Status Report: An Analysis of Second Judicial District Court Drug Court Client Data

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Executive Summary

CONTRACTED SCOPE OF SERVICE

- Profile program participants to enable Drug Court staff to target existing resources based upon successful and unsuccessful participants as well as other criteria. Using this information the Drug Court will be able to make program adjustments.

OBJECTIVES

- Describe the clients who have been served by the program.
- How does the Second Judicial Drug Court (SJDC) program operate?
- How do SJDC clients who have graduated compare to drug court clients nationally?
- Do the clients who are accepted into the SJDC program match the stated criteria?
- How many clients graduated from the SJDC program?
- Are there demographic differences between those clients who graduate and those who terminate unsuccessfully?
- What variables impact intermediate outcomes?
- In what way, if any, does the SJDC program impact criminal justice caseloads?

FINDINGS

A. Description of clients

Clients tend to be male, the average age is 30, Hispanic or White, and have at least an eighth grade education- more than half have at least a high school diploma. Less than one-third are married. Almost half of the clients have a primary substance problem of cocaine.

B. SJDC program operation

- Most clients (81%) who were referred to the program were accepted. Almost 40% of clients who have been accepted into the SJDC program are still active in the program; of those, 80% were accepted this year. The mean length of time clients spend in the program is 4.6 months; clients who graduate spend an average of 9.5 months in the program while those who terminate without completing spend an average of 3.4 months in the program.
- More than 80% of clients received individual therapy, group therapy, acupuncture, had at least one urinalysis (UA) taken, and met with their probation officer at least once. Over half of the clients were jailed for non-compliance at least once and missed at least one treatment session or meeting with the probation officer. Very few clients (6%) were re-arrested on new charges while in the program.
- Almost all of the clients (95%) had at least one negative UA. The average number of negative UAs was 34; the average number of positive UAs was 3. Those who have a primary substance problem of opiates, cannabis, and cocaine tend to test positive more often than those with other primary substance problems.
- For the entire client population, the average number of services received per month was less than what would be expected based on the written requirements. However, clients who are currently active in the program tend to have a much larger average number of services per month than clients who are no longer in the program, indicating that the number of services received has increased. Clients tend to miss the greatest number of

treatment services or appointments with SJDC staff during the first few months, with decreases thereafter.

C. Similarities between SJDC clients who have graduated and drug court clients nationally
SJDC graduates were similar to drug court clients nationally with respect to gender, age, marital status and primary substance of abuse. SJDC clients tended to have a higher educational status than clients nationally.

D. How well do the SJDC clients meet the eligibility criteria.
The majority of clients who were accepted into the SJDC program met the written eligibility criteria.

E. Proportion of clients who graduate.
Approximately 30% of clients who are no longer in the SJDC program successfully completed the program; 59% terminated without graduating and the remaining 12% were initially accepted but later rejected due to nolle prosequi of their case or other reasons.
There has been a decrease in the proportion of clients who unsuccessfully terminate from the program over time with a corresponding increase in graduates over time.

F. Similarities and differences between those who graduate and those who terminate.
- Male clients who terminate unsuccessfully are, on average, younger than male clients who graduate; however female clients tend to be about the same age. SJDC graduates are more likely to be married, have a higher educational status and be employed at intake than clients who terminate.
- On average, clients who graduate from the program have been using substances longer than clients who terminate. Both groups are most likely to have a primary substance problem of cocaine.
- Clients who graduate tended to receive more individual counseling, group therapy sessions, intensive outpatient therapy per person than clients who terminated unsuccessfully. They were received a greater number of UAs, phone contacts, hearings with the judge, and meetings with the probation officer than clients who terminated.

G. Variables that affect intermediate outcomes.
- Clients who graduate have a low proportion of positive UAs relative to clients who terminate unsuccessfully. The best predictor of UA results among treatment services, activities, length of time in the program and status in the program was the number of acupuncture treatments. The more acupuncture treatments a client received, the lower the clients' proportion of positive UAs.
- The best predictors of graduation status among treatment services, activities, and length of time in the program were group therapy sessions, acupuncture, intensive outpatient treatment, number of times jailed and time in SJDC. A greater number of group therapy sessions, intensive outpatient treatment and months in SJDC increased the probability of graduation. A greater number of acupuncture treatments and number of times jailed decreased the probability of graduation.

H. SJDC's impact on criminal justice caseloads.

SJDC clients tend to stay in the program for a shorter period of time than a matched group of probationers stay on probation, regardless of status in either program and type of drug offense. Probationers produce a greater proportion of positive UAs more often than SJDC clients.

RECOMMENDATIONS

- Revise the assessment form so that it reflects the written eligibility criteria more completely.
- Administer an ASI or some other instrument at termination/discharge to fully assess the impact of the SJDC on client's lives.
- Consider revising the eligibility criteria.
- Collect baseline information on all clients who are referred to the program.
- Conduct a long term outcomes study with a group of matched offenders who do not become SJDC clients.

FUTURE ANALYSES

- Examine initial results found in this report in more depth.
- Determine whether the results found here extend to the cohort of active SJDC clients.
- Conduct more comparisons with probationers.
- Conduct a cost-savings analysis.

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Chapter One - Introduction

Introduction

The Second Judicial District Court (SJDC) contracted with the Institute for Social Research's (ISR) Center for Applied Research and Analysis (CARA) on June 1, 1998 to perform a number of research tasks primarily associated with the existing Second Judicial Drug Court database. This report is the fulfillment of one of these tasks. Within our contracted scope of work we committed to analyze the existing Drug Court data. The purpose of this analysis is to better profile program participants to help Drug Court staff target existing resources based upon the differences found between successful and unsuccessful participants as well as other criteria.

This report summarizes the results of the analysis of the data maintained in the SJDC Client Management Database. This database was designed by ISR staff in *Microsoft Access* with some assistance from a subcontractor. The database has been designed for use within a drug court setting. The data in the tables of the database includes information regarding eligibility, primary substance problem, demographics, treatment and program activities, and completion status. The database meets national standards set forth by the federal Drug Court Program Office (DCPO) and the National Association of Drug Court Professionals (NADCP) as well as meeting the stated needs of SJDC staff.

Several questions are addressed in this report which can be grouped into two types of evaluation: process evaluation and outcome evaluation. Process evaluation is useful for examining how a program actually operates. Outcome evaluation is useful for ascertaining the degree to which desired client outcomes are being achieved and how the program impacts the criminal justice system.

We begin with the process evaluation and examine the following questions:

- Who are the clients that are served by the SJDC?
- What are the characteristics of the operation of the SJDC program?
- How do the participants of the SJDC compare to other drug courts nationally in terms of demographics and substance use?
- How does the type of client that intakes into the SJDC program compare to the stated criteria?

The second set of analyses focus on intermediate outcomes, and answers the following questions

- What proportion of clients graduate from the Drug Court program?
- Is there a difference demographically between those who graduate from the Drug Court

program and those who terminate?

- Which variables affect intermediate outcomes?
- Does the Drug Court impact criminal justice caseloads? If so, in what way?

Data

The data used for this report dates from September 1, 1995 through June 30, 1998. The data was furnished by SJDC and was collected using the SJDC Client Management Database. As with any data set, there are limitations. Many variables included in this report were missing a substantial proportion (more than 10%) of the data. These variables came primarily from the assessment and intake forms used by SJDC. These forms were not introduced until 1997, thus, the information for most of these items is missing for clients in the first two years of the program. We did attempt to lessen the number of cases which had missing data by supplementing it with the information found in the ASI. For example, when the age of the client was missing from the SJDC Client Management Database, we obtained the information from the ASI database when it was available. Despite this, there is still a considerable amount of missing data for certain variables. There are two problems that this missing data causes. First, we are not able to reliably determine differences between groups of people in the SJDC for these variables. Second, we are not able to include these variables in a multivariate model because it results in too few cases for analysis. The table below (Table 1.1) illustrates the percentage of cases that are missing an appreciable amount of the data by the type of variable from the SJDC database. We also show the percentage of missing data for each variable by year. One will immediately notice that the percentage of missing data has decreased substantially over time for most of the variables.

Table 1.1 Percentage of Missing Data.

Variable	Total % missing	% missing in 1995	% missing in 1996	% missing in 1997	% missing in 1998
Education	20.9	37.5	54.7	24.3	1.3
Primary substance problem	22.7	100	81.1	17.6	12.7
Referral source	11.7	0	0	9.6	18.4
Type of client	26.8	100	77.8	12.7	15.1
Number of prior felony convictions	50.9	100	100	23.6	1.3
Current substance abuse problem	34.0	100	100	25.4	3.3
Prior violent felonies	27.1	100	100	24.6	1.3
Prior or current psychological treatment	26.4	100	100	23.9	1.3
Prior or current medical treatment	27.1	100	100	25.4	1.3
Currently taking prescription medication	26.6	100	100	23.9	2.0

Variable	Total % missing	% missing in 1995	% missing in 1996	% missing in 1997	% missing in 1998
Length of time using any substance	32.4	100	100	26.8	2.6

Another problem that happens with all data, including this data set, is that there is erroneous data. For example, there were many activities that were coded as rearrests rather than jailed. The difference is that rearrests refer to an arrest on a new charge; jailed is when a client is sent to jail for some time (a few days or a week, for example) for non-compliance in the program. We corrected each of these inaccurate codes that we could based on the details in the memo fields. There were also data entry errors. These are apparent when values are out of range. For example, the values for activity range from 1 to 60; so activities that are outside of this range are clearly erroneous. When errors were detected, they were corrected. It is possible that there are still some errors, but it is likely that it is minimal.

Statistical Analysis

In order to analyze the data, several different statistical techniques were employed. This section briefly describes each of the techniques.

Frequencies, Means, Contingency tables and Graphs. We have employed several statistical techniques that are primarily descriptive. These techniques include frequencies, means and their standard deviations, contingency tables and graphs. These techniques are used extensively throughout this report to summarize the data in order to get an overall picture of the clients who have been served by the SJDC and examine similarities and differences within the group of clients, between the SJDC clients and drug court clients nationally and to examine the impact of the SJDC on the criminal justice system.

In addition, two multivariate techniques were employed to ascertain which variables impact or are most related to intermediate outcomes. These techniques are multiple regression and logistic regression. A somewhat technical description of each technique follows; the reader may choose to skip the following section and proceed to Chapter Two.

Multiple regression. Multiple regression is used to examine the relationships among variables (Norusis, 1990). It is a linear prediction equation that basically says that the dependent variable is composed of the independent variables plus some error. Multiple regression is useful for determining whether specific variables are related to, or predict, the dependent variable. For example, it may be that the type of substance a client uses and the length of time that the client has been using are related, or predict, whether the client is successful in the program.

The first item that we check when interpreting the results of the multiple regression is the adjusted R^2. This assesses the predictive ability of the model and measures the amount of variation accounted for by the independent variables. Adjusted R^2 ranges from 0 to 1, 0 meaning that none of the variables in the model predict the dependent variable and 1 meaning that the variables perfectly predict the dependent variable. The second item we examine is the results of

the ANOVA F-test. This test determines how well the model fits the data by producing an associated probability (p-value). When the p-value is small (less than .05 traditionally), then the model fits the data well (with a 5% chance that it does not). If the F-test is statistically significant, the next step is to examine the individual standardized beta coefficients (also referred to as parameter estimates). These coefficients indicate the relationship each of the independent variables have with the dependent variable, taking into account the other independent variables in the model. These coefficients indicate whether there is a positive or negative association between a specific independent variable and the dependent variable. Additionally, since the coefficients are standardized, one can compare the relative size of the effect of each of the independent variables on the dependent variable. Further, there is a t-test conducted which assesses the statistical significance of the individual coefficients. When there is statistical significance found (less than .05, generally) for a coefficient, it indicates that that independent variable predicts the dependent variable. Two problems with multiple regression is that it is very sensitive to influential cases and it is sensitive to multicollinearity. The first problem means that if there are one or two cases that are very different from the rest of the data, they may exert so much influence that they change the results. The second problem, multicollinearity, essentially affects the t-statistic for the individual standardized beta coefficients. Thus, if there is multicollinearity, the t-statistic will not result in statistical significance when it should. Both of these potential problems will be checked.

Logistic regression. Logistic regression is a procedure that is used in place of multiple regression when the dependent variable is binary rather than continuous. Binary variables have only two values- zero and one. An example of a binary variable is whether the client is still in the SJDC program (1) or not (0). Continuous variables take on a range of values, such as income. Logistic regression is similar to multiple regression: it models a dependent variable as a function of the independent variables, but does not assume a linear relationship (Lottes, Adler and DeMaris, 1996). Rather, the relationship is sigmoid or s-shaped.

