, the difference in program effectiveness is actually due to gender differences between programs rather than treatment received.

Several factors underlie the probability that a youth will offend after release. For example, age at first referral is highly associated with re-offending. Predicted rate is a scientifically credible way to determine the likelihood of recidivism using known predictors such as age at first referral, juvenile justice history, and gang membership.

In TYC, participation in treatment programs is only one factor that can have an impact on lowering the probability of re-offending. In order to understand how much impact treatment has on recidivism, other factors that are known predictors of recidivism must be taken into account.

**PROGRAM EFFECTIVENESS CALCULATION EXAMPLE**

Program	Males			Females			Total		
	Rearrest			Rearrest			Rearrest		
	Total Released	Violent Offense	Rate	Total Released	Violent Offense	Rate	Total Released	Violent Offense	Rate
A	100	9	9.0%	100	3	3.0%	200	12	6.0%
B	100	9	9.0%	200	6	3.0%	300	15	5.0%

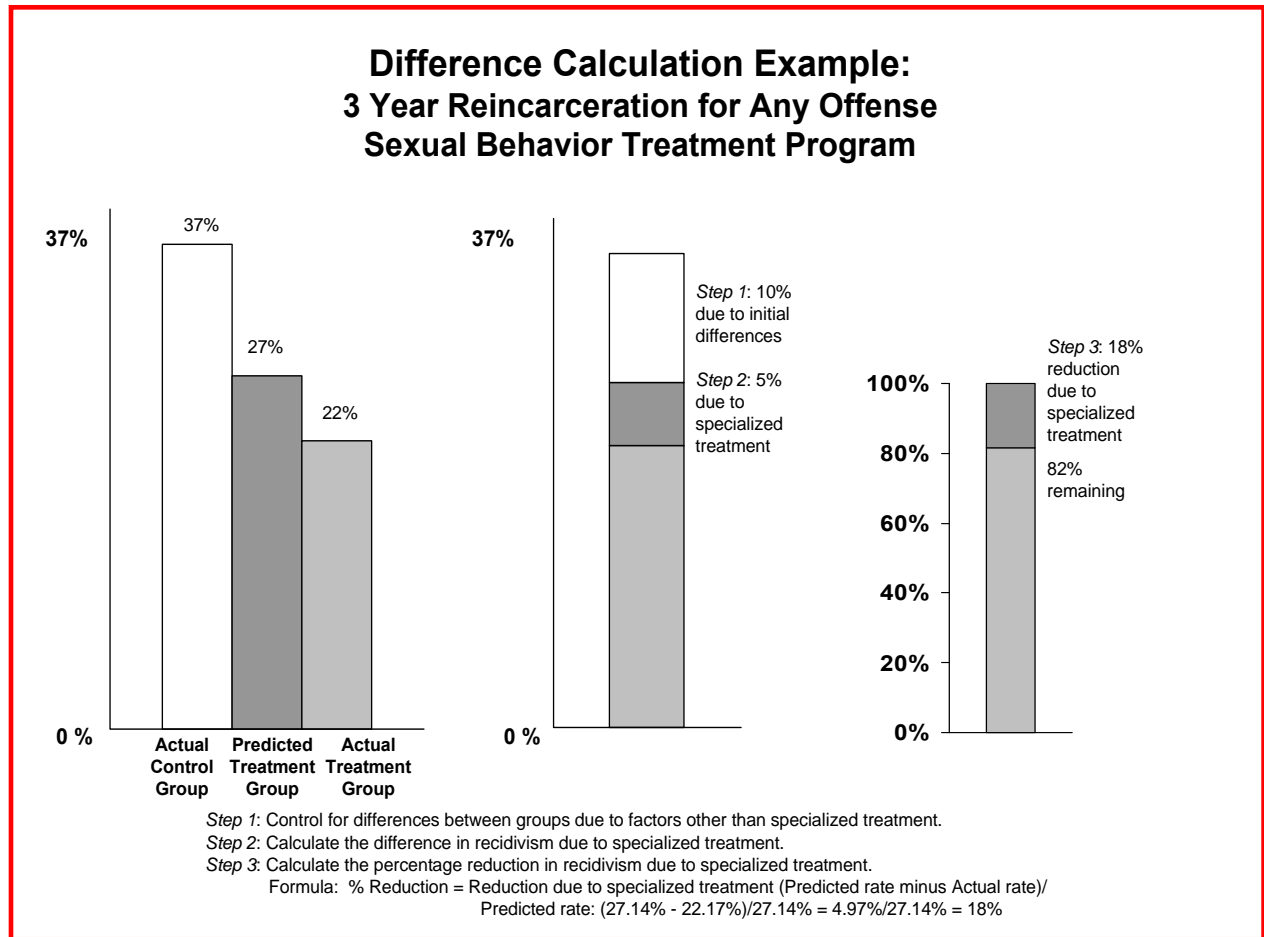
- This hypothetical table shows two programs with slightly different rates for rearrest for a violent offense. As can be seen in the far right column, Program A has a 6.0% rate, compared to Program B, which has a rate of 5.0%. Not looking at the characteristics of who is in the program, it could be concluded that the recidivism rate for A is 20% higher than that of B (just like \$6 is 20% more than \$5).
- However, both programs were equally successful with males (9%) and with females (3%). Both programs had the same number of males (100), but Program B had more females than did Program A (200 vs. 100). Therefore Program A was handicapped by having a higher percentage of their releases being high risk youths, namely males.
- A statistical program would demonstrate that the treatment effect of Program A as opposed to Program B was 0%, and the effect of initial differences in youth characteristics between the programs was 20%.
- While Programs A and B are hypothetical, the difference in recidivism risk between males and females is real. This example demonstrates why the comparative risk levels must be taken into account when evaluating program effectiveness.

