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BYRNE EVALUATION PARTNERSHIP PROGRAM
FINAL REPORT

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The State of Utah, Commission on Criminal and Juvenile Justice (CCJJ) proposed to enhance its program evaluation capacity by developing an evaluation partnership with the University of Utah, Social Research Institute (SRI). The SRI was hired to conduct in-depth process and outcome evaluations of programs that the CCJJ had implemented in the community beginning in November 1997. The evaluation focused on three innovative projects funded with Byrne Formula Grant funds: 1) the Third District Juvenile Drug Court Program, 2) the Department of Corrections Outpatient Sex Offender Treatment Program, and 3) the Salt Lake County Sheriffs Electronic Diversion and Work Program. The essential elements of each of these programs are described in Section A below.

DESCRIPTION OF BYRNE FORMULA-FUNDED PROGRAMS EVALUATED

Juvenile Drug Court

The Third District Juvenile Drug Court Program is designed as an alternative to the minimum mandatory penalties for first time drug offenders. The Juvenile Drug Court is loosely patterned after the adult Drug Court model being implemented in Utah and throughout the nation. Similarities between the juvenile and adult models include an expedited court process, diversion to appropriate drug and alcohol services, case management tracking services, and frequent judicial reviews. The Juvenile Drug Court is dissimilar to the adult model in that it is focused primarily on the "front end" population engaged in misdemeanor violations of drug laws (primarily marijuana) and second time possession of alcohol, rather than more serious offenders with felony charges.

According to Utah State law, what generally occurs as a result of misdemeanor drug offenses is the "minimum mandatory penalties." These penalties include at least a $150 fine, 20 - 100 hours of community service, and suspension of the driver's license. However, these penalties do not force juvenile offenders and their families to address the youth' substance abuse problems. The Juvenile Drug Court Program provides a mechanism to address the substance abuse problem through education, treatment, family intervention, community protection, other and appropriate sanctions and consequences. The combination of these program elements results in a balanced approach to the issue of youth substance use.

Juvenile Drug Court provides an expedited court process and cases are set for judicial reviews at 30 to 45 day intervals to monitor participants' progress. Reviews may occur as often as every week for those who break their agreements with Juvenile Drug Court or continually have compliance problems. At each review, a youth's accomplishments over the past weeks are summarized. Depending on their progress, clients may be congratulated, admonished, or may receive additional penalties for noncompliance. Additional penalties may include, but are not limited to: assessment of additional community service hours, month by month extension in the program, and/or short term commitment to a detention facility.

Services are available in the following areas: 1) substance abuse evaluation utilizing the Substance Abuse Subtle Screening Inventory (SASSI), 2) referral to a variety of

community- based education programs (paid for by the family), 3) referral to substance abuse treatment programs, if necessary, 4) referral to mental health agencies, if necessary, 5) random urine drug screens at no cost to the family, 6) tracking services provided by Juvenile Drug Court personnel (home, work, school, community), 7) collaboration with other agencies in contact with families, and 8) regularly scheduled judicial reviews to insure participant compliance.

The dual mission of the Juvenile Drug Court Program is 1) to identify youth with substance abuse issues and provide them with appropriate resources, and 2) to divert them from further substance use and court involvement. Potential drug court clients are identified when they enter the Juvenile Court. Cases are set for an initial interview within two weeks of receipt, at which time they must complete a substance abuse evaluation utilizing the SASSI, as well as a social and substance use history. These processes are facilitated by Juvenile Drug Court staff members. Potential participants who either deny the allegation(s) or refuse to participate in the process are removed from further consideration of participation in the program without completing the assessment and history. If a minor chooses to participate in Juvenile Drug Court, the case is scheduled for a court hearing within two to four weeks, at which time a plea in abeyance is entered for a minimum of six months.

Each Juvenile Drug Court Program participant is ordered to complete a minimum of 60 hours of community service, and they are expected to complete at least 15 of those hours per month. This process enables the participant to give something back to the community, instead of victimizing the community. Community service gives the individual a positive experience in helping others and also serves as an opportunity for prosocial involvement for the commission of their drug related offense(s). Other conditions of participation include enrollment in either a family-focused substance abuse education program or a substance abuse treatment program within one month of the first court hearing. Depending on the outcome of the substance abuse evaluation, a referral is made to either a community-based education program or to a treatment agency.

Those youth determined by the SASSI to be chemically non-dependent are referred to educational programs that are attended by both the youth and their parents. They meet in group sessions two hours each week, for six weeks. Topics of discussion include, but are not limited to: Communication, Family Relationships, Drug Awareness and Education, Decision Making, Refusal Skills, Accountability, Problem Solving, Feelings, Denial, and Laws and Consequences. Once a participant has completed the educational program, the agency sends confirmation to the court and the youth is given hour-for-hour credit toward the community service requirement.

Participants who are determined by the SASSI to be chemically dependent are referred to community-based substance abuse treatment programs. Because a state agency cannot make specific referrals to private organizations, participants are given a list of treatment agencies in the community. They are responsible for choosing the agency that best suits their needs, but must follow the treatment recommendations of a licensed professional (i.e. inpatient, outpatient, day treatment, etc.). Participants are required to bring proof of enrollment to court within four weeks and compliance with treatment plans is monitored. Treatment must continue until the client is formally discharged from the program. Participants may receive hour-for-hour credit toward the community service requirement for hours spent in treatment.

Tracking services and random drug testing also begin within seven days of the first court hearing. These services include monitoring participants' progress at home, at school, on the job, and in the community. Drug testing occurs at least once per month, but generally more often, depending on the individual in question.

Participants are given three writing assignments to be completed during their first three weeks in the Juvenile Drug Court program. First, participants are required to write a three-page research paper addressing the dangers of using drugs and alcohol, using current research found in periodical publications. In addition, they must write a two page essay on their life goals, and describe how they plan to attain these goals. Finally, participants are assigned a book with a drug or alcohol related topic. They must write a three-page book report detailing what they learned about themselves through reading the book. These writing assignments are meant to shift the youth' perspective and compel them to utilize critical thinking skills to examine drug and alcohol issues.

Another requirement for Juvenile Drug Court participants is attendance at semi-monthly speaking engagements. Each month, Juvenile Drug Court arranges these two-hour meetings with professionals in the field of substance abuse and law enforcement, or those individuals from the recovering community who are willing to speak about their personal experiences relating to drugs or alcohol. These activities are designed to further educate the clients and families on drug and alcohol issues.

Other requirements of Juvenile Drug Court include school attendance, which is monitored by Juvenile Drug Court staff, and parental support and involvement, which are critical to a youth's success in the program. Youth must also refrain from any law violations and referrals to the court. Any breach of the Juvenile Drug Court conditions may result in a participant's plea being entered, meaning that the admission to the allegation and a conviction for it is entered on their juvenile record.

A participant successfully completes Juvenile Drug Court after fulfillment of the program requirements has been determined, and he or she has remained substance free, usually for a six-month period of time. A graduation ceremony is held in conjunction with the Speakers Bureau each month to celebrate the success of Juvenile Drug Court graduates.

Outpatient Sex Offender Treatment

Since 1995 The Utah Department of Corrections has been operating a Day Reporting Center (DRC) that specializes in both outpatient treatment and increased supervision for probationers and parolees who are at high risk for revocation. Currently the treatment options include intensive substance abuse therapy, cognitive restructuring, cognitive life skills classes, community resource utilization, parenting, anger management, mental health, domestic violence, victim empathy, adult basic education, and job seeking/maintaining skills.

Sex offender treatment programing at the DRC was initiated in 1996 with funding from the Byrne Partnership Grant. The Program addresses the critical need to ensure affordable treatment for sex offenders living in the community. Because job search/job readiness, substance abuse treatment, domestic violence, life skills and adult basic education may be

necessary elements to include in the offender's treatment, programs which currently exist at the DRC are used as part of the sex offender program.

Offenders convicted of a felony for rape, sexual assault and sexual abuse of a child are the primary participants in the program. Offenders convicted of other sex offenses may be considered on a case-by-case basis. The primary goal of the program is to help offenders learn to control their sexual acting out so that they can live in the community with an eliminated or reduced risk to the public.

The treatment program takes a cognitive/behavioral approach to eliminating inappropriate and illegal sexual activity. The treatment modalities include, but are not limited to, sexual reorientation if appropriate, individual and group therapy, psychological and sexual arousal evaluations conducted by licensed staff, psycho-educational course work, and relapse prevention. Couples and family counseling may be used in conjunction with other therapeutic modalities. Client progress is measured through physiological testing (plethysmogrpah) which documents the decreased deviant arousal pattern. The plethysmogrpah is the accepted method to test an offender's arousal pattern by professionals treating sex offenders. In addition to the plethysmogrpah, offenders may be tested by polygraph to determine their program compliance and progress.

Assessments are completed on all offenders as they enter the program and again when they have completed treatment. These assessments focus on how well the offender is progressing and is meeting the goals of the treatment program. Assessments include standard psychological and physiological testing. The program operates according to a level system. Descriptions of the levels and the intake procedure follow:

Initial assessment and intake

The initial assessment consists of a review of client information in the following areas: Pre-Sentence Investigation Report, psychosexual evaluation, psychological evaluation, and the offender's personal history form. If there is no information from a psychosexual evaluation available on a client, or if the information from the most recent evaluation obtained is more than five years old, a complete psychosexual evaluation will be completed. The evaluation will consist of an individualized assessment of the offender's intellectual, psychological, behavioral, and electrophysiological sexual arousal functions. Each offender undergoes an electrophysiological assessment, by means of a penile plethysmogrpah, to more fully assess the pattern and severity of his deviant arousal. This instrument has been in regular use with sexual offenders for approximately 30 years and is considered to be the most accurate and valid means of assessing sexual arousal patterns.

Program Levels

Level I: Treatment modalities used on this first level include writing assignments and workbooks that begin to stimulate a change in clients' thinking about their behavior. The focus is on increasing self-awareness and teaching clients accept responsibility for their crimes. Other goals of this stage are to have clients develop victim empathy and to help clients to understand that they can control their deviant sexual behavior through therapy.

Level II: The second level of treatment is more intensive than the first and consists of weekly group therapy sessions. The curriculum for Level II is based on the common treatment needs of all sexual offenders, such as understanding the deviant sexual cycle, the dynamics of sexual behavior, and arousal patterns. Other treatment components encourage clients to begin to express victim empathy, and educate clients about thinking errors, having them identify how these thinking errors have affected their behavior.

Level III: At this level, the treatment program utilizes the therapeutic setting of the Day Reporting Center to focus with even more intensity on the sexual deviancy and criminality of the offender. This intensive component consists of group therapy, individual therapy, psycho-educational skills courses, peer groups, couples therapy, and family therapy. This intensive portion focuses on having the offender begin to understand the dynamics of his choice to sexually offend and to demonstrate empathy for his victim(s). He learns to identify specific conditions, thoughts, feelings, and events which influenced his choice to sexually offend. By the end of this level, the offender will, to the best of his ability, integrate the cognitive and empathetic elements of treatment. He will demonstrate an internalization of the treatment goals and issues. Focus is also placed on ensuring that clients clearly understand and are able to utilize relapse prevention techniques.

Level IV: This level is designed for those offenders who have successfully completed Level Three, and who are prepared to be reintegrated into the community. This component of treatment relies on support groups, individual therapy, group therapy and individualized treatment plans developed by the entire treatment team. Follow-up electrophysiological arousal analysis by penile plethysmogrpah is to be completed by this phase "to indicate a decrease in deviant sexual interests and an increase in non-deviant sexual interests", as detailed in the contract between UDC and ISAT.

The length of the treatment program varies depending on the specific needs of individual offenders. The most intensive portion of the program, Level III, is designed to last an average of 12 months. Once Level III is completed, the participant enters aftercare. This component utilizes support groups and/or individual and group therapies as determined by the treatment team.

Special Needs Track

A new track was introduced to the program during the Spring of 2000. This Special Needs Track addresses the unique needs of offenders who are developmentally delayed, learning disabled, mentally ill, or have a limited understanding of English. The Special Needs Track individualizes treatment delivery while maintaining a level system that is based on achieving treatment milestones. This track has the same treatment goals as the regular OSP program, but is designed to meet additional needs specific to these groups. Molly Prince, LCSW, was recognized for developing the Special Needs track by the University of Utah Graduate School of Social Work Alumni Association, who awarded her the Distinguished Young Alumni Award. This program is viewed by ISAT and DRC staff as a positive addition to the program.

The Day Reporting Center is open from 8:00 a.m. to 9:00 p.m. weekdays and is open

from 8:00 a.m. to 2:00 p.m. on Saturdays. Hours have been adjusted to meet clients' needs, and are currently being reviewed in order to increase the number of hours the DRC will be open, which will include extending the hours on Saturday. The current hours offer flexibility so that offenders can participate regardless of their work schedules.

Electronic Monitoring and Work Program

In the mid-1990s the Salt Lake County Metro Jail was experiencing serious overcrowding problems. Several factors contributed to the problem, including the fact that almost 25,000 people were booked into the jail in 1996. By Federal Court order, Salt Lake County had to maintain a cap on the jail population. Booking restrictions and Federal Court Decree Release were used to maintain this cap, but were not solutions to completely fixing the problem. The jail was over 30 years old and the design did not allow for efficient housing of inmates. Remodeling and retrofitting to meet current safety codes would have been more costly than was economically feasible. Ground breaking on the new Adult Detention Facility was held on August 6, 1996, and the facility was completed in mid-1999. The overcrowding in the Metro Jail was a tremendous problem until the new jail was operational. Another factor in the overcrowding of the jail was the population growth in Salt Lake County, which has increased faster in the past 8 years than any other time in the history of the county. The crime rate has increased in direct portion to the general population.

To alleviate some of the jail overcrowding, an electronic diversion and work release program was implemented in August of 1996. This program, known as the Sheriff's Electronic Diversion (SHED) Program provides electronic monitoring of clients while they are at home, in addition to a work program for those who are not otherwise employed. Participants who already have employment or are employable are encouraged to work outside the program. For those who are unemployed, a structured work program is provided.

The SHED Program initially moved 45 participants out of the jail, making room for prisoners who had committed more serious crimes. The SHED Program has expanded its capacities, and now serves almost double the number of participants as it did in 1998. The increase in program participants began in May of 1999, when the program received additional Salt Lake County funding. The program has served an average of 75 participants each month since then, ranging from 54 in May of 1999 to 86 in December of 1999. This average is based on the number of active cases on the SHED Program inmate roster at the end of each calendar month from May through December of 1999. The program is now staffed by eight Peace Officer Standards trained (POST) sheriff's department officers and two civilian employees who are not POST certified. These officers continue to share duties as case managers and labor detail supervisors for SHED participants. The program has added an evening shift, from 3:00 p.m. until 11:00 p.m. each weekday. This has decreased the need for officers to share on-call duties on a rotating basis.

The participants for the SHED program are carefully screened to ensure that they are not a danger to the community and that they will comply with the monitoring procedures. Electronic monitors are secured to the ankles of participants and phone/electronic units are placed in their homes via phone lines. Daily schedules are be entered in the computer to track each participant's approved location. A computer program routinely checks on the location of participants and notifies an operator when participants are out of range. False positives are

eliminated by immediate call backs that require the participants to report their locations. This can be voice recorded or done in person to the monitoring staff.

The work projects have been developed by the SHED program coordinators in conjunction with the Salt Lake County Public Works Department. Job site locations and all the hand tools needed for a particular project are inspected by one or both of the coordinators prior to work being started. Vehicles, heavy equipment, most of the tools, and the operator are provided by public works. Use of power tools or mechanical equipment is prohibited by inmates in the program due to liability issues.

The participants in the diversion program are pre-booked, oriented, and tracked by the program coordinators. Participants are transported to and from the work sites by a County Jail Correctional Officer and then assigned work details. The participants are supervised by and work with one or more public works employees and at least one correctional officer. The participants return to their homes after providing the community with eight hours of labor, Monday through Thursday, until their commitments are completed.

OVERVIEW OF PROPOSED EVALUATION

The Social Research Institute conducted a three-year evaluation of the programs outlined in Section A. Because these were new programs, the main foci during the first year were to document program procedures through a process evaluation, to plan the outcome evaluation, and to begin to initiate the outcome evaluation. The remaining two years were used to evaluate the outcomes of the fully functioning and well-implemented programs.

Process Evaluation

Process data are used to provide a description of what happened during the implementation of the project. The process evaluation produced information that includes what was actually done, who did it, who were the participants, what barriers inhibited implementation, and how barriers were overcome. By collecting this information, the evaluation team captured enough detail about the program and critical program activities to allow replication of the program in other locations that have similar populations with similar needs. Process data are also important when interpreting the outcome data. Without a thorough understanding of how the program was implemented on a day-to-day basis, it is difficult to know which aspects of the program were responsible for the observed outcomes.

Outcome Evaluation

The outcome data focused on the changes that resulted from the various program activities. While the ultimate goals of the programs are to help offenders gain the skills necessary to function successfully in society and to reduce the impact of crime on citizens and government, there are other outcomes specific to program components and activities that were documented. Both qualitative and quantitative methods were used to collect the outcome data. Quantitative data are important because they produce numerical results that can be compared with the data collected at different points in time, as well as data from other projects. Qualitative data are often collected through interviews and reviews of program material and

usually result in a much deeper and more meaningful understanding of the project being evaluated.

The evaluation was an ongoing process that included the following evaluation activities: 1) documenting the program activities, 2) monitoring the implementation of the programs to ensure that the programs were developed as planned, 3) determining who was responsible for entering key data elements, 4) ensuring that the data necessary for program evaluation was being collected and entered in a timely manner, 5) ensured that the computer systems could deliver information as needed, and 6) producing regular reports documenting the activities and outcomes of the three programs.

Specific evaluation techniques and methods of analysis that were used with each of the three programs are discussed in the following sections. It should be noted that some of the measures and outcomes that were outlined in the evaluation proposal were modified to meet the needs of the specific programs, which became apparent when the evaluation was actually implemented.

Juvenile Drug Court Evaluation

Information used for the Juvenile Drug Court program evaluation was collected at various points of service by program staff and was then supplied to the evaluators. The Juvenile Drug Court staff collected and provided the evaluation team with data on program participants, such as demographics, substance abuse history, SASSI scores, Risk Survey profiles, and pre- and post test Child Behavior Checklist List (CBCL) scores. The evaluators also obtained data from the Juvenile Justice Information System (JIS) on arrests, charges, and sanctions for each program participant, as well as the results of urinalysis screenings that participants completed at various points during the program. Finally, process data, such as treatment modalities used, were collected by the Juvenile Drug Court staff from agencies that provided substance abuse treatment to the youth in the program.

A pre-post design was used to evaluate individual client success in the Juvenile Drug Court program. In addition, a comparison group was constructed to evaluate the success of Juvenile Drug Court graduates compared to other individuals who either dropped out of Juvenile Drug Court or received traditional juvenile probation services. This comparison group was selected to match the Juvenile Drug Court participants on age, gender, and criminal history. The advantage of having three years for the evaluation was that these clients were tracked over time. For some clients, data were available for up to three years after they finished the program.

Outpatient Sex Offender Treatment Evaluation

The primary goal of the Outpatient Sex Offender Treatment program is to reduce recidivism and criminal behavior by providing intensive sex offender treatment and supervision. For the evaluation, program staff members provided data on rates of participation in the program, percentage of participants completing the program, and characteristics of successful participants. The psychosocial information collected by the program contains considerable information about the demographics, psychological, and criminal backgrounds of the participants. This information was linked to participants' outcomes, and analyzed according to

whether they completed the program, dropped out, or re-offended. These data together are important for identifying risk factors for recidivism. The recidivism rate of program participants over the three-year period of the evaluation was calculated and compared by completion status. Finally, an analysis was completed comparing the participants pre-to-post change as measured by plethysmography and polygraphy.

Electronic Monitoring and Work Program Evaluation

When faced with the problem of overcrowding, jail personnel can more effectively manage their jail population through the use of alternative sanctions. The electronic monitoring program provided a jail diversion program for non-violent offenders. Evaluation efforts focused on documenting the procedures used to electronically monitor offenders in a community setting and the outcomes of those procedures. Information on the jail space saved, work days provided to the community, re-incarcerations, and program costs and benefits were calculated and analyzed. In January 2000, the costs were $23.42 per day to monitor an individual in the community, compared to $53.93 per day to maintain a person in jail. The evaluators also tracked and calculated the recidivism rates program of individuals who participated in the program.

UTAH THIRD DISTRICT JUVENILE DRUG COURT

Participants

General Demographics

There were 310 participants listed in the Juvenile Drug Court (JDC) database on June 30, 2000. The JDC participants ranged in age from 12 to 18 years old, with an average age of 15.3 years. Male participants accounted for 74% (n=229), with 26% (n=81) being female. The participants were 84% (n=260) White, 1% (n=4) African American, 12% (n=37) Latino, 2% (n=6) Native American, and 1% (n=3) Asian or Pacific Islander.