There are some comparable items that we look for when assessing the fit of a logistic regression model. First, there is a statistic produced that is similar to the F-statistic. This is the Model Chi-Square which indicates whether the independent variables in the model as a whole predict the dependent variable. Second, there are beta coefficients and an associated Wald chi-square which is akin to the t-test for the beta coefficients in the multiple regression. Third, like multiple regression, logistic regression is sensitive to influential cases and multicollinearity. There are a couple of differences between the two techniques that are important to mention. First, there is not an R^2 measure as in multiple regression. There are a few suggested measures that can be calculated which assess the predictive efficacy of the model, but do not allow for any inferences to be made regarding the amount of variance accounted for by the model. The one measure that we chose to include here is called R^2_{CAN} which approximates the R^2 one would get from a multiple regression (see Lottes, et al., 1996 for a more detailed description of this technique). The second difference is that because logistic regression is a probability model, it produces an expected odds ratio for each independent variable. This odds ratio can be used to determine the probability of the event (whatever the dependent variable represents) occurring using different

values of the independent variable. For example, one can calculate the probability that an event will occur if there is a 3-unit increase in the independent variable.

We did not include variables related to demographics, criminal history or substance abuse in either of the multivariate models, despite their obvious potential to predict intermediate outcomes. We did not include them because there was such a substantial percentage of information missing for these variables that the multivariate models would not have yielded reliable results. When the number of independent variables gets large and the sample size decreases, two potential problems occur. First, power may decrease. This means that one would not find statistical significance even when you should. The second problem is that you may not even be able to compute the model; that is, no solution can be found. Thus, while we would have liked to have included these potentially important variables, we could not.

Chapter Two - Process Questions

SJDC Clients

This section profiles the SJDC clients. The database contained information on 462 individuals who were referred to the SJDC program since 1995. It is possible that there were others who were referred to the program, but for whatever reason are not included in the database. Thus, this analysis includes only those individuals whose data is included in the database.

Approximately 80% of those referred to the SJDC were accepted into the program (see Table 2.1). Among those who are no longer in the program, almost 30% successfully completed the program and over half (58.6%) terminated prior to graduation. The remaining 12% were initially accepted into the program, but were later rejected because their case was not prosecuted or for some other reason. A substantial number of clients (almost 40%) who were accepted into the SJDC program were still actively participating in the program by the end of June, 1998. The program began in September of 1995 and served 24 clients during that year. There are 53 documented intakes in 1996, 140 in 1997 and 149 as of June 30, 1998. The large proportion of active participants is clearly a reflection of the increasing number of clients that have been accepted into the program over time.

Table 2.1 Status of Clients Referred.

Client Status	N	%
Initially accepted into program	374*	80.7
Still active	145	39.5
No longer active	222	60.5
Graduated	66	29.7
Terminated	130	58.6
Rejected/nolle prosequi	26	11.7
Never accepted into program	88	19.3

* Seven clients have a status that is unknown beyond initial acceptance into program.

The demographics of the clients who were accepted into the SJDC program are presented in Table 2.2. Among those clients, the majority (68.5%) are males. Most are between 21 and 40 years of age, with very few clients more than 50 years old. Over half of the clients are Hispanic, more than one-quarter are Anglo, and 14% are African American. Most of the clients (73%) are not married (single, divorced or widowed). Over two-thirds (67%) of the clients have obtained a high school diploma or GED. Approximately 51% of clients were not employed at the time that they were accepted into the SJDC program.

Table 2.2 Demographics of Clients.

Demographics	N	%
Gender		
Males	255	68.5
Females	117	31.5
Age*		
20 and less	35	9.5
21 to 29	143	38.6
30 to 39	133	35.9
40 to 49	49	13.2
50 to 59	9	2.4
60 and over	1	.3
Ethnicity		
White	95	25.7
African American	52	14.1
American Indian	6	1.6
Hispanic	213	57.6
Other	4	1.0
Marital status*		
Married	85	27.2
Widowed	4	1.3
Divorced	57	18.3
Single	166	53.2
Education*		
Less than 8th grade	12	4.1
8th to 11th grade	86	29.1
High school diploma/GED	146	49.3
Post high school	52	17.6
Employment status at intake		
Employed	166	48.8
Not employed	174	51.2

* these variables were computed using both the data from the intake and the ASI since there was such a large number missing originally.

Almost half (48%) of the clients presented with a primary substance abuse problem of cocaine/crack (see Table 2.3). The second most frequent primary substance problem is cannabis, followed by amphetamines then opiates. There were very few participants whose primary substance problem was benzodiazepines or other substances.

Table 2.3 Primary Substance Abuse Problem.

Primary Substance	N	%
Cocaine	140	48.4
Cannabis	49	17.0
Amphetamines	31	10.7
Opiates	23	8.0
Alcohol	22	7.6
Polysubstances	20	6.9
Benzodiazepines	2	.7
Other	2	.7
Missing	85	

Operation of the SJDC

This section focuses on the actual operation of the SJDC. This includes an examination of the length of time clients remain in the program and the number and type of services they receive. Additionally, we attempt to explore the extent to which participants meet the requirements of the program. We had initially wanted to examine what occurs during each stage in the program including the number and type of activities the client receives, the sanctions the client receives, and how often participants are required to repeat earlier phases. However, the documentation regarding the change in phases was not consistent enough to allow for a reliable analysis. Instead, we will illustrate the average number of services and activities that occur each month over length of time the client remains in the program. While not an accurate indication of exactly what occurs during each phase, it does illustrate what occurs during the length of the client's stay in the program, and what may happen during the phases.

Length of Time in Program. The Draft Model Program indicates that the SJDC program is designed to be completed within six months, provided there are no relapses. However, the idea that relapses are a component of recovery is built into the program. Therefore, it is expected that clients will take longer to complete the program. Table 2.4 presents the length of time clients have spent in the SJDC program by their status in the program. The mean length of time that clients take to successfully complete the program is approximately 9.5 months. The length of time it takes varies widely from client to client: the minimum time it has taken a participant to complete the program is 5.5 months, and the maximum is 21 months. Among those who leave the program without completing, the average time that they spend in the program is 3.4 months. Those who are initially accepted, but later rejected from the program spend a little less than 2 months in the program on average. Currently active clients have spent an average of 4 months in the program as of June 30, 1998.

Table 2.4 Length of Time in Program.

Status	Mean (sd)	Minimum	Maximum	N
Graduated	9.62 (3.46)	5.5	21.1	66
Terminated	3.39 (3.40)	0	21.29	127
Rejected later	1.76 (1.43)	0	6.2	26
Still active	3.95 (3.72)	0	19.7	143
Total	4.63 (4.20)	0	21.29	362

$p<.001$

Treatment Services and Program Activities. There were 366 clients who had at least one treatment service, activity or urinalysis documented over the study period. The services that are documented here are those that occurred beginning with the client's initial contact with the probation officer. There were a few clients who had services documented prior to this initial meeting. For example, there was a service documented for one client for rescheduling the initial meeting with the probation officer. These services are not included here because for most clients, documented services begin with the initial interview. There are a few clients (8) who did not have any documented services. Two of these clients just began the program in June. The remaining clients had begun the program between July 1997 and March 1998. It is quite likely that these clients received activities, but they are not in the database.

A summary of the treatment services administered over the three year period is presented in Table 2.5. Over 80% of clients received at least one individual treatment session, group session or acupuncture treatment. Participants tend to attend a greater number of group treatment sessions on average than individual or acupuncture treatment. A little more than 84% of clients received a treatment assessment. All of the clients should receive this service, and should receive it only once. There were 20 clients for whom this service was documented more than once. On further examination, it was found that for three of the clients, the assessment was given at more than one treatment agency. However, for the remaining 17, it is unclear why there is more than one treatment assessment service documented. While a small percentage of clients received intensive out patient therapy, those who did receive this treatment had an average of 15 sessions. Over half of the clients failed to attend at least one treatment service. There was an average of 4.2 treatment sessions missed.

Table 2.5 Summary of Treatment Services.

Treatment Services	Number of people who received service	% of clients receiving service	Total number administered	Mean number per person (sd)	Maximum number of services per person
Individual	324	88.0	2919	9.03 (13.81)	74
Group	312	84.8	9124	29.24 (23.44)	109
Acupuncture	310	84.2	5950	19.20 (13.06)	84
Treatment assessment	311	84.5	335	1.08 (.31)	3*
Intensive Out Patient	41	11.1	600	14.63 (12.07)	40
No show/FTA for treatment	206	56.3	872	4.23 (3.98)	28
Other treatment	33	9.0	44	1.33 (.78)	4
Total number of treatments (without FTAs)	358	95.7	18948	51.77 (42.40)	211

Table 2.6 presents the documented program activities for the last three years. Over 80% of clients had an initial interview documented. Like the assessment by the treatment providers, all clients should receive one initial interview. Nine clients had more than one initial interview documented. There was one client whose initial interview was continued into a second day, explaining the number of initial interviews for that client. It is unknown why the remaining 8 clients had more than one documented initial interview, although it is possible that the interview for those clients took more than one day as well. It is not clear why 17% of clients did not receive an initial interview. This problem was found among treatment services as well as described previously- each client should receive an assessment from the treatment provider as well as an initial interview by SJDC. This was explored further and we found that six clients did not receive either service (at least it was not documented). Thus, almost all clients received at least an assessment from a treatment provider or initial interview from the SJDC staff. Approximately 80% of clients met with their probation officer or had a hearing at least once. The average number of meetings with probation officers is 20; the average number of hearings per person is 6.5. Almost 71% of clients attended at least one NA meeting; the average number of NA meetings per client is 33. The majority of clients (65%) paid their drug court fee at least once. More than half were jailed for a violation of their contract with SJDC. Clients were jailed approximately 2 times on average. A little over half failed to appear for at least one meeting with their probation officer or a hearing. Clients failed to appear for these meetings an average of 3 times. Sixty-one percent of clients received at least one other program activity. These "other" activities are mostly notes concerning case summaries, notes regarding appointments or progress the client has made with Life Choices, or other miscellaneous notes about the client. There were an average of 7 other activities documented per client. Less than 6% of clients were re-arrested on some other charge while in the drug court program. In most instances (n=11), the offense for

which the client was rearrested is missing. For the remaining 10, 3 re-arrests were for previous warrants, 1 was an unspecified felony offense, three were DWI, 1 was a traffic offense and 4 were drug related (2 possession, 2 distribution).

Table 2.6 Summary of Program Activities.

Program Activities	Number of people who received service	% of clients receiving service	Total number administered	Mean number per person (sd)	Maximum number of services per person
Initial interview	307	83.4	316	1.03 (.17)	2
UA taken	362	98.4	12601	34.81 (30.10)	172
Phone contact	256	69.6	1210	4.72 (4.81)	29
Hearing Review	293	79.6	1907	6.51 (4.79)	27
Meeting with probation officer	300	81.5	6125	20.42 (16.78)	89
Client jailed	205	55.7	470	2.29 (1.47)	9
Paid drug court fee	238	64.7	1363	5.73 (4.40)	22
NA meeting	261	70.9	8528	32.67 (32.26)	201
Client re-arrested	21	5.7	23	1.10 (.30)	2
No show/FTA for PO or Hearing/review	189	51.6	505	2.67 (3.22)	31
Other	226	61.4	1491	6.6 (6.9)	35
Total number of activities (without FTAs)	366	95.7	34051	93.04 (81.70)	490

The number of urinalyses (UA) taken are presented in Table 2.6; the results of these tests are presented in Table 2.7. Almost every client (98%) had at least one UA. There was an average of 35 UAs collected per client. While 72% of clients had at least one positive UA, overall, most UAs were not positive: only 7% of all UAs administered were positive for some substance. Almost 95% of clients tested negative for substances at least once. The vast majority of all UAs administered (92%) were negative. Fourteen percent of clients tested had no results from the UA at least once; of all the UAs administered, less than 1% did not have results. The average number of positive UA results per clients was 3; the average number of negative UA results was 34 per client while the average number of UAs without clear results was 2 per person.

Table 2.7 Urinalysis Results.

UA Results	Number of clients with these results	% who had these results at least once	Total number of UAs with these results	% of UAs with these results	Mean number of UA results per person (sd)	Maximum number of UA results per person
Results positive	264	72.3	870	6.9	3.30 (2.60)	16
Results negative	343	94.7	11635	92.3	33.92 (29.67)	168
No results	51	14.1	96	.8	1.88 (2.15)	13

Table 2.8 indicates the average number of times that a client tested positive, negative or had no results based on their primary substance problem. This was done to determine whether the participant's primary substance problem is associated with UA results. However, this table does not indicate which substance the client tested positive for, which of course may differ from their primary substance problem. Note that only those UAs that resulted in positive or negative are presented. Those with no results were so close to zero for all of the primary substance problems that they were not included.

Those with a primary problem of cannabis tended to have the greatest average number of positive UAs per person, followed by those with a primary problem of opiates and cocaine. Those with "other" substance abuse problems and those with cocaine as a primary problem had the greatest average number of negative UAs. The fewest average number of negative UAs was among those with a primary problem with polysubstances and those with a primary problem of amphetamines. The average number of UAs taken is highest among those with a primary problem of cocaine and "other", followed by opiates, alcohol and cannabis. Thus, this indicates that the relatively high number of positive UAs by those with a primary problem of cannabis and opiates is not simply a function of a greater number of UAs taken.

Table 2.8 UA Results by Primary Substance Problem.

