HISTORICAL ANALYSIS OF STATEWIDE JUVENILE DIVERSION PROGRAM DATA: FY 2006-07 THROUGH FY 2008-09

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For further information, please contact:
Jean Denious, Ph.D.
303-839-9422, Ext. 121
jdenious@omni.org

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Introduction

OMNI Institute was contracted by the Colorado Division of Criminal Justice (DCJ) to conduct a historical analysis of data collected by state-funded juvenile diversion programs over a three-year time period. This report details the findings of these analyses including information on the characteristics of juveniles in the funded programs, and factors associated with successful program completion and recidivism.

Background on the Juvenile Diversion Grant Program

As part of the Adult and Juvenile Justice Assistance programs, DCJ funds the Juvenile Diversion grant program. Created by Colorado state statute, the grant program is intended to prevent and reduce youth contact with the juvenile justice system. By keeping youth at home or in their communities, these programs allow youth to avoid incarceration and exposure to offenders with more serious delinquent behavior. Additionally, the programs are intended to reduce risk factors and increase protective factors among youth served.

Diversion programs are funded by DCJ at the judicial district level, with District Attorneys' offices and District Courts (and Denver's Juvenile Court) overseeing the diversion of juveniles which can, depending on the structure of the program, occur before adjudication, in addition to probation, or as part of sentencing. In FY02-03, funds for Diversion were vetoed from the state appropriations bill. For the next several years, provisional support for the program was acquired through alternative means including local funds, the Juvenile Accountability Incentive Block Grant (JAIBG), and a one-time disbursement from Tobacco Settlement Funds.

In 2006, the Colorado state legislature re-appropriated approximately 1.2 million in funding to the Juvenile Diversion program. Since then, 22 programs in 18 judicial districts across Colorado have been funded each year on a three-year cycle, with a requirement that programs meet performance criteria to remain eligible for funding in the second and third years. Annual funding has been split among programs directed by District Attorneys' offices, other government agencies (such as police departments and county governments), and community-based non-profit organizations.

Background to the Historical Analysis

State-funded diversion programs are required to collect data from youth when they enter and leave the program, using an intake/exit form created by DCJ. The intake/exit form includes information on participants' demographic information, referrals, history of involvement with the juvenile justice system, the type of diversion program referred to, school status, services provided, and exit status. Historically, these data have not been analyzed extensively. They can, however, be used to understand program services and outcomes, the characteristics of youth served by diversion programs, and relationships among those elements. Further, even though all diversion programs have as their ultimate goal to reduce recidivism, there has not previously been opportunity to conduct a systematic examination of statewide re-offense rates of youth who have completed diversion programs.

The research questions addressed by this project included:

- What are the demographic characteristics, school statuses, and juvenile justice histories of those being served by diversion grantees?
- What services do youth receive across diversion programs?
- How many youth are served by state-funded diversion programs across Colorado, and how do these programs differ in the services they offer?
- Are there any differences in juvenile justice history, school status, or demographic characteristics between those who successfully complete diversion programs and those who do not?
- Are there any differences in program services received between those who successfully complete diversion programs and those who do not?
- How do youth who recidivate differ in terms of juvenile justice history, school status, or demographic characteristics from those who do not recidivate?
- How do youth who recidivate differ in terms of program services received from those who do not recidivate?

In addition to describing and documenting key historical elements and outcomes of the state funded Juvenile Diversion program, it is intended that results of this analysis be used to inform the design of a more comprehensive, statewide evaluation of diversion grantees.

Methods

Data Sources

Intake/Exit Form

The primary data for this report comes from the diversion intake and exit form which the Colorado Division of Criminal Justice (DCJ) requires grant-funded diversion programs to complete for each juvenile that receives State-funded services.

The intake and exit form (see Appendix One) is completed by diversion staff at two times: during the intake interview with the youth (and family); and at discharge, when the juvenile exits from the diversion program. The information gathered on the form falls into three broad areas: youth background information, program information (e.g., type of program and length of time enrolled), and the services referred/provided for the youth.

Background information, most of which is collected at intake, includes demographics, school status, and criminal history. These variables are detailed below:

- Demographics
  - Name (not used in this analysis)
  - Date of birth/Age at intake
  - Gender
  - Race/Ethnicity
- School status
  - School status at intake
  - School status at exit

- Criminal history
    - Juvenile justice status at referral
    - Type of most serious charge at referral
    - Level of most serious charge/offense
    - Number of additional felonies at arrest
    - Number of additional misdemeanors at arrest
    - Number of prior felonies
    - Number of prior misdemeanors
    - Age at first police contact

Program characteristics documented for each youth include information about the agency providing the program, as well as specific program decisions made for the youth, and the time frame in which these decisions were made. The specific variables are detailed below:

- Process information
    - Referral agency/source
- Program characteristics
    - Local agency name
    - Local agency geography (Urban vs. Rural)
    - Local agency organization type (Community-based organization vs. Government-based organization)
- Program decisions
    - Whether a diversion behavioral contract was developed
    - Intake decision
    - Date the case was referred to program
    - Date of the intake meeting
    - Date of program exit
    - Year entered the diversion program (calculated from intake date)
    - Length of time in the diversion program (calculated from intake and exit dates)
    - Program status at exit (i.e., successful or unsuccessful)

Service information includes the different services programs provided and juveniles received while in the diversion program. Service types fall into four categories, which are further detailed below:

- Supervision services
    - Case management
    - Electronic monitoring
    - Tracking/Mentoring
    - Drug/Alcohol testing
- Treatment services
    - Diagnostic screening/Assessment
    - Mental health counseling/Treatment
    - Drug/Alcohol counseling/Treatment
    - Offense-specific treatment
- Accountability services
    - Victim/Offender
    - Community service

    - Restitution
    - Victim empathy
    - Other restorative services
- Competency services education/Tutoring/GED
    - Cognitive/Behavioral
    - Life skills
    - Employment/Vocational
    - Other services

The data from the intake and exit forms were entered by DCJ grantees into the Colorado KIT (COKIT) system as each juvenile entered and exited the juvenile diversion program. Data were downloaded from COKIT, and only those individuals who had a program intake in fiscal years 2006-2007, 2007-2008, or 2008-2009 were included in the data set. Juveniles were excluded from the data set when their intake date was outside the study's time range or when there was a data entry error with the intake or exit date. The data set included 7,564 juveniles with valid intake and exit data that fell in the correct fiscal year range. A more complete discussion of the data cleaning process along with a discussion of common issues with the data can be found in Appendix Two.

Recidivism Data

The data used to obtain information on the recidivism rate for diversion programming were extracted from the ICON/Eclipse database by DCJ Research staff. ICON/Eclipse is the current case management system for trial courts in Colorado, and includes offense-related information (including type and number of offense(s) and filing date(s), the variables critical for this analysis) for all district and county-level courts in the state of Colorado (with the exception of the Denver County Court).

To match individuals to the ICON data, OMNI provided DCJ with a data set including juveniles' first and last name, date of birth, race/ethnicity, and the grant-funded organization that provided services to the juvenile. DCJ research staff then matched the diversion data with ICON data to provide information on whether individuals met Colorado's standard criteria for recidivism: a filing or filings for a new offense (criminal, misdemeanor, or juvenile delinquency) either while the juvenile was in the program or up to one year after they exited the program. This new recidivism data set (consisting of data from 5,968 diversion participants [78.9% of the valid sample]) was provided to OMNI and merged with the intake/exit form data set to allow for analyses of factors associated with recidivism.

Analyses

Three main types of analyses were completed to understand the background, program, and service variables associated with program completion and recidivism rates: descriptive analyses, association analyses, and inferential statistics.

Descriptive analyses allow for a picture or *description* of juveniles served by diversion grantees. In most cases, the descriptive analyses consist of percentage breakdowns for each demographic, program, or service variable examined (e.g., % of male versus female participants; % of youth receiving community service, etc.). For some variables (such as age) where percentage breakdowns are not

meaningful or practical, means and standard deviations are instead provided. Complete results of the descriptive analyses can be found in Appendix Three.