Psychological Data

There were126 participants who had either graduated from or dropped out of the JDC during the course of the evaluation. Psychological data about the participants were collected using the Achenbach Child Behavior Checklist (CBCL) and the Juvenile Drug Court Needs Assessment Survey after the evaluation began. In addition, substance use and abuse data were collected using the Substance Abuse Subtle Screening Inventory (SASSI) before and after the evaluation began. Each of these assessment tools will be described in more detail below."

Substance Abuse Subtle Screening Inventory

Description

The SASSI is a self-report test containing 86 indirectly-worded questions about alcohol and substance abuse. The adolescent form of the SASSI was developed for ages 12 through 18. This inventory is designed to be a subtle test where defensiveness and deception are factors during the assessment. The JDC staff have been trained to interpret SASSI results, which include both a chemical dependency profile and a series of scale scores. Chemical dependency profiles produced from the SASSI partially guide participants' referrals, and are interpreted within the context of presenting problems, offense history, and results of a psycho social assessment. Scale scores are used for identifying treatment issues to target, such as attitudes about alcohol or drugs, or defensiveness about substance use.

The SASSI scores are reported for the following face valid and subtle scales:

Face Valid Alcohol (FVA). This scale is a face valid measurement of the youth's alcohol use.

Face Valid Other Drugs (FVOD). This scale is a face valid measurement of the youth's use of drugs other than alcohol.

Overt Attributes (OAT). This scale reflects a tendency of the test taker to acknowledge behaviors and personality characteristics commonly associated with substance abusers.

Subtle Attributes (SAT). This scale measures the tendency of the test taker to be detached from his or her feelings and to have little insight into the cause of his or her problems.

Defensiveness (DEF). This scale reflects the tendency, of the test taker, to avoid any personal limitations and/or faults.

Defensiveness II (DEF II). Same as DEF.

Correction (COR). This scale assesses the test taker's level of risk for future legal problems.

Random Answer Pattern (RAP). This scale measures the attentiveness of the test taker to the answering of the questions; it is also used to show possible non-compliance.

The SASSI also classifies participants into the chemically dependent or non-chemically dependent category, based on constellations of their scale scores. The individual scale scores also provide information that can be used for further evaluation and treatment.

SASSI Scores

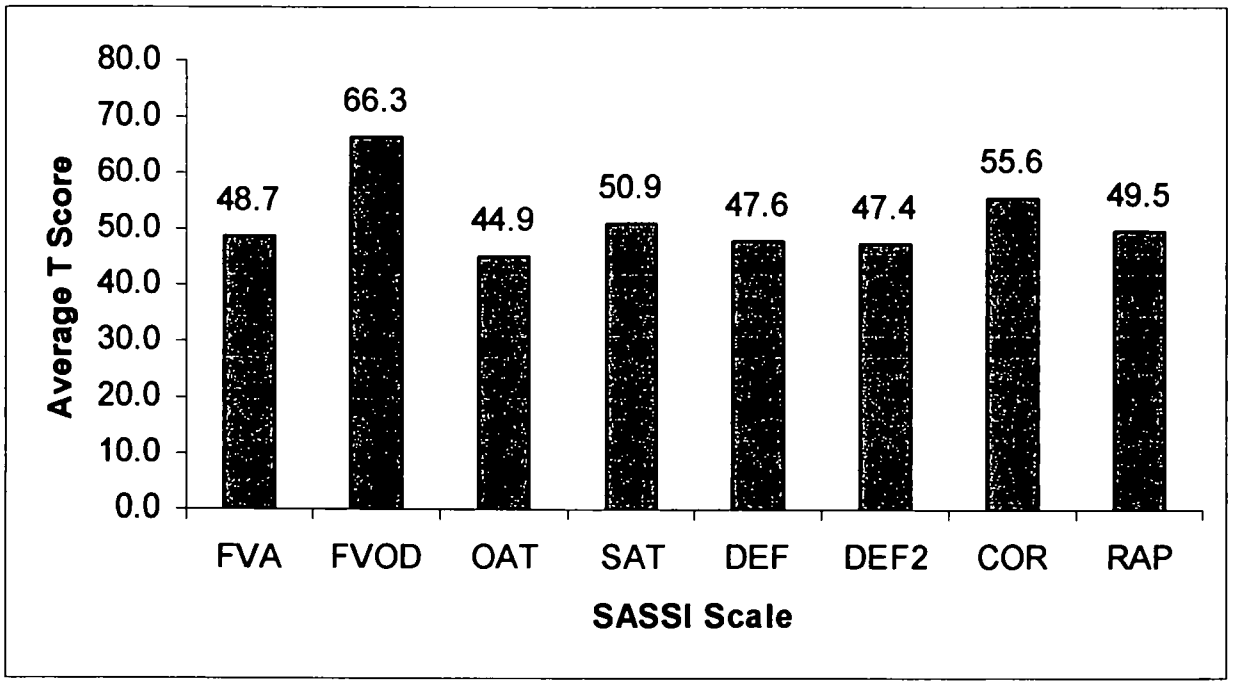
Of the 126 participants who were discharged after the evaluation began, 94 had SASSI scale scores in their JDC program files. Of the 184 participants who were discharged before the evaluation began, 58% (n=107) had SASSI scale scores in their JDC program files. SASSI scale scores were available for a total of 201 JDC participants. Chemical dependency profiles were available for all 310 JDC participants.

Out of the 310 JDC participants there were 80% (n=248) who did not have chemically dependent SASSI profiles. There were 20% (n=62) who did have chemically dependent SASSI profiles. Figure 1a displays the participants' average SASSI scale T-scores. T-scores have an average of 50, and a standard deviation of 10. T-scores reflect where an individuals score is in relation to national norms. Approximately 84 percent of individuals have T-score at or below 60, and 98 percent of individuals have T-score at or below 70. The data show JDC participants tend to have more favorable attitudes about drug use, and are more likely to be involved with correctional systems than the average adolescent. Judging from these data, it can be said that *the JDC is serving its' intended population - youth who are drug involved but not addicted, and who are at risk for further involvement with the juvenile justice system*.

Achenbach Child Behavior Checklist (CBCL)

Description

The CBCL is a questionnaire for parents to complete that asks parents about their children's behavior. Parents of JDC participants were asked to complete the CBCL on two occasions, at intake, and at completion of the program. The CBCL reports the following eight problem scales: 1) Withdrawn Behavior; 2) Somatic Complaints; 3) Anxious Depressed Behavior; 4) Social Problems; 5) Thought Problems; 6) Attention Problems; 7) Delinquent



Behavior; and 8) Aggressive Behavior.

Figure 1a. Average SASSI scale T-scores.

The CBCL also reports scales on Introversion, Extroversion, and Total Problems which are based on scores from the eight problem scales. The CBCL has national norms, and scale scores are reported as T-score values for ease of interpretation. The CBCL has been used in several repeated measures studies, and in addition to having sound psychometric properties, it provides researchers with a common language describing problems among youth.

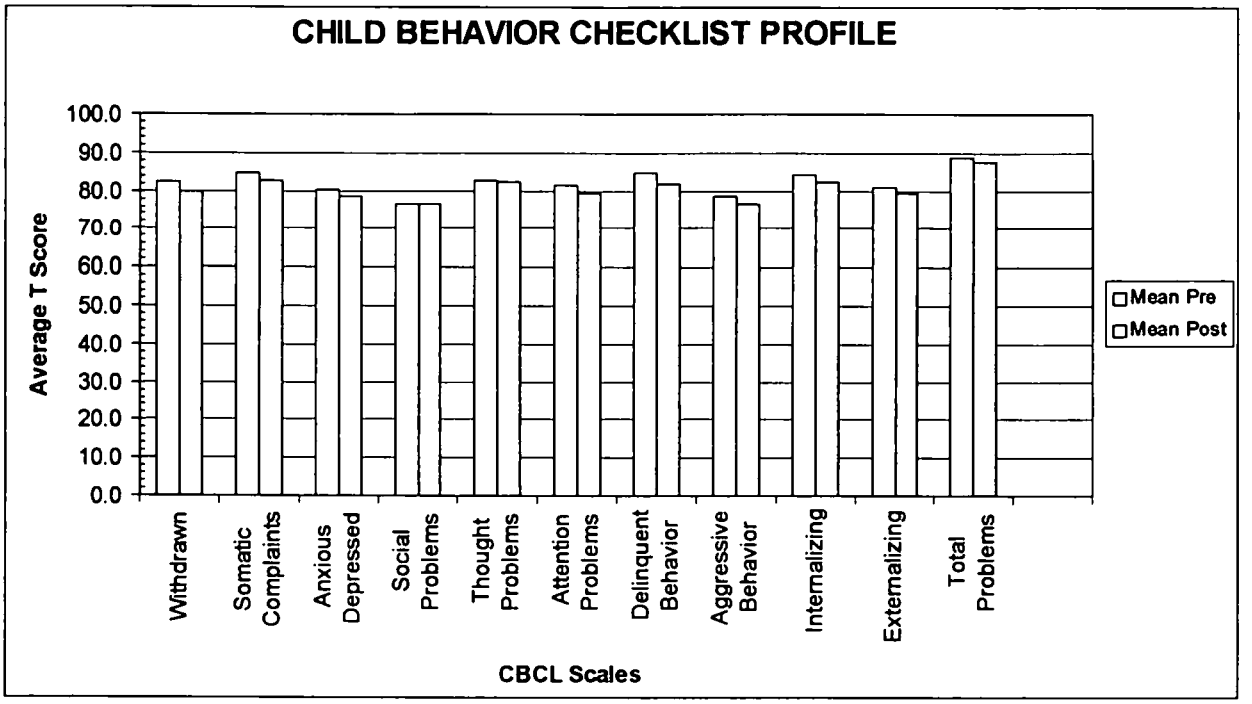
CBCL Scores

As mentioned above, the CBCL was not part of the regular JDC assessment protocol before the evaluation began. Among the126 participants who began the JDC during the evaluation, the parents of 70 % (n=88) had completed at least one CBCL. The 69 graduates had 60% (n=41) of their parents who completed a CBCL when their children graduated from JDC. A total of 70 percent of the parents of program participants who began the program during the evaluation period completed at least one CBCL, while 60 percent of the parents of those who graduated completed a second CBCL. CBCL pretest and post test data were linked for 37 cases, all graduates, representing 54 percent of the participants who graduated from the JDC program after the evaluation began.

The T-scores for the pre- and posttest for the various scales of the CBCL can be seen in figure 1b. The raw total and subscale scores on the CBCL, for the JDC youth were compared with those of the national sample found in the test manual. The published tables for

the CBCL identify T-score means for each subscale and the total test score for normal populations (youth not participating in any type of mental health treatments). The raw total score and subscales scores for the JDC youth were converted to normalized T-scores.

The normalized T-scores have a mean of 50 and a standard deviation of 10. The total T-score of 88.6 is almost four standard deviations above the mean. For all the subscales of the CBCL, the mean T-scores were above 77, suggesting that as a group, the JDC youth were



nearly three standard deviations above the mean. Thus, the JDC youth, as reported by their parents, scored higher than 99% of the population on the scales of the CBCL.

Figure 1b. Average pretest and posttest CBCL scale T-scores.

At pretest the average withdrawn behavior scale T-score was 82.2, and at posttest the average T-score was 79.6. At pretest the average anxious depressed scale T-score was 80.2, and at posttest the average T-score was 78.8. At pretest the average social problems scale T-score was 76.7, and at posttest the average T-score was 76.7. At pretest the average thought problems scale T-score was 82.5, and at posttest the average T-score was 82.2. At pretest the average attention problems scale T-score was 81.6, and at posttest the average T-score was 79.5. At pretest the average delinquent behavior scale T-score was 84.8, and at posttest the average T-score was 81.9. At pretest the average aggressive behavior scale T-score was 78.7, and at posttest the average T-score was 76.6. At pretest the average internalizing scale T-score was 84.2, and at posttest the average T-score was 82.4. At pretest the average externalizing scale T-score was 81.2, and at posttest the average T-score was 79.3. At pretest the average total problems scale T-score was 88.6, and at posttest the average T-score was 87.6. Statistically significant differences were found between pretest and post test on the Withdrawn Behavior and the Aggressive Behavior scales of the CBCL. These

T-scores indicate that *parent-reported problems with withdrawal and aggression decreased for JDC graduates*.

Risk And Protective Factor Survey

Description

The Juvenile Drug Court Needs Assessment Survey used in this study is based on research investigating the factors that place youth at risk for substance abuse and other problem behaviors, and those that help protect youth from substance abuse and other problem behaviors. In medical research, risk factors have been determined for heart disease and other heath problems. Through media campaigns to inform the general public about the risk factors for heart disease, most people are now aware that behaviors such as eating high fat diets, smoking, and lack of exercise, place them at risk for heart disease. Social scientists have defined a set of risk factors for the youth problem behaviors of substance abuse, delinquency, violence, teen pregnancy, and school dropout.

Dr. J. David Hawkins, Dr. Richard F. Catalano, and their colleagues at the University of Washington have reviewed more than 30 years of existing work on risk factors from various fields and have completed extensive work of their own to identify risk factors for youth problem behaviors. They identified risk factors in important areas of daily life: 1) the community, 2) the family, 3) the school, and 4) within individuals themselves and their peer interactions. Many of the problem behaviors faced by youth; delinquency, substance abuse, violence, school dropout, and teen pregnancy; share many common risk factors. Programs designed to reduce those common risk factors will have the benefit of reducing several problem behaviors.

An overview of the risk factors and protective factors that have been shown to be related to youth problem behavior will be provided below. The risk and protective factors have been organized into the four important areas of a young person's life. Following each risk factor, and placed in parentheses, are the problem behaviors that are linked to that factor.

RISK FACTORS

Community Risk Factors

Availability of Drugs *(Substance Abuse and Violence)*

The more available drugs are in a community, the higher the risk that young people will abuse drugs in that community. Perceived availability of drugs is also associated with risk. For example, in schools where students just *think* drugs are more available, a higher rate of drug use occurs.

Availability of Firearms (*Delinquency and Violence*)

Firearm availability and firearm homicide have increased together since the late 1950's. If a gun is present in the home, it is much more likely to be used against a relative or friend than an intruder or stranger. Also, when a firearm is used in a crime or assault instead of

another weapon or no weapon, the outcome is much more likely to be fatal. While a few studies report no association between firearm availability and violence, more studies show a positive relationship. Given the lethality of firearms, the increase in the likelihood of conflict escalating into homicide when guns are present, and the strong association between availability of guns and homicide rates, firearm availability is included as a risk factor.

Community Laws and Norms Favorable Toward Drug Use, Firearms, and Crime *(Substance Abuse, Delinquency, and Violence)*

Community norms, the attitudes and policies a community holds about drug use and crime, are communicated in a variety of ways: through laws and written policies, through informal social practices, and through the expectations parents and other community members have of young people. When laws and community standards are favorable toward drug use or crime, or even if they are just *unclear*, youth are at higher risk.

Media Portrayals of Violence *(Violence)*

The role of media violence on the behavior of viewers, especially young viewers, has been debated for more than three decades. Research over that time period has shown a clear correlation between media portrayal of violence and the development of aggressive and violent behavior. Exposure to violence in the media appears to have an impact on children in several ways: 1) children learn violent behavior from watching actors model that behavior, 2) they learn violent problem-solving strategies, and 3) media portrayals of violence appear to alter children's attitudes and sensitivity to violence.

Transitions and Mobility *(Substance Abuse, Delinquency, and School Dropout)*

Even normal school transitions predict increases in problem behaviors. When children move from elementary school to middle school or from middle school to high school, significant increases in the rates of drug use, school misbehavior, and delinquency result.

Communities with high rates of mobility appear to be linked to an increased risk of drug use and crime problems. The more often people in a community move, the greater the risk of both criminal behavior and drug-related problems in families. While some people find buffers against the negative effects of mobility by making connections in new communities, others are less likely to have the resources to deal with the effects of frequent moves, and are more likely to have problems.

Low Neighborhood Attachment and Community Disorganization *(Substance Abuse, Delinquency, and Violence)*

Higher rates of drug problems, juvenile delinquency and violence occur in communities or neighborhoods where people have little attachment to the community, where the rates of vandalism are high, and where there is low surveillance of public places. These conditions are not limited to low-income neighborhoods, they can also be found in wealthier neighborhoods. The less homogeneous a community (in terms of race, class, religion, and even the mix of industrial to residential neighborhoods) the less connected its residents may feel to the overall

community, and the more difficult it is to establish clear community goals and identity. The challenge of creating neighborhood attachment and organization is greater in these neighborhoods.

Perhaps the most significant issue affecting community attachment is whether residents feel they can make a difference in their own lives. If the key players in the neighborhood, such as merchants, teachers, police, and human services personnel, live outside the neighborhood, residents' sense of commitment will be less. Lower rates of voter participation and parental involvement in schools also indicate lower attachment to the community.

Extreme Economic Deprivation *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

Children who live in deteriorating and crime-ridden neighborhoods characterized by extreme poverty are more likely to develop problems with delinquency, violence, teen pregnancy, and school dropout. Children who live in these areas, *and* have behavior and adjustment problems early in life, are also more likely to have problems with drugs later on.

Family Risk Factors

Family History of the Problem Behavior *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

If children are raised in a family with a history of addiction to alcohol or other drugs, the risk of their having alcohol and other drug problems themselves increases. If children are born or raised in a family with a history of criminal activity, their risk of juvenile delinquency increases. Similarly, children who are raised by a teenage mother are more likely to become teen parents, and children of dropouts are more likely to dropout of school themselves.

Family Management Problems *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

Poor family management practices include lack of clear expectations for behavior, failure of parents to monitor their children (knowing where they are and who they are with), and excessively severe or inconsistent punishment.

Family Conflict *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

Persistent, serious conflict between primary care givers or between care givers and children appears to enhance risk for children raised in these families. Conflict between family members appears to be more important than family structure. Whether the family is headed by two biological parents, a single parent, or some other primary care giver, children raised in families high in conflict appear to be at risk for all of the problem behaviors.

Favorable Parental Attitudes and Involvement in the Behavior *(Substance Abuse, Delinquency, and Violence)*

Parental attitudes and behavior toward drugs, crime, and violence influence the attitudes and behavior of their children. Parental approval of young people's moderate drinking, even under parental supervision, increases the risk of the young person using marijuana. Similarly, children of parents who excuse their children for breaking the law are more likely to develop problems with juvenile delinquency. In families where parents display violent behavior toward those outside or inside the family, there is an increase in the risk that a child will become violent. Further, in families where parents involve children in their own drug or alcohol behavior, for example, asking the child to light the parent's cigarette or to get the parent a beer, there is an increased likelihood that their children will become drug abusers in adolescence.

School Risk Factors

Early and Persistent Antisocial Behavior *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

Boys who are aggressive in grades K-3 are at higher risk for substance abuse and delinquency. When a boy's aggressive behavior in the early grades is combined with isolation or withdrawal, there is an even greater risk of problems in adolescence. This increased risk also applies to aggressive behavior combined with hyperactivity or attention deficit disorder.

This risk factor also includes persistent antisocial behavior in early adolescence, like misbehaving in school, skipping school, and getting into fights with other children. Young people, both girls and boys, who engage in these behaviors during early adolescence are at increased risk for drug abuse, delinquency, teen pregnancy, school dropout, and violence.

Academic Failure in Elementary School *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

Beginning in the late elementary grades, academic failure increases the risk of drug abuse, delinquency, violence, teen pregnancy, and school dropout. Students fail for many reasons. It appears that *the experience of failure,* not necessarily the student's ability, increases the risk of problem behaviors.

Lack of Commitment to School *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

Lack of commitment to school means the young person has ceased to see the role of student as a viable one. Young people who have lost this commitment to school are at higher risk for all five problem behaviors.

Individual And Peer Risk Factors

Alienation, Rebelliousness, and Lack of Bonding to Society *(Substance Abuse, Delinquency, and School Dropout)*

Young people who feel they are not part of society, are not bound by rules, don't

believe in trying to be successful or responsible, or who take an active rebellious stance toward society are at higher risk of drug abuse, delinquency, and school dropout.

Friends Who Engage in the Problem Behavior *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

Youth who associate with peers who engage in problem behaviors are much more likely to engage in the same problem behaviors. This is one of the most consistent predictors the research has identified. Even when young people come from well-managed families and do not experience other risk factors, just hanging out with those who engage in problem behaviors greatly increases their risks. However, young people who experience a low number of risk factors are less likely to associate with those who are involved in problem behaviors.