Primary Substance Abuse Problem	Average positive UAs	Average negative UAs	Mean number taken (sd)	N
Alcohol	1.59 (1.71)	29.27 (21.34)	30.86 (21.01)	22
Opiates	2.43 (1.88)	28.48 (25.52)	31.00 (25.72)	23
Amphetamines	1.77 (1.98)	25.61 (25.13)	27.55 (25.64)	31
Cocaine	2.02 (2.24)	34.90 (34.08)	36.95 (34.55)	134
Cannabis	3.49 (3.12)	26.51 (21.06)	30.09 (21.30)	47
Other	.75 (1.50)	35.00 (11.63)	36.00 (11.22)	4
Polysubstance	1.90 (2.81)	14.85 (15.21)	16.85 (16.89)	20

One question that stems from Table 2.8 is whether the frequency of the different UA results varies by the client's primary substance abuse problem. This is another way to indicate whether certain

substances are associated with UA results. Looking at Table 2.9, one immediately notices that those with a primary substance problem of opiates has the greatest percentage of clients (13%) who never tested negative when administered a urinalysis. This group has the second highest percentage for having tested positive at least once. Those clients with a primary problem of amphetamines or cocaine were the second most frequent to have never given a negative UA; however both groups were also less likely to have given a positive UA at least once as compared to those with a primary problem of opiates or cannabis. Three groups, those with a primary problem of alcohol, other, or polysubstances, had at least one negative UA per client. The percentage of at least one positive UA among these clients was 68% for those with a primary problem of alcohol, but less than half among those with an "other" primary problem and those with polysubstances. Finally, by examining those who had given at least one UA that had no results, we find that this occurs most frequently among those with "other" primary problems and those with amphetamines.

Table 2.9 Frequency of UA Results by Primary Substance Problem.

UA Results	Alcohol	Opiates	Amphetamines	Cocaine	Cannabis	Other	Polysubstances
Never negative	0	13.0	6.5	6.7	4.3	0	0
Positive at least once	68.2	82.6	67.7	70.1	83	25	45
No results at least once	0	8.7	16.1	2.2	8.5	25.0	5.0
N	22	23	31	134	47	4	20

Taken together, these tables indicate that those with a primary problem of opiates, cannabis and cocaine tend to test positive more often than those with other primary problems. This suggests that these groups should be examined more in depth.

Documented services and activities over time. While it is beneficial to know the number and type of services and activities clients are receiving to help describe what is occurring in the program, it would also be useful to know whether the drug court operates according to stated criteria. The optimum way to examine this is to determine the type and number of services clients received by phase. However, there is not complete documentation of the movement between phases, so any analysis based on phase would not be reliable. However, we have divided the data so that we can determine how many activities and services are completed on average per client each month the client is in the program. We have chosen to divide the data by months because the requirements are on both a weekly and monthly basis, thus months appears to be a reasonable time period. However, this must be interpreted with great caution since it is not a reflection of phases, rather, it is a reflection of the length of time clients spend in SJDC. This having been said, it is reasonable to expect that the average number of activities should follow the rules of the phases.

The following table summarizes what should occur during each phase, based on the Draft Program Model and conversations between the Principal Investigator of the evaluation and the Drug Court

Probation Officer Supervisor.

Table 2.10 Requirements of Phases.

Phase I	Phase II	Phase III
Two weekly meetings with probation officer Two to three weekly drug screens One 12-step meeting per week One weekly contact with sponsor Two monthly meetings with Judge Weekly payment of drug court fee Sixteen acupuncture sessions Two weekly group sessions	One weekly meeting with probation officer Two weekly drug screen One weekly 12-step meeting One weekly contact with 12-step sponsor One monthly meeting with judge Weekly payment of drug court fee Acupuncture as needed Two weekly group sessions (one of which is a drug relapse class)	Meeting with probation officer every two weeks Two weekly drug screen One weekly 12-step meeting One weekly meeting with 12-step sponsor One monthly meeting with judge Weekly payment of drug court fee Acupuncture as needed Two weekly group sessions (one of which is a maintenance class)

Based on these criteria, we would expect that the average number of contacts with the probation officer, the number of hearings with the judge, the number of acupuncture treatments and the number of group treatments would decrease over time. The average number of 12-step meetings should remain fairly even, as should the payment of drug court fees and the number of UAs. The graphs that follow examine these trends. The graphs indicate the average number of services or activities per month for those clients who received at least one activity or service during that month. The months indicate the length of time from the initial intake into the program to the time the activity took place.

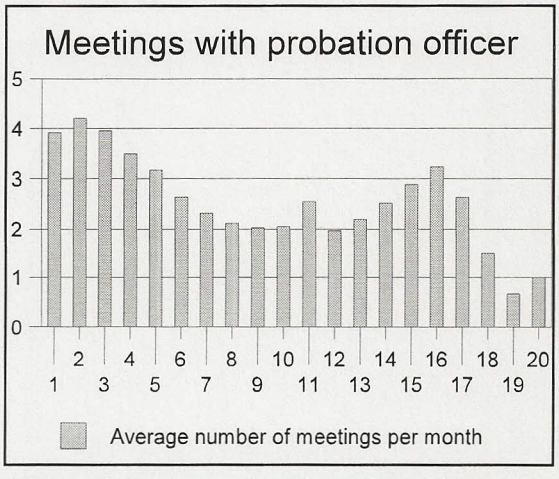

Figure 2.1 Average number of meetings with probation officer by month in program.

The average number of meetings per month with the client's probation officer is presented in Figure 2.1. One would expect that there would be close to an average of eight contacts during the first month or more; rather, there is an average of four during each of the first three months. This indicates that some clients are not meeting with their probation officer as frequently as required. Further, one would expect that over time, the average number of contacts would decrease over time. There is a decline over the first 11 months, then the average number of contacts increases after the twelfth month. This may indicate that clients who stay in the program longer have had to increase the number of meetings due to a lack of compliance with the rules of the program.

Figure 2.2 shows the average number of UAs per person each month in the program. As expected, the greatest number of UAs per person is during the first month. It was also expected that the number of UAs would remain the same over time. There is some decrease over time, the average number of UAs begins to increase again slightly at about the ninth month into the program, with spikes seen at sixteen and seventeen months into the program. This pattern could also be a reflection of non-compliance with program rules. There is a substantial decrease in the number of UAs during the last two months of the program.

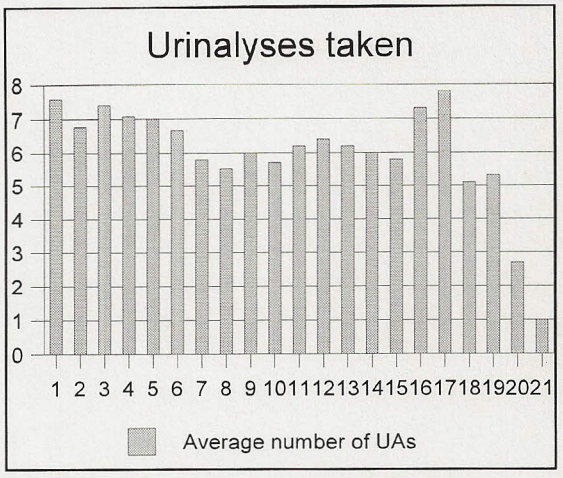

Figure 2.2 Average number of UAs by months in program.

Figure 2.3 shows the average number of twelve-step meetings per month. Since the requirements indicate that there should be weekly attendance of twelve-step meetings throughout the client's entire participation in SJDC, we would expect that there would be an average of four twelve-step meetings per month. During the first month, there is an average of 2.6 twelve-step meetings, indicating that some of the clients did not attend all four meetings. During the second month, however, there is an average of 4 meetings. During most of the following months there is an average of more than 4 twelve-step meetings per client.

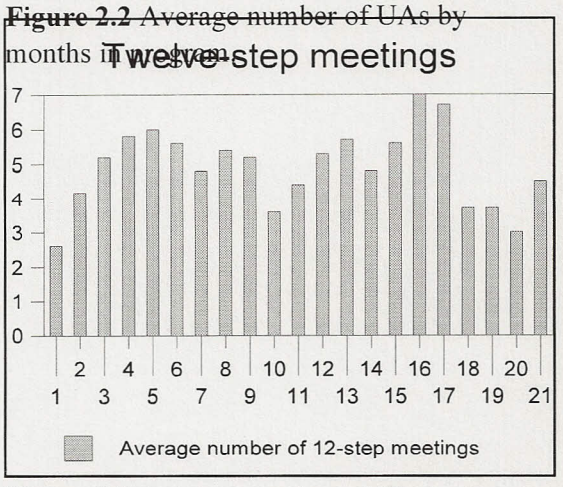

Figure 2.3 Average number of 12-step meetings by month in program.

Figure 2.4 indicates that the average number of hearings that clients attend throughout their time in the SJDC program is one for most months. Since the number of hearings required during the first phase is two, we expected that there would be a greater average number of hearings to begin with, followed by a decrease over time. Indeed, there is a general pattern that indicates that the average number of hearings diminishes over the clients length of stay in the program.

Figure 2.5 shows the number of drug court fees paid per month. One would expect that there would be an average of four documented payments per month per client. As can be seen from the graph, during most months, the average number of payments is less than one, indicating that among the clients who had at least one documented activity or service during a month, not all of them paid their drug court fees. This could be because clients do not stay in the program for the entire month, it could be that the fees weren't documented, or it is possible that the

clients did not keep up with their fees.

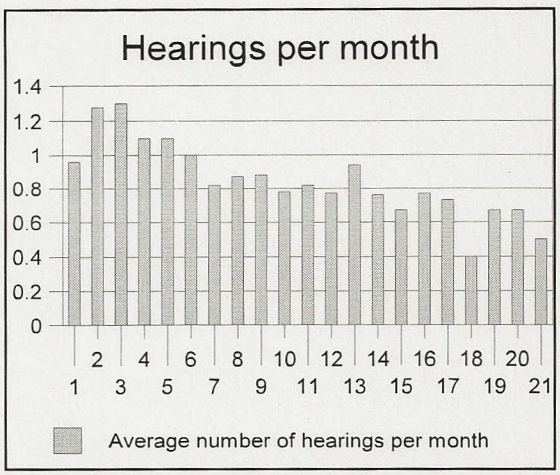

Figure 2.4 Average number of hearings by months in program.

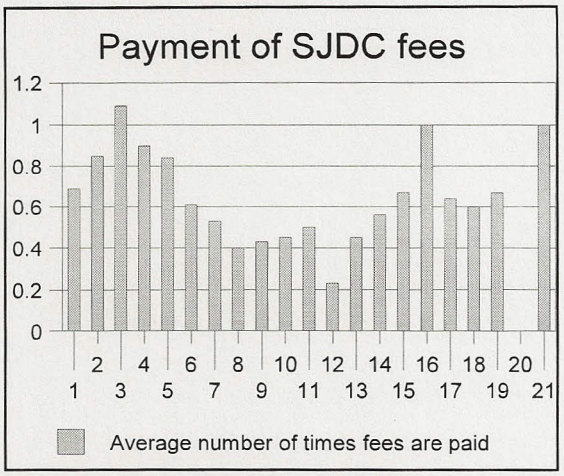

Figure 2.5 Average number of fees paid by months in program.

Figure 2.6 illustrates the shows the average number of acupuncture treatments clients received each month into the program. There is a dramatic decrease from the first month to the second month changing from almost 8 per client to 3 per client. The number of acupuncture treatments tends to decrease over time, with some fluctuations.

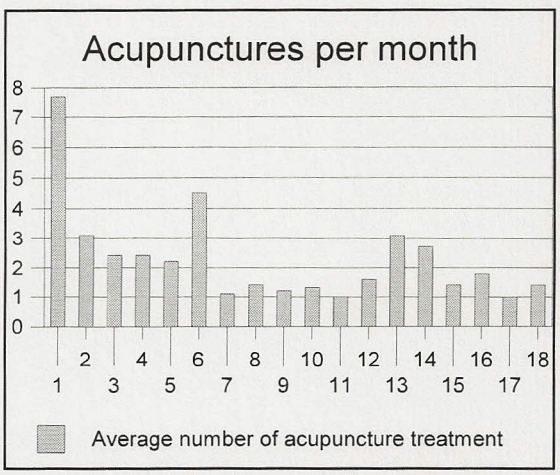

Figure 2.6 Average number of acupuncture treatments by month in the program.

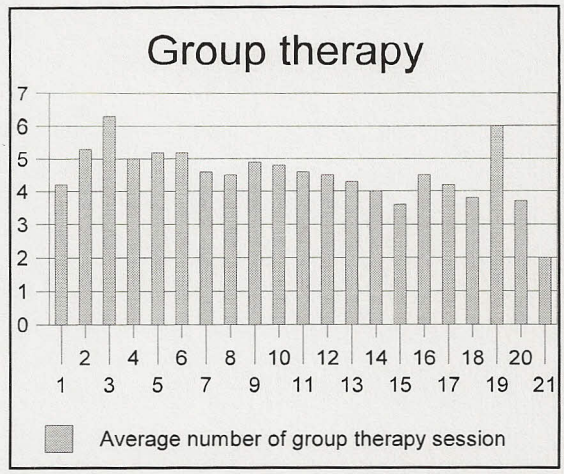

Figure 2.7 Average number of group therapy sessions by month in program.

Figure 2.7 illustrates the average number of group therapy sessions by month in the program. According to the criteria, there should be an average of eight group therapy classes during the first month. There is just over four. However, during the second and third months, the average number of group therapy sessions attended increases. There is a decrease after the third month, but the average does not get below four sessions per month until the fifteenth month. This indicates that clients are attending the group sessions regularly.