Next, the relationships between each variable to program success and recidivism were examined with *chi-square and correlation analyses*. These analyses are inferential statistical techniques that allow for examination of two variables at a time, such as whether a given demographic, program, or service characteristic is associated with successful program completion (e.g., the percentage of male versus female youth who successfully complete the program; the correlation of age with rate of successful program completion).

Chi-square analyses are used with categorical variables (such as gender, level of offense, or whether a juvenile had to complete community service hours), while correlations are used with continuous variables (such as age, or number of community service hours assigned). Full chi-square and correlation analyses can be found in Appendix Four. For the sake of brevity, only those variables that showed a relationship with program success or recidivism are discussed in the body of the report.

Finally, logistic *regression* analyses were conducted to examine the simultaneous effects of multiple variables (i.e., demographic, program, and service characteristics) on program success and recidivism. Many times, several variables are related to a single outcome of interest (i.e., the dependent variable) and it can be important to 'tease apart' these relationships in order to better understand why a given pattern exists. A regression analysis allows one to control for multiple relationships and see what the relationship of a given variable is to the dependent variable, after taking into account the influence or relationship of other key variables. Key findings are discussed in the results, and full regression analyses can be found in Appendix Five.

Results

Descriptive Analyses

Descriptive analyses allow for examination of one variable or dimension at a time. Key indicators are discussed below, with the full set of descriptive analyses provided in Appendix Three.

Demographics

The diversion programs accepted a total of 7,564 juveniles between the fiscal years of 2006-2007 and 2008-2009. Roughly equal numbers of juveniles were accepted into diversion programs each year.

Table 1: Distribution of Diversion Intakes across Fiscal Years

		% of Intakes into Programs
Funding Year	FY 06-07	35.7%
	FY 07-08	33.3%
	FY 08-09	31.0%

Males outnumbered females in diversion intakes by just over 2 to 1. In addition, Caucasians were the majority of diversion participants with just under 60 percent of all intakes. Hispanics/Latinos comprised over a quarter of diversion intakes while African Americans comprised just over 3 percent of intakes. American Indians and Asian/Pacific Islanders together only comprised about 2 percent of all intakes, and the remaining 6 percent of the sample identified as other races and ethnicities (including multi-racial individuals).

Table 2: Distribution of Diversion Intakes across Genders

		% of Intakes into Programs
Gender	Male	68.2%
	Female	31.8%

Table 3: Distribution of Diversion Intakes across Racial & Ethnic Categories

		% of Intakes into Programs
Race or Ethnicity	White, non-Hispanic	59.9%
	Black	3.1%
	Hispanic / Latino	28.5%
	American Indian	1.2%
	Asian / Pacific Islander	0.8%
	Other	6.5%

Program Characteristics

In addition to demographic characteristics, program characteristics were collected, including type of organization. Just under half of all juveniles were served by community-based non-profit organizations, and just over 50 percent were served by District Attorneys' offices. A small number went through police or county diversion programs.

Table 4: Distribution of Diversion Intakes across Organization Types

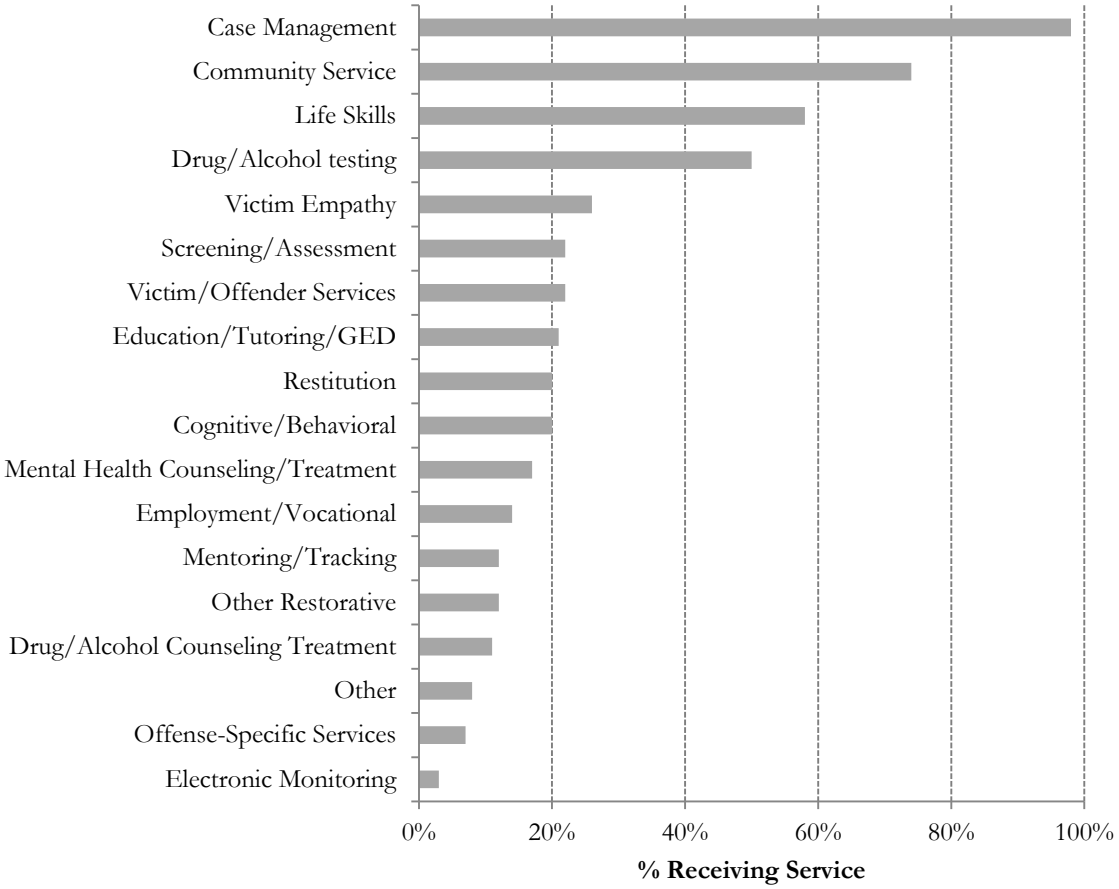
		% of Intakes into Programs
Organization Type	Community-based Non-profit	45.8%
	District Attorney's Office	51.0%