Favorable Attitudes Toward the Problem Behavior *(Substance Abuse, Delinquency, Teen Pregnancy, and School Dropout)*

During the elementary school years, children usually express anti-drug, anti-crime, pro-social attitudes. They have difficulty imagining why people use drugs, commit crimes, and drop out of school. In middle school, as others they know participate in such activities, their attitudes often shift toward greater acceptance of these behaviors. This places them at higher risk.

Early Initiation of the Problem Behavior *(Substance Abuse, Delinquency, Teen Pregnancy, School Dropout, and Violence)*

The earlier young people begin using drugs, committing crimes, engaging in violent activity, becoming sexually active, and dropping out of school, the greater the likelihood that they will have problems with these behaviors later on. For example, research shows that young people who initiate drug use before age fifteen are at twice the risk of having drug problems as those who wait until after age nineteen.

Depression *(Substance Abuse and Delinquency)*

Young people who are depressed are over-represented in the criminal justice system and are more likely to use drugs. Survey research and other studies have shown a link between depression and other youth problem behaviors. Because they are depressed, these individuals have difficulty in identifying and engaging in pro-social activities. They consequently do not gain recognition for demonstrating positive behaviors or develop attachments to their schools or communities.

Constitutional Factors *(Substance Abuse, Delinquency, and Violence)*

Constitutional factors are factors that may have a biological or physiological basis. These factors are often seen in young people with behaviors such as sensation-seeking, low harm-avoidance, and lack of impulse control. These factors appear to increase the risk of young people abusing drugs, engaging in delinquent behavior, and/or committing violent acts.

PROTECTIVE FACTORS

Some young people who are exposed to multiple risk factors do not become substance abusers, juvenile delinquents, teen parents, or school dropouts. Balancing the risk factors are protective factors, those aspects of people's lives that counter risk factors or provide buffers against them. They protect by either reducing the impact of the risks or by changing the way a person responds to the risks. A key strategy to counter risk factors is to enhance protective factors that promote positive behavior, health, well-being, and personal success. Research indicates that protective factors fall into three basic categories: Individual Characteristics, Bonding, and Healthy Beliefs and Clear Standards.

Individual Characteristics

Research has identified four individual characteristics as protective factors. These attributes are considered to be inherent in the youngster and are difficult, if not impossible, to change. They consist of:

Gender. Given equal exposure to risks, girls are less likely to develop health and behavior problems in adolescence than are boys.

A Resilient Temperament. Young people who have the ability to adjust to or recover from misfortune or changes are at reduced risk.

A Positive Social Orientation. Young people who are good natured, enjoy social interactions, and elicit positive attention from others are at reduced risk.

Intelligence. Bright children are less likely to become delinquent or drop out of school. However, *intelligence does not protect against substance abuse*.

Bonding

Research indicates that one of the most effective ways to reduce children's risk is to strengthen their bond with positive, pro-social family members, teachers, or other significant adults, and/or pro-social friends. Children who are *attached* to positive families, friends, schools, and community, and who are *committed* to achieving the goals valued by these groups, are less likely to develop problems in adolescence. Children who are bonded to others with healthy beliefs are less likely to do things that threaten that bond, such as use drugs, commit crimes, or drop out of school. For example, if children are attached to their parents and want to please them, they will be less likely to risk breaking this connection by doing things of which their parents strongly disapprove. Studies of successful children who live in high risk neighborhoods or situations indicate that strong bonds with a care giver can keep children from getting into trouble. Positive bonding makes up for many other disadvantages caused by other risk factors or environmental characteristics.

Healthy Beliefs and Clear Standards

Bonding is only part of the protective equation. Research indicates that another group

of protective factors falls into the category of healthy beliefs and clear standards. The people with whom children are bonded need to have *clear, positive standards for behavior.* The content of these standards is what protects young people. For example, being opposed to youth alcohol and drug use is a standard that has been shown to protect young people from the damaging effects of substance abuse risk factors. Children whose parents have high expectations for their school success and achievement are less likely to drop out of school. Clear standards against criminal activity and early, unprotected sexual activity have a similar protective effect.

The negative effects of risk factors can be reduced when schools, families, and/or peer groups teach their children healthy beliefs and set clear standards for their behavior. Examples of healthy beliefs include believing it is best for children to be drug and crime free and to do well in school. Examples of clear standards include establishing clear no drug and alcohol family rules, establishing the expectation that a youngster does well in school, and having consistent family rules against problem behaviors.

RISK AND PROTECTIVE FACTOR SCALES AND PROFILES

Many of the questions on the survey have been combined into risk and protective factor scales. This allows the information contained in items that measure the same type of information to be summarized as a scale score. All of the scales are scored so that the higher the score the greater the risk for risk factors and the greater the protection for protective factors.

A benefit of using the risk and protective factor model in dealing with adolescent social problems is that it provides a method of measuring levels of risk and protection. Once the areas of highest risk and the areas of lowest protection are identified, they can be addressed by programs designed to reduce levels of risk and increase levels of protection. The decreases in risk and increases in protection will ultimately result in a reduction of the rate of youth problem behaviors. After the prevention programs have been implemented, the risk and protective factor levels can again be measured to determine the effectiveness of the intervention.

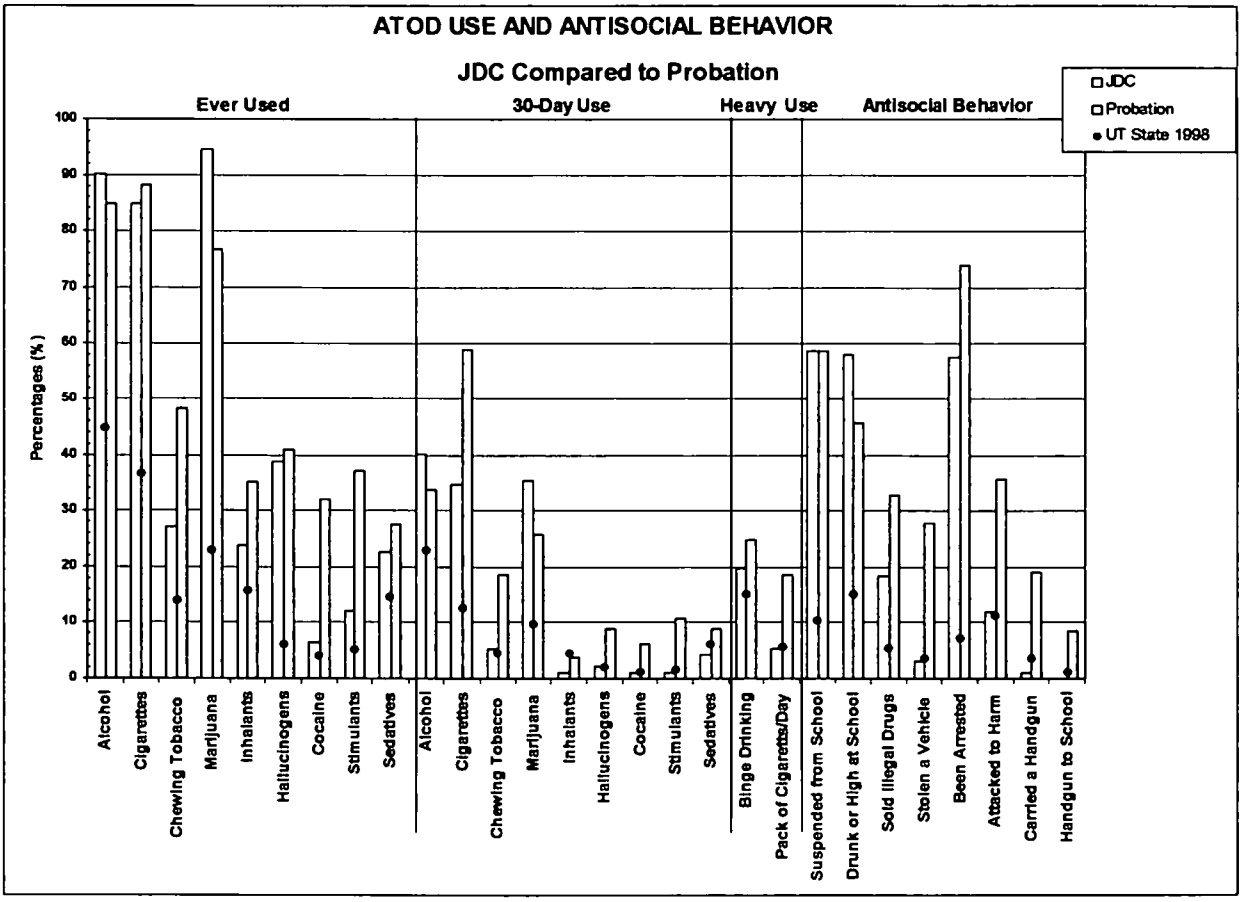
An advantage of having the data available from the profile report is that the ATOD use, antisocial behavior, and the percentage of youth at risk and with protection provide a base line that can be used to compare the results from future surveys. A community can determine whether it is becoming more or less at risk in an area by comparing the survey results from one survey administration to the next.

In order to make the results of the Juvenile Drug Court Survey more useable, risk and protective profiles have been developed that show the percentage of youth at risk and the percentage of youth with protection on each scale. The profiles allow a comparison between the percentage of youth at risk for Juvenile Drug Court, youth on probation, and a sample of youth across Utah.

Profile Charts

The purpose of the profile charts is to provide a summary of the information that is collected through the survey. The three charts can be seen in figures 1c, 1d, and 1e and contain

the following information: 1) substance use and antisocial behavior, 2) risk factors, and 3) protective factors. The charts show the results of the 93 Drug Court Participants who completed the survey compared to the 1,032 youth on probation, and 8,862 youth in Utah.



Substance Use and Antisocial Behavior Charts

Figure 1c. JDC youth compared to probationers and general population on ATOD use and antisocial behavior

This report contains information about alcohol, tobacco and other drug use (referred to as ATOD use throughout this report) and other problem behaviors of students. The bars on each chart represent the percentage of youth who reported the behavior. For example, for the overall state about 90 percent of JDC youth reported that they 'ever used alcohol'. This means that 90 percent of the JDC youth reported that they had tried alcohol at least once in their lifetime. The four sections in charts represent different types of problem behaviors. The definition of each of the types of behavior are provided below.

Ever-used is a measure of the percentage of youth who tried the particular substance at least

once in their lifetime and is used to show the level of experimentation with a particular substance.

30-day use is a measures the percentage of youths who used the substance at least once in the 30 days prior to taking the survey and is a more sensitive indication of the level of current use of the substance.

Binge drinking and **30-day use of a pack or more of cigarettes per day** is a measure of heavy use of alcohol and tobacco.

Antisocial behavior (ASB) is a measure of the percentage of youths who report **any involvement** with the eight antisocial behaviors listed in the charts **in the past year.** In the charts, antisocial behavior will often be abbreviated as ASB.

Dots are used on the charts to show the overall Utah state average of the youth from the communities of Brigham City, Roy, Tooele, Murray, Price, and Cedar City who participated in the 1998 survey of those communities. The dots allow a comparison to the more general population of youth. Information about other youth in the state can be helpful in determining the seriousness of a given level of problem behavior. For example, where the percentage of JDC youth who are engaging in a problem behavior is significantly higher than the state average, it is most likely that an intervention is needed.

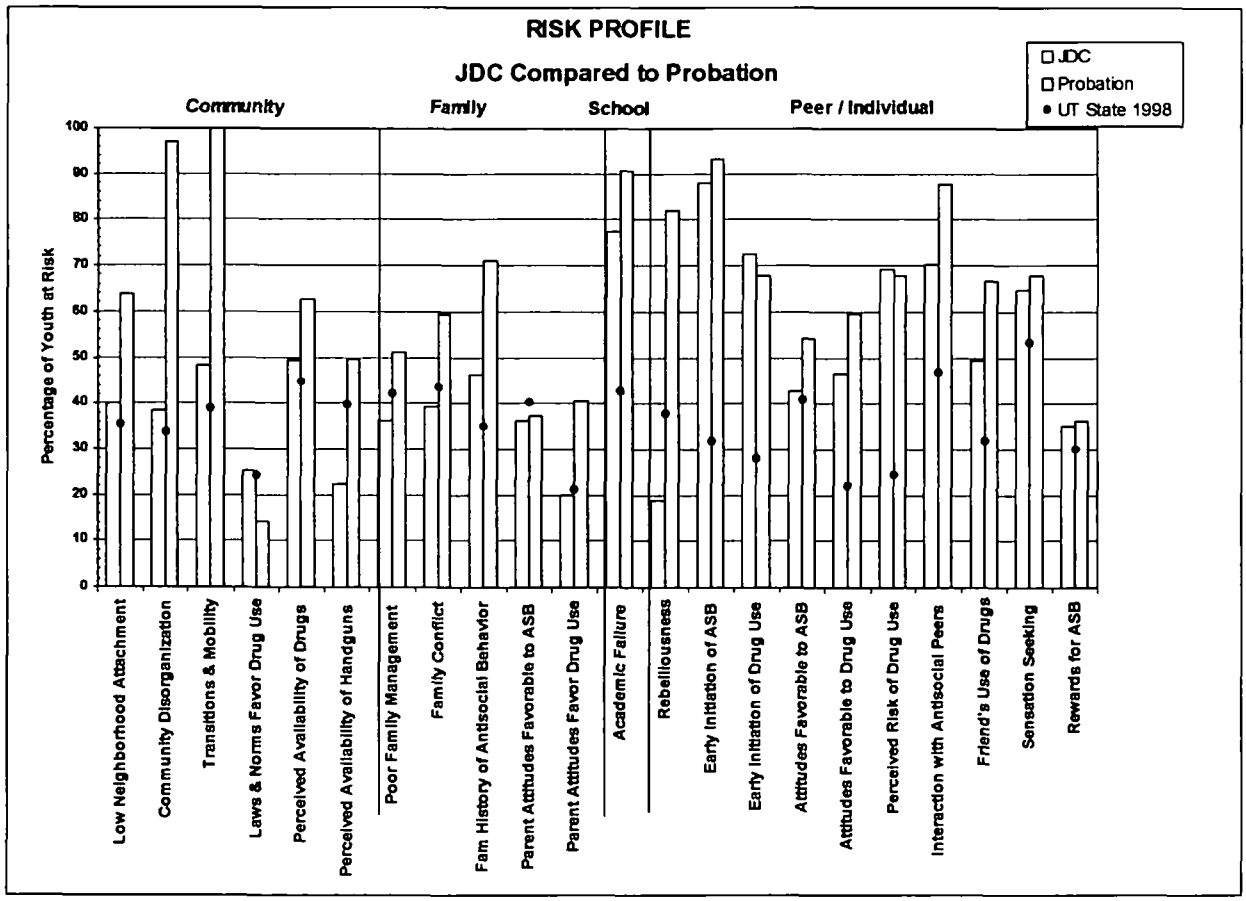
ATOD Use and Antisocial Behavior

The ATOD use and antisocial behavior rates for JDC youth, youth on probation and the general population can be seen in figure 1. For alcohol, cigarettes, marijuana and hallucinogens the "ever used" rate for JDC youth is equal to or above that of the youth on probation. For use in the 30 days prior to completing the survey, JDC youth are highest in their use of alcohol, cigarettes, and marijuana. These results are presented in table form in Tables 1 and 2. It is clear that marijuana is the drug that is used by many of the JDC youth. Their lifetime use and use in the past 30 days is much higher than either the youth on probation or the general population. The rate for smoking a pack of cigarettes per day is similar to the general population. In the antisocial behavior area, the JDC youth have high rates in suspended from school, drunk or high at school, selling illegal drugs, and being arrested. However, they do not appear to be involved in more serious crimes such as carrying a handgun (to school or in general) or stealing a vehicle.

Risk and Protective Factor Charts

The percentage of youth at risk and those with protection from the three surveys are shown in figures 2 and 3. The factors are grouped into four domains: community, family, school, and peer-individual. There is a separate chart that shows the percentage of youth who are at-risk for youth problem behaviors on each of the risk factor scales. There is also a chart that shows the percentage of youth who have the protective factor for each of the protective factor scales. In order to determine youth who were at-risk and youth with protection, cut-points were calculated by dividing youth from a 200,000 student data set (all using the survey) into two groups – those with high scores on negative survey outcome areas, and those with low scores in these same areas. Then, each risk factor scale was tested statistically to determine the point at which it significantly predicted membership in the group with high negative outcomes. Protective factor scales were treated in the same way, except they were tested to determine the point at which a scale significantly predicted membership in the group with low scores on the survey outcome areas. This is extremely important to remember when using or interpreting data shown in figures

2 and 3. For example, a review of academic failure in figure 2 shows that 78% of the JDC youth



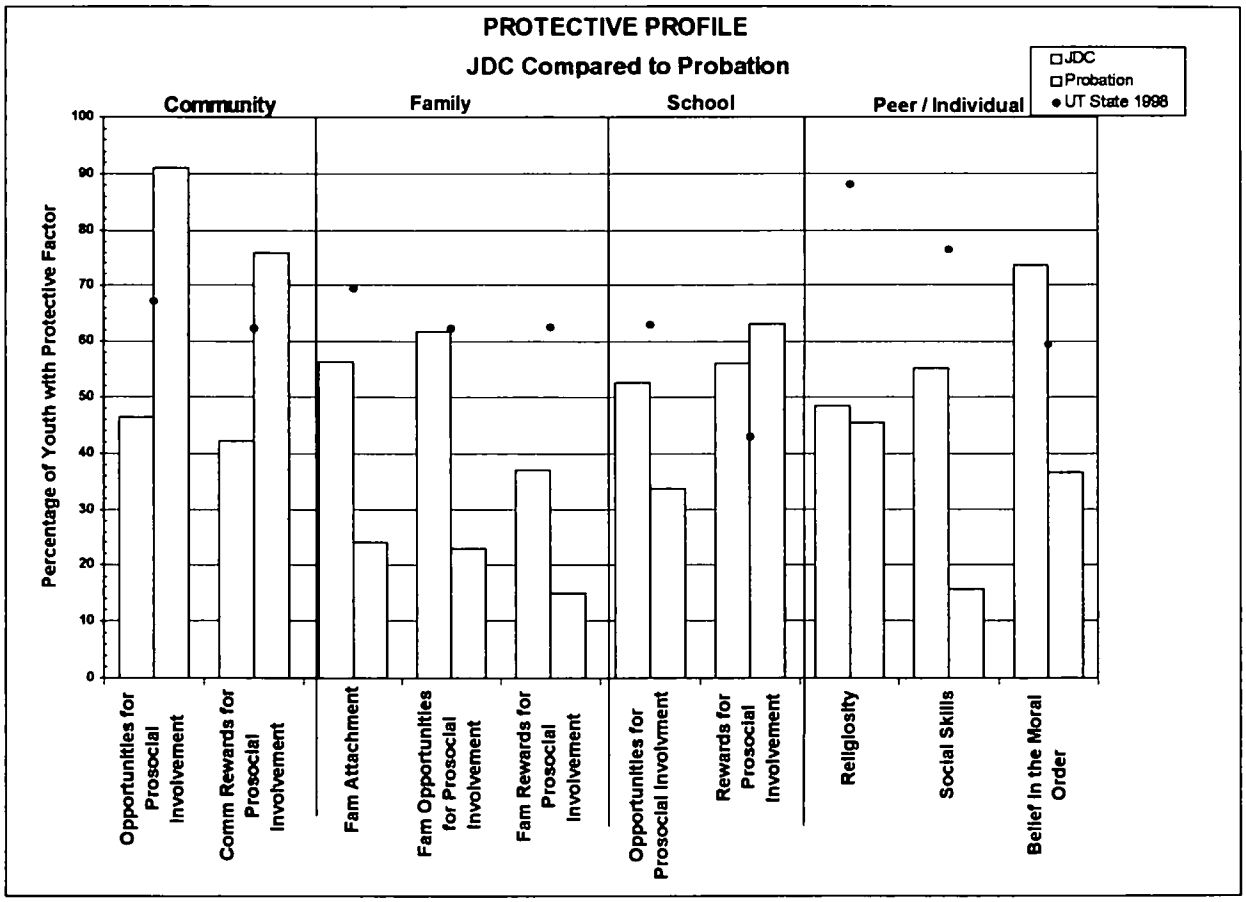
were above the cut-point on that risk scale. This can be interpreted to mean that 78% of the JDC youth showed a level of academic failure that places them at risk for problem behaviors.

Figure 1d. JDC youth compared to probationers and general population on risk factors.

In the charts, the first bar for each scale represents the percentage of youth from JDC who reported 'elevated risk' or 'elevated protection' on the survey, the second bar represents the percentage of youth on probation who reported 'elevated risk' or 'elevated protection' from the 1997 survey. The *Dots* on the charts represent the percentage of Utah youth who completed the survey who reported 'elevated risk' or 'elevated protection' on the 1998 survey. The comparison to the overall state provides additional information for determining the relative importance of each risk or protective factor level.