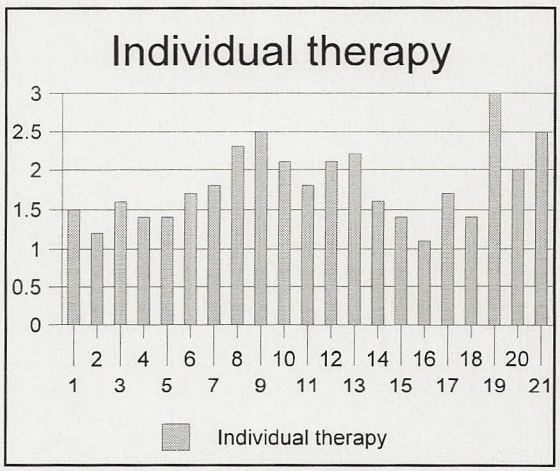

Figure 2.8 Average number of individual therapy sessions by month.

Although not required, individual therapy is common among the clients. Figure 2.8 illustrates the average number of individual therapy sessions per month. The chart indicates that clients begin with an average of 1.5 individual therapy sessions. The number of sessions tends to increase over time with a peak at nine months corresponding to an average of 2.5 individual therapy sessions. There is a decrease after this until the seventeenth month when the number of sessions increases again.

Figure 2.9 illustrates the average number of times clients failed to appear for either their treatment or meetings with the probation officer or judge. There is a tendency to gradually decrease the number of no-shows over time, beginning with just over one per client and decreasing until there are very small averages after the eleventh month into the program.

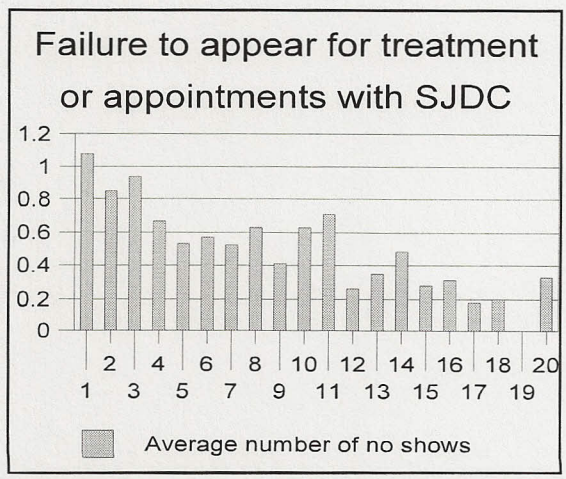

Figure 2.9 Average number of no shows by month in program.

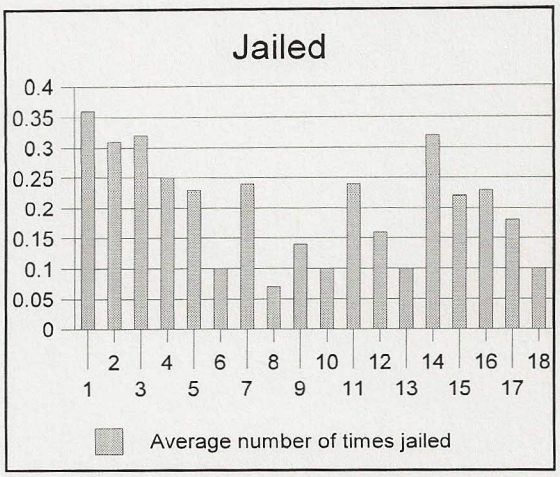

Figure 2.10 indicates the average number of times clients were jailed. The largest average is in the first month which is much less than one per client indicating that only a few clients are remanded to jail. Over the first few months of the program, the average number of times clients are jailed decreases followed by fluctuations.

Figure 2.10 Average number of times jailed by month in program.

One observation that can be made by examining these charts is that the average number of activities and services per month are lower than would be expected. We surmised that this could be due to the differences in the status of clients. In other words, since some clients terminated prior to completion, we would expect that these clients would lower the overall averages. Additionally, we reasoned that clients who completed the program would have a higher average number of activities and services per month as compared to the rest of the clients. Further, we expected that clients who were still in the program would have an average somewhere between the average for those who graduated and those who terminated early. Therefore, we examined the data again but divided it by the client's status in the program. Consistent with our hypotheses, we found that, in general, the average number of hearings per month was greater among those who completed, followed by those who were still in the program and finally, by those who terminated early.

However, for the remaining variables we did not find this relationship. Rather, for the number of group sessions, number of UAs taken, meetings with the probation officer and payment of drug court fees the average number of the activities or services received per month was greatest among clients who were still active in the program, followed by clients who had graduated. The remaining variables had the following relationships. For individual treatment sessions, we found the average number of sessions attended each month was largest among clients who had graduated and lowest among those who are still active. The average number of acupuncture treatments is greatest among clients who are still active and lowest among those who graduated from the program. The average number of twelve-step meetings is about equal for those who have completed the program and those who are still active; those who have terminated have the lowest average number of twelve-step meetings.

These findings suggest that there is an increase in the number of most services and activities clients are receiving. While the overall average number of services and activities received over each month in the program is lower than expected, it is possible that over time, the program has begun

to increase the number of services and activities administered. It is possible, however, that these differences reflect increased documentation of services rather than an actual increase in services rendered.

SJDC Clients Compared to Drug Courts Nationally

This section compares the demographics and substance use of clients who graduated from the Second Judicial Drug Court program and clients in the final phases of drug courts nationally. We begin by describing the similarities and differences between those clients who graduated from the Drug Court program and clients in the final phases of drug courts nationally. This comparison allows us to determine whether the SJDC serves clients that are similar or markedly different from drug courts nationally. If the SJDC clients are significantly different than clients nationally, it may indicate that the SJDC should consider altering the program somewhat to fit this population. On the other hand, if clients are generally similar to clients nationally, perhaps the SJDC would benefit by implementing program changes that occurring nationally.

The data used in this comparison consists of those clients in the SJDC who graduated from the program. We chose only to include those who completed the program in this analysis because the national data reports on those clients who are in the last phase of the program only. Thus, we felt this comparison would be most appropriate. The national data is that which is presented in the 1997 Drug Court Survey Report: Executive Summary (Cooper, 1997).

Demographics. We found that in general, those clients who successfully completed the SJDC program were similar to clients in drug courts around the nation. The majority of SJDC clients are male, as are clients nationally. Slightly more SJDC clients are under 30 years old than clients nationally, but the age breakdown is roughly the same. Among the SJDC graduates, males tend to be older than females. The mean age of men is 34 (sd = 8.8) and for women, the mean age is 29 (sd = 6.9). Likewise, among clients nationally, the average age for drug court clients is over 30 and women tend to be younger than males in many programs. SJDC graduates appear to be more highly educated than their counterparts nationally. However, there is a very small number of graduated for whom this information is recorded (n=30); thus, this information may not reflect the educational attainment of all SJDC graduates. SJDC clients also differed from drug court clients nationally in terms of marital status. A greater percentage of SJDC graduates are married (42.5%) as compared to clients nationally (25%).

Table 2.11 Demographics of Clients who Graduated from SJDC and National Drug Court Clients.

Demographics of Clients	SJDC graduates		National drug courts, final phase
	N	%	%
Gender			
Males	47	71.2	>50
Females	19	28.8	<50
Age			
20 and less	4	6.1	6
21 to 29	23	34.8	30
30 to 39	25	37.9	42
40 to 49	12	18.2	19
50 to 59	2	3.0	1
60 and over	0	0.0	1
Education			
Less than 8th grade	0	0.0	5
8th to 11th grade	3	10.0	25
High school diploma/GED	18	63.3	36
Post high school	9	26.7	34
Marital status			
Married	8	20.0	24
Single	15	37.5	49
Divorced	17	42.5	25
Widowed	0	0.0	2

Substance use. Nationally, clients present most often with addiction to crack/cocaine. Similarly, graduates from the SJDC program are more likely to present with a primary problem of cocaine than any other substance (see Table 2.12).

Table 2.12 Primary Substance of Abuse for Graduates.

Primary substance of abuse	SJDC Graduates
Cocaine	65.6
Cannabis	6.3
Amphetamines	6.3
Opiates	6.3
Alcohol	15.6
Benzodiazepines	0
Other	0
Total N	32

Nationally, clients have used drugs for an average of at least 15 years and more than 25% have had previous unsuccessful treatment. Unfortunately, the data regarding length of substance use and prior treatment is not complete for those graduating from the SJDC. Among those for whom this information is available, the mean length of time that clients had been using drugs or alcohol is 23.54 years (sd = 10.54); the mean length of time clients have been using drugs only is 22.37 years (sd=11.90). However, very few clients had this information recorded (n=13), thus these number may not reflect the client population. A much larger percentage (63.6%) of SJDC clients have reported previous treatment as compared to participants nationally. However, there are very few people who have this information recorded (n=11); so again, this is not likely to reflect the graduating population.

Referral into the SJDC

According to the guidelines established in the District Court Drug Court Program Manual, clients may be referred from pre-trial services, probation violation proceedings, defense attorneys, or district attorneys. Among those who were accepted into the program, over half were referred by defense attorneys or probation/parole violation proceedings (see Table 2.13).

Table 2.13 Referral Source if Accepted.

Referral Source	N	%
Pre-trial services	40	12.0
Defense attorney	88	26.5
Probation/parole	89	26.8
District attorney	39	11.7

Referral Source	N	%
Judge	61	18.4
Other	15	4.5
Missing	44	

Table 2.14 describes the type of client by whether the client was accepted into the program. One of the first observations that can be made by examining this table is that most clients who are considered for the program are post-indictment. Among those who are accepted, there are fewer post-indictment clients who are accepted as compared to those who are rejected. There are more of every other category accepted than rejected.

Table 2.14 Type of Client Accepted.

Type of Client	Accepted		Not accepted	
	N	%	N	%
Post indictment	134	52.8	59	70.2
Pre-indictment diversion	40	15.7	8	9.5
Probation/parole violation	46	18.1	9	10.7
Conditions of release client	34	13.4	8	9.5
Missing	120		4	

$p<.05$

Do Clients Match the Stated Criteria?

This section explores how well clients who have been accepted into the drug court program in the Second Judicial District compare to stated criteria. These criteria are those that are stated in the Draft Program Model. Although the criteria may have changed somewhat over time, we are using this criteria because it is the most accurate that we have been able to obtain. The drug court supervisor, Walt Lang, did note that the only criteria that distinguishes whether a client is accepted into the SJDC is whether the individual has a prior violent felony conviction; otherwise, the assessment is made on a case by case basis. However, since the written criteria were established at the onset of the SJDC program, we have chosen to examine whether these criteria are being observed.

These criteria are as follows:

A. First time felony drug offenders who:
   1. are charged with:
      a. drug possession, use or trafficking of nominal amounts

b. have drug use as a substantial component of a non-violent felony conviction (for those post-adjudication).

2. Have no more than one prior felony conviction.
3. Are eligible for standard probation.
4. Have a history of minimal substance abuse and limited participation in treatment.
5. Need drug education, substance abuse outpatient counseling and drug monitoring.
6. Don't pose a serious threat to the community.
7. Have been identified and screened prior to sentencing.
8. Need monitoring through random urinalysis.
9. Have no other significant treatment issues which would delay and/or prevent program completion.

B. Excludes defendants convicted of drug sales or trafficking of more than nominal amounts or violent crimes.

This section examines how well these criteria are met when a potential client is screened. However, some of the criteria we are not able to assess because there is not documentation related to it. The criteria for which we currently have no information include the following: eligibility for probation; need for drug education, substance abuse counseling and drug monitoring; have been identified and screened prior to sentencing; and the need for monitoring through random urinalysis. Additionally, some criteria is not documented directly. For example, there is not a question on the assessment form which asks whether a potential client poses a threat to the community. However, there is a question which asks for a history of violent felony convictions which we use as a proxy measure for threat to the community.

Offense type. The first criteria states that the prospective client may not be charged with or convicted of drug sales of more than nominal amounts and may not be charged with or convicted of a violent offense. Further, if the client is not charged with drug possession or trafficking of a nominal amount, the offense must include drug use as a substantial component of the crime. This criteria can partially be examined. It cannot be determined whether the offense involved a "nominal" amount of drugs because this was not documented. Second, while there is documentation regarding whether the potential client has a prior felony conviction, there is not documentation regarding whether the prior offense involved drugs. Third, we can look at the offense the clients were charged with among only those who were accepted into the Drug Court program, but this is not available for those who were not accepted into the program. With these limitations in mind, we found that most clients (81%) who were accepted into the SJDC program had at least one drug offense, as displayed in Table 2.15. Likewise, of all of the offenses, the majority were for a drug offense. Offenses that were not a drug offense include the following: fraud, embezzlement, forgery, auto burglary, larceny, residential or commercial burglary, tampering with evidence, harassment, criminal damage to property, escape from jail and probation violations. There were not any violent offenses, which is consistent with the stated criteria.

Table 2.15 Offense Type.