	Police Department	2.8%
	County Agency	0.4%

Services Provided

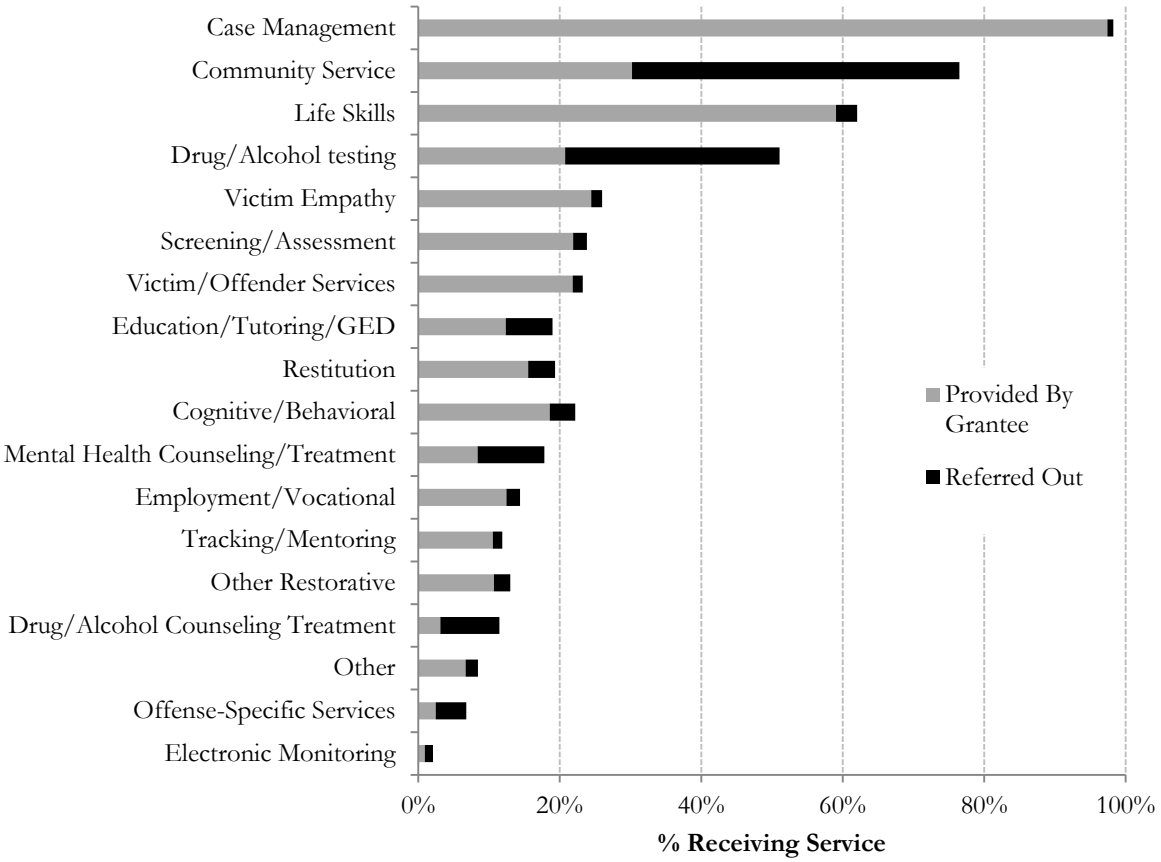
The services provided to each juvenile were also examined. There were 18 services (including a broad category of "other" services) that juveniles could receive. Four services were received by at least half of all juveniles: case management (98 percent), community service (74 percent), life skills (58 percent), and drug/alcohol testing (50 percent). Of the remaining services, most were received by only about a fifth of all juveniles.

Figure 1: Percentage of Juveniles Receiving Each Type of Service, FY2006-2007 to FY2008-2009



Whether services were provided by the grantee or referred out was also examined. With a few major exceptions, grantees provided the vast majority of services to juveniles. Two of the more popular services were actually exceptions. More than half of the juveniles who received community service or drug/alcohol testing were referred out for these services. Among the less utilized services, nearly half of all juveniles receiving mental health counseling and treatment were referred out as was the case for those receiving drug and alcohol counseling and treatment services.

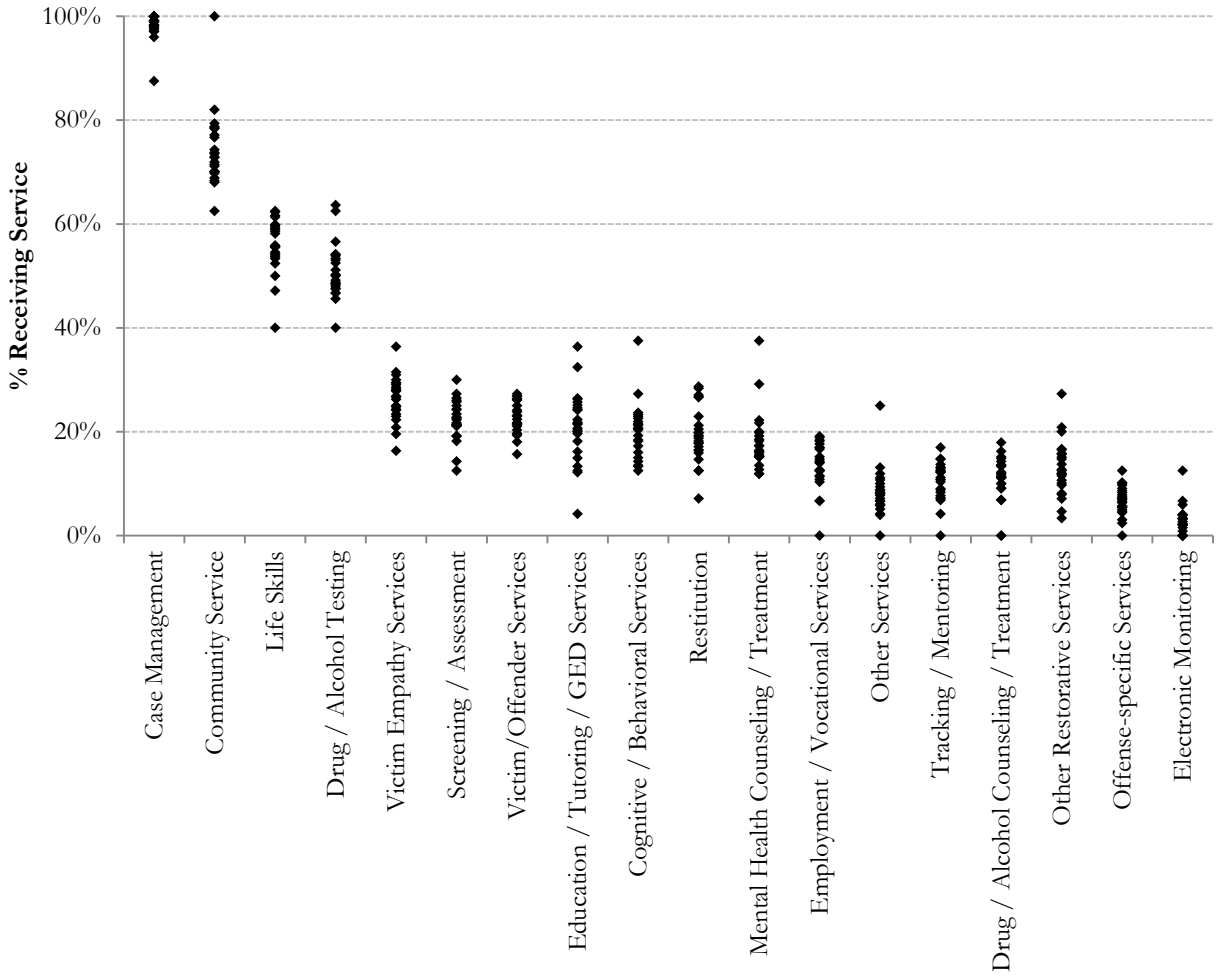
Figure 2: Percentage of Juveniles Receiving Each Type of Service, FY2006-2007 to FY2008-2009, by Source of Service



As seen in the previous two charts, most services were not received by a large majority of juveniles. The fact that so many of the service categories were received by relatively so few juveniles indicates that most diversion programs are offering a similar set of core services with additional services tailored to specific juvenile needs.

The chart below examines the variability in service provision. For most services all of the grantees are clustered close together, indicating that similar proportions of participants receive the service across all of the grantees. For example, the percentage of participants that receive victim/offender services clusters tightly around 20 percent. There are very few grantees that offer victim offender services to a lower percentage of their participants, and very few grantees that offer that service to significantly more than 20 percent of their participants. For a few services (such as community service, education/training/GED services, cognitive/behavioral services, and mental health counseling/treatment) there are one or two grantees who (when compared to the other grantees) offer that service to a much higher proportion of their participants. Therefore, with few exceptions, most grantees are clustered together in what percentage of juveniles are provided each service. This indicates that relatively similar services are being provided to juveniles across all of the grantees.