Risk Profile Results

A review of the percentage of JDC youth at risk on figure 1d shows that the scales with the highest risk relative to the general population are generally found on the "Academic Failure" scale and the peer/individual area where the "Early Initiation of Drug Use", "Early Initiation of Antisocial Behavior", "Attitudes Favorable to Drug Use", and "Perceived Risk of Drug Use" are two to three times the general population scores. The scale where a lower percentage of the JDC youth are at-risk than the general population is "Rebelliousness" scale where the JDC youth at-risk are



approximately one-half the rate of the general population (19% compared to 37%).

Figure 1e. JDC youth compared to probationers and general population on protection.

In the community and family areas, about the same percentage of JDC youth as the general population report having these risk factors. Thus, unlike the youth on probation, they do not appear to have the community and family factors that place them at risk for problem behaviors.

Protective Profile Results

The protective profile shown in figure 1e shows the JDC youth to be lower than the general population on almost all the protective factors scales. The exceptions are the "Rewards for Prosocial Involvement in School" and "Belief in the Moral Order". The "Belief in the Moral Order" scale inquires about stealing something if you can get away with it; beating people up if they start the fight; being honest with your parents, even if you might get punished; and believing it is all right to cheat at school. The JDC youth scored higher than the general population and much higher than youth on probation in reporting the socially appropriated view of these issues. The scales in the community area and "Religiosity, and "Family Rewards for Prosocial Involvement" are where the fewest JDC youth have protective

factor operating in their lives.

TABLE 1a
PERCENTAGE OF RESPONDENTS USING ATODs DURING THEIR LIFETIME

DRUG USED	DRUG COURT	1997 PROBATION	1998 COMMUNITY
Smokeless Tobacco	27	48	14
Cigarettes	85	88	37
Alcohol	90	85	45
Marijuana	95	77	23
Hallucinogens	39	41	6
Stimulants	12	37	5
Inhalants	24	35	16
Cocaine/crack	7	32	4
Sedatives	23	28	15
Opiates	2	11	2

TABLE 1b
PERCENTAGE OF RESPONDENTS USING ATODs DURING THE PAST 30 DAYS

DRUG USED	DRUG COURT	1997 PROB	1998 COMMUNITY
Smokeless Tobacco	5	19	4
Cigarettes	35	59	13
Alcoholic beverages	40	34	23
Marijuana	36	26	10
Hallucinogens	2	9	2
Stimulants	1	11	2
Inhalants	1	4	4
Cocaine/crack	1	6	1
Sedative/hypnotics	4	9	6
Opiates	0	3	1

DIAGNOSTIC CRITERIA FOR SUBSTANCE ABUSE AND DEPENDENCE

For an individual to receive a diagnosis of Psychoactive Substance Dependence according to the DSM-III-R, an individual must meet at least three of nine criteria for substance dependence and the symptoms must have persisted for at least one month or occurred repeatedly over a longer period of time. The nine criteria for Psychoactive Substance Dependence include: 1) substance often taken in larger amounts or over a longer period than the person intended, 2) persistent desire to cut down or control substance use, 3) a great deal of time spent in activities necessary to get the substance, taking the substance, or recovering from its effects, 4) frequent intoxication or withdrawal symptoms when expected to fulfill major role obligations at work, school, or home, or when substance use is physically hazardous, 5) important social occupational or recreational activities given up or reduced because of substance use, 6) continued substance use despite knowledge of having a persistent or recurrent social, psychological, or physical problem that is caused or exacerbated by the use of the substance, 7) marked tolerance, or markedly diminished effect with continued use of the same amount, 8) characteristic withdrawal symptoms, and 9) the substance is often taken to relieve or avoid withdrawal symptoms.

Individuals also need treatment if they meet the criteria for Psychoactive Substance Abuse. The diagnostic criteria for Psychoactive Substance Abuse include: 1) a maladaptive pattern of psychoactive substance use indicated by at least one of the following: a) continued use despite knowledge of having a persistent or recurrent social, occupational, psychological, or physical problem that is caused or exacerbated by use of the psychoactive substance, or b) recurrent use in situation in which use is physically hazardous (e.g., driving while intoxicated), 2) some symptoms of the disturbance have persisted for at least one month, or have occurred repeatedly over a longer period of time, and 3) never met the criteria for Psychoactive Substance Dependence for this substance.

As can be seen in Table 1c, the percent of JDC youth needing treatment is very similar for marijuana but less for other substances. The need for treatment by the JDC youth is approximately five times that of the general population (a 1997 school survey showed approximately 6% of youth in Utah need treatment). Thus, both the JDC and probation youth far exceed the percent of youth in the general population who need substance abuse treatment. In light of these findings, it is recommended that screening be done on youth entering JDC and that those in need of treatment be referred to a treatment program.

TABLE 1c
NEED FOR SUBSTANCE ABUSE TREATMENT BY YOUTH ON PROBATION

	Percent Needing Treatment					
	For Dependence		For Abuse		Dependence or Abuse	
Substance	JDC	Prob	JDC	Prob	JDC	Prob
Alcohol	5.4	18.1	3.2	1.8	8.6	19.9
Marijuana	24.7	23.2	2.2	1.9	26.9	25.1
Cocaine	0.0	7.3	0.0	1.3	0.0	8.6
Hallucinogens	2.2	7.1	0.0	1.3	2.2	8.1
Heroin/other opiates	0.0	3.7	0.0	1.4	0.0	5.1
Stimulants	1.1	8.7	0.0	1.2	1.1	9.9
Inhalants	1.1	4.2	0.0	1.3	1.1	5.5
Total needing treatment	25.8	30.5	4.3	4.2	28.0	32.3

Process Data

Program Participation

Of the 310 participants in the JDC database, 74% (n=231) had graduated, 19% (n=59) had dropped out, and 7% (n=20) were active clients. JDC Participants spent an average of 206 days in the program, with graduates spending an average of 214 days and dropouts spending an average of 155 days. There were 19% (n=59) of participants who had a new criminal, or alcohol or other drug (AOD) charge while in the program.

Treatment referrals were clearly documented in 265 JDC participant case files, representing 86% of the participants in the JDC database. The most common treatment referral was for psycho educational substance abuse classes, accounting for 68% (n=179) of referrals. There were 16% (n=42) of the youths referred for outpatient treatment, 9% (n=24) referred for residential, and 4% (n=11) referred for day treatment. The remaining 3% (n=9) of the participants were referred for evaluation services only, except for one who was referred for inpatient treatment. Treatment referral data are displayed in Table 1d.

There were 49 participants who were referred for more than one treatment modality, representing 16% of the participants in the JDC database. There were 45% (n=22) of these participants referred for outpatient with psycho educational treatment, and 20% (n=10) who were referred for psycho educational treatment with evaluation services. The remaining 35% (n=17) participants were referred for combinations of evaluation with outpatient therapy,

psycho educational with day treatment, outpatient with day treatment, or day treatment with evaluation.

Referral				
Psycho Educational	Outpatient	Residential	Day Treatment	Other
68%	16%	9%	4%	3%

Table 1d. JDC treatment referrals.

Assessment - Service Data

Referral	Chemically Dependent		Total
	Yes	No	
Psycho Educational	18 (34%)	164 (77%)	182 (100%)
More Intensive	34 (66%)	49 (23%)	83 (100%)
Total	52 (100%)	213 (100%)	265 (100%)

Table 1e. Chemical dependency and treatment referrals.

The 265 cases with clear treatment referral data were linked with SASSI chemical dependency profiles. Table 1e displays a cross tabulation of chemical dependency and treatment referrals. Of the 52 participants who were chemically dependent, 34% (n=18) were referred for psycho educational treatment and 66% (n=34) were referred for more intensive treatment. Of the 213 participants who were not chemically dependent, 77% (n=164) were referred for psycho educational treatment and 23% (n=49) were referred for more intensive treatment. These data indicate that a participant who was not chemically dependent was considerably more likely to be referred for psycho educational treatment, and a chemically dependent participant was considerably more likely to be referred for more intensive treatment. Treatment referral by chemical dependency data are displayed in Figure 1f.

Cases where the participant was not chemically dependent and was referred for psycho educational treatment were labeled as corresponding referrals, and when a participant was not chemically dependent and was referred for more intensive services were labeled as non-corresponding referrals. Cases where the participant was chemically dependent and was referred for more intensive services were labeled as corresponding referrals, and when participants were not chemically dependent and were referred for psycho educational treatment only, referrals were labeled as non-corresponding. This procedure distributed the 265 cases with available data into 75% (n=198) corresponding and 25% (67) non-corresponding referrals.

There were 34 chemically dependent participants who received corresponding referrals,

and 18 who received non-corresponding referrals. This means that 18 chemically dependent participants were referred for the less intensive psycho educational treatment. There were 164 participants who were not chemically dependent and received corresponding referrals, and 49 participants who were not chemically dependent and received non-corresponding referrals. These data reveal that *of the 265 cases, 75% received referrals corresponding with their SASSI chemical dependency profile, 18% were referred for services that were more intensive than indicated by the SASSI, and 7% were referred for services that were less intensive than indicated by the SASSI*. Data on SASSI-to-referral correspondence are displayed in Figure 1g.

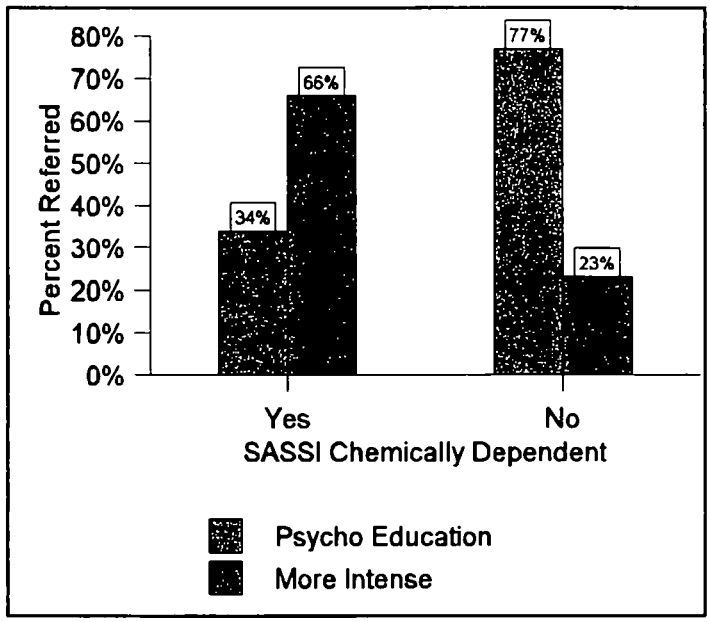


Figure 1f. Treatment referral by chemical dependency.

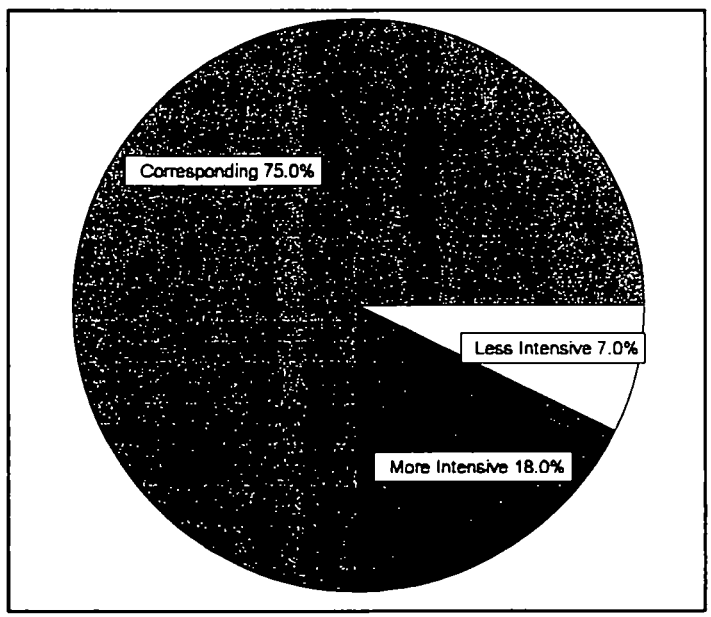


Figure 1g. SASSI-to-referral correspondence.

Outcome Data

Predictors of Program Completion

Data on program completion status and SASSI scale scores were linked for 183 cases, representing 59% of the participants listed in the JDC database. Statistically significant differences were found between JDC graduates and dropouts on the Corrections (COR) scale of the SASSI. JDC graduates had an average COR T-score of 54, and dropouts had an average COR T-score of 62. These data suggest that as participants' COR scale scores approach the clinical range, a greater level of difficulty in completing the JDC program can be anticipated.

Recidivism

Recidivism was measured by the number of charges filed with the Juvenile Court. To frame JDC participants' recidivism within a larger context a comparison group was constructed using the Utah Juvenile Information System (JIS). The group was selected from juveniles in the Ogden area, which is demographically similar to Salt Lake City, but has a smaller total population. Youth were selected into the comparison group if they met the following criteria:

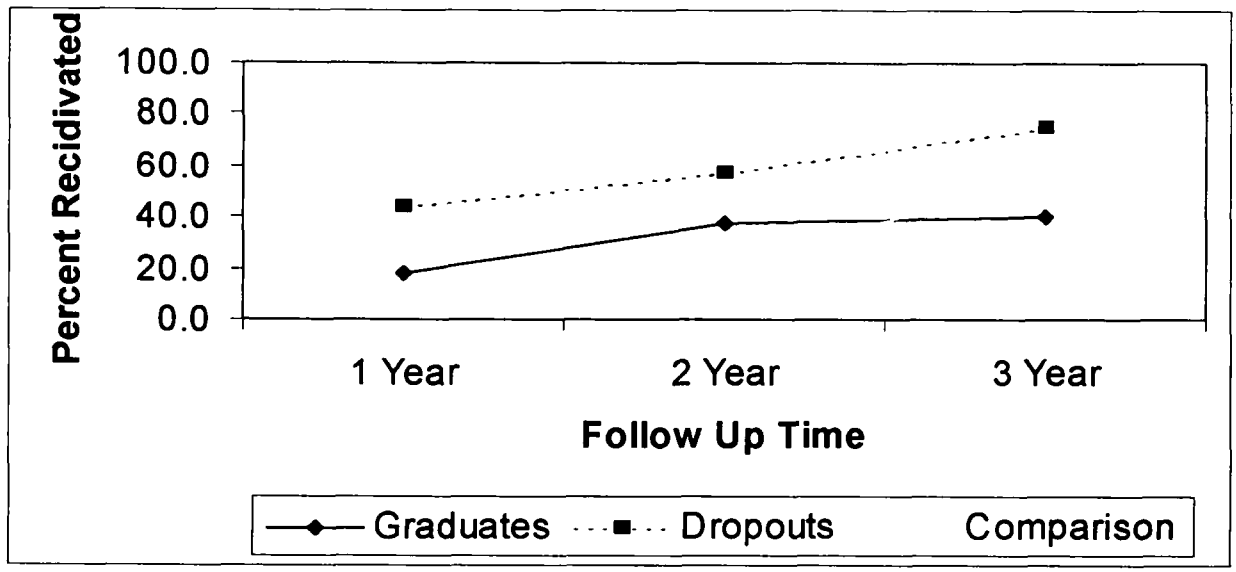
1. They became known to the Juvenile Court within the same time frame as an initial group of JDC graduates or dropouts;

2. They met the JDC inclusion criteria of having fewer than two AOD charges, no criminal charges, and that AOD charges were the first incident on their juvenile court record; and

3. They could be matched on gender and age to a JDC participant.

From an initial pool of 246 youth, a group of 118 youth was selected that met the above criteria and closely resembled the 118 participants who had graduated from or dropped out of the JDC. The average age of the JDC group was 15.6, and the average age of the comparison group was 15.9. The JDC and comparison groups were both 74% male and 26% female. Since ethnicity data was not consistently available for the comparison group, the youth could not be racially matched. When the comparison group was assembled the JDC was designed as a six- month program, so the time window for the comparison group which would correspond to the beginning of post-treatment data was set as 183 days from the date of the charge that placed the youth in the initial selection pool. In the interest of following a cohort over a three-year period, no youth were added to the comparison group after its initial construction.

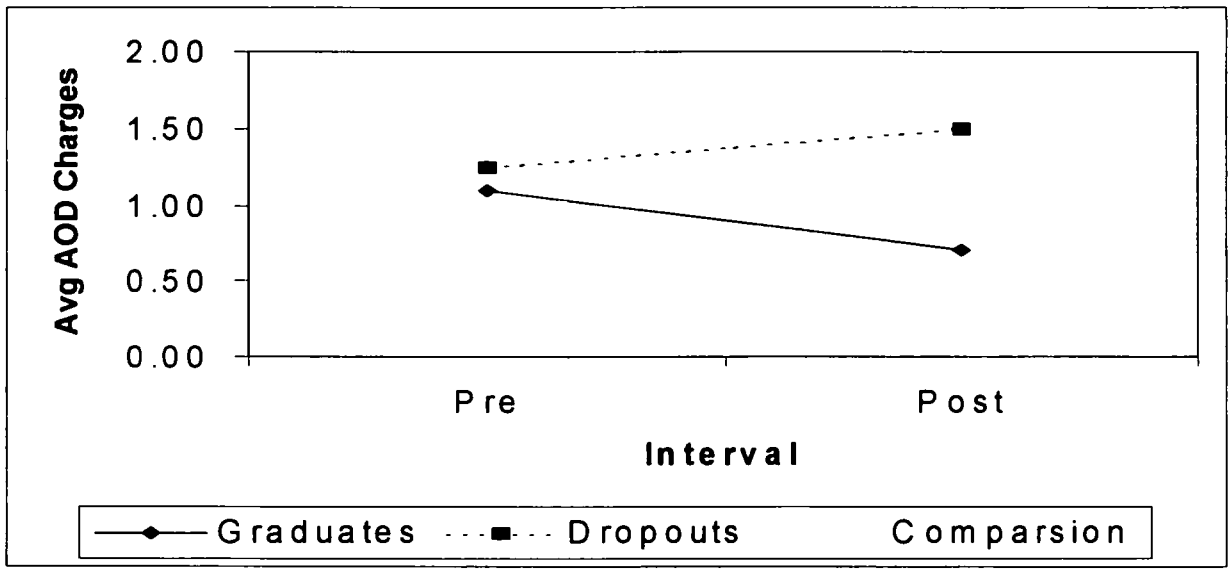
Participants who became 18 years of age were no longer tracked for charges in the Juvenile Justice Information System (JIS). There were 116 youth who remained under 18



years of age at the end of the one year follow-up period, including 45 graduates, 16 dropouts, and 55 from the comparison group. There were 67 youth who remained under 18 years of age at the end of the two year follow-up period, including 35 graduates, 7 dropouts, and 25 from the comparison group. There were 22 youth who remained under 18 years of age at the end of the three year follow-up period, including 10 graduates, 4 dropouts, and 8 from the comparison group. This decreasing trend in the number of youth eligible for comparisons should be expected due to chronological maturation. These small numbers preclude the use of comparative statistical tests, so visual analyses and descriptive statistics are used to assess recidivism. In addition to basic recidivism rates, average pre- and post-program charges are used to reflect the reduction of alcohol, drug, and criminal charges.

Alcohol and Drug Charges

Figure 1h displays alcohol or other drug (AOD) recidivism rates for JDC graduates, dropouts, and the comparison group for a three-year period. At one year follow-up, graduates had a 17.8% AOD recidivism rate, while the dropouts had a 43.8% AOD recidivism rate, and the comparison group had a 10.9% AOD recidivism rate. At two-year follow-up graduates had a 37.1% AOD recidivism rate, the dropouts had a 57.1% AOD recidivism rate, and the



comparison group had a 28% AOD recidivism rate. At three-year follow-up, graduates had a 40% AOD recidivism rate, the dropouts had a 75% AOD recidivism rate, and the comparison group had a 50% AOD recidivism rate.

Figure 1h. Three-year AOD recidivism rates for JDC graduates, dropouts, and comparison group.