Offense Type	Drug possession/use/ distribution/paraphernalia		Other non-drug offenses		Total	
	N	%	N	%	N	%
By client (at least one drug offense or none)	289	81	68	19	357	100
By total offenses	311	71.2	126	28.8	437	100

Note that the number of offenses exceeds the number of individuals (357) for whom this information was collected since the number of offenses per client may be more than one.

Number of Prior Felony Convictions. The second criteria states that the client should have no more than one prior felony conviction. We found that while there were a few clients who were accepted into the program with more than one prior felony conviction, the vast majority (97%) did not have more than one prior felony conviction. A greater percentage of potential participants who were not accepted into the program had more than one prior felony conviction.

Table 2.16 Prior Felony Convictions.

Number of prior felony convictions	Accepted		Not accepted	
	N	%	N	%
None or one	175	96.7	40	86.9
More than one	6	3.2	6	13.1

$p<.05$

Extent of substance abuse and treatment. Another criteria (point 4) is that the prospective client should have a history of a) minimal substance abuse and b) limited participation in treatment. One difficulty in assessing whether these guidelines have been met is the use of the words "minimal" and "limited". It is not clear what constitutes minimal substance abuse. A second difficulty is that a client's substance abuse history is available only for those who received an ASI assessment. Likewise, the amount of participation in prior treatment is only available for those who received an ASI. The ASI was available for 225 people who were assessed. Most clients who were not accepted into the program did not receive an ASI. Some, however, did receive an ASI. It is clear that some of these people received an ASI in order to determine whether there client denied it to the probation officer. However, it is unclear why the other individuals received an ASI.

There are a few items on the ASI that may indicate the seriousness of the client's substance abuse problem. These include how long the client has used any substances, how many times the person has experienced delirium tremens or has overdosed, and length of voluntary abstinence from the primary substance. One first must establish that the client has a substance abuse problem, however. This question is asked on the assessment, and the results are presented in Table 2.17. As can be seen from the table, almost all of the clients accepted into the program have a current

substance abuse problem (96%). Only 60% of those who were not accepted into the program had a current substance abuse problem.

Table 2.17 Current Substance Abuse Problem.

Current Substance Abuse Problem	Accepted	Not accepted	Total
Yes	96.4% (244)	59.8% (49)	293
No	3.6% (9)	40.2% (33)	42

$p<.001$ (127 missing)

One way to assess the seriousness of the substance abuse problem is to examine the length of time that the client has been using substances and whether the client has ever suffered delirium tremors (DTs) or has overdosed. Among those accepted into the program, clients had been using alcohol for almost 13 years and other substance for 12 years (see Table 2.18). This is longer than the mean length of time that those who were rejected had used either group of substances. Very few clients in either group had suffered DTs; only 2% of those accepted into the program had experienced this previously while none who were not accepted had experienced DTs. Approximately 5% of those who were not accepted into the program had experienced at least one drug overdose; about 12% of those accepted had experienced one or more drug overdoses.

Table 2.18 Substance Abuse History.

Substance Abuse History	Accepted			Not accepted		
	Mean (sd)	N	% with at least one DT or OD reported	Mean (sd)	N	% with at least one DT or OD reported
Length of time using alcohol	12.71 (8.23)	208		10.27 (7.19)	15	
Number of DTs	.04 (.35)	224	2%	----	19	0%
Length of time using other substances	12.13 (8.76)	253		5.74 (6.33)	19	
Number of ODs	.36 (1.37)	225	12.4%	.21 (.92)	19	5.3%

Finally, we examined the number of times that potential clients had previously been in treatment. We found that among those accepted into the program, about half had never been in treatment. Almost 79% of those who were rejected had never had treatment previously. Further, as illustrated in Table 2.19, 28% of those accepted into the program had two or more previous treatment attempts.

Table 2.19 Number of Times Previously in Treatment.

Number of Times	Accepted	Not accepted
None	50.2 (113)	78.9% (15)
Once	21.8% (49)	5.3% (1)
Two or more	28.0% (63)	15.8% (3)

Taken together, these results seem to suggest that those clients accepted into the program have had a slightly longer and more serious history of substance abuse. However, taking into account that there are very few individuals for whom this information is available who were not accepted into the program, these results could be misleading. This is particularly true if the reason those not accepted into the program were given an ASI to determine whether they indeed had a substance abuse problem. Therefore, at least among these individuals, it is possible that they were not accepted into the program because they either did not have a current substance abuse problem or it was so minimal that it did not warrant intervention. However, the Draft Program Model criteria states that individuals should have a minimal substance abuse history. The average length of time that clients have been using substances is fairly long. Thus, perhaps this formal criteria of "minimal" substance abuse should be changed to reflect the operation of the SJDC.

Threat to the community. Another criteria is that the individual should not pose a serious threat to the community. One question on the assessment form is whether the individual has previously been convicted of a violent felony, which may indicate a threat to the community. Table 2.20 presents the results. We found that contrary to expectations, there were more potential clients who were not accepted into the program that did not have a history of violent felony convictions than clients who were accepted into the program. However, the vast majority of clients accepted into the program did not have any prior violent felony convictions.

Table 2.20 Prior Violent Felony Convictions.

	Accepted		Not accepted	
Number of prior violent convictions	N	%	N	%
None	76	91.6	249	98.0
One or more	7	8.4	5	2.0

$p<.01$

Significant treatment issues. The final criteria is that the potential client should not have any "significant treatment issues" that would delay/prevent program completion. Like the terminology used previously regarding the substance abuse history, it is not clear what "significant treatment issues" consist of in this setting. However, there is a question on the assessment that asks whether the client is or ever has had psychological or mental treatment. Table 2.21 shows that of the 340 potential clients, only 54 reported having current or previous psychological or mental treatment. Among clients accepted into the program, 29% were receiving psychological treatment at the time of the assessment while 62% had previously had treatment. The percentages are similar among

those who were not accepted into the program: 25% were receiving treatment at the time of the assessment and 67% had previously received treatment. It was unclear when treatment had occurred for the remainder in both groups.

Table 2.21 Psychological Treatment.

Prior/current Psychological treatment	Accepted	Not accepted
No	83.5%	85.9%
Yes	16.5%	14.1%
Currently Previously Unclear when	28.6% 61.9% 9.5%	25.0% 66.7% 8.3%
N	255	85

p n/s

Additionally, medical issues may interfere with substance abuse treatment. However, most clients reported that they did not have any medical issues that would interfere with treatment and most reported that they were not currently taking any drug of abuse by prescription (see Table 2.22). This did not differ by entry status.

Table 2.22. Medical Treatment and Prescription Medication.

Prior/current medical treatment	Accepted	Not accepted
No	95.7%	95.2%
Yes	4.3%	4.8%
Total N	253	84
Currently taking prescription medicine		
No	94.5%	92.0%
Yes	5.5%	7.1%
Total N	254	85

p n/s

There was some deviation from the criteria found in this analysis. Since those individuals who were initially accepted into the program but later rejected (due to nolle prosequi of their case or some other reason) are included in the "accepted" category, we redid the analysis to determine whether those cases were responsible for the divergence. However, they were not.

These criteria are very similar to the national criteria that has been used. There appears to be a trend nationally towards relaxing the criteria somewhat. This includes allowing people with an unlimited number of prior offenses into drug courts provided the priors do not involve violent

offenses. Additionally, many drug courts nationwide now accept moderate to severe substance abusers.

Chapter Three - Outcome Questions

This chapter of the report focuses on the differences between clients served by the SJDC program. We have done this in order to get a sense of intermediate outcomes- to determine whether there are any variables that affect the client's progress in the program and their outcomes. We begin by describing the demographic differences between clients based on their termination status. We then address whether the type of treatment services and program activities the client receives affects outcomes. Finally, we present an analysis which suggests the impact of the SJDC program on the criminal justice system.

Proportion Graduating Over Time

As illustrated previously, approximately one-third of clients who are no longer in the SJDC program have successfully completed the program while almost 59% terminated without graduating from the program. Approximately 40% of clients who were initially accepted into the program were still receiving services as of June 30, 1998. One question that arises is whether there have been a greater proportion of graduates over the life of the SJDC program. One would expect that as the SJDC program develops, that there would be a greater percentage of clients who successfully complete the program and a smaller percentage of clients who terminate unsuccessfully. Figure 3.1 illustrates the results. Note that the percentages do not equal 100% for 1996 and 1997 due to clients who were determined to be unsuitable for the SJDC program after intake. We found that between the years of 1995 and 1997, there is an increase in the proportion of clients who have graduated from the program as compared to all those who exited during those years. There is a decrease among those terminating over these years. During 1998 we find that the proportion of clients who have graduated is lower than previous years. However, since the data examined only extends through June of 1998, it is quite possible that more clients will graduate, perhaps resulting in a greater proportion graduating versus terminating. Recall that there are still 145 clients who are currently active in the program.

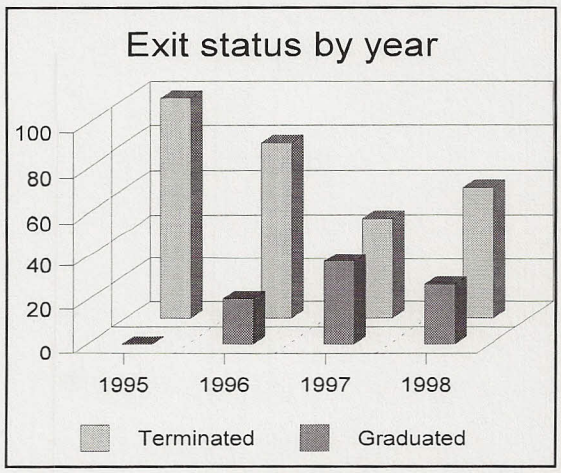

Figure 3.1 Proportion graduating and terminating over years of program operation.

While examining the proportion of clients who have terminated or graduated over the years of program information is interesting in order to determine whether clients are reaching successful outcomes more frequently over time, one question that may be useful to those administering the program is what the curve of drop out from the program looks like. Therefore, in Figure 3.2 we illustrate the number of clients who have terminated from the program by the length of time that they spent in the program. The general trend is that the number of clients who terminate from the program prior to successful completion decreases over time. However, there appear to be three

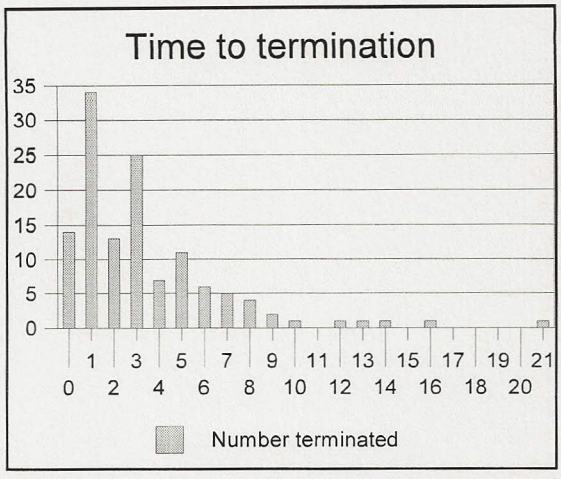

Figure 3.2 Months to termination.

months during which there are a greater number of clients who drop out relative to the surrounding months. These are months one, three and five. This means that one month into treatment, three months into treatment and five months into treatment are periods that we see an increase in unsuccessful termination. These trends should be studied in more depth to determine whether there are any factors that are associated with termination at this time. For example, it is possible that drop out periods are associated with primary substance problem. However, due to both time constraints and missing data, this has not been explored.

Demographic Differences Based on Termination Status

This section examines the differences and similarities in demographics and substance use between these three groups. There was a third group- those who were initially accepted and later rejected. These clients are not represented here because there are too few to allow for any meaningful interpretation of the results.

Table 3.1 illustrates the demographics of the three groups. There is a slightly greater proportion of males who graduate as compared to those who terminate or are still in the program. This difference, though, is not statistically significant. Those who terminate tend to be younger on average than either those who graduate or those who are still in the program while those who graduate tend to be older on average; this difference is statistically significant ($p<.02$). This relationship does not hold for both males and females. While males who terminate tend to be younger and males who graduate tend to be older, females who terminate and those who graduate tend to be about the same age. Those females who are currently in the program are slightly older than their counterparts who are no longer in the program. More than half of all three groups are composed of clients who are Hispanic. A slightly greater percentage of clients who are White have graduated (31.8%) rather than terminated (23%) or are currently in the program (26%). This difference, however, is not statistically significant. Interestingly, among clients who have graduated, the percentage of clients who are single is noticeably less than their counterparts who are in the program or who have terminated. Likewise, a greater percentage are married than their cohorts. Upon examination of those who have terminated, we see that a lesser percentage are divorced as compared to those who are currently in the program and those who have graduated. This may in part be a reflection of their younger age. Among those currently in the program, we see that like those who have terminated, the greatest percentage are single. They are less likely to be married compared to those who have terminated or graduated. These differences were statistically significant ($p<.05$). The educational attainment varies between the three groups as well. Those who have graduated appear to be much more likely than their counterparts to have a high school education or more. Those clients who have terminated are more likely than either

group to have less than a high school education. These differences are statistically significant ($p<.01$). However, more than 50% of all three groups have at least a high school education. Note that for both marital status and education, there is a large proportion of missing information for those who have graduated. Thus, these results may not be representative of all clients who have graduated. Finally, we see that among clients who have terminated, the majority (68%) were not employed at intake, whereas the majority of both those currently in the program and those who have graduated were employed. Taken together, these differences seem to suggest that clients who terminate are a little younger and have fewer commitments in terms of marital status, employment and perhaps education. Thus, it is possible that clients who terminate may have fewer community and personal supports which may help them to remain in the program.