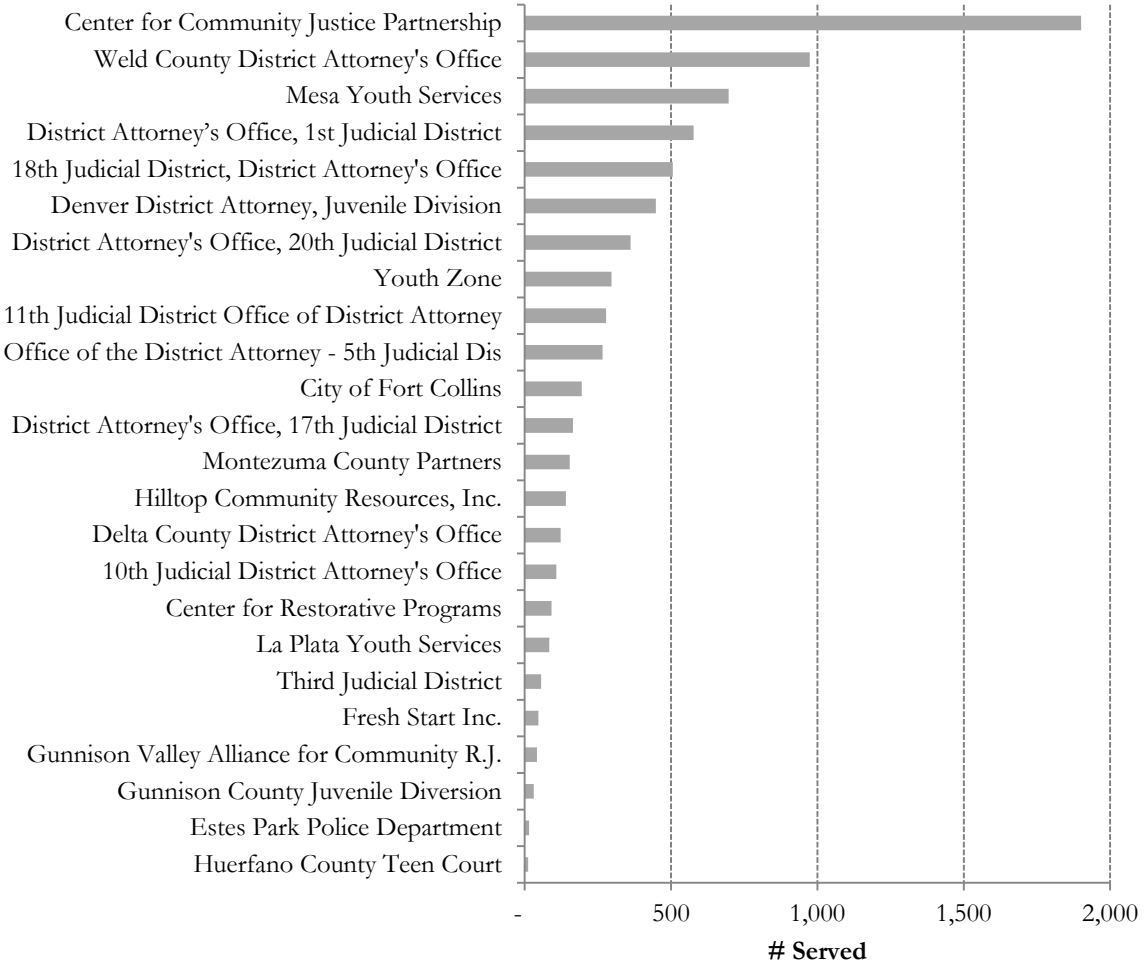
Figure 3: Grantee Variability in Service Provision, FY2006-2007 to FY2008-2009



It is also important to examine how grantees differed in terms of the number of juveniles served across the three-year research window. If some programs serve much larger number of juveniles than others, statewide analyses will be more largely influenced by those programs.

One agency in particular served far more juveniles than any of the other grantees. Their profile of services indicates that a majority of their juveniles received case management (98 percent), community service (73 percent), and life skills (59 percent), and a considerable number received drug/alcohol testing (49 percent). Because of the large number of juveniles served by this agency, analyses were conducted both with and without them in the sample. It is important to include everyone in the sample to understand the state-level picture of all *juveniles* served by the state program, but conducting the analyses excluding the single agency providing a large portion of the data is important for ensuring a balanced picture of the *programs* in the statewide system.

Figure 4: Number of Juveniles Served by Each Grantee, FY2006-2007 to FY2008-2009



Relative Rate Indices and Disproportionate Minority Representation in Diversion

Relative rate indices (RRIs) were also calculated for the diversion population. RRIs are a way to examine disproportionate minority contact with the justice system at different decision points. To understand minority representation in diversion, the number of diversion intakes for a racial or ethnic category divided by the number of arrests for that category is first examined. The closer that

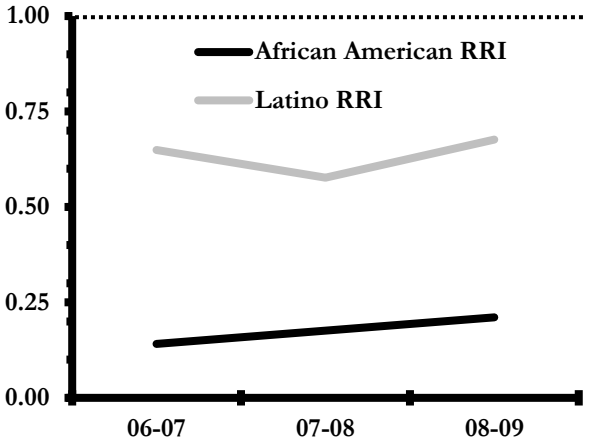
number is to 1, the greater the proportion of individuals arrested in that racial/ethnic category who are entering diversion. These rates are then compared (hence, the "relative" portion of the RRI) by dividing the minority group's rate by that of the majority group (in Colorado's case, Caucasians). The closer the RRI is to 1, the more equal the rate at which the minority group is entering diversion compared to white/Caucasian youth. An RRI that exceeds 1 indicates the minority group is entering diversion (controlling for arrest numbers) at a higher rate than white youth. An RRI that is less than 1 illustrates that the minority group is entering diversion at a lower rate than white youth (controlling for number of arrests).

It is important to note that the RRIs are a descriptive measure and do not indicate *why* there may be different rates of contact with the justice system. It should also be noted that, to the extent that diversion is a desirable outcome and serves as a means to reduce justice system contact, concerns regarding disproportionate minority contact for diversion would arise from RRIs of less than 1.

RRIs were calculated for African Americans and Hispanics/Latinos for 2006-2007, 2007-2008, and 2008-2009 data for each of the diversion grant-funded Judicial Districts. The complete set of RRIs is presented in Appendix Eight; the statewide RRIs are discussed here. In the context of this study, the statewide RRI is constructed only from data from those Judicial Districts that have DCJ-funded diversion programs. The number of diversion intakes for each judicial district was compiled from the cleaned grantee data entered into COKIT and used for the other analyses reported here. Arrest numbers were compiled from Colorado's National Incident Based Reporting System (NIBRS) data used by DCJ to create the RRIs submitted to the federal government.

Overall, RRIs were less than 1 for both Hispanics/Latinos and African Americans. Across the three years, Hispanics/Latinos had RRIs between .58 and .68, indicating that Caucasians were 1.5 to 1.7 times more likely to be placed into diversion (controlling for number of arrests). For African Americans, the RRIs were between 0.14 and 0.21, indicating that Caucasians were 4.7 to 7.1 times more likely to enter diversion during the study period.

Figure 5: Statewide Relative Rate Indices for Juvenile Diversion Intakes



What are the Factors that are Associated with the Successful Completion of a Juvenile Diversion Program?

Overall, of the 5,051 individuals with program completion information that entered juvenile diversion programs in the study years, only 841 did not successfully complete the program. This success rate of 83% indicates that grant-funded juvenile diversion programs were highly successful in helping their participants complete the program. To better understand what factors or variables were associated with successful versus unsuccessful completion, sets of analyses were conducted to examine the relationship of youth background, and program and service characteristics to program outcomes.

Chi-square and Correlation Analyses

There were several factors that were associated with successful program completion, as described below. The tables displaying the complete results of all chi-square and correlation analyses conducted can be found in Appendix Four.