<sup>1</sup> Probabilities were based on the actual recidivism rate of the control group and characteristics empirically found in the cohorts to predict recidivism. Among the characteristics included in the specialized treatment analysis were: age at commitment, age of first referral, classifying offense, citizenship, commitment county, escape history, ethnicity, gender, self-reported gang membership, prior placements, prior felony adjudications, prior felony referrals, prior violent offense referrals, prior probations, type of release program, prior runaway referrals, specialized treatment needs, incidents during orientation and assessment, weapon use, grade level at commitment, criminal involvement by relatives, and total incidents reported prior to release. The predicted rate statistically assumed that the cohort did not receive specialized treatment.



**ANALYSIS**

Youth who received treatment (treatment group) were compared with similar youth who did not receive treatment (control group). Each youth was tracked from the release date until the end of the tracking period. For each measure of specialized treatment, the analysis addressed both the magnitude of differences between groups and the probability of the differences occurring by chance. For the latter, the smaller the probability, the more likely the difference arose from a real effect and did not occur by chance. This calculation is illustrated below for the Sexual Behavior Treatment Program using the outcome measure “Three-year Incarceration Rate for Any Offense”.



**INTERVENTIONS FOR YOUTH IN CURRENT STUDY**

Youth in this study received treatment when TYC was offering Resocialization as its primary, or basic, treatment intervention. Resocialization focused on three major areas of intervention: academic and workforce development, behavior modification, and correctional therapy. Program completion was determined by progress through a system of four “phases” that required youth to learn and demonstrate competency in a series of objectives designed to reduce the probability of offending. The four phases were: Orientation, Life Story, Offense Cycle, and Success Plan. Program completion was defined as completing and maintaining Phase 4 in each area.

In June 2007, while the agency was under conservatorship, the Resocialization program was discontinued and a simplified version, the Transition Treatment Program (TTP), was introduced. TTP uses the phase system to determine program completion and it retains the four main phase objectives of the Resocialization program. TTP is currently being replaced with its new basic treatment program, CoNEXTions©. Specialized treatment programs are also being updated to

provide more consistency with documented best and promising practices. These new programs are not part of the current study.

At admission to TYC, all youth entered the Orientation & Assessment Unit where the assessment process identified the presence of specialized needs that required additional emphasis while in TYC. Three specialized need areas were based primarily on the youth’s classifying offense: capital and serious violent offenses, sexual offenses, and drug-related offenses. The need for specialized chemical dependency treatment was based on a diagnosis of chemical dependency. In addition, for all three of these specialized treatment programs, the presence of a high risk for re-offending in the respective area was a factor for determining specialized need. The fourth specialized treatment program was for youth with identified mental health needs. Inclusion in this group was based on the presence of a mental health diagnosis and impaired adaptive functioning indicating an ongoing need for supportive psychiatric and mental health services not available in non-specialized TYC programs.

**Enrollment Rates by Cohort<sup>2</sup>**

	<b>Total Cohort</b>	<b>Total Enrolled</b>	<b>Enrollment Rate</b>
<b>One Year Treatment Cohorts</b>			
<i>Sexual Behavior</i>	1,514	585	39%
<i>Chemical Dependency</i>	5,438	2,430	45%
<i>Mental Health</i>	5,464	1,281	23%
<i>C&amp;SVO</i>	510	100	20%
<b>Three Year Treatment Cohorts</b>			
<i>Sexual Behavior</i>	1,256	424	34%
<i>Chemical Dependency</i>	4,292	2,167	50%
<i>Mental Health</i>	5,108	1,053	21%
<i>C&amp;SVO</i>	608	127	21%

- Enrollment rates for youth who had a need for treatment ranged from 20% to 50%, depending on the type of need. Reasons for not enrolling a youth were: limited bed space, enrollment in another program that the youth needed, and disciplinary problems in orientation and assessment.
- Only youth with the most severe mental health diagnoses are enrolled in the agency’s specialized mental health treatment program. Most youth with mental health treatment needs function well in a general population setting where they have access to licensed therapists, psychological care, and nursing assistance.