Table 3.1 Demographics of Clients by Status.

Demographics	Current clients	Terminated clients	Graduated clients
Age*			
Mean (sd) Total N	31.55 (8.88) 145	29.40 (7.31) 129	32.80 (8.56) 66
Age by gender*			
Males			
Mean (sd) Total N	30.21 (8.11) 93	29.21 (7.55) 87	34.31 (8.75) 47
Females			
Mean (sd) Total N	33.95 (9.75) 52	29.78 (6.87) 42	29.06 (6.94) 19
Ethnicity			
White African American American Indian Hispanic Other Total N	25.5% 9.0% 2.1% 60.7% 2.8% 145	23.3% 17.8% 1.6% 57.4% 0% 129	31.8% 16.7% 0% 51.5% 0% 66
Marital Status*			
Single, otherwise unknown Married Widowed Total N	50.4% 22.7% 2.8% 141	58.6% 29.3% 0 99	37.5% 42.5% 0 40
Education**			

Demographics	Current clients	Terminated clients	Graduated clients
Less than 8th grade	7.1%	1.1%	0%
Some high school	27.7%	38.3%	10.0%
High school grad/GED	46.8%	48.9%	63.3%
Some college	18.4%	11.7%	26.7%
Total N	141	94	30†
Employed at intake***			
No	44.1	67.7	34.8
Yes	55.9	32.3	65.2
Total N	145	130	66

* p<.05
** p<.01
***p<.001
†note the small N for those who completed. This may not be representative of the graduating population.

Substance Use Differences Based on Status

Here we examine the length of time clients have been using substances and the primary substance problem by their status in the program. As before, we urge a cautious interpretation when examining these results since there is a large proportion missing.

Table 3.2 presents the average length of time that clients have been using substances based on their termination status. We see that the mean length of time that clients have been using substances of any kind is greatest among those who have completed as compared to the other two groups. On average, they have been using substances for 23 years, while those who have terminated have been using for 13 years and those currently in the program have been using for 15 years. The difference is statistically significant (p<.001). The length of time that clients have been using the substance which has been classified as their primary problem is again greatest for clients who have graduated: almost 20 years on average. Those who are currently in the program and those who have terminated have reportedly been using their primary substance for around 9 years. Again, this difference was statistically significant (p<.001). This area deserves further study.

Table 3.2 Mean Length of Substance Use by Status.

	Current	Terminated	Graduated
Mean length of substance use***	15.10 (8.13)	13.50 (9.56)	23.54 (10.54)
Total N	139	70	13
Mean length of use of primary substance***	9.21 (7.69)	9.43 (7.24)	19.86 (11.98)
Total N	115	61	13

***p<.001

The primary substance of abuse also varies between the three groups, as seen in Table 3.3. More

than half of the clients who terminated and graduated have a primary problem of cocaine, as well as a large proportion of current clients. A greater percentage of clients who are currently in the program and those who have graduated have a primary problem of cannabis or amphetamines as compared to those who have graduated. A greater percentage of clients who have graduated have a primary problem of alcohol. None of the clients who have graduated have a reported primary problem of "other" or poly-substances whereas some of the clients in the other two groups do have these problems. Indeed, almost 10% of clients currently in the program have a poly-substance problem. Slightly more clients who are in the program currently and those who have terminated have a primary problem of opiates as compared to those who have graduated. None of these differences however were statistically significant.

Table 3.3 Primary Substance Abuse Problem by Status.

Primary Substance of Abuse	Current	Terminated	Graduated
Cocaine	43.7	56.5	65.6
Cannabis	19.0	11.8	6.3
Amphetamines	11.3	12.9	6.3
Opiates	9.2	7.1	6.3
Alcohol	4.9	8.2	15.6
Other	2.1	1.2	0
Polysubstances	9.9	2.4	
Total N	142	85	32

p n/s

Treatment Services and Program Activities by Status

In chapter two we presented the number of treatment services and program activities clients have received overall in the program. In this section, we take a second look at this data divided between clients who have terminated from the program versus clients who have graduated from the SJDC.

Table 3.4 illustrates the number of treatment services clients received by their exit status. We found that almost all (98.5%) of the clients who have graduated have received at least one individual and group session. Over 70% of clients who have terminated have received at least one of each of these services as well. The mean number of individual sessions per client is much higher among clients who have graduated (about 25 per client) as compared to those who terminated (about 8 per client). Likewise, the average number of group sessions is much higher among those who have graduated (48 per client) than those who have terminated (16 per client). Over three-quarters of both groups received acupuncture at least once; the average number of acupuncture sessions per client was not significantly different. A greater percentage of clients who have terminated have attended at least one IOP session; however, the average number of IOP sessions per client is significantly greater among those who have graduated. Thus, while clients

who terminate may be more likely to have gone to at least one IOP session, clients who graduated have attended them more often. Not surprisingly, clients who have terminated were more likely to have missed a treatment session and missed a greater number of them on average. Finally, very few clients in either status attended other treatment sessions, although slightly more clients who have terminated had at least one other type of treatment. Overall, clients who have graduated received a greater number of treatment services per client than those who have terminated.

Table 3.4 Summary of Treatment Services.

Treatment Services	Number of people who received service	% of clients receiving service	Mean number per person (sd)	Maximum number of services per person
Individual				
Graduated	65	98.5%	24.95 (18.25)***	74
Terminated	96	77.4%	8.06 (11.34)	51
Group				
Graduated	65	98.5%	48.48 (17.14)***	102
Terminated	90	72.6%	15.59 (14.68)	62
Acupuncture				
Graduated	57	86.4%	18.75 (14.35)	70
Terminated	95	76.6%	17.44 (14.17)	84
Treatment assessment				
Graduated	54	81.8%	1.19 (.39)	2
Terminated	95	76.6%	1.12 (.41)	3
Intensive Out Patient				
Graduated	5	7.6%	29.64 (8.35)**	39
Terminated	14	11.3%	9.64 (11.42)	31
No show/FTA for treatment				
Graduated	31	47.0%	3.74 (2.67)	15
Terminated	73	58.9%	5.01 (4.26)	28
Other treatment				
Graduated	1	1.5%	1.0 (0)	1
Terminated	3	2.4%	5.67 (8.08)	15
Total number of treatments (without FTAs)				
Graduated	66	100%	91.74 (36.34)***	211
Terminated	124	100%	33.00 (35.49)	172

***p<.001
** p<.01

Table 3.5 summarizes the number of program activities clients received by their exit status. All clients, regardless of status, received at least one UA. Clients who have graduated received a larger number of UAs per client than those who terminated. A similar percentage of clients who graduated and clients who terminated received at least one phone contact, but clients who

graduated received a greater average number per client. All of the clients who graduated received at least one hearing review. The average number per client was greater among those who graduated than those who terminated. Likewise, there was a greater average number of contacts with the client's probation officer among clients who graduated (about 27 contacts) than among those who terminated (about 14 contacts). Although more clients who terminated were jailed at least once, the average number of times clients were jailed was virtually identical between clients who graduated and those who terminated. While almost all clients who graduated paid at least one drug court fee, less than half of those who terminated paid at least once. The average number of times fees were paid was greater among clients who graduated. All of the clients who graduated attended at least one 12-step meeting; only about half of the clients who terminated did. The average number of 12-step meetings per client was significantly greater among clients who graduated. More clients who terminated were rearrested during their time in the program as compared to those who graduated, however, less than 10% of either group was rearrested. Like the number of treatment services missed, more clients who terminated missed at least one program activity and missed a greater number per client than those who graduated. Clients who graduated received a much larger average number of program activities per client than did those who terminated.

Table 3.5 Summary of Program Activities by Status.

Program Activities	Number of people who received service	% of clients receiving service	Mean number per person (sd)	Maximum number of services per person
Initial interview				
Graduated	58	87.9%	1.02 (.13)	2
Terminated	103	83.1%	1.06 (.24)	2
UA taken				
Graduated	66	100%	69.82 (24.60)***	144
Terminated	124	100%	20.33 (19.24)	104
Phone contact				
Graduated	52	78.8%	6.19 (6.39)*	28
Terminated	94	75.8%	4.24 (4.05)	29
Hearing Review				
Graduated	66	100%	11.62 (4.57)***	27
Terminated	89	71.7%	4.93 (3.90)	17
Meeting with probation officer				
Graduated	54	81.8%	26.59 (18.09)***	80
Terminated	82	66.1%	13.96 (12.64)	67
Client jailed				
Graduated	37	56.1%	2.32 (1.55)	6
Terminated	90	72.6%	2.32 (1.56)	9

Program Activities	Number of people who received service	% of clients receiving service	Mean number per person (sd)	Maximum number of services per person
Paid drug court fee				
Graduated	63	95.5%	6.92 (4.41)***	20
Terminated	54	43.5%	3.57 (2.98)	14
NA meeting				
Graduated	66	100%	54.41 (34.13)***	201
Terminated	63	50.8%	23.28 (32.82)	360
Client re-arrested				
Graduated	3	4.5%	1.0 (0)	1
Terminated	11	8.9%	1.09 (.30)	2
No show/FTA for PO or Hearing/review				
Graduated	30	45.5%	2.30 (2.32)	10
Terminated	97	78.2%	3.29 (3.97)	31
Other				
Graduated	39	59.1%	6.03 (6.67)	29
Terminated	63	50.8%	7.14 (7.91)	35
Total number of activities (without FTAs)				
Graduated	66	100%	174.85 (73.61)***	490
Terminated	124	100%	55.95 (60.54)	341

***p<.001
**p<.01
*p<.05

Variables that affect intermediate outcomes
There are two intermediate outcomes that we have been able to measure. The first is urinalyses; the second is termination status.

Urinalyses. One potential difference between the three groups in SJDC (graduated, terminated and still active) is the proportion of positive UAs relative to all UAs. The proportion ranges from 0 to 1, 1 meaning all the UAs taken were positive and 0 meaning none of the UAs taken were positive. We would expect that the average number of positive UAs would be greater for those who have terminated relative to those who are still in the program or who have graduated. Indeed, we found that average proportion of positive UAs was greatest among clients who have terminated and lowest among those who have graduated (see Table 3.6).

Table 3.6 Mean Proportion of Positive UAs by Exit Status.

Exit Status	Mean proportion of positive UAs	Median proportion of positive UAs
Current	.12 (.21)	.03
Terminated	.30 (.31)	.17
Graduated	.03 (.04)	.02

$p<.001$

We have seen that the average proportion of positive UAs is higher for clients who have terminated. The next question that arises is what variables, other than termination status, are associated with positive UAs. One possibility is that the number and type of treatment services and program activities that the client receives differs. Thus, we examined this possibility with the use of a multiple regression analysis.

There were eleven variables which we included in the model. The first six variables are treatment related. These were included to determine whether the type of treatment client's received is related to the proportion of positive UAs they give. These include the following: number of individual treatment sessions attended, number of group sessions attended, number of acupuncture sessions attended, number of Intensive Outpatient Program (IOP) sessions attended, number of other treatments, and number of 12-step meetings attended. The next three variables included are deterrence related; that is, we hypothesize that the greater the number of each of these activities, the less likely it is that the client will have a high proportion of dirty urines. These variables are the number of hearings with the judge, the number of meetings with the probation officer and the number of times jailed. We also included two control variables. First, we included whether the client graduated or terminated since we found above that the clients exit status is related to the proportion of positive UAs. We wanted to control for this variable so that we could determine how much the other variables influence UA results. This variable is a "dummy" variable meaning that there are only two values that it takes: 0 and 1. One indicates that the client graduated, zero indicates that the client terminated. This variable is referred to as "graduated" in the results. We also included the length of time in drug court since it is likely that clients who are in the program longer will receive a greater number of services. Thus, we wanted to control for that possibility. The results of the regression are presented next.

As mentioned previously, we begin by examining overall model fit. The adjusted R^2 was .335 indicating that about 33% of the variance in the proportion of UAs is explained by the independent variables. This indicates that the predictive ability of the model is low to moderate. The F-test ($F=9.626$, $df=11$) was statistically significant indicating that at least one of the independent variables has a statistically significant relationship with the proportion of positive UAs. We checked for influential data points and determined that none of the outliers were influential. We also checked for multicollinearity and determined that this was not a problem here.

Table 3.7 shows the independent variables with their standardized beta coefficients. Since the beta coefficients are standardized, we can compare the magnitude of each of the independent variables'

affect upon proportion of positive UAs. The strongest predictor of positive UAs is acupuncture, followed by twelve-step meetings and group therapy. Other treatment and individual therapy were the least predictive.