There was only one demographic or program variable that was related to successfully completing a program: education status at exit. Those juveniles who were not in school (and had not already graduated) were less likely to successfully complete the program than those who were in school, were pursuing their GED, or had already graduated (See Figure 6 below). School status at exit is likely associated with success because school attendance is a requirement for several diversion programs and not attending school is a risk factor associated with other negative outcomes.

Most of the factors that related to successfully completing a program regarded services received. Services related to higher rates of program success (i.e., those who received the services were more likely to also successfully complete the program, all ps<.05) included:

- Community service
- Victim/offender services
- Victim empathy services
- Other restorative services

There were also many service variables where those who received the services showed a significantly lower rate of successful completion (all ps<.05), however these services are more likely to be provided to higher-risk youth who are also presumed to have increased likelihood of program failure. That is, the statistical association likely reflects the fact that higher risk youth are more likely to have substance use or mental health treatment needs, and to have engaged in more severe criminal activities, and therefore are more likely to have received services relating to such factors. It should also be noted that in all of these cases, the majority of juveniles who received the services did successfully complete the program. However, the rates were relatively lower compared to those who did not receive the service. Services correlated with relatively lower levels of successful program completion included:

- Screening/assessment
- Electronic monitoring services
- Drug/alcohol testing services
- Drug/alcohol counseling/treatment

- Mental health services
- Offense-specific services
- Restitution
- Tutoring, educational, GED services

Regression Analyses

The next analytic step was to examine variables in conjunction, rather than one at a time, using regression analysis. The regression model was conducted on the 4,022 unique juvenile diversion participants with complete data for each of the variables. Full regression results can be found in Appendix Five. This discussion will focus on those variables that were found to be statistically significant.

Just as with the chi-square and correlation analyses, none of the program characteristic variables and only one of the demographic variables was statistically significant. School status at exit was a predictor of successful program completion ($p<.001$), controlling for the other variables in the model. Individuals who were not in school, not earning their GED, nor graduated at time of program exit were nearly five times less likely to successfully complete the program.

There were several service variables that were associated with program outcomes. Some of these variables were related to a higher chance of successfully completing the program (controlling for the other variables in the model). These included:

- Community service ($p<.01$), such that those who received community service were 1.4 times more likely to successfully complete their program than those who did not receive community service.
- Employment/vocational training ($p<.001$), such that those receiving training were 1.9 times more likely to successfully complete their program.
- Other restorative services ($p<.001$), such that those receiving these services were more than twice as likely to successfully complete their program.

Once the above factors were taken into account, neither victim/empathy services nor victim offender services were related to program success.

Other service variables predicted a lower chance of successful program completion, including:

- Electronic monitoring services ($p<.001$), such that individuals receiving these services were nearly four times less likely to successfully complete their program.
- Drug and/or alcohol testing ($p<.001$), those receiving such services were more than 1.5 times less likely to successfully complete their program.
- Restitution ($p<.001$), such that individuals who were required to pay restitution were 1.7 times less likely to complete their program.

These results indicate that some, but not all, of the provided services were related to whether a juvenile successfully completed his or her program. It is suspected that among youth with need for treatment and specialized services, those receiving such services will show better outcomes than youth with a need for treatment who do not receive such services. Future evaluation efforts will prioritize examining subgroups of youth by these risk factors so that the relationship of service

components to program outcomes can be examined among groups with comparable levels of risk. Overall, the model explained 14 percent of the total variance in program success, which means that 86 percent of the individual differences in program success were not explained by this model. This indicates that although there were several statistically significant predictors of program success, the variables we have access to on the intake and exit forms are far from a complete picture of what predicts success in a diversion program.

Breaking the explained variance down further, the demographic and program variables accounted for 10.4% of the explained variance, despite the fact that the only statistically significant predictor among these variables was school status at exit. This indicates that this variable is a very strong predictor (likely, as discussed above, because school attendance is a requirement for many diversion programs). The service-related variables explained an additional 5.2% of the variance. This is a small proportion, indicating that these were less strong in their explanatory power.

What are the Factors that are Associated with Recidivism During or After a Diversion Program?

Recidivism, or whether an individual has a subsequent offense after their first offense, is a complex variable with numerous potential definitions. For the purposes of this analysis, recidivism is defined using the agreed upon definition among Colorado Justice System entities, which is the occurrence of a new court filing (including new criminal, juvenile delinquency and/or misdemeanor filings) up to one year after the offense.

It should be noted that only a relatively small proportion of the entire sample (36.6%; n=2,773) met all the criteria to be included in recidivism analyses. Specifically, to be included in the analysis, youth had to have valid program discharge data, be at least one-year post-discharge, and have sufficiently detailed and accurate identifying information (e.g., names) to be linked to offense data. Because it is unknown whether these criteria are systematically associated with any other sample characteristics, caution should be used in applying the results to the larger population of youth enrolled in diversion.

Approximately 8.3 percent of diversion participants with accurate data had an offense during their diversion program (8.4% of successful program completers and 8.2% of unsuccessful program completers). For post-discharge recidivism, 16 percent had an offense up to one year after they completed the program (16.3% of successful program completers and 14.9% of unsuccessful program completers). Combined together, the recidivism rate was 21.4 percent, indicating that 78.6% of diversion participants did not have an offense either during or up to one year after completing their diversion program.

As with analyses for successful program completion, a number of demographic, program, and services variables were examined for their association with recidivism.

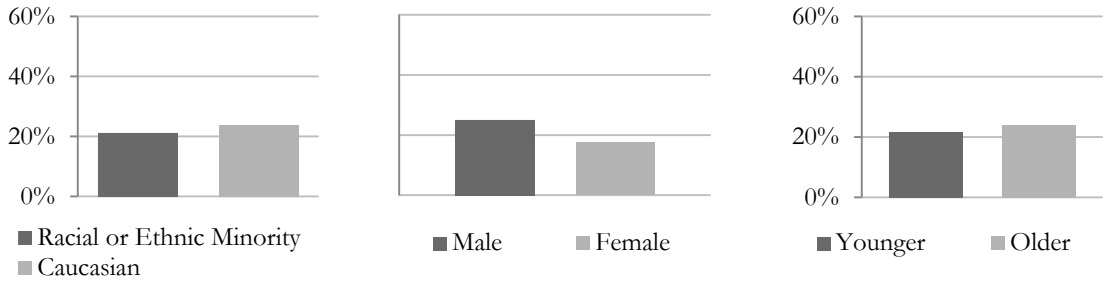
Chi-square and Correlation Analyses

In contrast to findings for correlates of successful program completion, some demographic variables were statistically related to recidivism. These analyses did not control for other factors such as severity of charges. The demographics correlated with success included:

- Gender ($p<.001$)
- Race (white vs. non-white; $p<.05$)

- Age (p<.05)

Figure 7: Variables Related to Recidivism



No service level variables (including whether an individual successfully completed the program) were associated with recidivism.

Regression Analyses

Regression analyses on recidivism were conducted in similar fashion to those conducted for successful program completion. The tested model was identical, with the exception of the switch in dependent variable (i.e., from program completion to recidivism), and the addition of successful program completion as a predictor.

Several demographic variables were associated with recidivism, controlling for the other variables in the model. They included:

- Fiscal year, indicating that there were different rates of recidivism across grant years (p<.001). In fact, youth completing programs in 08-09 were 1.3 times more likely (on average) to recidivate than youth completing programs in 07-08 who in turn were 1.3 times more likely to recidivate than youth entering programs in 06-07.
- Gender, such that males were more than 1.5 times more likely to recidivate than females (p<.001).
- Age (p<.005), such that older youth were more likely to recidivate.

The variance in recidivism explained by the overall regression model was 3.2 percent. This indicates that the variables available on the intake and exit sheet are not excellent predictors of recidivism. The demographic and program variables accounted for 2.7 percent of the explained variance while the service variables accounted for 0.4 percent of the shared variance.