The specialized treatment programs were based on the Resocialization model but with specific and more intensive emphasis on the specialized treatment need. In addition to factors relating to general delinquent or criminal behavior, Life Stories included additional focus on the etiology and development of those specific risk areas associated with the specialized need being addressed. Offense cycles were expanded to include understanding of how aggressive, sexual or drug related behavior patterns emerged and were maintained with emphasis on how they could be modified. Success Planning addressed specific risk management issues in the community to address these specialized risks. In addition, those in the specialized programs received Psycho-educational programming to help them better understand “normal” development and social customs. When indicated, the programs would introduce specialized modalities to facilitate the treatment process. Caseload sizes were lower than in the general programs to facilitate more intensive individual and group work and the staff assigned to the programs received additional specialized training. Brief descriptions of the programs involved in the current study are included below.

<sup>2</sup> Cohorts include duplicate youth when youth present multiple needs. Cohorts include males and females.

**Capital & Serious Violent Offender Treatment Program (C&SVOTP)** • This treatment program was a dormitory-based, structured 24 week program. The residential component assisted in follow-up processing and exploration of issues identified in the intensive process group. It provided an opportunity to analyze the degree to which treatment gains observed in the group would generalize to daily behavior on the dorm. The residential element allowed for better coordination of treatment services between the program therapists, case workers and dormitory staff members. It was designed to facilitate cognitive, emotional and social developmental processes and facilitate empathic development, emotional regulation and appropriate expression of feeling to improve interpersonal functioning.

**Sexual Behavior Treatment Program (SBTP)** • This treatment program was a dormitory-based, structured 12 -18 month program designed to provide services to youth with high risk to commit a new sexual offense. The residential advantage allowed for intensive work with youth on a daily basis to ensure that gains and plans made in group were carried out in the less structured day to day living situations. Motivational techniques specific to sex offender treatment were coupled with intensive psychotherapeutic groups to identify issues and facilitate change.

**Chemical Dependency Treatment Program (CDTP)** • This treatment program was a dormitory-based, 6 month program based on the belief that dependency was a primary chronic disease which is progressive and influenced by biological, psychological and social factors. The consequences of continued drug use include problems in spiritual, moral, physical, emotional, intellectual and social functioning. The program sought to address not only underlying emotional dynamics that fueled delinquent and criminal behaviors but also addressed CD issues that impacted the youth, their families and other victims. Entry to the program was based on a diagnosed Chemical Dependency and a high score on the agency's violent risk assessment instrument.

**Mental Health Treatment Program (MHTP)** • While most youth with mental health problems were able to participate in the agency's general programs with psychiatric and psychological support and follow-up, a small percentage had either more serious diagnoses or mental disorders that did not respond to standard interventions. These youth were generally less able to manage the demands of the basic treatment program without additional support and treatment overlay. The MHTP provided enhanced psychiatric and psychological assistance along with smaller caseloads. Adaptations of the Resocialization or TTP were made to address and minimize the obstacles of primary symptoms of the MH diagnosis. Most youth were able to progress in the treatment program with these additional supports in place. A very small percentage of TYC youth had mental health symptoms that would periodically increase in severity and that required a protective environment to treat the most severe symptoms. Youth who were dangerous to themselves or to others were eligible for admission to the Corsicana Stabilization Unit (CSU) for short term treatment.

**RESULTS: SEXUAL BEHAVIOR TREATMENT PROGRAM**

As presented in the methodology section, data on youth with an initial release from secure confinement over two different five year periods were tracked to calculate measures at one and three years after release. Characteristics of each youth in the sexual behavior treatment sample included sex offenders with an initial release from a secure program during the established time frames.

The total sample for measures at one year post-release included 1,514 youth and for measures at three years post-release included 1,256 youth.

**Sexual Behavior Treatment Enrollment Rates**

	One Year Cohort	Three Year Cohort
Total Cohort	1514	1256
Total Enrolled	585	424
<b>Enrollment Rate</b>	<b>39%</b>	<b>34%</b>

The enrolled group made up the study’s treatment group while the not enrolled group made up the control group. Controlling for statistical differences between the treatment and control groups, calculations were made regarding the treatment group’s expected outcomes, probabilities of the outcomes occurring by chance, and the statistical significance of the differences between the actual and expected values. Results are presented and discussed below.