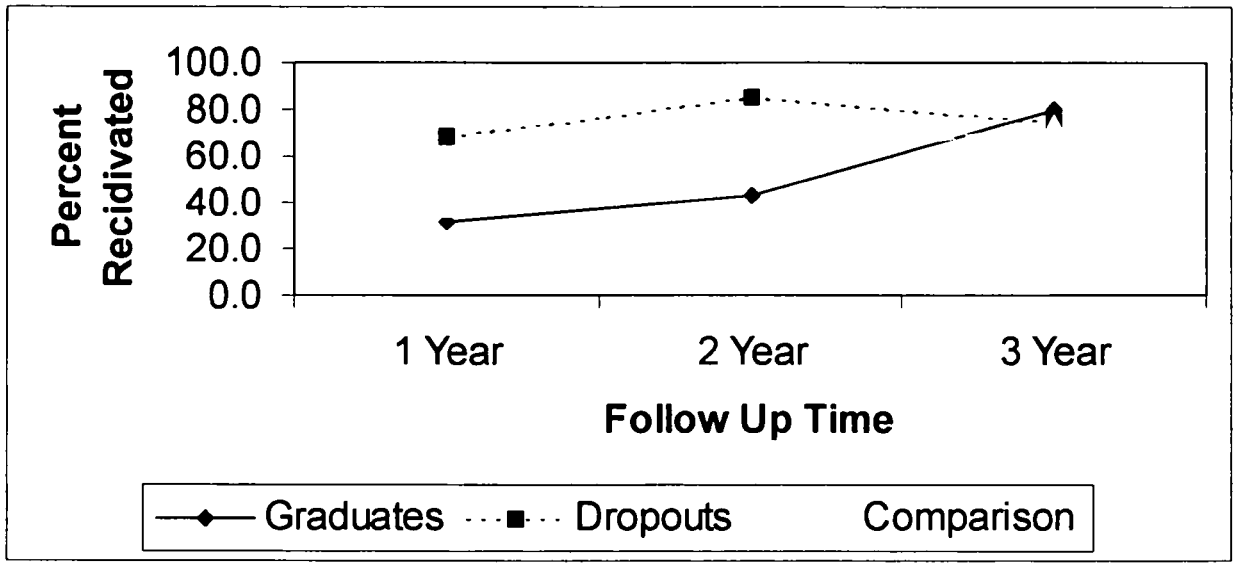
Figure 1j. Three year pre-and post average AOD charges for JDC graduates, dropouts, and comparison group.

The data show that the graduates were initially higher than the comparison group in their AOD recidivism rate, but that their rate leveled while the comparison group's rate of new charges continued to climb. It also appears that the dropouts were on a different recidivism trajectory from the graduates, and that while their AOD recidivism rate was higher than the comparison group's it was on a parallel trajectory. These data show that *there was an AOD recidivism benefit for the JDC graduates that became more evident over time*.

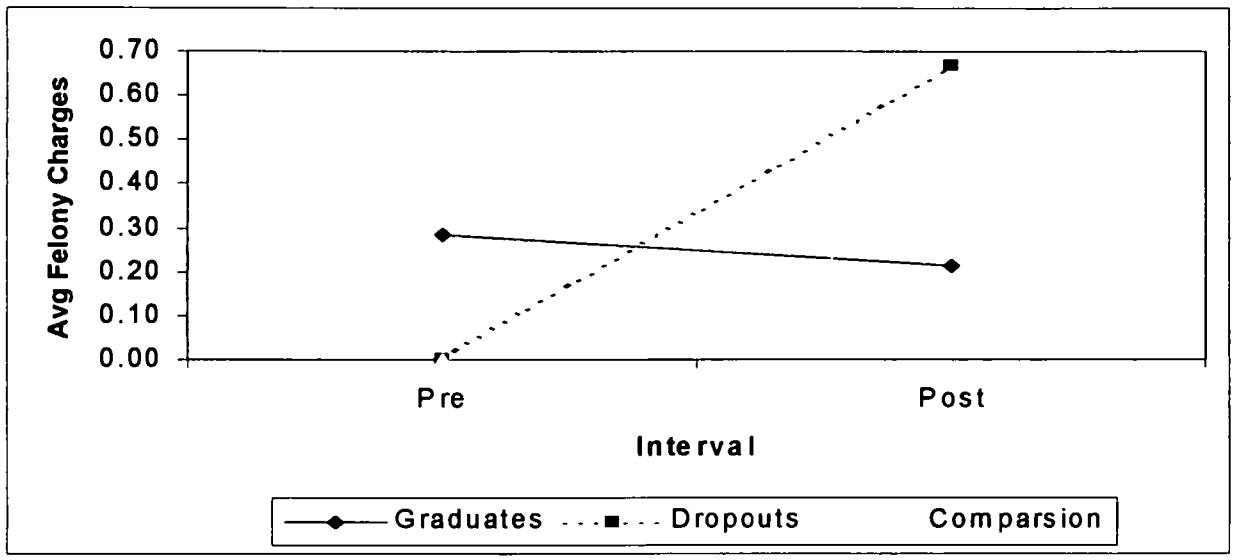
Figure 1j displays the average number of AOD charges that the JDC graduates, dropouts, and comparison group had for three years pre-and post-program. At three years pre-program, graduates had an average of 1.1 AOD charges, with dropouts having 1.25 and the comparison group averaging 1.0 charges. At three years post-program, graduates had an average of 0.7 AOD charges, with dropouts having 1.5 and the comparison group averaging 1.25 charges. The data reveal that over the course of three years *the graduates followed a decreasing trend while the dropouts and comparison followed an increasing trend in average AOD charges*.

Non-Alcohol and Drug Charges

Figure 1k displays non-alcohol or other drug (NAOD) recidivism rates for JDC graduates, dropouts, and the comparison group for a three-year period. At one-year follow-up graduates had a 31.1% NAOD recidivism rate, the dropouts had a 68.8% NAOD recidivism rate, and the comparison group had a 36.4% NAOD recidivism rate. At two-year follow-up



graduates had a 42.9% NAOD recidivism rate, the dropouts had a 85.7% NAOD recidivism rate, and the comparison group had a 56% NAOD recidivism rate. At three-year follow-up



graduates had an 80% NAOD recidivism rate, the dropouts had a 75% NAOD recidivism rate, and the comparison group had a 75% NAOD recidivism rate. The data show that the graduates and comparison group followed similar trends in NAOD recidivism, and that the dropouts showed a relative leveling of NAOD recidivism following a rapid rise during the first two years.

Figure 1k. Three-year Non-AOD recidivism rates for JDC graduates, dropouts, and comparison group.

Figure 1m. Three-year pre-and post average Non-AOD felony charges for JDC graduates, dropouts, and comparison group.

At three years pre-program, JDC graduates had an average of 0.4 NAOD charges, with

dropouts having 0.75 and the comparison group having no NAOD charges. At three years post-program graduates had an average of 2.2 NAOD charges, with dropouts having 5.25 and the comparison group averaging 1.88 charges. When felony and misdemeanor charges are compared different trends emerge for these charge categories.

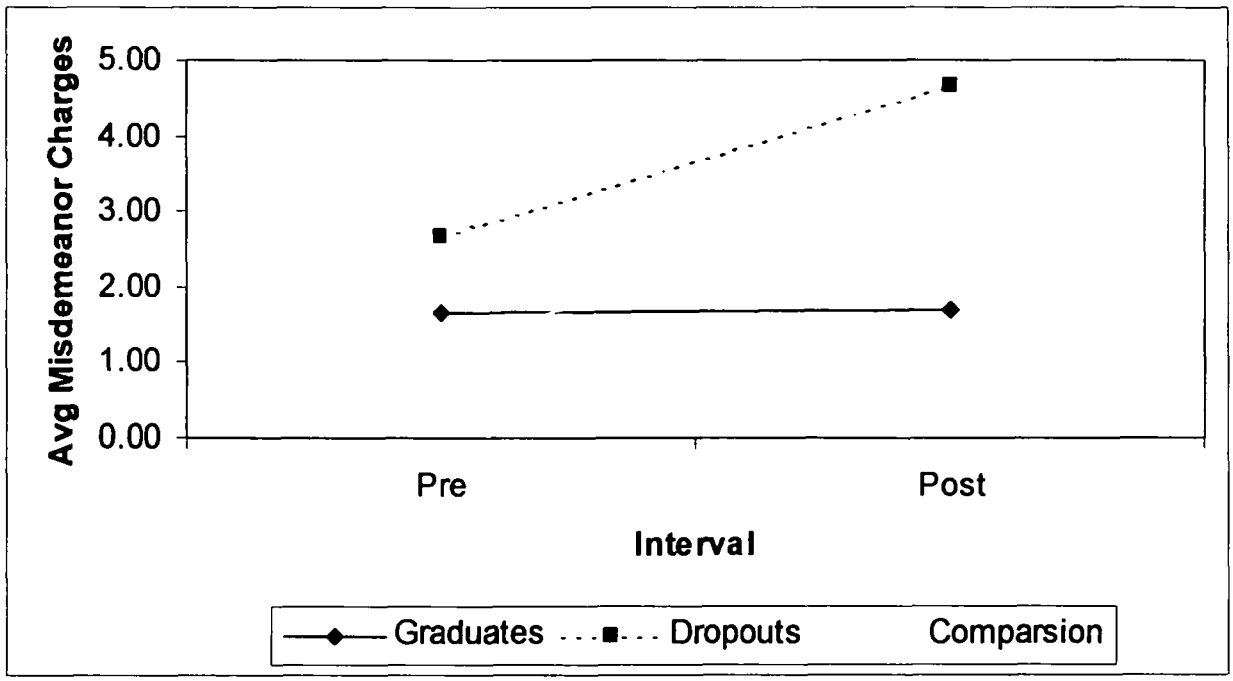


Figure 1m displays the average number of NAOD felony charges that the JDC graduates, dropouts, and comparison group had for three years-and post-program. At three years pre-program graduates had an average of 0.29 NAOD felony charges, with dropouts and the comparison group having no NAOD felony charges. At three years post-program graduates had an average of 0.21 NAOD felony charges, with dropouts having 0.67 and the comparison group averaging 0.30 charges. *The data show that for NAOD felony charges the graduates had a decreasing trend and both the dropouts and comparison group had increasing trends*, with the dropouts increasing more rapidly than the comparison group in NAOD felony charges.

Figure 1n. Three-year pre-and post average non-AOD misdemeanor charges for JDC graduates, dropouts, and comparison group.

Figure 1n displays the average number of NAOD misdemeanor charges that the JDC graduates, dropouts, and comparison group had for three years pre-and post-program. At three years pre-program graduates had an average of 1.64 NAOD misdemeanor charges, with dropouts having 2.67 and the comparison group having 1.20 NAOD misdemeanor charges. At three years post-program graduates had an average of 1.68 NAOD misdemeanor charges, with dropouts having 4.67 and the comparison group averaging 3.30 charges. *The data show that the graduates had a relatively flat trend for average NAOD misdemeanor charges, and that both the dropouts and comparison group had parallel increasing trends in average NAOD misdemeanor charges*.

System Penetration

The JDC program is intended to divert participants from further juvenile justice system involvement. System penetration was used as a method to assess diversion. System penetration refers to how deeply into the juvenile justice system a youth moves. In the Utah juvenile justice system, placement in a Division of Youth Corrections (DYC) secure facility is the deepest level of system penetration. Comparisons between the JDC and comparison groups used the different probabilities for DYC secure facility placement to account for the potential influence of sentencing differences in the two locales. Because the third year of follow-up occurred during calendar year 2000, and estimates of expected counts for DYC placements were based on probabilities within calendar year 1999, a two year follow-up period was used to assess system penetration.

Probabilities of DYC secure placement were calculated for Salt Lake County, where the JDC participants live, and Weber County, where the comparison group youth live. The probabilities were calculated by dividing the number of youth from each county who were placed in DYC secure facilities by the total number of youth (ages 10 -18) residing in each county. Expected counts were determined by multiplying the number of youth in the JDC graduate and dropout groups by the DYC secure placement probability for Salt Lake County, and by multiplying the number of youth in the comparison group by the DYC secure placement probability for Weber County.

Table 1f displays the actual and expected counts of youth who were placed in DYC secure facilities within two years of follow-up. It was expected that 1.3 graduates would be placed in a DYC secure facility, and none were. It was expected that 0.3, or close to zero, dropouts would be placed in a DYC secure facility, and 3 were. It was expected that 1.3 members of the comparison group would be placed in a DYC secure facility, and 4 were. These encouraging numbers show that *there were fewer JDC graduates than expected and more dropouts and comparison group members than expected placed in DYC secure facilities*.

Secure DYC Placement	Group		
	Graduates	Dropout	Comparison
Observed Count	0	3	4
Expected Count	1.3	0.3	1.3

Table 1f. Observed and expected counts for DYC secure placement at two-year follow-up.

Discussion

Summary Of Findings

The data show that the Juvenile Drug Court program serves the population for which it is intended. The SASSI scores and profiles reveal a population that for the most part is not yet at the point of chemical dependency, but has more favorable attitudes about drug use and are more likely to become involved with the justice system than average adolescents. The CBCL data show that JDC participants are more likely than average adolescents to be perceived by their parents as troubled. The survey data demonstrate that JDC participants are exposed to higher levels of substance abuse risk and lower levels of substance abuse protection than juvenile probationers across Utah. These characteristics indicate that specialized services

beyond routine probation are warranted.

Youth who drop out of the JDC tended to score higher than graduates on the SASSI corrections (COR) scale. Compared to graduates, dropouts had higher exposure to community and peer/individual risk factors and lower exposure to peer/individual protective factors for substance abuse problems. Participants who graduated *from* the JDC demonstrated significantly reduced scores on the CBCL Withdrawn Behavior and Aggressive Behavior scales from pretest to post test. These data show that the JDC does work better for "front end" youth who have less of a proclivity for criminal activity, and who have relatively moderate exposure to substance abuse risk factors. Participants who succeed in the program demonstrated behavior changes that are readily observable and reportable by their parents.

The SASSI, particularly the chemical dependency profile assessment, is a useful assessment tool for JDC staff. The majority of participants who are not chemically dependent were referred for psycho educational treatment and the majority of chemically dependent participants were referred for more intensive treatment. JDC participants were largely referred to the level of service indicated by their SASSI chemical dependency profile, or to a higher level of service. Although 34 percent (n=18) of the chemically dependent participants were referred to less intensive psycho educational treatment they were only a small fraction of all Juvenile Drug Court participants.

JDC graduates demonstrated lower three year recidivism rates for alcohol or other drug charges than dropouts or members of the comparison group. Average pre-to-post AOD charges show that the JDC graduates experienced a suppression effect from the program, with their decreasing trend in the opposite direction of the dropout and comparison group trends. Therefore, the JDC appears to be effective at suppressing AOD charges, which is clearly a desirable program outcome.

Although recidivism rates for non-AOD charges do not clearly demonstrate a difference between groups, average pre-to-post non-AOD felony and misdemeanor charges indicate some suppression for non AOD criminal activity. When system penetration is examined the JDC appears to have an appreciable suppression for youth moving deeper into the juvenile justice system. Although non-AOD delinquent activity is not a specific target of the JDC, participation in the program seems to have some crossover benefits in suppressing delinquency.

Recommendations

The JDC functions as it is intended to, targeting the designated youth and providing them with appropriate services. The JDC appears to produce desirable and durable outcomes for the participants. These findings form the basis for recommending that the JDC receive full and continued funding from the Utah Juvenile Court.

It is recommended that treatment delivery be incorporated within the JDC program, rather than referring participants to outside providers. This change in practice would have the following effects:1) developing a unified treatment approach to JDC participants, 2) increasing treatment fidelity, 3) improving communication between clinicians and the court, 4) increasing the availability of treatment progress information to the JDC, and 5) strengthening the evaluability of treatment-to-outcome linkages. Additional funding should be provided to the JDC to hire or contract with the necessary clinical staff. This treatment funding should initially

be time-limited with permanence contingent on evaluation results.

Future Research And Evaluation

As the JDC continues to operate, existing data collection protocols can be used for ongoing self-evaluation. In addition to process evaluation, the JDC can collaborate with Juvenile Court MIS personnel for outcome evaluation. The Social Research Institute will remain a resource to the JDC for guidance on analyzing existing program data.

The addition of clinical staff members would allow for implementing and evaluating targeted interventions. Interventions could include approaches aimed at areas including delinquency reduction and family skill-building, or could focus on mental health problems such as depression. Detailed interventions targeting specific needs can be evaluated for treatment fidelity, immediate outcomes, and long-term impacts. A wait-list control design could be used within the JDC to strengthen the internal validity of these evaluation efforts.

The Juvenile Drug Court has enough evaluation data behind it to support continuation of the program. The program is well-suited to incorporate and test treatment innovations, while continuing its fundamental mission and practice.

Outpatient Sex Offender Treatment at the Salt Lake Day Reporting Center

Participants

General Demographics

There were 194 Outpatient Sex Offender Program (OSP) participants listed in the Day Reporting Center (DRC) database on June 30, 2000. The average age of OSP participants was 35.6, and they ranged from 18 to 83 years old. Male participants accounted for 99% (n=192), with only 1% (n=2) being female. Participants were 80% (n=155) White, 1% (n=2) African American,12% (n=25) Latino, 3% (n=5) Native American, and 4% (n=7) Asian or Pacific Islander.

Process Data

Program Participation

A total of 194 sex offenders have been referred to the OSP since 1996 . Graduates from were11% (n=22) of this group, with 18% (n=34) treatment failures, 8% (n=17) discharged as other (e.g; transferred to other treatment, interstate compact), 38% (n=73) who were referred but never started, and 25% (n=48) were active cases on June 30, 2000. Participants who were referred but never started were reported to their probation or parole officers, and they were returned to prison, placed in jail, or placed in a halfway house. Program status is displayed in Figure 2a. Of those referred, 26% (n=51) were parolees and 74% (n=143) were probationers, and 29% (n=56) of participants were enrolled in the regular DRC program as well as the OSP. Referral source and DRC enrollment are displayed in Table 2a.

Supervision Status	
Probation	Parole
74%	26%
In Regular DRC Program?	
Yes	No
29%	71%

Table 2a. Referral source and DRC enrollment.

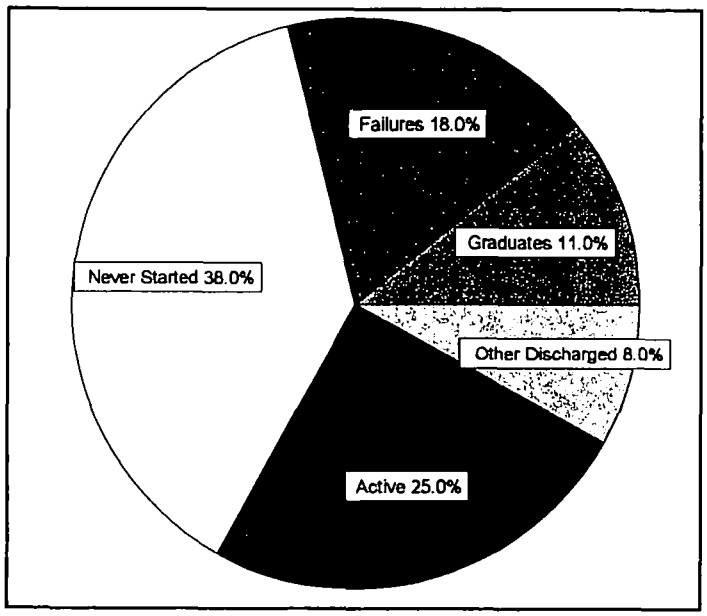


Figure 2a. OSP program status.

There were 26.8% (n=52) individuals referred to the program who were assigned to the regular OSP, 10.8% (n=21) in the Developmentally Delayed or Mentally Retarded (DDMR) track, 1.5% (n=3) in a short-term individualized track, 12% (n=25) in the intensive outpatient track, 1.5% (n=3) on an individual track, 5.2% (n=8) who were in the new special needs track, 4.6% (n=9) whose assignment was not recorded, and 37.6% (n=73) who never attended and were not assigned to a treatment track. Treatment track assignments are displayed in Table 2b.

ISAT Program Assignment						
OSP	**DDMR**	**Individual (Short-term and other)**	**Spec Needs**	**IOP**	**Never Start**	**Not Recorded**
27%	11%	3%	4%	12%	38%	5%

Table 2b. Treatment track assignments.

The average length of services for participants was 249 days, within a range of 0 to 1,264 days. Between June 30, 1998 and June 30, 2000, participants had an average of 1.6 weekly group psychotherapy sessions, ranging from 0 to 9 weekly sessions. OSP participants attended an average of 0.41 weekly individual psychotherapy sessions, ranging from 0 to 2 weekly sessions, and an average of 0.39 weekly psycho educational classes, ranging from 0 to 3 weekly sessions. Average weekly treatment hours are displayed in Figure 2b.

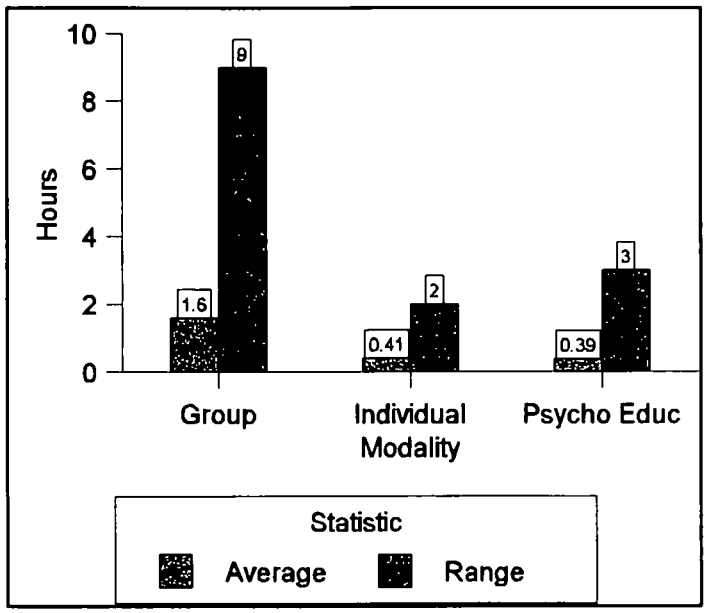


Figure 2b. Average treatment hours.