Discussion

The historical analysis of diversion data was intended to provide an overall picture of state-funded diversion programs, with a particular focus on examining individual and program factors associated with success in a diversion program as well as recidivism. Overall, some specific services were

related to a greater likelihood of successfully completing a diversion program (as was staying in school while in the diversion program). However, demographic characteristics, rather than service characteristics, were what predicted recidivism.

While these analyses provide an important and useful starting point for documenting program outputs and juvenile outcomes, the results (in particular, the small amounts of variance explained by the regression models) highlight the need to understand and document more elements of youth background and program characteristics in order to understand and pinpoint the ingredients of a successful diversion program. For example, simply knowing whether a juvenile received a service may not be sufficiently nuanced information to capture the true relationship between services and risk reduction. It may be that additional data on the amount, quality, and fidelity of services provided is necessary to detect the impacts of various services on youth outcomes.

In addition, it is possible that other important explanatory variables need to be examined as well. For instance, there is little data currently available to quantify the preexisting risk levels of juveniles accepted into diversion (other than prior contact with the justice system). It is assumed that risk levels are an important factor in understanding likelihood of program success and recidivism.

Restorative Justice Services and Program Success

One of the interesting results of the analysis of program success is the seemingly contradictory findings for services associated with restorative justice. While community service, victim/offender services, victim empathy services, and other restorative services were all related to a greater likelihood of program success (even after taking into account community service and other restorative services), restitution was related to a lower likelihood of success.

This may be due to several factors. First, monetary restitution may be more difficult for juveniles to provide, especially those from disadvantaged backgrounds, resulting in them being more likely to fail to complete the program. Additional analyses indicated that across programs restitution was not typically assigned to the same individuals that received other restorative services and therefore future evaluation is needed to better understand when and why restitution is assigned and whether it is associated with other risk factors, such as the nature or severity of the charge, or whether it is due more to time and cost burden of meeting restitution requirements.

Implications for Future Analyses

Future analyses should further explore several of the questions raised by this report. Specifically, more work should be devoted to measuring factors that account for differences in program success and recidivism rates. One obvious place to start is with the risk level of the participants, which should be closely related to both program success and recidivism. Finally, it will be important to ensure quality technical support is provided to grantees to allow for ongoing improvement of their evaluation capacity, particularly with regard to data quality. This will allow for the largest possible data set, the best predictive power, and the most useful results for grantees.

Appendix One: Intake and Exit Form

Local Agency Case ID#

COLORADO DIVISION OF CRIMINAL JUSTICE
STATE JUVENILE DIVERSION DATA FORM

Refer to Instructions on back for Completion and Submission of Form 11/15/2006

INTAKE

Last Name _____ First _____ MI _____

1. Date of Birth ____ ____ ____ ____ ____ ____
m m d d y y

2. Gender _____
1 = Male 2 = Female

3. Race/Ethnicity (Self-Report) _____
1 = White, Non-Hispanic
2 = Black
3 = Hispanic/Latino
4 = American Indian
5 = Asian/Pacific Island
6 = Other _____

4. School Status at Intake _____
1 = Actively Attending
2 = Truant
3 = Suspended
4 = Expelled
5 = Drop Out
6 = Pursuing GED
7 = Graduate/GED
9 = Unknown

5. Date Case was Referred to your program ___ ___ ___ ___ ___ ___
m m d d y y

6. Date of Intake Meeting ____ ____ ____ ____ ____ ____
m m d d y y

7. Referral Agency/Source _____
1 = School
2 = Police/Sheriff
3 = Municipal-Court/Attorney/Probation
4 = DA Intake Deputy
5 = DA Juv. Diversion Program
6 = District Court Judge/Magistrate
7 = District Court Probation
8 = Other _____

8. Juvenile Justice Status at Referral _____
Pre-File
1 = Alternative to Summons/Arrest
2 = Alternative to Filing Petition
Pre-Adjudication
3 = Deferred Adjudication
4 = Informal Adjustment
5 = Filed/Dismissed without Prejudice
6 = Under DA Diversion Contract
Post-Adjudication
7 = Deferred Sentence
8 = On Probation

9. Type of Most Serious Charge/Offense at Referral ____
1 = Person
2 = Property
3 = Theft
4 = Drug
5 = Sexual
6 = Other
Description: _____

10. Level of Most Serious Charge/Offense _____
1= Felony
2= Misdemeanor
3 = Petty
4 = Status
5 = Traffic
6 = Municipal. Violation
7 = Other _____

11a. # Addtl Felonies at Referral ____

11b. # Addtl Misdemeanors at Referral ____

12a. # Prior Felonies _____
(Not including offenses at referral)

12b. # Prior Misdemeanors ____
(Not including offenses at referral)

13. Age at First Police Contact for Delinquency ____ ____

14. Was a Diversion Behavioral Contract Developed for Youth? ____
1 = Yes 2 = No

15. INTAKE/REFERRAL SCREENING DECISION _____
1 = Accept 2 = Agency Rejects after File Review 3 = Agency Rejects after Intake Meeting 4 = Client Refused Program

TERMINATION/EXIT FROM PROGRAM

16. Date Juvenile Terminates/Exits from Program ____ ____ ___ ____ ____ ____
(If not accepted in #15, enter date of decision, answer #17 and leave remainder of form blank.)
m m d d y y

17. Criteria Youth ____
1 = Yes 2 = No
See definitions on back

18. Status at Termination/Exit from Program : _____
DA Diversion Program
1 = Successful (Charges/Case dismissed)
2 = Unsuccessful due to Non-Compliance with Contract – Original Charges Filed/Refiled/Adjudicated
3 = Unsuccessful due to Arrest on New Offense – New/Original Charges Filed/Refiled/Adjudicated
4= Unsuccessful but charges not filed
5 = Choose Court After Diversion Contract was Signed
6 = Transferred to another DA Diversion Program
Community-based Service Agency
7 = Successful (Required sanction(s)/services completed)
8 = Unsuccessful (Non-compliant)
All Programs
9 = Moved out of State prior to completion
10= Youth to Receive Detention
11= Youth Assigned to Alternatives to Detention

19. School Status at Term/Exit ____
1 = Actively Attending
2 = Truant
3 = Suspended
4 = Expelled
5 = Drop Out
6 = Pursuing GED
7 = Graduate/GED
9 = Unknown

20a. Community Service _____
1 = Ordered - Provided in-house
2 = Ordered - Referred to outside agency
If "1" or "2" enter WHOLE numbers in 20 b & c.

20b. Hours Required
____ ____ ____ **. hrs.**

20c. Hrs Completed
____ ____ ____**. hrs.**

21a. Restitution _____
1 = Ordered - Provided in-house
2 = Ordered - Referred to outside agency
If "1" or "2" enter WHOLE numbers in 21 b & c.

21b. Amt Required
$ ___ ___ ___ ___**.**

21c. Amount Paid
$ ___ ___ ___ ___**.**

22. Services - *Enter 1, 2, 3, or 4 (as defined) on each line below.*

1 = Provided by your agency, AND paid by your State Diversion Funds
2 = Provided by your agency, NOT paid by your State Diversion Funds
3 = Referred out AND paid for by your State Diversion Funds
4 = Referred out but NOT paid for by your State Diversion Funds

Supervision
___ **A. Case Management**
___ **B. Electronic Monitoring**
___ **C. Tracking/Mentoring**
___ **D. Drug/Alcohol Testing**

Accountability
___ **I. Victim/Offender**
___ **J. Community Service**
___ **K. Restitution**
___ **L. Victim Empathy**
___ **M. Other Restorative Services**

Competency
___ **N. Education/Tutoring/GED**
___ **O. Cognitive/Behavioral**
___ **P. Life Skills**
___ **Q. Employment/Vocational**
___ **R. Other ___**

Treatment
___ **E. Diagnostic Screening/Assessment**
___ **F. Mental Health Counseling/Treatment**
___ **G. Drug/Alcohol Counseling/Treatment**
___ **H. Offense-Specific Treatment**

Submit Forms with Quarterly Narrative Reports.
See instructions on back.