**Sexual Behavior Treatment Effectiveness Results**

	Control Group	Treatment Group	Expected Value Treatment Group <sup>3</sup>	Difference between Actual and Expected <sup>4</sup>	Probability <sup>5</sup>	Level of Significance <sup>6</sup>
Arrest for Any Offense: 1 Year	36.06%	25.64%	29.45%	12.94%	10.9%	ns
<b>Arrest for Violent Offense: 1 Year</b>	4.52%	2.56%	6.81%	62.41%	9.4%	*
Incarceration for Any Offense: 1 Year	16.15%	12.99%	12.25%	-6.04%	68.7%	ns
<b>Incarceration for Any Offense: 3 Year</b>	37.26%	22.17%	27.14%	18.31%	6.5%	*

- Youth who were enrolled in sex offender treatment were **significantly less likely to have been incarcerated within three years of release and less likely to have been arrested for a violent offense within one year.**
- Although the treatment group had different rates for the two other measures, the expected values that were calculated while controlling for differences between the groups were not significantly different from those that occurred without controls. This indicates that the differences in these outcomes could have occurred by chance at least 10 times in 100 had there been no specialized treatment effect.

<sup>3</sup> The expected outcome when differences between the control and treatment groups were controlled.

<sup>4</sup> The difference is the percentage difference between the actual and expected rate. Negative values indicate that the treatment group had a higher number than expected as the outcome. Positive values indicate that the treatment group had a lower number than expected as the outcome.

<sup>5</sup> The percent of time the effect would have occurred by chance with everything else held constant. Lower values indicate that the difference was due to the intervention while higher values indicate a higher likelihood that the difference would have occurred without the intervention.

<sup>6</sup> \*\*\* p < .01; \*\* p < .05; \* p < .10; ns = not significant at .10

**RESULTS: CAPITAL & SERIOUS VIOLENT OFFENDER TREATMENT PROGRAM**

All youth in the cohorts who were capital offenders or in need of treatment based on other serious violent offenses were included in this analysis. As presented in the methodology section, data on youth with an initial release from secure confinement over two different five year periods were tracked to calculate measures at one and three years after release. Characteristics of each youth in the capital and serious violent treatment sample included capital and serious violent offenders with an initial release from a secure program during the established time frames.

The total sample for measures at one year post-release included 510 youth and for measures at three years post-release included 608 youth.

**C&SVO Enrollment Rates**

	<b>One Year Cohort</b>	<b>Three Year Cohort</b>
Total Cohort	510	608
Total Enrolled	100	127
<b>Enrollment Rate</b>	<b>20%</b>	<b>21%</b>

The enrolled group made up the study’s treatment group while the not enrolled group made up the control group. Controlling for statistical differences between the treatment and control groups, calculations were made regarding the treatment group’s expected outcomes, probabilities of the outcomes occurring by chance, and the statistical significance of the differences between the actual and expected values. Results are presented and discussed below.

**Capital & Serious Violent Offender Treatment Effectiveness**

	Control Group	Treatment Group	Expected Value Treatment Group <sup>7</sup>	Difference between Actual and Expected <sup>8</sup>	Probability <sup>9</sup>	Level of Significance <sup>10</sup>
Arrest for Any Offense: 1 Year	29.27%	13.00%	20.44%	36.40%	11.6%	ns
Arrest for Violent Offense: 1 Year	7.80%	2.00%	6.24%	67.95%	11.5%	ns
Incarceration for Any Offense: 1 Year	6.10%	1.00%	1.15%	13.04%	94.4%	ns
Incarceration for Any Offense: 3 Year	23.49%	14.17%	16.04%	11.66%	63.9%	ns

- After controlling for differences between the groups, the program had **no statistically significant effect** on the selected outcomes **due to small sample sizes**.
- The actual differences in both arrest outcomes, though not statistically significant due to small sample sizes, are substantively large. **Youth were 36% less likely to be arrested for any offense and 68% less likely to be arrested for a violent offense.**

<sup>7</sup> The expected outcome when differences between the control and treatment groups were controlled.

<sup>8</sup> The difference is the percentage difference between the actual and expected rate. Positive values indicate that the treatment group had a lower number than expected as the outcome.

<sup>9</sup> The percent of time the effect would have occurred by chance with everything else held constant. Lower values indicate that the difference was due to the intervention while higher values indicate a higher likelihood that the difference would have occurred without the intervention.

<sup>10</sup> \*\*\* p<.01, \*\* p<.05, \* p<.10; ns = not significant at .10

**RESULTS: CHEMICAL DEPENDENCY TREATMENT PROGRAM**

As presented in the methodology section, data on youth with an initial release from secure confinement over two different five year periods were tracked to calculate measures at one and three years after release. Characteristics of each youth in the chemical dependency treatment sample included: assessed as being chemically dependent with an initial release from a secure program during the established time frames.

The total sample for measures at one year post-release included 5,438 youth and for measures at three years post-release included 4,292 youth.

	<b>One Year Cohort</b>	<b>Three Year Cohort</b>
Total Cohort	5,438	4,292
Total Enrolled	2,430	2,167
<b>Enrollment Rate</b>	<b>45%</b>	<b>50%</b>

The enrolled group made up the study’s treatment group while the not enrolled group made up the control group. Controlling for statistical differences between the treatment and control groups, calculations were made regarding the treatment group’s expected outcomes, probabilities of the outcomes occurring by chance, and the statistical significance of the differences between the actual and expected values. Results are presented and discussed below.