Program Completion

The evaluation team collected data on the average length of treatment to identify commonalities between those participants who finished the program successfully, as well as differences between graduates and non-graduates. Graduates had an average length of service of 508.4 days, treatment failures had an average of 230.4 days, and those discharged as other had an average of 223.6 days. The graduates significantly differed from the failures and others, with failures and others not significantly differing from each other. These data indicate that *OSP graduation requires a lengthy time commitment, and that participants who fail or otherwise leave the program do so within about half the time that graduates spend in the program*.

Data collected from this program also suggest that treatment success is related to the number of weekly hours that participants spend in group therapy. Graduates attended an average of 3.7 weekly group psychotherapy sessions, while treatment failures attended an average of 1.3, and participants who were otherwise discharged attended an average of 1.5 weekly sessions. The differences in group psychotherapy sessions between graduates and failures, and graduates and those who were otherwise discharged were statistically significant. Average numbers of weekly group psychotherapy sessions relative to the program average are displayed for graduates, failures, and otherwise discharged participants in Figure 3.

Increased time spent in individual therapy is another contributor to higher treatment completion rates. Graduates attended an average of 0.9 weekly individual psychotherapy sessions, while treatment failures attended an average of 0.3, and participants who were otherwise discharged attended an average of 0.4 weekly sessions. The differences in individual psychotherapy sessions between graduates and failures, and graduates and those who were otherwise discharged were statistically significant. Average numbers of weekly individual psychotherapy sessions relative to the program average are displayed for graduates, failures, and otherwise discharged participants in Figure 4.

Increased exposure to psycho educational classes was an additional predictor of

program completion. Graduates attended an average of 1.0 weekly psycho educational classes, compared to treatment failures, who attended an average of 0.3, and participants who were otherwise discharged, who attended an average of 0.4 weekly classes. The difference in weekly psycho educational classes between graduates and failures was statistically significant, and the difference between graduates and those who were otherwise discharged was not statistically significant.

A final measure of program participation used by the evaluators was missed therapy appointments. Graduates missed an average of 0.2 therapy appointments per week, treatment failures missed an average of 0.3, and participants who were otherwise discharged missed an average of 0.1 therapy appointments. The differences in missed appointments between graduates, failures, and those who were otherwise discharged were not statistically significant.

Electrophysiological Assessment Data

Penile plethysmographs were used by the OSP to assess participants' arousal patterns and polygraphs were used to assess their honesty about sexually offending. The OSP was assigned a new supervisor from ISAT in January of 1999. Participants who left the OSP, successfully or otherwise, since that time were tracked for the presence of electrophysiological assessment reports in their files. Cases where the participants who were referred to the OSP but never attended were excluded from this analysis. Of the 85 cases who met these criteria, 45.9 percent had been administered at least one plethysmogrpah, and 35.3 percent had received a polygraph.

When one examines the distribution of electrophysiological assessments by OSP treatment level, a more appropriate view of the data unfolds. According to ISAT protocols, on Level 1 participants are administered a baseline plethysmogrpah to assess for deviant arousal patterns. On Level 2 a polygraph is administered to determine participants' honesty about the details of their offense(s) and if there are additional victims on whom they have perpetrated. On Level 3 a follow-up plethysmogrpah is administered to assess for changes in arousal patterns, and to determine if sexual reorientation is necessary. On Level 4 a second polygraph is administered to assess participants' compliance with treatment and probation or parole requirements.

At least one plethysmogrpah referral had been made for 55 percent of the participants who were on Level one, and at least one plethysmogrpah report was present in the files of 48 percent of the participants who were on Level one. At least one plethysmogrpah referral had been made for 75 percent of the participants who were on Level II, and at least one plethysmogrpah report was present in the files of 75 percent of the participants who were on Level II, with 13 percent having more than one plethysmogrpah report. At least one plethysmogrpah referral had been made for 67 percent of the participants who were on Level III, and at least one plethysmogrpah report was present in the files of 67 percent of the participants who were on Level III, with 44 percent having more than one plethysmogrpah report. At least one plethysmogrpah referral had been made for 60 percent of the participants who were on Level IV, and at least one plethysmogrpah report was present in the files of 48 percent of the participants who were on Level IV, with 32 percent having more than one plethysmogrpah report. These data reveal that *as treatment levels increased to Level III, the percent of participants who had been administered a plethysmogrpah increased*, and that the percent of participants who had been administered a follow-up plethysmogrpah also increased. Percentages of plethysmogrpah examinations by level are displayed in Figure 2c.

Figure 2c. Percentages of plethysmogrpah referrals and examinations by level.

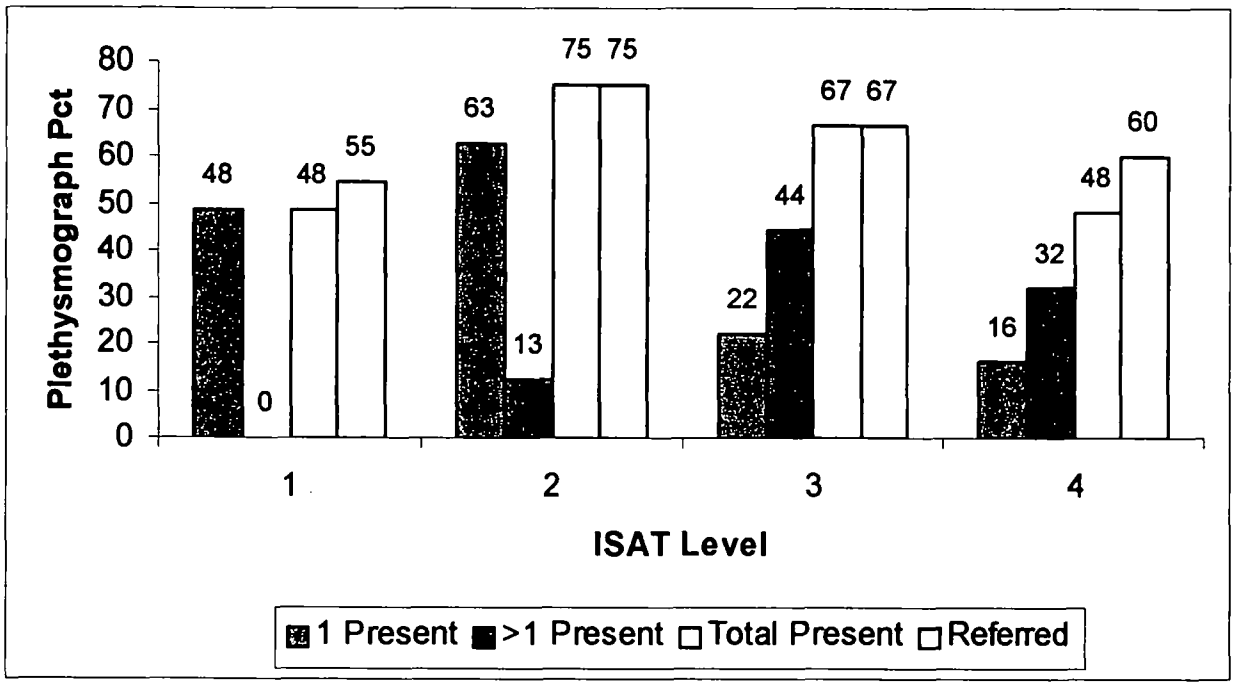
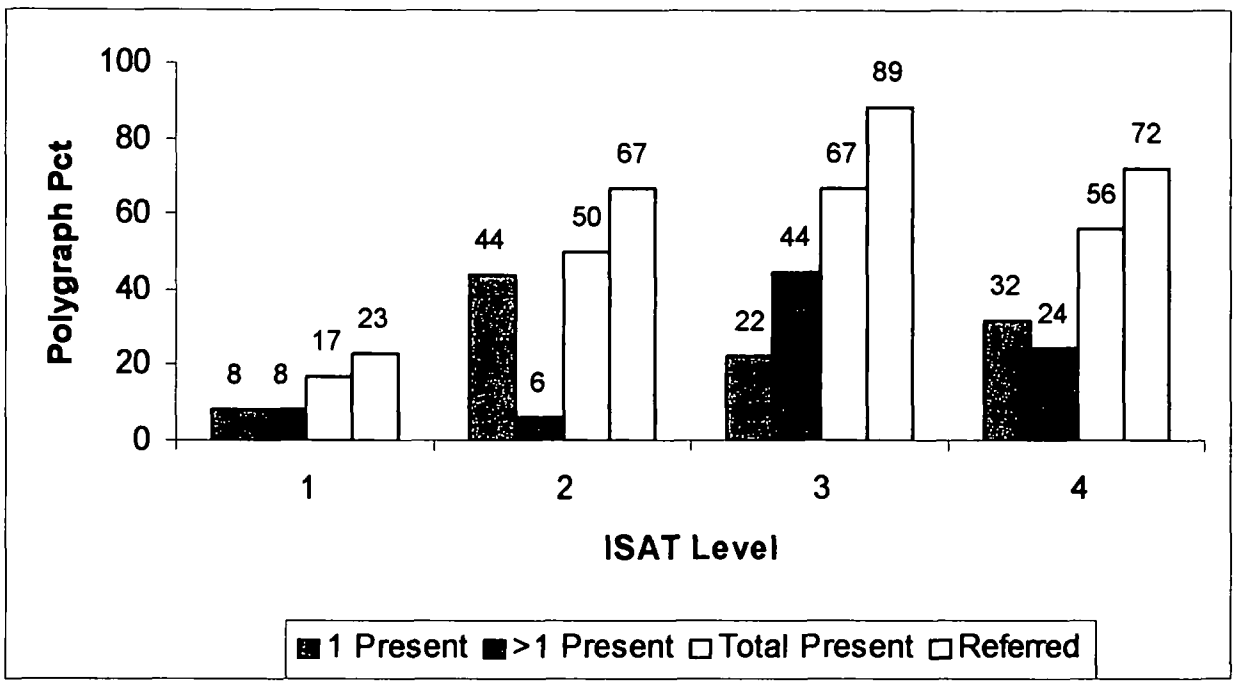


Figure 2d. Percentages of polygraphs by level.



At least one polygraph referral had been made for 23 percent of the participants who were on Level I, and at least one polygraph report was present in the files of 17 percent of the participants who were on Level I, with 8 percent having more than one polygraph report. At

least one polygraph referral had been made for 67 percent of the participants who were on Level II, and at least one polygraph report was present in the files of 50 percent of the participants who were on Level II, with 6 percent having more than one polygraph report. At least one polygraph referral had been made for 89 percent of the participants who were on Level III, and at least one polygraph report was present in the files of 67 percent of the participants who were on Level III, with 44 percent having more than one polygraph report. At least one polygraph referral had been made for 72 percent of the participants who were on Level IV, and at least one polygraph report was present in the files of 56 percent of the participants who were on Level IV, with 24 percent having more than one polygraph report. It can be seen from these data that *as treatment levels increased to Level III, the percent of participants who had received a polygraph increased*, and that the percent of participants who had been administered a follow-up polygraph also increased. Percentages of polygraphs by level are displayed in Figure 2d.

There is some variation between the referral and report data and the program protocols. Participants may move backwards on levels due to their electrophysiological assessment results, or because of their behavior in the program or community. It is entirely possible that some participants moved back to Level III after attaining Level IV. This treatment phenomenon may help explain why Level III rates of electrophysiological assessment are higher than Level IV. Additionally, the assessment must occur while the participant is on the specified level, not as a condition of advancing to that level.

When one compares the rate of electrophysiological assessment before and after January of 1999 a trend towards increasing numbers of electrophysiological assessments emerges. This comparison is visually displayed in Figures 2e and 2f, for plethysmogrpah and polygraphs respectively. The data collected may underestimate the rates of progress that ISAT has made towards full electrophysiological assessment for two reasons. First, participants who began the program before the new program manager assumed her duties may have attained level advancements without electrophysiological assessments, and this appears in the present data. Second, a small number of files, less than 15, were in the process of being archived during data collection, and electrophysiological assessment data on these cases are not included in this report.

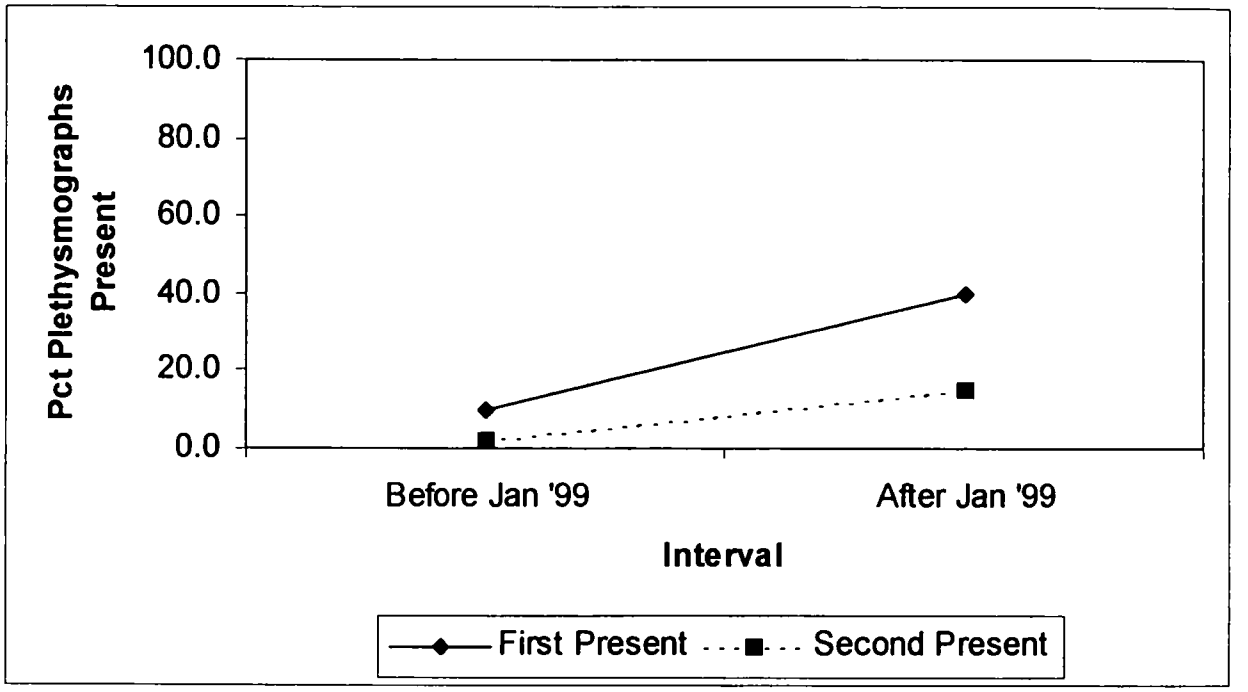


Figure 2e. Percent having plethysmogrpah before and after January, 1999.

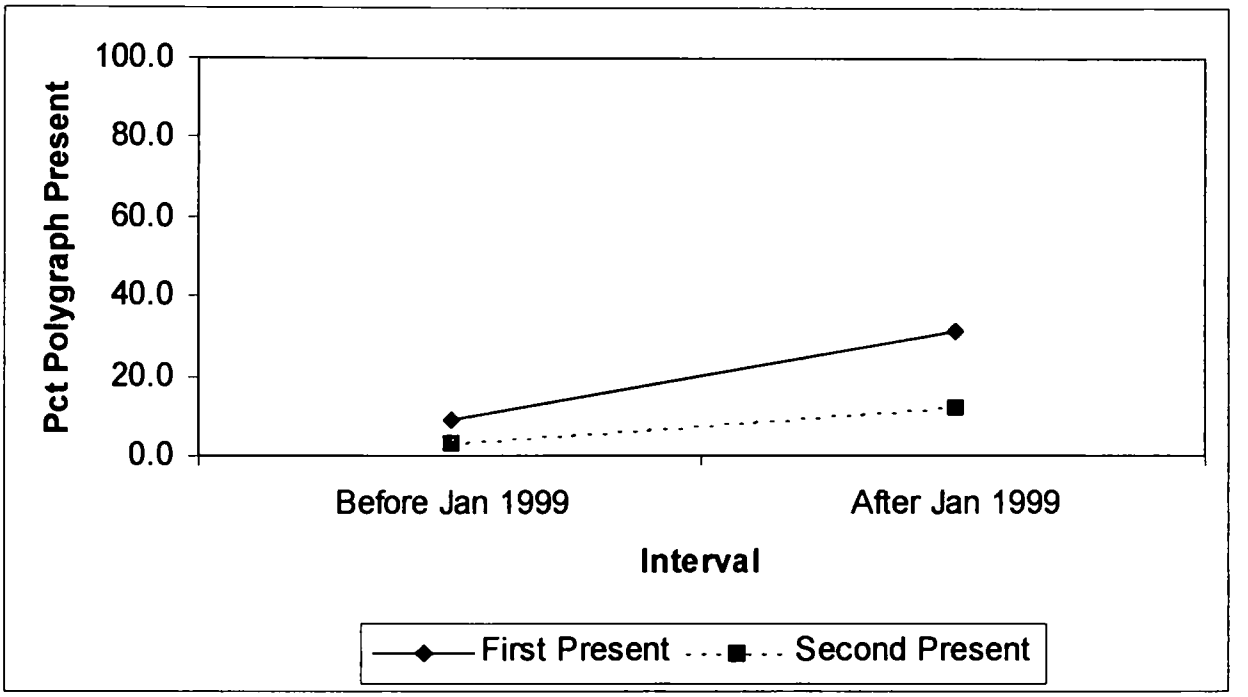


Figure 2f. Percent having polygraphs before and after January, 1999.

Electrophysiologically Assessed Change

To assess electrophysiologically measured change, all participants in the OSP database who had attended the program (not listed as never attended) were included, for at

total of 121 participants. This group contains included participants than those who left the OSP both before and after January of 1999. The full group was included here to reflect OSP performance across both time periods.

Of these 121 participants there were 38.8% (n=47) who had a pretest plethysmogrpah, and 14.1% (n=17) who had a post test plethysmogrpah. There were a total of 17 participants who had matched pretest and post test plethysmogrpah examinations. Of the 121 participants, there were 29.7% (n=36) who had a pretest polygraph, and 12.4%(n=15) who had a post test polygraph. There were a total of 15 participants who had matched pretest and post test polygraph examinations.

Of the 17 participants who had matched pretest and post test plethysmogrpah examinations, there were 33% (n=6) who improved, moving from deviant arousal or inconclusive at pretest to appropriate arousal at post test. There were 33% (n=6) who had inconclusive results on both tests, and 6% (n=1) who remained deviant on both tests. There were 22% (n=4) who moved from inconclusive to deviant, and 6% (n=1) who moved from deviant to inconclusive between pretest and post test. Overall, approximately one-third of participants showed improvement as measured by plethysmogrpah. The small number of participants precludes statistical significance testing with this number of categories. The pretest-to-post test plethysmogrpah results are displayed in Figure 2g.

Of the 15 participants who had matched pretest and post test polygraph examinations, there were 40% (n=6) who improved, moving from deceptive at pretest to truthful at post test, and there were 33.3% (n=5) who remained truthful on both tests. There were 20% (n=3) who remained deceptive on both tests, and 6.7% (n=1) who worsened, moving from truthful to deceptive between pretest and post test. Out of this small group who had matching pretests and post tests, *approximately two-thirds of the participants showed improvement or remained truthful, and only one participant became more deceptive*, with one fifth who remained dishonest, as measured by polygraphy. The small number of participants precludes statistical significance testing with this number of categories. The pretest-to-post test polygraph results are displayed in Figure 2h.