INSTRUCTIONS FOR COMPLETING THE DCJ JUVENILE DIVERSION DATA FORM Revised 8/7/06

DA Diversion Programs: Complete and submit a form for each individual juvenile case referred to your program, regardless of funding source.
Other agencies: Submit forms for those juveniles receiving services supported by these state juvenile diversion funds.
All Programs: Submit completed forms with your Quarterly Narrative Reports (DCJ Form 2DV) for all juveniles who 1) were referred, but not accepted (complete Items 1 through 20); and 2) completed/terminated from the program. See DCJ Form 2DV for further submission instructions.
If you have any questions about the form, consult these instructions, or call Michele Lovejoy at DCJ at (303) 239-5712 or 1(800) 201-1325, outside Denver.

ALL SHORT LINES MUST HAVE A NUMBER ENTERED ON THEM. Printed text is required only in #9 to enter the short description of the most serious charge/offense. If you select a response of AOther@ with a line after it, provide text to explain. **Refer to the specific instructions for each item below.**

INTAKE:

LOCAL AGENCY CASE ID#: For the by the agency.

YOUTH'S NAME: PRINT the youth's FULL legal name (last, first and middle initial). Be sure the names are legible and double check that the gender entered in #2 makes sense.

1. **DATE OF BIRTH:** Enter the month, day and year of juvenile's birth. Put a lead zero before single-digit numbers. Please double check that this makes sense - the child should not be younger than 10, nor older than 17 (except when their 18th birthday occurred after arrest and before Referral Date.
2. **GENDER:** Enter the proper number code for gender. 1 = Male, and 2 = Female.
3. **ETHNICITY:** Enter the code which most accurately reflects the juvenile's race or ethnicity, based on self-report. Please select only one code.
4. **SCHOOL STATUS AT INTAKE:** Enter code which corresponds to juvenile=s school status **at intake.**
5. **DATE CASE WAS REFERRED TO YOUR PROGRAM:** Enter the month, day and year the referral was received by your program.
6. **DATE OF INTAKE MEETING:** Enter the month, day and year the intake meeting took place.
7. **REFERRAL AGENCY/SOURCE:** Enter the proper code which corresponds with the agency type from which the referral was directly received. **NOTE:** #5 refers to youth referred from a District Attorney Diversion Program to another agency for specific services, i.e. mentoring, community service, restitution, treatment, etc., or to another District Attorney Diversion Program.
8. **JUVENILE JUSTICE STATUS AT REFERRAL:** Enter the code corresponding to the juvenile=s status within the juvenile justice system at the time the juvenile was referred to program.
9. **TYPE OF MOST SERIOUS CHARGE/OFFENSE AT REFERRAL:** Enter code for the type of the most serious charge/offense and enter a short description of the charge/offense. List only the most serious offense if there are multiple charges.
10. **LEVEL OF MOST SERIOUS CHARGE/OFFENSE:** Enter in the level of the most serious charge/offense.

11a. NUMBER OF ADDITIONAL FELONIES AT REFERRAL: Fill in the number of felony counts the juvenile was charged with at this referral. In this item count **all** referring charges.

11b. NUMBER OF ADDITIONAL MISDEMEANOR AT REFERRAL: Fill in the number of misdemeanor counts the juvenile was charged with at this referral. In this item count **all** referring charges.

12a. PRIOR FELONY JUVENILE OFFENSES: Enter the total number of prior felony juvenile offenses do not count the offenses listed in #9 or 11.

12b. PRIOR MISDEMEANOR JUVENILE OFFENSES: Follow the same procedure as item 12a, only indicate number of misdemeanor offenses.

13. **AGE AT FIRST POLICE CONTACT FOR DELINQUENCY:** Enter the 2-digit number reflecting the age at which the juvenile was first known to have been contacted by police for a delinquent act. If this referral is the first contact, the age should correspond with the date of birth in #5.
14. **WAS A DIVERSION BEHAVIORAL CONTRACT DEVELOPED FOR THE YOUTH:** Enter 1 for Yes, and 2 for No.
15. **INTAKE/REFERRAL SCREENING DECISION:** Answer accordingly. If not accepted, enter the date of that decision in item #16.

TERMINATION/EXIT FROM PROGRAM:

16. DATE JUVENILE TERMINATES/EXITS FROM PROGRAM: Enter the date the juvenile terminated from the program. Be sure that this is not a date prior to the ADate Case Was Referred to your program@ date in #5. **If juvenile was not accepted as indicated by a code other than A1" in #15, enter the date the decision was made to not accept, answer #18 and leave the remainder of the form blank.**

17. Enter A1" if youth meets these DEFINITIONS FOR CRITERIA YOUTH:

DA DIVERSION PROGRAMS - Case would have been filed by the DA were diversion not available; referred as a condition of Informal Adjustment; referred as an alternative disposition after a deferred adjudication or dismissal without prejudice; or a direct sentence to diversion upon adjudication in district/juvenile court. The DA and/or court will proceed with legal action if diversion contract conditions are not met.

COMMUNITY-BASED SERVICE AGENCIES- Referred for service(s) from a DA Diversion program or district court probation; with documentation, or memorandum of understanding, from referral source that funds are not available to pay full cost of service(s). It is the responsibility of the community-based agency to ascertain if a youth is criteria or non-criteria as defined.

Enter A2" if youth meets this DEFINITION FOR NON-CRITERIA YOUTH: Juvenile cases that do not meet the above criteria (e.g. petty, status and traffic offenses or municipal violations; cases that would not be filed or prosecuted.)

18. STATUS AT TERMINATION/EXIT FROM PROGRAM: Enter the single-digit number for the appropriate code for termination/exit reason.

19. SCHOOL STATUS AT TERMINATION/EXIT: Enter code which corresponds to juvenile=s school status **at termination/exit.**

20a. COMMUNITY SERVICE: If community service hours were ordered by the court, are part of the diversion contract or are the result of an agreement in a mediation/conference, etc., enter a A1"if your agency provides the service; a A2" if the youth is referred to another agency to complete this requirement. **b & c**: The required hours and actual completed hours should be entered in whole numbers, rounding up at a half hour.

21a. RESTITUTION: If restitution is ordered by the court, is part of the diversion contract or is the result of an agreement in a mediation/conference, etc. enter a A1" if your agency provides this service; a A2" if the youth is referred to another agency to complete this requirement. **b & c:** The amount required and the amount paid should be reported in whole dollars, rounded up at 504, no decimals.

22. SERVICES PROVIDED TO JUVENILE: If the juvenile was accepted into your program, enter the appropriate number on each line.

Appendix Two: Discussion of Data Cleaning Procedure and Common Data Issues

Data Cleaning Procedure

Data for this report was collected through Colorado Knowledge-Based Information Technology (CO KIT), a web-based system managed by OMNI and used to track and report data about Juvenile Diversion programs funded by DCJ. This system was customized to allow for grantees to enter intake and exit data collected using the Diversion Intake/Exit Form. The CO KIT data entry fields were built to correspond with Intake/Exit Form fields which consisted of open-text fields as well as fields allowing only certain values.

All data entered into CO KIT as of the end of 2009 was imported into SPSS to commence data cleaning procedures. Each variable was named and given a label with a description of the variable. A data codebook containing all variable names and allowable values for each variable was established to guide the data cleaning process. Data cleaning strategies included checking for range, invalid data, and missing data. Acceptable boundaries for data ranges, and definitions of missing or invalid data were established and applied consistently across all data.

Exclusion Criteria

There were originally 8,992 cases tracking juvenile diversion program participants that were collected by CO KIT. The criteria for exclusion from data analysis included the following:

- All cases with intake and referral dates after June 30, 2009 (a total of 980 cases)
- All cases with dates of birth that occurred after December 31, 2004 (a total of 177 cases)
- Duplicate cases (a total of 271); for further discussion, see the section below on Duplicate Data.