**Chemical Dependency Treatment Effectiveness**

	Control Group	Treatment Group	Expected Value Treatment Group <sup>11</sup>	Difference between Actual and Expected <sup>12</sup>	Probability <sup>13</sup>	Level of Significance <sup>14</sup>
<b>Arrest for Any Offense: 1 Year</b>	52.63%	65.88%	62.23%	-5.87%	0.5%	***
Arrest for Violent Offense: 1 Year	6.98%	9.88%	9.12%	-8.33%	33.3%	ns
<b>Incarceration Any Offense: 1 Year</b>	21.48%	27.70%	23.72%	-16.78%	0.07%	***
Incarceration for Any Offense: 3 Year	46.68%	48.82%	47.89%	-1.94%	53.8%	ns

- Youth who were enrolled in chemical dependency treatment were significantly **more likely to have been arrested or incarcerated within one year** of release from a secure program.
- Although the treatment group had higher rates for the two other measures, the expected values that were calculated while controlling for differences between the groups were not significantly different from those that occurred without controls. This indicates that the differences in these outcomes could have occurred by chance at least 10 times in 100 had there been no specialized treatment effect.

Current research indicates that the inappropriate placement of youth in a level of treatment not matched with their needs is not only ineffective but also leads to worse outcomes. Chemical Dependency (CD) programming provided within TYC has not effectively met the needs of most chemically dependent youth. The program has been in need of a total restructuring if desired

<sup>11</sup> The expected outcome when differences between the control and treatment groups were controlled.

<sup>12</sup> The difference is the percentage difference between the actual and expected rate. Negative values indicate that the treatment group had a higher number than expected as the outcome. Positive values indicate that the treatment group had a lower number than expected as the outcome.

<sup>13</sup> The percent of time the effect would have occurred by chance with everything else held constant. Lower values indicate that the difference was due to the intervention while higher values indicate a higher likelihood that the difference would have occurred without the intervention.

<sup>14</sup> \*\*\* p<.01, \*\* p<.05, \* p<.10; ns = not significant at .10

outcomes are to be produced. As a first step in FY2008, institution schedules now afford a sufficient block of time to specifically provide CD treatment services to participants. TYC currently has 264 beds dedicated to working with chemically dependent adolescents and is planning to increase this in FY 2009 providing a variety of treatment services.

The CD program is undergoing more dramatic changes. Keeping with the agency's mandate to provide an updated, evidenced-based curriculum, *Pathways to Self-Discovery and Change: a Guide to Responsible Living* was selected and is currently being implemented. This curriculum is authored by Dr. Harvey Milkman and was chosen because the program is designed to work most effectively with chemically dependent incarcerated adolescents.

Plans are currently under way to provide a full compliment of treatment services to meet the needs of the youth in our system. Realizing youth have a multitude of needs; the CD program will be expanding service to include an orientation dorm, outpatient treatment, supportive residential, a CD Aftercare dorm and a Relapse Prevention dorm for those youth re-entering the TYC system. Providing this continuum of services will allow TYC to more effectively address the individual needs of the youth.

**RESULTS: MENTAL HEALTH TREATMENT PROGRAM**

All youth in the cohorts who had a high need for mental health treatment were included in this analysis. Selection for this program was based on diagnoses and the Global Assessment of Functioning (GAF) score.

As presented in the methodology section, data on youth with an initial release from secure confinement over two different five year periods were tracked to calculate measures at one and three years after release. Characteristics of each youth in the mental health treatment sample included: assessed as 'high need' by TYC for specialized mental health treatment with an initial release from a secure program during the established time frames.

The total sample for measures at one year post-release included 5,464 youth and for measures at three years post-release included 5,108 youth.

	<b>One Year Cohort</b>	<b>Three Year Cohort</b>
Total Cohort	5,464	5,108
Total Enrolled	1,281	1,053
<b>Enrollment Rate</b>	<b>23%</b>	<b>21%</b>

The enrolled group made up the study's treatment group while the not enrolled group made up the control group. Controlling for statistical differences between the treatment and control groups, calculations were made regarding the treatment group's expected outcomes, probabilities of the outcomes occurring by chance, and the statistical significance of the differences between the actual and expected values. Results are presented and discussed below.