Most of the treatment variables have a negative relationship with the proportion of positive UAs. This is what you would expect- this means that as the number of treatment services received increases, there is a corresponding decrease in the proportion of positive UAs. This relationship is statistically significant for the acupuncture treatment- the more acupuncture sessions a client has, the lower their proportion of positive UAs. We find a positive relationship between two of the treatments and UAs- IOP and 12-step meetings, indicating that a greater number of these treatments is associated with a greater proportion of positive UAs. Neither of these variables was statistically significant, however. Among the variables we hypothesized would represent deterrence, two of them- hearing with judge and meeting with probation officer- had a negative relationship with proportion of positive UAs. The number of times a client was jailed has a positive relationship with the dependent variable. Finally, we found that both of the control variables have a negative relationship with proportion of positive UAs. Thus, clients who have graduated are more likely to have fewer positive UAs, and clients who have been in the program longer are more likely to have fewer positive UAs. However, these variables were not statistically significant. Indeed, only acupuncture was statistically significant indicating that this variable, when accounting for all other variables in the model, predicts the proportion of positive UAs with statistical significance.

Although the remaining variables were not statistically significant, the relationship with the dependent variable is interesting and warrants some discussion. There were a few variables which had a positive relationship with the proportion of positive UAs. These were IOP, twelve-step meetings and jailed. One possible reason for this finding may be that the more times a client tests positive for a substance, the more likely it is that the client needs to attend IOP sessions. Similarly, a sanction used by SJDC is to send the client to jail when they violate the rules of the program, including giving dirty urines, so it makes sense that there would be a positive relationship here. There was a positive relationship found between the number of twelve-step sessions attended and the proportion of positive UAs meaning that the greater the number of 12-step sessions, the more likely it is that a client will test positive. This finding is not intuitive and we are unable to surmise why this relationship exists. It is quite possible that we are missing some important variables in this model, and that this relationship would change if other variables were included. This deserves further investigation at a later point.

Table 3.7 Beta Coefficients for Regression of Proportion of Positive UAs.

Variable	Standardized beta
Individual therapy	-.048
Group therapy	-.175
Acupuncture	-.209**

Variable	Standardized beta
IOP	.022
Other treatment	-.042
Twelve-step meeting	.193
Hearing with judge	-.160
Meeting with probation officer	-.110
Jailed	.107
Graduated	-.153
Months in drug court	-.150

**p =.01

Exit Status. The second intermediate outcome that we focus on is the client's discharge status: graduation or termination. It may be beneficial to determine whether particular variables predict a client's exit status. We have designed a model that examines the affect of the number and type of treatment services and program activities that the client receives on their status. We presented the relationship between treatment services and program activities with exit status previously in the chapter. However, it is useful to examine this in a multivariate regression because one may find that the relationship changes when other variables are taken into account. Like the multiple regression presented above that examined these variables in relation to UA results, we have included the length of time the client remained in the SJDC program to control for the affect of time. We expect that each of the treatment variables will have positive relationship with discharge status, hereafter referred to as graduate status. This means that a greater number of treatments the client receives, the more likely it is that he/she will graduate from the program. Likewise, we expect that each of the deterrence related variables- hearing with the judge, meetings with the probation officer, and number of times jailed- would all have a positive relationship with graduate status as well. We would expect the control variable, length of time in SJDC, to have a positive relationship with graduate status as well since the longer the client is in the program, the more likely it is that he/she will graduate. The results of the analysis are presented below.

The model Chi-square was statistically significant (187.77, df = 10) indicating that at least one of the independent variables was statistically significant. The R^2_{CAN} was .867. This indicates that the predictive ability of the model is fairly strong.

The beta coefficients for each of the variables as well as the expected odds ratio are presented in Table 3.8. Unlike the beta coefficients in the multiple regression, these are not standardized, so the magnitude of the effect of the independent variable cannot be compared using these coefficients, but the sign of the relationship can be interpreted the same way.

The following variables have a negative relationship with graduate status: individual therapy,

acupuncture, other treatment, meeting with the probation officer and jailed. The remaining variables have a positive relationship with graduate status. Recall that we expected all of the variables to have a positive relationship with graduate status. Two of these variables that has a negative relationship, acupuncture treatment and the number of times the client was jailed , are statistically significant.

The negative relationship between jailed and graduate status indicates that the more clients are jailed, the less likely it is that the client will graduate. One reason we may see this relationship is that the more times the client violates their conditions of involvement in SJDC, the more times they are incarcerated. It is also possible that since acupuncture treatments are given as needed, clients who are doing poorly attend more acupuncture treatments to improve their ability to complete the program. Both of these variables have a statistically significant relationship with graduate status. The other negative relationships found including the number of meetings with the probation officer, the number of individual therapy sessions and the number of other treatments were not statistically significant. Since increased probation officer visits are not a sanction used by SJDC according to a survey completed by SJDC staff, we are unable to determine why there is this negative relationship. This relationship, along with the two treatment variables that were inversely related to graduate status, should be studied in more depth at a future date.

Among the variables that had the expected relationship (positive) with graduate status, two were statistically significant. These were group therapy and IOP. In addition, the length of time that client were in SJDC was also statistically significant. This indicates that even when these treatment services and program activities are included, the length of time they are in SJDC still makes a difference. This suggests that despite the fairly strong predictive efficacy of the model, there are still other variables that we have not included that may predict graduate status. Conversely, it is possible that regardless of other variables, time is a key factor in successful completion indicating that perhaps clients should be encouraged to remain in the program.

Table 3.8 Regression Coefficients for Exit Status.

Variable	Beta	Odds ratio
Individual therapy	-.03	.966
Group therapy	.123***	1.130
Acupuncture	-.071*	.932
IOP	.155**	1.167
Other treatment	-.274	.760
Twelve-step meeting	.023	1.024
Hearing with judge	.110	1.116
Meeting with probation officer	-.040	.961

Variable	Beta	Odds ratio
Jailed	-1.25***	.287
Months in drug court	.419**	1.520

***p<.001
**p<.01
*p<.05

As mentioned at the beginning of this report, the odds ratio values are useful in order to determine the probability of an event occurring (graduation) based on different values of the independent variables. Thus, we have computed the probability of success under various circumstances. We have computed an initial model that uses the mean values (rounded) of each of the independent variables as a baseline for probability of graduation. We then change the values for those variables that were statistically significant to see how much of a difference this makes in the probability of successful graduation. Three scenarios are presented. The first scenario uses the mean value for each of the independent variables for the cases included here to compute the probability that a client will graduate. We can see in the first row of Table 3.9 that this results in a probability of .06. Next, we compute the probability that a client will graduate with the following adjustments. First, we change the values for those variables that are statistically significant only. Second, for those variables that had a positive association with graduate status, we increase the mean value by 2 units. For example, the mean number of group therapy sessions was 24, so we increased this to 26. Third, for those variables that had a negative relationship with graduate status, we decreased the mean value by 2 units. When this probability was calculated, we found that the probability of graduation drastically increased to .86. Finally, the third scenario reversed the second scenario. That is, for each statistically significant variable that had a positive relationship with graduate status, we decreased the mean by 2 units. For those variables that had a negative relationship with graduate status, we increased the mean by 2 units. This resulted in a probability of graduate status of .03. This is lower than what we get when we use the mean values. These results show that the variables that are statistically significant really impact the probability of graduation when the values are changed just slightly. Since the beta coefficient for jailed is so large, it may be that this variable really is contributing most to these probability changes. Thus, we computed one more probability using the mean number of times jailed but keeping the rest of the scenario 2 the same. We discovered this did indeed impact the probability: the probability of graduating decreased to .34. However, this is still much greater than the probability using the average of all the variables.

Table 3.9 Probability of Graduation Under Three Scenarios.

	Probability of graduation
Scenario 1 (means)	.06
Scenario 2 (increase positive variables; decrease negative variables)	.86
Scenario 3 (decrease positive variables, increase negative variables)	.004
Scenario 2 adjusted (Scenario 2 but mean number of times jailed)	.34

We conducted further analyses to determine why the conflicting results regarding acupuncture were found. As presented above, we discovered that as acupuncture increases, the proportion of positive UAs decreases. However, when we examined termination status, the opposite results were found: as acupuncture increases, the likelihood of graduation decreases. As discussed previously, it is possible that these results were found because acupuncture is used as a way to help clients who are not doing as well in the program. These seemingly conflicting results suggest that acupuncture may help clients to stay clean, but that this does not determine whether a client graduates. Indeed, we re-analyzed the data but included proportion of positive UAs in the logistic regression that predicted graduation status. The results were virtually identical for all of the original variables. The relationship of proportion of positive UAs and termination status was negative, as would be expected. This indicates that as positive UAs increase, the likelihood of graduation decreases. However, we were surprised to discover that proportion of positive UAs was not statistically significant ($p>.05$), meaning that the proportion of dirty UAs does not significantly predict termination status. Thus, this suggests the relationship we found between acupuncture and proportion of positive UAs and acupuncture and termination status is reliable. These analyses imply that it is not enough to decrease or stop drug use to graduate from the SJDC, which in turn suggests that we are possibly missing some important variable (or variables) in determining termination status. While we discovered that certain types of treatment and program activities significantly predict termination status, these variables do not perfectly predict graduation. The question to be answered then is what else predicts graduation? It is possible that other variables like community service and employment would be better predictors of graduation than proportion of positive UAs.

How Does the SJDC Impact the Criminal Justice System?

One concern raised in the literature regarding drug courts is that those individuals who are involved in drug court may spend more time in the criminal justice system compared to others who receive probation or incarceration. This section addresses that concern.

We begin by comparing the length of time SJDC participants spend in the program as compared with those from a sample of clients from the New Mexico probation and parole division database who completed (either successfully or not) their probation. There were several criteria that were used to match clients based on the criteria set up for SJDC clients.

First, those on probation, not parole, were selected since one of the criteria in the Draft Program Model is that the SJDC client should be eligible for probation. Second, probationers who

completed their probation between 1995 and 1997 were selected. These dates were chosen because the SJDC was not implemented until 1995. Third, only those probationers whose case included a drug offense were included. Although the SJDC criteria specifies that individuals who commit a felony in which drug use is a substantial component are allowed into drug court, it is impossible to assess whether those on probation have drug use as a substantial component in their non-drug offense case. Fourth, drug court clients are supposed to include first time felony drug offenders. Thus, probationers who did not have prior felony drug offenses were included. Fifth, only those who do not pose a serious threat to the community are supposed to be admitted into SJDC. One way to measure that is whether the probationer's current case involved a violent offense and whether the probationer has a history of violent offenses. Those clients who were convicted currently or previously for a violent felony offense were excluded. Finally, the SJDC criteria state that the potential client must have no more than one prior felony. Therefore, probationers with less than two felony convictions were included. This resulted in a sample of 93 probationers.

Only those Drug court clients whose referring offense involved drugs, that is, trafficking or possession, were included. This was done in order to have a more accurate match between those in Drug Court and those on probation. Also, only those who were no longer in the program were included. This left 160 clients for comparison.

The limitation of this comparison is that we cannot determine the degree of the offense. Thus, it is possible that those individuals who are on probation have been convicted of second degree felonies while the cases involving Drug Court clients may involve fourth degree felonies.

Tables 3.10 and 3.11 show the length of time in months that SJDC clients and probationers spent in their respective programs. The shaded column in each table indicates the average amount of time for the total in each sample. It is reasonable to assume that the length of time that a person spends in their program depends on whether they complete it. Thus, the subsequent columns in each table indicate the amount of time spent in each of the programs based on the individual's termination status.

The average amount of time that Drug Court clients spend in the program (a mean of approximately 5 months; median of 4) is less than the amount of time that probationers spend on probation (mean of 24 months; median of 18). Both the mean and median amount of time are reported since there is such a large standard deviation associated with the mean (indicating a lot of variation in amount of time in the programs). One possible explanation for this difference could be termination status. Indeed, when one examines the amount of time that those who graduated from the SJDC remained in the program, it is greater than the amount the program among those who did not graduate. The mean amount of time spent in Drug Court is less among those who graduated from Drug Court as compared to those who completed probation. Another interesting observation is that those who do not complete Drug Court tend to stay in the program for a much shorter period of time compared to both those who graduate from the program and to probationers who do not complete their probation.

Table 3.10 Length of Time by Termination Status and by Type of Drug Offense.

	TOTAL	Graduated	Terminated	Rejected later
Trafficking				
Mean (sd)	5.27 (4.89)	10.25 (3.97)	3.43 (3.77)	1.73 (1.02)
Median	3.77	10.26	2.58	1.45
N	93	28	53	12
Possession				
Mean (sd)	5.02 (3.91)	8.87 (2.97)	3.19 (2.82)	2.36 (1.74)
Median	3.47	7.93	2.71	1.74
N	67	23	34	10
Total				
Mean	5.16 (4.49)	9.63 (3.59)	3.34 (3.41)	2.02 (1.39)
Median	3.65	8.72	2.68	1.93
N	160	51	87	22

Table 3.11 Length of Time on Probation by Termination Status and by Type of Drug Offense.

	TOTAL	Discharged	Revoked
Trafficking			
Mean (sd)	26.41 (19.30)	27.21 (20.63)	23.05 (12.62)
Median	18.15	18.14	27.50
N	47	38	9
Possession			
Mean (sd)	21.79 (13.98)	22.32 (14.45)	16.59 (7.15)
Median	18.08	18.08	14.10
N	43	39	4
Total			
Mean (sd)	24.16 (16.95)	24.65 (17.69)	21.06 (11.34)
Median	18.08	17.69	18.51
N	90	77	13

* There were three probationers for which the type of drug offense was not clear, thus they are not included in this analysis.
*"Discharged" includes satisfactory (n=42), unsatisfactory (n=27) and early (n=11) discharge.