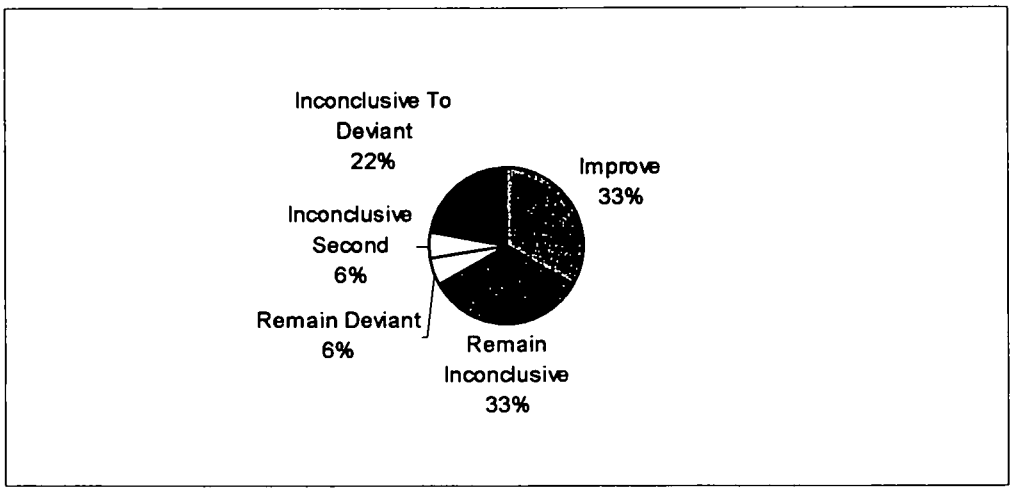


Figure 2g. Pretest-to-post test plethysmogrpah results.

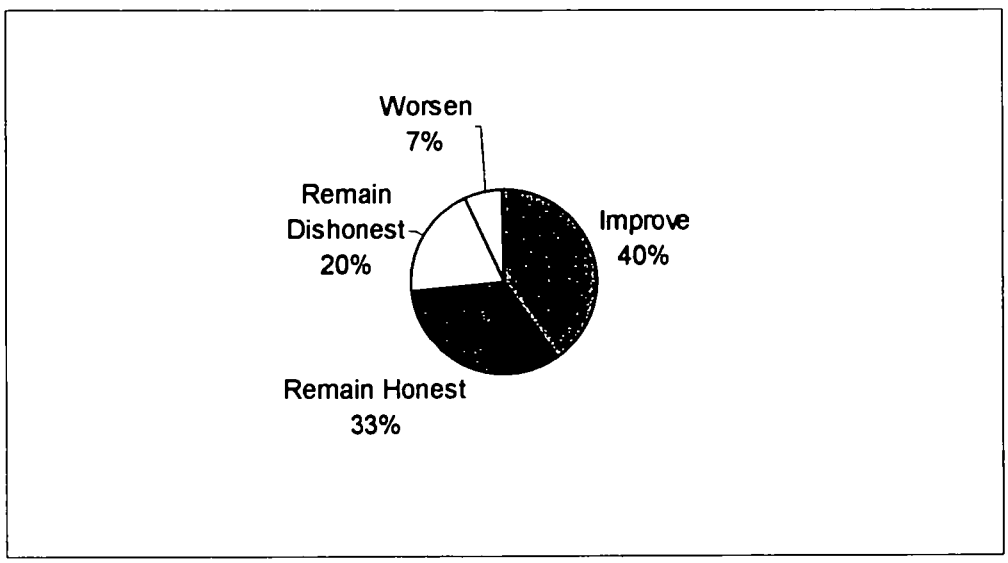


Figure 2h. Pretest-to-post test polygraph results.

Recidivism

To monitor recidivism it was necessary to account for the various amounts of time that offenders had been out of the OSP through graduation, failure, or other reasons. Intervals for follow-up were broken into 12-, 18-, 24-, and 30-month periods from participants' discharge date. Participants must have reached their follow-up interval time before July 1, 2000 or they were moved into the next lowest interval, and charges were counted for that interval.

Participants who were discharged for less than one year were excluded from the recidivism data.

There were five participants in the 12-month interval, including two graduates, one treatment failure, and two who were otherwise discharged. There were 12 participants in the 18-month interval, including seven graduates, four treatment failures, and one who was otherwise discharged. There were 17 participants in the 24-month interval, including three graduates, nine treatment failures, and five who were otherwise discharged. There were eight participants in the 30-month interval, including two graduates, four treatment failures, and two who were otherwise discharged. Recidivism rates for follow-up periods by discharge status were calculated separately for sex offenses and other criminal offenses and are discussed below.

Sex Offenses

During the 12-month follow-up period, graduates and treatment failures did not recidivate with sexual offenses, and one (50%) of the two who were otherwise discharged recidivated sexually. During the 18-month follow-up period treatment failures and those who were otherwise discharged did not recidivate with sexual offenses, and 1 (14.3%) of the seven graduates recidivated sexually. During the 24-month follow-up period no graduates recidivated with sexual offenses, three (33.3%) of the nine treatment failures, and one (20%) of the five who were otherwise discharged recidivated sexually. During the 30-month follow-up period no graduates or otherwise discharged participants recidivated with sexual offenses, and two (50%) of the four who were otherwise discharged recidivated sexually. Although recidivism rates with such small numbers of discharged participants should be viewed cautiously, *the data point to an increasing sexual offense recidivism trend for treatment failures, and a decreasing trend for graduates, as follow-up periods lengthen*.

Criminal Offenses

During the 12-month follow-up period participants who left the OSP did not recidivate with criminal offenses. During the 18-month follow-up period treatment failures did not recidivate with criminal offenses, one (14.3%) of the seven graduates, and the sole participant who was otherwise discharged recidivated criminally. During the 24-month follow-up period no graduates recidivated with criminal offenses, one (11.1%) of the nine treatment failures, and one (20%) of the five who were otherwise discharged recidivated criminally. During the 30-month follow-up period no one recidivated with criminal offenses. No clear trend about discharge status and criminal recidivism emerges from the data, and it remains true that recidivism rates with such small numbers of discharged participants should be viewed cautiously.

Discussion

Summary of Findings

The OSP functions as it should, providing appropriate long-term treatment to sexual offenders who are supervised in the community. The program enrollment is largely made up of probationers. Throughout the treatment process, participants are intensively supervised, with a

regular probation agent, a DRC agent, and an ISAT therapist assigned to their cases. Success in the program requires a significant time commitment from the offender, with offenders taking over 500 days to graduate from the program. Treatment hours, a measure of treatment dosage, significantly differentiated successful from unsuccessful participants. The combination of treatment duration and treatment hours in differentiating graduates from unsuccessful participants points to program integrity in implementation. This is particularly encouraging since offenders who are referred to the DRC are typically at a higher risk for re-offending.

ISAT placed a new clinical supervisor at the OSP in January of 1999. Before January of 1999 only 10 percent of the participants had been given plethysmographs, and only 9 percent had been given polygraphs. Since the new clinical supervisor began in January of 1999 there has been an appreciable increase in the rate at which electrophysiological assessments were used by the OSP. There were nearly four times as many initial plethysmogrpah examinations, and over seven times as many follow-up plethysmogrpah examinations after January, 1999 compared to the rate at which the assessments were given before that date. There were over three times as many initial and follow-up polygraph examinations given after January, 1999 compared to the rate at which they were given before that date. These numbers represent a remarkable improvement over the extent to which the assessments were used.

The small numbers available to evaluate electrophysiologically assessed change warrant a cautious interpretation of the results. Approximately one-third of the OSP participants who had repeated plethysmogrpah showed improvement, with their assessed arousal patterns moving from deviant or inconclusive to normal. These data should be viewed somewhat cautiously because they are derived from a small sample of participants. The polygraph data were encouraging, with approximately two-thirds of the OSP participants who had repeated polygraphs either remaining or moving to truthfulness. Although the same small numbers caution that applies to the plethysmogrpah data applies here, the results indicate that this sample of participants is honestly engaged in treatment at the OSP.

The small numbers available to evaluate recidivism also warrant a careful interpretation of the results. The sex offense recidivism data show a general trend of graduates moving toward lower rates of recidivism and treatment failures reaching higher rates of recidivism as the follow-up periods increase in time. There was one graduate who recidivated early, committing a sex offense during the 12-month follow-up period. This case, which deviates from the trend, has no ready explanation, and the criminal offense data show no obvious trend by discharge status. This could be attributed to the lack of adequate numbers of offenders available for assessing longitudinal recidivism trends.

Recommendations

The new supervisor of the ISAT component of the OSP should be credited with substantially increasing the rate of electrophysiological assessments conducted by program staff. The upper administration of ISAT should make every effort to lift the use rate of electrophysiological assessments up to 100 percent for the program level standards. Much progress has been made and this target is within range if the resources are committed.

Future evaluation is needed. Recidivism data can be a weak indicator of success without long-term follow-up, and in the interim, electrophysiological assessment is the best outcome evaluation tool. The rates of electrophysiological assessment, and comparisons of pretest and post test results should be examined annually. Recidivism data should also be tracked, at least until a larger number of participants have been out of the program for five years.

Given that the OSP serves a definite need for affordable outpatient treatment of sex offenders in the community, it should remain in place. The level of supervision and treatment provided by the combined efforts of the DRC and ISAT are greater than either agency could achieve alone. The program targets probationers and parolees who are discharged into the community, and DRC programming is available for all participants. The program implements a balanced approach to justice, combining offender accountability and intensive competency development for the purpose of public safety.

Salt Lake County Sheriff's Home Electronic Detention (SHED) Program

Participants

General Demographics

There were 574 individuals who participated in the SHED Program between January 1 and December 31, 1999. Participants spent anywhere from one to 247 days in the program, though the average length of stay was 41.4 days. Fifty percent of participants remained in the program for at least 28 days. Participants were 71 percent (n= 407) male and 29 percent (n=166) female. Sixty-seven percent (n=385) of the participants were White, 16 percent (n=92) were Latino, four percent were African American (n=22), and one percent (n=5) each were Native American and Asian or Pacific Islander. Ethnicity was not reported for 11 percent (n=63) of the participants. The average age of SHED participants was 31.9, though they ranged in age from 18 years to 62 years. The participants of the SHED program tend to be a relatively young group of offenders. Twenty-five percent were aged 18-24, 25% were aged 25-30, and 25% were aged 31-37, for a total of 75% of all program participants under the age of 38. Data on SHED participants' gender, age, and ethnicity are displayed in Table 3a.

Gender		Age by Percentile		
Male	**Female**	**25th**	**50th**	**75th**
71%	29%	24	30	37

Ethnicity					
White	**Latino**	**African American**	**Native American**	**Asian or Pacific Islander**	**Not Reported**
67%	16%	4%	1%	1%	11%

Table 3a. Gender, Age, and Ethnicity of SHED Program Participants.

Quantitative Data Collection

Quantitative data were collected from many sources. All SHED participants have a hard copy file including their demographic information, assessment information, and information about program participation. Information about all participants is also held in an electronic data file at the SHED Program's administrative office. These sources were used for statistics about program participants.

An electronic database is maintained by the Salt Lake County Sheriff's Jail Division, which contains a detailed history of bookings, charges, dates of incarceration, special program status, risk assessment scores, and demographic data. This database was used to identify pre- and post-program bookings and days spent in jail for collecting recidivism data.

The control officers at the Oxbow Jail record calls for the SHED program on daily logs,

which include the participant's name, source of the call, time of the call, and time that a SHED officer is contacted. Response time data were gathered from these logs.

Data were also gathered from the SHED Program, the Jail Division, the Utah State GAS Card system, and the Salt Lake County Human Resources and Motor Pool Departments. These data were utilized for the cost avoidance analysis.

Risk Assessment

When offenders are booked into the jail they are all interviewed by a jail staff member and the jail database is searched for offender records. The interview and record search results are used to assess offender risk. Risk assessment is one of the tools used in screening potential participants for the SHED program. The SHED program also considers offenders presenting charges, criminal histories, employment, and living situation when considering them for participation in SHED. This assessment strategy provides the program with a more detailed understanding of their participants while maintaining a low-risk population of offenders within the SHED Program. Three scores were used to assess participants' levels of risk to the community . The overall risk assessment score was based on severity of the current charge, prior convictions, disciplinary action within the jail, history of serious offenses, escape history, alcohol and drug abuse, age, employment, and time in the area. A separate point scale, based on the number and severity of felony convictions in an inmate's history, was also used. Finally, an escape points index, based on history of prior escapes or attempted escapes from custody was used. The evaluators used risk assessment scores to describe the SHED program population.

The evaluators collected data from risk assessments conducted on all SHED participants who were in the program during the evaluation period. The average number of risk points was 256.8, within a range from 4 through 999 risk points. Felony points averaged 18.7, within a range from 0 to 270 felony points. SHED participants had an average of 0.53 escape points, within a range from 0 to 90 escape points. 50 percent of SHED participants had 117 or fewer risk points, and 50 percent had no felony or escape points. The average and median number of risk, felony, and escape points are displayed in Table 3b.

Program Discharge Status

A participant's status at discharge from the SHED program was categorized as either successful or revoked. This status was determined by participants' case management officer and was based on compliance with SHED Program expectations. The evaluation team obtained discharge status information from the electronic database at the SHED administrative offices. If a participant's status was listed as revoked, the reason for revocation was also available from the database.

Risk Assessment Score			
Average	Low	High	
256.8	4	999	

Felony Points			
Average	Median	Low	High
18.71	0	0	270

Escape Points			
Average	Median	Low	High
0.53	0	0	90

Table 3b. Risk, felony, and escape points for SHED participants.

There were 494 participants who were discharged from the SHED Program during 1999. Of these 70 percent (n=346) graduated and 30 percent (n=148) had their SHED Program privileges revoked. There were numerous reasons for revocation, but the most common (57% of revoked cases, n= 85) was when participants tested positive for drug and alcohol use through urinalysis tests, which were administered randomly. There were also several participants (20%, n=29) who failed to comply with general program expectations, 15 percent (n=22) who absconded from program monitoring, six percent (n=9) who were charged with a new crime, and two percent (n=3) who violated other probation agreements. All of the participants who escaped from the SHED Program were found and returned to custody, and all but one of these were returned within an average of 72 to 96 hours of their escape. Discharge status and causes for revocation are displayed in Table 3c.

Discharge Status				
Graduated		Revoked		
70%		30%		
Revocation Causes				
AOD	**Failure To Comply With SHED**	**AWOL**	**New Crimes**	**Probation Violations or Warrants**
57%	20%	15%	6%	2%

Table 3c. Discharge status and causes for revocation.

Community Work Hours

During 1999, SHED Program participants completed 76,672 hours of work in various

municipalities in the Salt Lake Valley. Participants received no monetary compensation for this service to the community. If the participants had been compensated at the minimum wage of $5.15 per hour, the total payment for these work hours would have been $394,860.80. It is encouraging to learn that the work done by SHED Program participants in 1999 represented an added value of over a quarter-million dollars.

Recidivism

The evaluation team used information on participants bookings and days spent in jail before and after participating in SHED to assess the programs impact on public safety. Information on bookings and number of days spent in jail by participants were retrieved from the Jail Division's electronic database. Bookings and days in jail were partitioned into periods of one year before and one year after receiving SHED services. When a new booking occurred during SHED participation, the individual was revoked from the program, and that charge was counted as the first one in the one year post-SHED period.

There were 206 participants who had been discharged from the SHED Program by July 1, 1998, and they constitute a one-year follow-up group at this point in the evaluation. Sixty-one percent of these participants had graduated from the SHED Program and 39 percent were revoked. No significant differences were found between graduates and revokees on their number of bookings or jail days during the one-year follow-up. After statistically accounting for days spent in jail before entering the SHED Program the graduates spent an average of 18.9 days in jail, and the revokees spent an average of 19.9 days in jail during the one year following the program. Similarly corrected averages show SHED Program graduates having an average of 2.9 bookings, and the revokees having an average of 3.3 bookings during the one year following the program. These differences in average bookings and jail days were not statistically significant. Given these similarities, recidivism data will be reported for the whole group of 206 participants, regardless of their discharge status.

Of the 206 participants, 80 had been booked into the Salt Lake County Jail within one year of discharge from the SHED Program, resulting in a 38.8% one-year recidivism rate. These 206 participants had a total of 2,118 bookings into jail during the one year before entering the SHED Program and a total of 643 bookings into jail during the one year following their participation, resulting in a jail booking suppression rate of 30.4 percent. These same participants spent a total of 25,140 days in jail during the one year before entering the SHED Program and a total of 3,972 days in jail during the one year following their participation, resulting in a jail days suppression rate of 15.8 percent.

Jail Bookings

The 206 participants had an average of 10.3 bookings into jail during the year before they entered the SHED Program. Among these same participants, the average number of bookings into jail during the year after being discharged from the SHED Program dropped to 3.1. This difference was statistically significant. These data clearly demonstrate that participants in the SHED Program demonstrated a remarkable reduction in their number of bookings into jail during the year after discharge when compared to their bookings before entering the SHED Program. The difference between pre- and post-SHED bookings is displayed in Figure 3a.

Jail Days

Among the 206 participants, the average number of days spent in jail during the year before they entered the SHED Program was 122. The average number of days participants spent in jail during the year after being discharged from the SHED Program dropped to 19.3. This difference was statistically significant. As can be seen, participants in the SHED Program demonstrated a remarkable reduction in their number of days spent in jail during the year after discharge when compared to their bookings before entering the SHED Program. The difference between pre- and post-SHED jail days is displayed in Figure 3b.

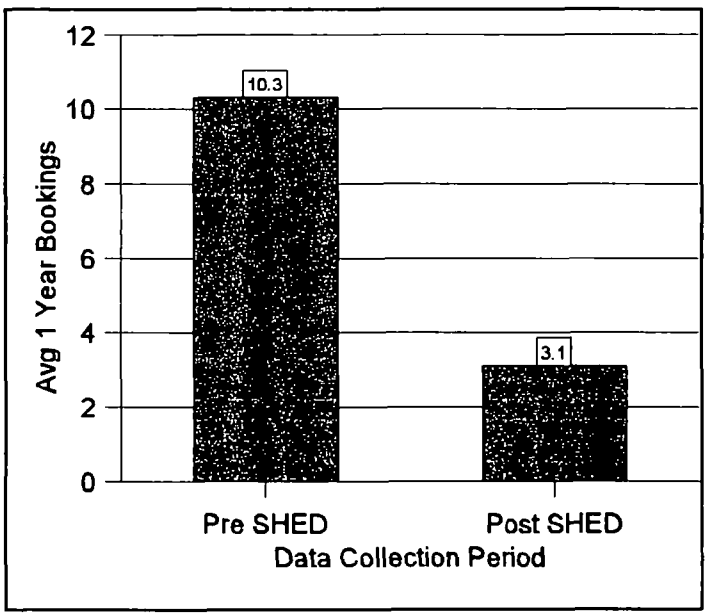


Figure 3a. Difference between pre- and post-SHED bookings.

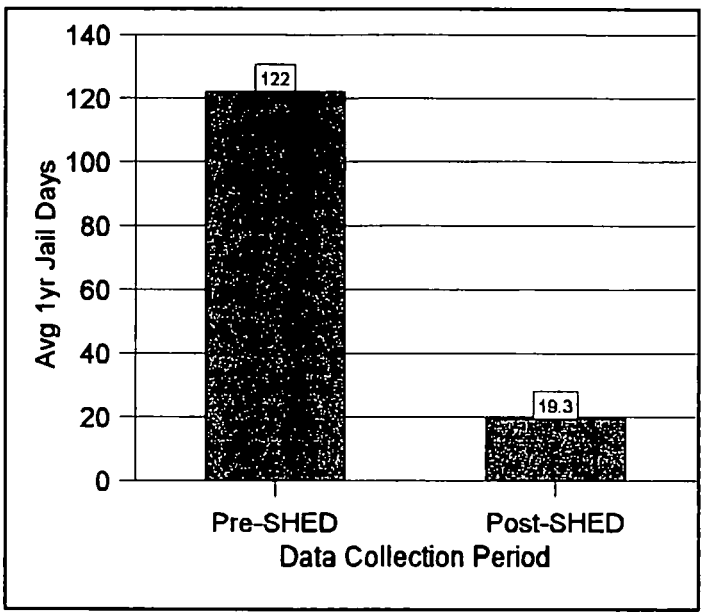


Figure 3b. Difference between pre- and post-SHED jail days.

Officer Response Time

Officer response time was used by the evaluation to assess how well the SHED program addresses immediate public safety needs. Officer response time data was obtained from the Oxbow Jail control officers' daily logs. SHED Officer response time refers to the time, in minutes, that elapsed between the clock time that a control officer received a call about a participant being out of monitoring range and the clock time that a SHED officer is contacted to respond to the call. These data were collected during the time period beginning May 28, 1999 and ending August 26, 1999, the time period following the expansion of the SHED Program. The program was expanded in order to accommodate more participants and to provide on-site officers during an evening shift. The times that calls were received were broken into time-of-day categories, which include graveyard (0001-0800), day (0801-1600), and evening (1601-2400). These data are compared to the data from the initial interim report on the SHED Program.