**Mental Health Treatment Effectiveness Results**

	Control Group	Treatment Group	Expected Value Treatment Group <sup>15</sup>	Difference between Actual and Expected <sup>16</sup>	Probability <sup>17</sup>	Level of Significance <sup>18</sup>
<b>Arrest for Any Offense: 1 Year</b>	54.72%	46.99%	52.81%	11.02%	0.02%	***
Arrest for Violent Offense: 1 Year	7.98%	7.57%	7.12%	-6.32%	61.4%	ns
<b>Incarceration for Any Offense: 1 Year</b>	25.22%	20.30%	27.16%	25.26%	0.01%	***
Incarceration for Any Offense: 3 Year	46.41%	41.98%	43.74%	4.02%	31.4%	ns

- Youth who were enrolled in mental health treatment were **significantly less likely to have been arrested or incarcerated within one year** of release from a secure program.
- Although the treatment group had different rates for the two other measures, the expected values that were calculated while controlling for differences between the groups were not significantly different from those that occurred without controls. This indicates that the differences in these outcomes could have occurred by chance at least 10 times in 100 had there been no specialized treatment effect.

<sup>15</sup> The expected outcome when differences between the control and treatment groups were controlled.

<sup>16</sup> The difference is the percentage difference between the actual and expected rate. Negative values indicate that the treatment group had a higher number than expected as the outcome. Positive values indicate that the treatment group had a lower number than expected as the outcome.

<sup>17</sup> The percent of time the effect would have occurred by chance with everything else held constant. Lower values indicate that the difference was due to the intervention while higher values indicate a higher likelihood that the difference would have occurred without the intervention.

<sup>18</sup> \*\*\* p<.01, \*\* p<.05, \* p<.10; ns = not significant at .10



**RESULTS: FEMALE YOUTH**

Females included in this analysis were a sub-group of the cohorts presented throughout this report. All of the females, like the males, had a need for one or more type of specialized treatment. Because of the lower number of female youth in some of the specialized treatment need groups, results are provided for all females as a group.

As presented in the methodology section, data on youth with an initial release from secure confinement over two different five year periods were tracked to calculate measures at one and three years after release. Characteristics of each youth in the female treatment sample included: assessed as ‘high need’ by TYC for specialized treatment and initial release from a secure program during the established time frame. The total sample for measures at one year post-release included 1,041 youth and for measures at three years post-release included 869 youth.

**Female Enrollment Rates**

	One Year Cohort	Three Year Cohort
Total Cohort	1,041	869
Total Enrolled	503	401
<b>Enrollment Rate</b>	<b>48%</b>	<b>46%</b>

- Between 46 and 48 percent of females were enrolled in specialized programs.

The enrolled group of females made up the study’s treatment group while the not enrolled group of females made up the control group. Controlling for statistical differences between the treatment and control groups, calculations were made regarding the treatment group’s expected outcomes, probabilities of the outcomes occurring by chance, and the statistical significance of the differences between the actual and expected values. Results are presented and discussed below.

**Female Specialized Treatment Results**

	Control Group	Treatment Group	Expected Value Treatment Group <sup>19</sup>	Difference between Actual and Expected <sup>20</sup>	Probability <sup>21</sup>	Level of Significance <sup>22</sup>
Arrest for Any Offense: 1 Year	34.01%	32.80%	33.68%	2.61%	76.8%	ns
Arrest for Violent Offense: 1 Year	2.04%	4.17%	3.54%	-17.80%	55.0%	ns
<b>Incarceration for Any Offense: 1 Year</b>	18.22%	16.10%	20.40%	21.08%	6.7%	*
Incarceration for Any Offense: 3 Year	31.20%	25.44%	27.00%	5.78%	60.8%	ns

- Females who were enrolled in specialized treatment were **significantly less likely to have been incarcerated within one year** of release from a secure program.
- Although the treatment group had different rates for the three other measures, the expected values that were calculated while controlling for differences between the groups were not significantly different from those that occurred without controls. This indicates that the differences in these outcomes could have occurred by chance at least 10 times in 100 had there been no specialized treatment effect.

<sup>19</sup> The expected outcome when differences between the control and treatment groups were controlled.

<sup>20</sup> The difference is the percentage difference between the actual and expected rate. Negative values indicate that the treatment group had a higher number than expected as the outcome. Positive values indicate that the treatment group had a lower number than expected as the outcome.

<sup>21</sup> The percent of time the effect would have occurred by chance with everything else held constant. Lower values indicate that the difference was due to the intervention while higher values indicate a higher likelihood that the difference would have occurred without the intervention.

<sup>22</sup> \*\*\* p<.01, \*\* p<.05, \* p<.10; ns = not significant at .10

## INTERVENTIONS FOR YOUTH IN FUTURE COHORTS

CoNEXTions© was piloted at one TYC facility in November 2008 and is currently being implemented system-wide. The program is based on evidence-based models of intervention that conform to either best or promising practices. This assessment driven program identifies risk and protective factors that are known to influence criminal behaviors. Cognitive-behavioral based interventions are individualized and considerate of multiple factors such as age, gender, cognitive ability, family structures, language preference and specialized needs. An aggressive skills and motivation component develops appropriate attitudes and values necessary to change delinquent and criminal behavior. An aggressive community integration component involves parole officers, family members and community resources planning for reentry throughout the course of treatment. Specific release planning to identify risks, and develop plans and skills to either avoid or deal with these risks is developed and practiced in groups on a regular basis. A strong academic or workforce development component is included as a major element of the risk reduction protective enhancing model.