The previous comparison indicates that SJDC clients do not stay in the program longer than probationers stay on probation; indeed, it indicates that SJDC clients tend to stay in the program for *less time* than probationers remain on probation. One possible explanation for this difference, termination status, was examined to determine whether this was a possible cause for the disparity. It was found that the overall mean length of time in the program for the all the SJDC clients is low due to those who terminate and those who are later rejected. However, those who complete the program still tend to spend less time in SJDC than probationers spend on probation. Another possibility is that those who are on probation/parole may be charged with more serious drug offenses: trafficking rather than possession. Thus, a second look at Tables 3.10 and 3.11 illustrate that when comparing the length of time clients spend in the program based on their offense, we

find the same pattern- clients in SJDC spend a shorter amount of time in the program relative to probationers.

We then examined the proportion of positive UAs between the two groups. Table 3.12 contains the results. Those clients who successfully completed the SJDC program had a much lower proportion of positive UAs compared to those who were discharged from Probation. Likewise, those who terminated from SJDC had a lower proportion of positive UAs relative to those whose probation was revoked. Although clients were in the SJDC program for a substantially shorter period of time, they had a great number more UAs taken.

Table 3.12 Proportion of positive UAs: SJDC versus Probation clients.

	Proportion positive UAs to all UAs taken	Total number of UAs taken
SJDC	.21	5576
Graduated	.03	3499
Terminated	.32	1711
Rejected later	.17	366
Probation	.38	274
Discharged	.33	217
Revoked	.64	42

Chapter Four - Summary, Recommendations and Future Analyses

Summary

We set out in this report to cover eight main questions related to both process and intermediate outcomes. We discovered that clients tend to be male, the average age is 30, Hispanic or White, and have at least an eighth grade education- more than half have at least a high school diploma. Many of the total number of clients who have been accepted into the program since its inception are still active. This is not because they are taking a long time to complete the program. Rather it is because there has been an increase in the enrollment in the SJDC program over the last year or so. Almost half of the clients have a primary substance problem of cocaine.

We discovered that the average amount of time clients remain in the program is about five months; this varies by their status in the program. Those who successfully complete the program have a greater mean average than those who terminate the program prior to completion either because they were later found unsuitable for the program, for non-compliance or for other reasons. We found that over half of the clients receive at least one of each of the treatment services and program activities offered with the exception of intensive out patient and other treatments. The average number of services and activities received varied according to the type of service or activity. The largest number of services received per person was for UAs taken, followed by group therapy and twelve-step meetings. Very few clients received more than one "other" type of treatment. Clients tended to fail to appear for their treatment session more often than for their meetings with the probation officer or hearing with the judge. Very few clients were re-arrested for a subsequent offense while in the SJDC program.

While about 72% of clients had at least one positive UA documented, the vast majority of all UAs taken were negative. We discovered that there appeared to be some relationship between the results of UAs and the clients primary substance abuse problem. Specifically, there appeared to be some connection between positive UAs and cannabis, opiates, and cocaine. However, due to a substantial proportion of missing data, these observations are preliminary and may not indicate a true association.

We examined the average number of program activities and treatment services that are required by the number of months into the program to get an idea of whether the requirements for each phase was being met. We discovered that clients were receiving both more UAs and attending more twelve-step meetings than might be expected. Initially, there were fewer meetings with the probation officer and hearings with the judge than would be expected. We also found that there were fewer drug court fees paid than there ought to be. There were quite a few acupuncture therapy sessions attended during the first month, with a decline after that.

We also compared the demographics of the SJDC clients to those drug court clients nationally. We found little difference between the two groups on most items. We determined that most clients are post-indictment cases, as one might expect. There did not appear to be a great discrepancy between the type of client that is supposed to be accepted into the SJDC and those that were

accepted.

When we examined intermediate outcome information, we found that while more clients terminate unsuccessfully than complete successfully, there are a growing number of clients who are graduating over time.

There were some demographic differences between those clients who graduate and those who terminated. Specifically, those who graduate tend to be older, have more education, be married, and were employed at intake. There were no significant differences found in the type of substance that was their primary problem.

Not surprisingly, the proportion of positive UAs was highest among those who terminated the program as compared to those who graduated. We computed a multivariate model to predict the proportion of positive UAs. We included some of the treatment services and program activities as well as exit status and length of time in the program. Only acupuncture was significantly related to the proportion of positive UAs. However, the model did not have strong predictive efficacy, which indicates other variables would predict this intermediate outcome better.

We then computed a multivariate model to explore which variables might be associated with exit status. We discovered that several variables were statistically significant: group therapy, acupuncture, intensive out patient therapy, number of times the client was jailed and months in SJDC. We were surprised to discover that acupuncture had an inverse relationship with exit status indicating that the greater the number of acupuncture treatments, the more likely it is that the client will terminate unsuccessfully. However, the remaining relationships were as would be expected, or at least were unambiguous. When we computed the probability of graduate status using different criteria, we discovered that slight increases in the number of group sessions, IOP sessions, and months in SJDC with a corresponding decrease in acupuncture sessions and number of times jailed made a tremendous impact on the probability of graduation.

Finally, we examined how the SJDC program impacts the criminal justice system. We discovered that clients in SJDC spent less time in the program than clients who were on regular probation, regardless of their exit status and their charges. Further, we found that SJDC clients had more UAs taken and were less likely to test positive than their probation counterparts.

Recommendations

There were some limitations to this analysis. One of which was related to a lack of documentation. There has been more documentation related to specific variables in the last two years with the implementation of the assessment and intake forms. However, there are still issues that need to be addressed. The assessment form does not collect all of the stated eligibility criteria for SJDC clients. Therefore, we had to assume some eligibility criteria was met prior to assessment being completed. This is a reasonable assumption given that SJDC staff would not even assess individuals unless they were fairly certain they met minimum requirements. However, it is impossible to determine precisely why certain individuals were not accepted into the drug court

program and why others were accepted. That is, we cannot fully determine whether the stated criteria are being followed. Thus, the first recommendation is to revise the assessment instrument so that it more completely reflects the criteria. This could be quite simple. For example, a yes/no question regarding whether a person has a minimal substance abuse history could be asked followed by a blank line allowing for explanation. This would not greatly increase paperwork and would not increase the time it would take to assess an individual. It would improve precision regarding why an individual is accepted or not into the program. It may also allow SJDC staff to pinpoint criteria that should be altered to reflect the changes in clients as well as program operation over time. Additionally, it would be beneficial to collect demographic and substance abuse information on everyone who is referred to the program. This would help to determine if there are any problems with intake procedures.

Second, there is not enough information at the time of discharge/termination from the SJDC program to be able to fully assess the impact of the program on participant's lives, at least in the short term. If the ASI or some other instrument that documents multiple aspects of a person's life were administered at discharge/termination, we would be able to more fully determine the impact of the drug court. This information would offer another way to measure intermediate outcomes.

Ultimately, both of these things would be in the best interest of the SJDC program because this would help to indicate where resources should be directed. The point of evaluation is to assess whether a program is operating the way it is supposed to, to ascertain whether the goals that are set are met, and to indicate what can be done to reach those goals in a more effective and efficient manner. To that end, documentation is essential. Without complete and accurate documentation, the evaluation is at best incomplete and at worst, useless. The implications for the SJDC program are that one can never be certain that the program is operating the way it is supposed to operate, one can never be sure that the program helps to limit recidivism, one can never be sure that the program has impacted the lives of those clients who have been involved with it, both in the short term and long term. While those issues can be addressed anecdotally, there is no complete, objective proof that this has or has not occurred. It is in the best interest of the program to take the steps to enhance documentation, which can be done with a minimal amount of effort.

Third, during the last two years of program operation, there has been the inclusion of clients who are later rejected from the program. These clients make up a small proportion of clients overall, but the inclusion of these clients suggests at least two things. First, clients are being accepted too early. That is, they are being accepted into the program before the prosecutor has decided to prosecute. While early acceptance can be beneficial for the client with respect to rehabilitation, there are some trade-offs specifically for clients who are later rejected from the program. It also raises the concern of net-widening. Second, this inclusion of clients implies that the program has space for more clients. One national trend is to include clients who have long-term substance abuse problems in addition to those who have a minimal substance abuse history. In addition, clients who are not first-time offenders are being included nationally as well. Potentially, the SJDC could include similar clients. This needs to be examined further.

It may also be of interest to the SJDC staff to know whether the clients that are in SJDC represent the drug offending population at large. For example, the ISR conducted an evaluation of Target Cities (see Evaluation of the Albuquerque Target Cities Project: Final Report, April 1997) and found a much larger percentage of clients who presented with a primary problem of opiates as compared to those in the SJDC program. It is possible that clients who present for treatment and those who present at a criminal justice agency are quite difference. However, it is also possible that for whatever reason, certain clients are not being referred to or accepted into the SJDC program who may otherwise be eligible. Thus, substance abuse problem may be one reason a client does not get into the program, even though this is not a formal criteria. Perhaps clients with a primary problem of heroin also have more extensive substance abuse histories that would then make them ineligible for the program. Therefore, collecting baseline information on all clients who have been referred to the program would indicate whether this is occurring at the point of intake. However, one would also want to examine which clients are referred and which clients who perhaps could be referred are not referred. It is possible that there are individuals who could benefit from the program who are not being accepted. Additionally, this could increase the number of clients in the program.

Finally, while intermediate outcomes are important, it is also necessary to assess the long term outcomes. One way to examine long term outcomes is to compare SJDC clients with a group of matched offenders who do not become program clients. These two groups could then be compared to measure any differences found in the progress of the two groups. For example, one potentially could determine if drug use has decreased. One certainly could examine re-offending patterns. That is, what are recidivism rates for SJDC clients and those who are not SJDC clients? It would also be important to find out whether long-term recidivism differs between clients who complete the program and those who terminate without completing. We would expect that recidivism would be lowest among those who graduate from the program. Additionally, it is possible that those who receive some services from the SJDC program, even if they do not complete the program, have a lower recidivism rate than those who never enter SJDC. This information could greatly impact the program and its operation.

Future analyses

Throughout this report we point out that the initial results need to be examined in more depth. For example, we discovered that there was an increase in termination at one month, three months, and five months into the program. It is possible that there are variables related to dropping out at these specific time points. This needs to be determined in the future. However, in order to do so, we need enough cases to allow for a complete multivariate analysis which would included all the independent variables that the literature indicates is important as well as those that appear substantively important.

In our opinion, it would be very beneficial to the SJDC program to redo some of the analyses that have been presented in this report once the cohort of clients that are currently receiving services leave the program. There are several reasons for this. First, the clients who are currently receiving services make up a substantial proportion of all clients who have received services in the program

since its inception. Prior to implementing changes in the operation of the SJDC program based on the results found here, it would be prudent to explore whether these results extend to this cohort. If they do, then the SJDC staff may consider altering the program somewhat. For example, the staff may consider increasing the number of group sessions and limiting the number of individual sessions. Of course, these decisions would have to be made in conjunction with the treatment providers. A second reason for analyzing current clients is that there has been an increase in documentation over time. Thus, it is possible that one could include more potentially relevant variables, like substance abuse history and criminal history, to determine those impacts on intermediate outcomes. Third, the program is relatively new, and the intermediate outcomes focus on those clients who have left the program. Certainly, the program has evolved somewhat since its inception, thus it is possible that there have been changes in program operation that alter which variables predict intermediate outcomes. The purpose of any future analysis would be to assist in making decisions regarding what should be changed to improve the program.

There are other comparisons that can be made between probationers and SJDC clients. If the subsequent arrests of SJDC and probationers is provided, we could compare the recidivism rates between the two groups. Additionally, since most clients on probation tend to be supervised less closely than clients in SJDC, we could compare termination status results and UA results between SJDC clients and probation clients who are assigned to maximum supervision to test whether the results change. We currently possess information on probationers that could be used to complete the comparison of probationers assigned to maximum supervision and SJDC clients. We expect to obtain recidivism rates on the probationers in the future.

Finally, a cost-savings analysis could be completed. Belenko (1998) reports that the cost-savings analysis conducted by drug courts nationally has varied from simplistic to very sophisticated. The details of the analysis would have to be determined in the future.

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Comparison Group
Eligibility Criteria Form

In order for the individual to be eligible, all items must be checked.

Date_____

Individual has no prior violent felony convictions. _____

Referring offense is not a first degree felony. _____

Individual currently has a substance abuse problem. _____

Individual has no prior convictions for a sex crime. _____

Individual is not currently receiving or has not received psychological or mental health treatment that might effect their participation in the program. _____

Individual is not currently receiving or has not received medical treatment that might effect their participation in the program. _____

Individual is not currently on parole. _____

The individual agrees to participate in a comparison group evaluation. _____

Individual agrees to let us have access to their treatment file. _____

Is the individual accepted into the comparison group? Yes_____No_____

The individual has completed a locator form. _____

The individual has signed a consent form. _____

What is the participant's name?_____

(please print)