The daily call logs list 719 calls from the monitoring company concerning SHED Program participants during the post-expansion study period. There were a total of 55 days in this time period with an average of 13 calls per day. Among these 719 calls, 26 percent were initiated during daytime hours, 70 percent were initiated during evening hours, and four percent were initiated during overnight hours. The average response time was 25.8 minutes, though response times ranged from zero to 192 minutes. Officers responded to 25 percent of these calls in two minutes or less, 50 percent of the calls in nine minutes or less, and 75 percent of the calls in 35 minutes or less.

For comparison purposes, officer response time data were also collected for a time period that occurred before the SHED Program expansion took place. During the time period between October 2, 1997 and February 24, 1998, there were 504 calls logged from the monitoring company. There were a total of 119 days in this time period with an average of 4

calls per day. Among these 504 calls, 29 percent were initiated during daytime hours, 57 percent were initiated during evening hours, and 14 percent were initiated during overnight hours. The average response time was 24.2 minutes, and the response time ranged from zero to 183 minutes. Twenty-five percent of these calls were responded to in three minutes or less, 50 percent were responded to in ten minutes or less, and 75 percent of the calls were responded to in 34 minutes or less.

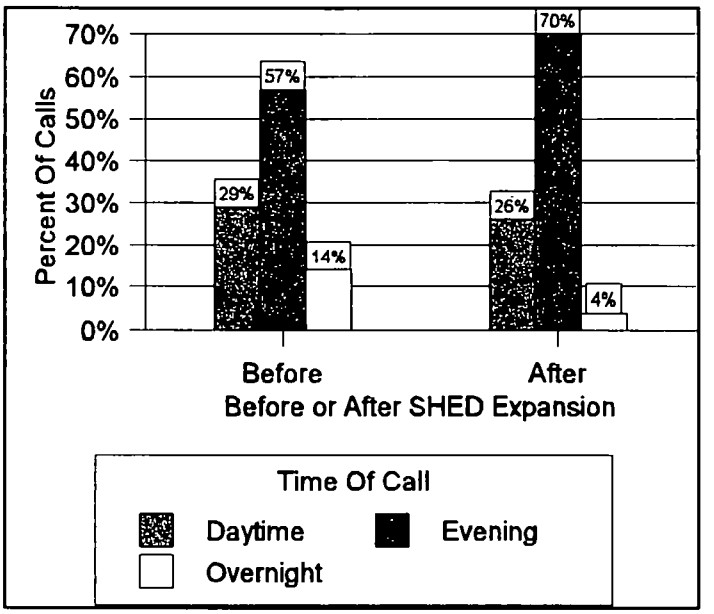


Figure 3c. Percentages of calls by time of day.

The pre- and post-SHED Program expansion time periods are compared in Figures 3c and 3d. Percentages of calls from the monitoring company by time of day are displayed in Figure 3c, and response times are displayed in Figure 3d. The volume of calls for these time periods are provided in Table 3d. It is clear that despite an appreciable increase in the volume of calls the response times have remained stable. The addition of an evening shift appears to be a wise investment. The increased volume of calls has likewise increased the percentage of calls that are received during the evening shift hours.

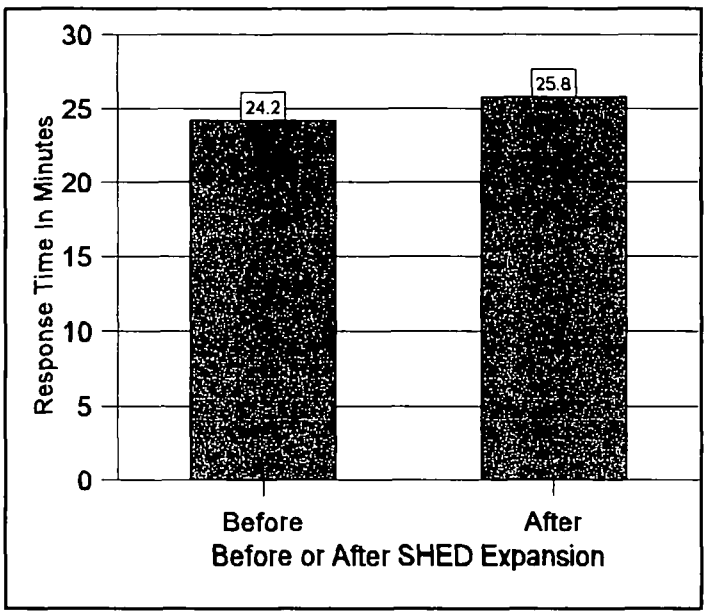


Figure 3d. Response times in minutes.

Volume Indicators	Before Or After SHED Expansion	
	Before	After
Total Calls	504	719
Average Calls Per Day	4	13
Number Of Days In Period	119	55

Table 3d. Volume of calls before and after SHED expansion.

Cost Avoidance

A cost avoidance analysis was used to examine the difference in expenditures between housing an offender at the Oxbow Jail and maintaining them in the SHED Program. Data for this cost avoidance analysis was gathered from the SHED Program, the Jail Division, the Utah State GAS Card system, and the Salt Lake County Human Resources and Motor Pool Departments. The initial costs for bookings and inmate jail days were obtained from the Oxbow Jail administration along with their 1999 expenditure budget figures. These costs were adjusted downward after the costs of operating the SHED Program were subtracted from the Oxbow Jail expenditure budget. The Oxbow Jail and SHED Program 1999 expenditures, accompanied by the inmate service day costs, are displayed in Table 3e.

Costs	Unit	
	Oxbow	SHED
1999 Expenditures	$7,683,936	$492,163.49
Booking Per Inmate	$85.67*	N/A
Inmate Day	$53.93*	$23.42
* Adjusted down by 6.4% attributable to SHED costs.		

Table 3e. 1999 Expenditures and inmate service day costs.

Several components were included in determining the expenditures of the SHED Program. Data on staff salary and benefits, the purchase and resale of vans, fuel and maintenance costs, and electronic monitoring equipment were used in these calculations. The various SHED Program expenditure components are detailed in Table 3f.

Item	Cost
Staff Salaries & Benefits	**$370,462.03**
Van Purchase (less anticipated resale)	**$34,782.00**
Van Fuel & Maintenance	**$7,637.11**
Electronic Monitoring Equipment	**$80,892.35**
TOTAL	**$492,163.49**

Table 3f. SHED Program Expenditure Components.

Jail, SHED, and Booking Costs

The Oxbow Jail 1999 expenditures were $7,683,936, and the SHED Program 1999 expenditures were $492,163.49. When the SHED Program expenditures are subtracted from the Oxbow Jail expenditures the adjusted Oxbow Jail expenditure becomes $7,191,722.51, a reduction of 6.4 percent. The initial Oxbow Jail inmate service day cost was $57.62 and the initial Oxbow Jail booking cost was $91.53. When these costs are reduced by 6.4 percent, the adjusted Oxbow Jail inmate service day cost lowers to $53.93, and the adjusted Oxbow Jail booking cost lowers to $85.67. These adjusted costs are used for comparisons between Oxbow Jail and SHED Program costs.

Inmate service day costs are calculated by comparing expenditure costs with the number of inmates served. The SHED Program had 21,011 inmate days in 1999, and an expenditure budget of $492,163.49. Dividing the annual budget by the number of inmate days shows that compared to the $53.93 it costs to house an inmate in the jail for a day, it costs just

$23.42 per day to have an inmate participate in the SHED Program.

Salaries and Benefits

Staff salaries and benefits totaled $370,462.03. To arrive at this figure, the specific benefits package costs were calculated as a percent of salary for each staff member and added to the base salary costs. Staff pay for the use of county vehicles that they take home, and this amount is deducted from their gross pay once a month, before their taxes are withheld. At the end of each calendar year the annual vehicle use deductions are reported as salary to insure tax compliance. This figure must be subtracted from SHED Program costs since it represents a cash inflow rather than outflow. The sum of the annual vehicle use deduction across all SHED Program employees was $1,610.00, and this amount was deducted from the subtotal of the SHED expenditures.

Vehicles

The vans used to transport SHED Program participants to and from work sites are purchased new and resold after two years. The vehicle costs included in this analysis are based on the initial prices of the vans that are currently in use, minus their expected resale values. The total cost for the 3 large vans and 4 minivans used by the SHED Program was $34,782.00. The purchase price and resale value for each of the seven vans is displayed in Table 3g. Figures from the Utah State GAS Card system show that fuel and oil costs for these vans totaled $7,637.11 for 1999.

Van Description	Purchase Price	Anticipated Resale Value
1999 15 Passenger	$23,323.00	$20,000.00
1999 15 Passenger	$23,323.00	$20,000.00
1998 15 Passenger	$22,974.00	$20,000.00
1999 Mini Van	$21,273.00	$14,000.00
1998 Mini Van	$19,963.00	$14,000.00
1998 Mini Van	$19,963.00	$14,000.00
1998 Mini Van	$19,963.00	$14,000.00
Total Van Costs		
$34,782.00		

Table 3g. SHED vehicle purchase price and resale value.

Electronic Monitoring Equipment

BI Incorporated, the SHED Program's electronic monitoring equipment provider, charges $3.85 per inmate day for electronic monitoring services and equipment. For a total of

21,011 inmate days, it cost the SHED Program $80,892.35 for electronic monitoring equipment and service for 1999.

Avoided Costs

Actual Avoided Costs

Actual avoided costs refer to the difference in expenditures between maintaining an offender at the Oxbow Jail as compared to the SHED Program. It costs $53.93 per day to house an inmate in the Oxbow Jail, and $23.42 per day to place an inmate in the SHED Program. The difference between costs is $30.51 per day. *When these individual savings are multiplied by 21,011 inmate days the actual avoided costs total $640,959.74 for 1999. When we divide the avoided costs by the SHED Program expenditures the result is 1.30. The result is that every Salt Lake County taxpayer receives a 30 percent return on every dollar invested in the SHED Program.* Expenditures and avoided costs are displayed in Table 3h.

	Unit		Inmate Day Saving
	Oxbow	SHED	
Inmate Day Cost	$53.93	$23.42	$30.51

SHED Expenditures	Total Inmate Day Savings*	Percent Return
$492,163.49	$640,959.74	30 Percent
* Based on 21,011 inmate days.		

Table 3h. Expenditures and avoided costs.

Recidivism and Avoided Costs

Reduction in rates of recidivism is an addition factor to include when calculating avoided costs. However, without a control group of inmates who were eligible to participate in the SHED Program, but who were randomly assigned to remain in jail, one cannot know precisely how much of the participants' reduced bookings and jail days can be attributed to the SHED Program. In the absence of a control group, the following figures are a best estimate of recidivism-based cost avoidance. Participants in the SHED Program who were discharged before July 1, 1998 had a total of 2,118 bookings into jail during the one year before entering the SHED Program and a total of 643 bookings into jail during the one year following their participation, resulting in a jail booking reduction of 1,475. With a booking cost of $85.67 these reduced bookings net an avoided cost of $126,363.25. These same participants spent a total of 25,140 days in jail during the one year before entering the SHED Program and a total of 3,972 days in jail during the one year following their participation, resulting in a jail days reduction of 21,168. With an inmate day cost of $53.93, these reduced jail days net an avoided cost of $1,141,590.24. *When the booking and jail day figures are summed, the estimated total avoided costs based on recidivism are $1,267,953.49*. The avoided costs

based on recidivism are displayed in Table 3j.

Bookings Cost Avoidance				
Total Bookings One Year Pre-	Total Bookings One Year Post	Difference In Number Of Bookings	Cost Per Bookings	Booking Costs Avoided
2,118	643	1,475	$85.67	$126,363.25
Jail Days Cost Avoidance				
Total Jail Days One Year Pre-	Total Jail Days One Year Post	Difference In Number Of Jail Days	Cost Per Jail Day	Jail Days Costs Avoided
25,140	3,972	21,168	$53.93	$1,141,590.24
Total Recidivism-Based Cost Avoidance				$1,267,953.49

Table 3j. Avoided costs based on recidivism.

Discussion

Summary of Findings

It appears that the SHED Program is functioning as intended, and may serve as an example of the restorative justice model in action. The restorative justice model posits a balancing of competency development, accountability, and public safety as a preferred approach for communities to take. The SHED Program develops participants' competency by providing work experiences and responsibilities that require self-structuring, a basic skill necessary to function effectively in society. SHED participants are held accountable for their actions through supervision and monitoring, with strong sanctions (e.g.; revocation of electronic monitoring release and a return to jail) for failure to comply with program expectations. The data for pre-to post-program reductions in charges and bookings, as well as for officer response times, appear to support the public safety benefits of the SHED Program.

Replication: Operant Conditioning

One vehicle for understanding how the SHED Program impacts the participants is through the model of operant conditioning. The operant conditioning model posits that the delivery of positive reinforcement, negative reinforcement, and punishment, subsequent to a targeted behavior, has the effect of shaping, maintaining, or extinguishing that behavior (Kazdin, 1984).

Positive reinforcement occurs when a reward is delivered for a behavior or set of behaviors, leading to an increase in the desired behavior. When this concept is applied to the SHED Program, the physical freedom to live at home, rather than in jail, may be a positive

reinforcer awarded for socially acceptable behavior, or at least behavior that conforms to the SHED Program expectations. It also appears that possibilities for social reinforcement are increased, both from participants' natural environment and from the SHED officers. These positive reinforcers appear to have the effect of increasing appropriate positive societal participation, such as attendance at Sheriff's Inmate Labor Detail work sites or jobs in the community, and compliance with societal limits.

Negative reinforcement occurs when a continuously present aversive stimulus or event is removed as a result of a target behavior's presence, leading to an increase in the target behavior. In applying the concept of negative reinforcement to the SHED Program, jail incarceration can be considered the continuous aversive event. Jail incarceration is removed in response to inmates' adherence to appropriate social behaviors, and those behaviors are maintained by the incarceration remaining removed. There is also the threat of re-incarceration, or restoration of the aversive event, if the positive behavior ceases.

Punishment occurs when an aversive stimulus or event is imposed in response to a targeted undesired behavior. In the SHED Program, the aversive event is again jail incarceration, and the undesired behaviors include violation of program expectations. Examples of the undesirable behaviors include using substances, eloping from pre-approved locations, acquiring new criminal charges, and refusing to participate in SILD or other employment.

The SHED Program employs operant conditioning using these three contingent responses. Jail time can serve as both a punishment by its imposition, and as a negative reinforcer by it's removal. One limitation in applying this framework to the SHED Program is that one cannot assume that the identified reinforcements and punishments are uniform in their effect on each individual SHED participant.

Future Directions for SHED

The SHED Program is exceptionally effective in ensuring public safety. The program accomplishes this through stressing participants' accountability, while providing opportunities for competency development. Competency development in the SHED Program focuses primarily on developing good work habits, which are shaped through operant conditioning processes. The SHED staff members appear to be unified in their perspective, practices, and commitment to the program. They may benefit from some formal training in operant conditioning and functional behavior analysis for the purpose of refining what they effectively do already.

The growth in personnel and other resources has enabled the program to continue to provide a high quality service to an expanding population. Quality maintenance has been demonstrated in at least three ways. First, the SHED Officers' response times to calls about inmates being out of monitoring range remains almost identical to the initial evaluation, when the program monitored fewer inmates. Second, the inmates' reductions in bookings and jail days after participating in the program is remarkable. Third, the program's focus on inmates developing a sense responsibility continues, as evidenced by the thousands of work hours completed by inmates and a high graduation rate

The SHED Program proved to be cost-effective. With expenses totaling $492,163.49, the program avoided $640,959.74 in inmate housing costs during 1999. These figures were based on hard costs, and did not include savings based on recidivism or the added value of inmates' work hours. Avoided hard costs gave Salt Lake County taxpayers a 30 percent return on their investment in the SHED Program.

The SHED Program is highly effective in protecting public safety. The program teaches responsible behaviors to inmates and rewards their compliance with program expectations. The program also promotes public safety by punishing inmates who do not comply, by imposing re-incarceration and quickly capturing those who escape. The program saves taxpayer dollars by avoiding the costs of housing inmates while accomplishing these goals. The SHED Program should continue, as it is a well-implemented, balanced approach to correctional overcrowding, which benefits all citizens of Salt Lake County.

Evaluation Summary

Program Results

Each of the programs funded by the Byrne grant has added data collection elements to their routine practices to assist in program evaluation. The Juvenile Drug Court has incorporated CBCL and Risk and Protective Factor Surveys into their routine assessment protocols. The Outpatient Sex Offender Program supervisor has been using a referral tracking form for electrophysiological assessments, and this contributed to a substantial increase in the rate that the assessments were conducted. The SHED Program implemented an electronic database to track participants, and they use the data for quarterly reviews of their program. The use of additional data collection tools appears to have oriented all three programs toward ongoing self-evaluation and using data to make program decisions.

The Juvenile Drug Court program clearly serves its intended population. Participants are largely youth who have drug or alcohol offenses (isn't it only one offense?)and minimal criminal histories. They are usually not advanced in their substance abuse to the point of chemical dependency. Participants in this program are exposed to more substance abuse risk factors and fewer protective factors than are youth in the general probation population. Program graduates have markedly less alcohol and drug recidivism over three years than do dropouts or members of a comparison group, and though this pattern is not as pronounced for other criminal offenses, the trend is in the same direction, especially for felony arrests. Juvenile Drug Court graduates did not penetrate Utah's juvenile justice system to the extent that dropouts or comparison group members did, with no graduates moving into Division of Youth Corrections custody during the study period. Both dropouts and comparison group members were placed in custody at higher rates than expected for their populations. The system penetration data indicate that the Juvenile Drug Court meets the diversion goal.

The Outpatient Sex Offender Treatment Program (OSP) data reflect program integrity. Specifically, graduates spent at least twice as much time in completing the program as did those who failed or who were discharged for other reasons. Graduates participated in weekly group, individual, and psycho educational treatment sessions at significantly higher rates than did treatment failures and those who were discharged for other reasons. Recidivism data show an initial trend of increasing sex offense recidivism for failures and a decreasing trend for graduates as follow-up periods increase. However, recidivism data for follow-up periods that are not extensive (e.g; less than five years) are not the best indicators of program success, so the available data for up to 30 months must be interpreted cautiously. Over a third of OSP participants showed improvement in their arousal patterns as measured by penile plethysmography, and nearly half of the participants became more truthful about their offenses and supervision compliance as measured by polygraphy. During the time period between the interim and final evaluation reports, ISAT placed a new program supervisor at the OSP, and she substantially increased the rates at which electrophysiological assessments were used.

The SHED Program has met its goal of maintaining public safety at a reduced cost. SHED participants had significant decreases in jail bookings and days spent in jail at one year follow-up. SHED officers' average response time to calls about participants' electronic monitoring violations remained under 30 minutes throughout the evaluation. Despite a substantial program expansion, which resulted in an increase in the average number of daily

calls from 4 to 13, the response times did not significantly differ. In January of 2000 it cost nearly $54 to house an inmate in the jail for a day, while it cost just slightly over $23 to maintain a SHED participant for a day. The costs avoided by placing participants on electronic monitoring resulted in a 30 percent return on each dollar invested in the SHED program.

Partnership Results

Partnerships were developed with the programs that were evaluated. In addition to increasing capacities for data collection and self-evaluation, advocacy activities were part of the relationship for at least two programs. Interim evaluation data were used to leverage additional funding for the Juvenile Drug Court from Salt Lake County, and a member of the evaluation team presented evaluation data to the Utah State Legislatures' Committee on Substance Abuse. Data from the SHED Program final evaluation report were presented to the Salt Lake County Commission, and were influential in the Commissioners' decision to fully fund the SHED Program as a permanent part of the Salt Lake County Jail system.

Relationships focusing on data collection were forged between the University of Utah Social Research Institute and various agencies' data collection units during the Byrne Partnership Evaluation Program. A partnership with the Utah Division of Youth Corrections was strengthened, and evaluation team members have collaborated with the division on other projects. A partnership with the records division of the Salt Lake County Jail was initiated during the Byrne Program, and this relationship has expanded to include other projects. A partnership with the billing and records office of ISAT began during the Byrne Program, and the evaluation teams treatment of ISAT data will hopefully encourage data sharing for subsequent evaluators. The Byrne Partnership Evaluation Program stimulated the forming and fortifying of partnerships between researchers that have already expanded beyond the original scope of the Byrne Program.

A member of the evaluation team has given invited presentations at the U.S. Department of Justice Annual Research and Evaluation Conference in Washington, D.C. during each year of the Byrne Partnership Evaluation Program. An invited presentation was also given at the 1998 Byrne Regional Partnership Meeting in Oakland, California. A member of the evaluation team also co-presented at the 1998 Utah Commission on Criminal and Juvenile Justice Annual Conference, focusing the discussion on developing outcome measures within a restorative justice framework. These dissemination activities have enhanced U.S. Department of Justice perceptions of how the Utah Commission on Criminal and Juvenile Justice and the University of Utah work collaboratively. Evaluation activities over the past three years have strengthened the working partnership between the Utah Commission on Criminal and Juvenile Justice and the University of Utah Social Research Institute.