Research has shown that approximately 65 percent of youth entering TYC will need specialized treatment services. To address these numbers, specialized treatment intervention has been revised to better match the individualized needs of youth. A continuum of specialized interventions such as intensive residential placement, a “pull out”, or outpatient service through a Psycho-educational program provides options to best match needs with services. Placement of youth into chemical dependency treatment programs, as they were designed and delivered at TYC in the past has been shown to be counter-productive in terms of reducing recidivism. Other TYC treatment programs have not been as effective as they could have been. Some youth do better receiving short term treatment interventions while they are in the general CoNEXTions© program. Others, with low risk histories, do best with less intensive education-focused models.

Residential specialized treatment programs, in addition to providing interventions unique to the treatment populations, address the more general risk factors associated with any criminal behavior. Thus, the intent is to use the CoNEXTions© model to address general risk and protective factors while specialized interventions address the specific risks of criminal behaviors associated with the specialized need. Psycho-educational intervention is a part of the overall program structure. A review of research-based programs has resulted in modifications of the current specialized treatment models to reflect new and validated interventions in these areas. An example of this is in the CDTP. In FY2008, TYC adopted the nationally recognized curriculum designed by Dr. Harvey Milkman: *Pathways to Self Discovery and Change (PSD-C)*. It is a research-based, cognitive-behavioral curriculum for youth who are addressing co-occurring problems with criminal conduct and substance abuse. The principles of this program and the cognitive life skills that are part of the CoNEXTions© program are complementary. TYC case managers and clinical staff have been trained for program delivery. Training has also been provided to program supervisors on clinical assessments to ensure program fidelity.

The MHTP will continue to provide the dorm-based intensive mental health treatment identified for the majority of youth with this specialized need. This program will operate the CoNEXTions© basic program and will have specialized services available as needed for youth with other needs. These include the Psycho-educational and outpatient service options. For youth with the most serious mental health needs, TYC will continue to operate its Corsicana facility, for which mental health treatment is integrated into the entire program throughout the campus.

The ability to have psychiatric and psychological staff focus on managing the symptoms associated with the mental health issue(s) will allow Case Manager staff to focus on the risk reduction and protective enhancement strategies necessary to reduce the risk of offending after release. The collaboration between the services will allow for individualized treatment for each youth that addresses both the MH issues and the other needs.

The “pull out” or outpatient specialized services in Sexual Offending and Chemical Dependency are called that because they involve removing a youth out of the general program for a specific short term course of specialized intervention and then returning to the regular treatment program. At

some point during their stay they will receive the specialized piece to manage that risk, as that is the expectation of the committing courts. Youth receiving this service remain on non-specialized dorms and receive the same CoNEXTions© program as others on that dorm.

**Treatment Planning** TYC treatment planning involves comprehensive assessment at the orientation and assessment units and regular re-assessments throughout the youth's stay in a residential program and community-based parole. Initial assessment and orientation is provided at McLennan County State Juvenile Correctional Facility Unit I (in Mart, Texas) for boys and at Ron Jackson State Juvenile Correctional Complex Unit I (in Brownwood, Texas) for girls. During a four-week process, youth receive medical, dental, academic, psychological and general risk/protective factor assessments. Additional specialized assessments may be included as needed. As a result of these assessments, classification, placement and treatment decisions are made.

At the facilities, Multidisciplinary Teams meet on a monthly basis to assess progress on treatment plans and to develop new or revised objectives and interventions to address ongoing treatment needs. Objective reassessment on a risk/protective factor instrument is conducted every 90 days to measure progress from a different perspective. The Case Manager is responsible for bringing together and managing the treatment team until the youth is established on a parole caseload. The treatment team includes the Case Manager, Educational/Vocational staff, and Juvenile Correctional Officers. If applicable based on the individual's treatment plan, the team includes the facility's Family Liaison, Counselor, Nurse and Psychologist. As a youth begins transition to parole, the Case Manager begins to transition the leadership of the treatment team to the Parole Officer, who will be responsible for coordinating transitional services, managing the treatment plan, and assessing individual progress.

Family investment in each youth and family interaction is encouraged and fostered. Visits and letters are encouraged and welcomed. Multi-family conferences are held quarterly, assisting parents and guardians to understand and support youth in TYC facilities.

**Parole** TYC Parole Officers work closely with Case Managers to develop Individualized Conditions of Parole and complete Individualized Case Plans for Transition. These positions review available information including the agency's home assessments, aftercare recommendations, documented medical needs, and family issues. The transition team consults with the professionals that work with each youth including education and special education liaisons, chemical dependency liaisons, and other counselors. Coordinated release planning and case management provide continuity of services for youth while on parole. Parole Officers broker services with state and community-based programs that can meet the needs identified in the plan.

Youth are continually assessed on parole to determine the level of surveillance and supervision while taking into account the youth's positive behavior in higher restriction settings and the most current adjustment on parole. Youth meeting predetermined criteria which require less supervision may be placed on minimum or low supervision.

An Institutional Parole Officer (IPO) position is currently being piloted at one facility. Having an IPO is expected to increase communication and service continuity while youth begin the transition out of the institutional program. As mandated by the 80<sup>th</sup> Texas Legislature's Senate Bill 103, youth are placed in facilities closer to their homes and families. Closer proximity should allow parole officers to be more actively involved while the youth are still in the facility. After beginning parole, TYC aftercare sessions provide continuity with the treatment received in institutions.

Research suggests that youth who are released from institutional confinement are more likely to succeed if they have access to services that can help them thrive in a non-institutional setting. This includes maximizing family involvement and developing more community treatment resources capable of delivering interventions with demonstrated effectiveness. Research-based programs, such as Functional Family Therapy (FFT) and Multi-Systemic Therapy (MST), have been implemented in other states and successfully reduced recidivism rates if competently implemented. TYC recognizes the need for non-residential and family-based programs that can help promote

effective reintegration of youth back to communities and is currently looking at ways to incorporate elements of successful programs into its reentry programming.

**CONCLUSION AND DISCUSSION**

Significant differences in recidivism rates indicated that certain intensive specialized treatment programs reduced recidivism more than the agency’s core treatment program alone, even when statistically controlling for initial differences between the groups. Two specialized treatment programs resulted in significantly lower recidivism rates: Sex Offender Treatment and Mental Health Treatment.

**EFFECTS OF TREATMENT ON SELECTED OUTCOMES: LIKELIHOOD OF PARTICIPANTS TO RECIDIVATE**

Measure	Treatment Groups				
	Sex Offender	Capital & Serious <sup>23</sup>	Chemical Dependency	Mental Health	Females
Arrest Any Offense: 1 Year	ns	ns	5.9% more likely	11.0 % less likely	ns
Arrest Violent Offense: 1 Year	62.4% less likely	ns	ns	ns	ns
Incarceration Any Offense: 1 Year	ns	ns	16.8% more likely	.01% less likely	21.1% less likely
Incarceration Any Offense: 3 Years	18.3% less likely	ns	ns	ns	ns

ns = no significant differences (statistical non-significance can result with small sample sizes)

- Youth who participated in sex offender treatment were 62% less likely to be rearrested for a violent offense within one year and 18% less likely to be incarcerated for any offense after three years.
- Youth placed in specialized mental health treatment programs were 11% less likely to be arrested for any offense.
- Enrollment in the Capital & Serious Violent Offender program had no statistically significant effect due to small sample sizes. Youth enrolled in this program were 36% less likely to be arrested for any offense and 68% less likely to be arrested for a violent offense.
- As a group, females who received specialized treatment were 21% less likely to be incarcerated within one year.

Enrollment in the chemical dependency treatment program demonstrated an increased likelihood for future criminal behavior. Current research indicates that the inappropriate placement of youth in a level of treatment not matched with their needs is not only ineffective but also leads to worse outcomes. The Chemical Dependency (CD) program is been in need of a total restructuring if desired outcomes are to be produced. Keeping with the agency’s mandate to provide an updated, evidenced-based curriculum, *Pathways to Self- Discovery and Change: a Guide to Responsible Living* by Dr. Harvey Milkman was selected and currently being implemented.

Plans are currently under way to provide a full compliment of treatment services to meet the needs of the youth in our system. Realizing youth have a multitude of needs; the CD program will be expanding service to include an orientation dorm, outpatient treatment, supportive residential, a CD Aftercare dorm and a Relapse Prevention dorm for those youth re-entering the TYC system. A Request for Proposals (RFP) is also being issued in January, 2009 for a 48-bed chemical

<sup>23</sup> Not statistically significant due to small sample sizes. Youth were 36% less likely to be arrested for any offense and 68% less likely to be arrested for a violent offense.

dependency treatment program in an urban county. Providing this continuum of services will allow TYC to more effectively address the individual needs of the youth.

Youth committed to confinement in the Texas Youth Commission are among the most high risk and high need youth in the state. The majority of these youth have had prior interventions through the juvenile justice or other state and local systems that were not successful in preventing the acts that resulted in TYC commitment. TYC is committed to continuing to build on the agency's reforms that focus on service delivery systems and service enhancements. Specialized and enhanced reentry programming will be among the top priorities in the Legislative Appropriations Request.

TYC will also be working with the Center for Sex Offender Management (CSOM) to evaluate its programs and implement models that demonstrate better outcomes. Development and full implementation of best practices and evidence-based program models will further improve outcomes for Texas youth and guide many of the service enhancements. Programs of excellence are occurring throughout TYC, and it is important to acknowledge those efforts and continue the agency's work to expand them to statewide application.