The resulting dataset included a total of 7,564 juvenile diversion cases.

Missing and Invalid Data

Because the CO KIT system allowed for open-text fields to be left blank or populated with invalid data, cleaning procedures involved addressing these data issues. Missing data was imputed (i.e., filled in) if other data submitted for the case was available and could be used to determine values for those fields; if no information was available, the field was left blank and considered as missing. Data which was identified as invalid was deleted and the field was considered missing; the remaining valid data for that case remained in the dataset.

Strategies to address missing and invalid data included:

- Age – Deleting data for all participant ages under 7 years old (a total of 206 cases) and over 26 years old (a total of 3 cases)
- Gender – Recoding missing gender data using participant first names where obvious (a total of 49 cases)
- Date referred to diversion program – Deleting all referral dates before January 1, 2003 (a total of 29 cases) or all referral dates after June 30, 2009 (a total of 10 cases)
- Date of intake meeting – Deleting all intake dates before January 1, 2003 (a total of 6 cases)
- Most serious charge/offense at referral – Recoding missing charge types using qualitative descriptions of the charge where possible (a total of 192 cases)[i]

[i] Cases involving alcohol or minor in possession of alcohol were left as entered, despite any written comments; this resulted in alcohol or other MIP charges being left as either drug charges or "other" charges due to inconsistency of data entry across sites.

- Age at first police contact – Deleting all ages indicating 0 (a total of 119 cases) and all ages over 19 (a total of 20 cases)
- Date of termination/exit from diversion program – Deleting all exit/termination dates that appeared invalid; most were entered as December 31, 1899 (a total of 1377 cases)
- First name and Last name – Deleted any extraneous letters or numbers from participant first and last names

Duplicate Data

There were numerous instances of duplicate data entered into the CO KIT system, necessitating a systematic approach to determine which cases were entered into the data system twice by error and which cases represented legitimate readmissions to juvenile diversion programs.

Data entry for duplicate program admissions, for the same person that occurred concurrently between two grantees, were counted as separate cases in the dataset. Additionally, data for a participant that entered one juvenile diversion program, completed their stint, and then entered a juvenile diversion program with a different grantee was considered two separate cases. This applied to a total of 30 cases. Finally, diversion program participants who entered one program and then later returned to the same program after committing a different, unrelated offense were also included in the dataset as two separate cases. This applied to a total of 140 cases.

However, there were a total of 271 cases where duplicate cases were deleted. These included:

- Cases where grantees entered participants in the system twice, either through error or because they entered exit data separately from intake data that was already in the system; this applied to 188 cases.
- Cases where grantees provided one separate entry for each participant's offense. In this scenario, the cases with the most serious offense were kept in the dataset, while the lesser offenses with the same intake and exit dates were deleted; this applied to 69 cases.

One grantee provided duplicate entries for individuals with multiple, overlapping intake and exit dates. Only the case with the earliest intake date was kept, while the later date was deleted; this applied to 14 cases.

Calculating Variables

For data analysis purposes, some new variables were constructed from information available on the Intake/Exit form. However, if data was missing for one or more of the original variables needed to create the new one, data for the new variable was also considered as missing. These variables included:

- Age – The participants' age was calculated by subtracting the date of birth from the date of the intake meeting
- Intake year – Intake year was calculated by using the fiscal year (July 1 through June 30) for the date of the intake meeting
- Geographic setting – This variable was calculated by determining which county each grantee was located and using the Colorado Rural Health Center designations of urban, rural, and frontier counties.[ii]
- Program length – Length of a participant's enrollment in a diversion program was determined by subtracting the intake date from the exit/termination date.

[ii] *Colorado Rural, Urban, and Frontier Counties*. (n.d.). Retrieved from http://www.coruralhealth.org/resources/images/countytypemap.jpg.

- Program outcome – The outcome of diversion programming was determined using the data entered into status at exit/termination from program:
    a. Successful program outcome was determined based on indications that the charge/case was dismissed or that the required sanctions and services were completed
    b. Unsuccessful program outcome included non-compliance with contract; outcomes leading to filing, refilling, or adjudication, or arrests on new offenses
    c. Neutral program outcomes included instances where the juvenile had chosen court after diversion contracts were signed, had transferred to another diversion program, had moved out of state prior to completion, had received detention, or had been assigned alternatives to detention.

Integrating Recidivism Data

A comprehensive dataset on recidivism among juvenile diversion program participants on the municipal, county, and district level was made available by DCJ. OMNI Institute matched recidivism data with the intake/exit data based on program participant first name, last name, date of birth, age, gender, race/ethnicity, date of referral to program, date of intake meeting, and date of exit/termination. Using these variables, recidivism data was matched to 5,968 total program participants.

Data and Analytic Limitations

Key limitations to the data are detailed below in order to facilitate interpretation of the reported findings and inform recommendations for future evaluation efforts directed at juvenile diversion programs. Limitations encountered in retrieval and analyses of drug court-related data are described below.

Data quality and reliability issues arise when data are collected and available, but are subject to error and inconsistency. Low quality and/or reliability of data can occur for a number of reasons, including data entry errors, non-standardized data fields, and inconsistent definitions and uses of codes. These issues affect the ability to accurately describe individuals and processes, and to link information on individuals across data sources and over time.

Examples of issues related to intake/exit data quality and/or reliability included the following:

- Data entry inconsistencies across grantees – There were variations among grantees in how they handled data entry for re-offenses, program readmissions, and data collected at program exit/termination. This resulted in duplicate entries and a lack of clarity around how admission criteria affect data quality.
- Data entry inconsistencies across program participants – In cases where there were duplicate cases, it was difficult to determine which cases were indeed duplicates as date of birth, name spelling, and lack of client IDs were inconsistent between cases that were possible duplicates.
- Lack of clarity around select Intake/Exit form data fields – Interviews conducted with grantees indicated that some were not clear about what some items meant (e.g., services, criteria youth) or that they found that the options given for an item did not encompass the appropriate response (e.g., no option in status at exit/termination to indicate the youth had moved out of the county). This resulted in inconsistency among grantees in regards to how data was entered for various items.
- Open text fields – Fields that allow for manual entry of information can be helpful when information or codes cannot easily be standardized. However, open-text fields can be problematic when using data for systematic analysis and reporting. Data entry errors or inconsistencies were found for open-text fields, particularly those requiring entry of a date.
- Data system issues – Interviews with grantees revealed that some data entry staff encountered problems entering data or determining whether the data that they had entered was actually submitted. It is possible that some data intended for inclusion may have been lost as a result.

Appendix Three: Complete Descriptive Analyses

Demographic Variables

Table 3.1: Gender

		% of Intakes into Programs
Gender	Male	68.2%
	Female	31.8%

Table 3.2: Race or Ethnicity

		% of Intakes into Programs
Race or Ethnicity	White, non-Hispanic	59.9%
	Black	3.1%
	Hispanic / Latino	28.5%
	American Indian	1.2%
	Asian / Pacific Islander	0.8%
	Other	6.5%

Table 3.3: School Status at Intake

		% of Intakes into Programs
School Status (at Intake)	Actively Attending	81.1%
	Pursuing GED	1.7%
	Graduate / GED	2.0%
	Truant	3.9%
	Suspended	0.9%
	Expelled	2.0%
	Dropped Out	2.2%
	Unknown	6.2%

Table 3.4: Most Serious Charge at Referral

		% of Intakes into Programs
Most Serious Charge at Referral	Property	24.3%
	Theft	22.3%
	Person	21.9%
	Drug	18.7%
	Sexual	1.0%
	Other	11.9%

Table 3.5: Level of Most Serious Charge

		% of Intakes into Programs
Level of Most Serious Charge	Felony	24.4%
	Misdemeanor	54.4%
	Petty	14.8%
	Status	5.1%
	Traffic	0.1%
	Municipal Violation	0.5%
	Other	0.7%

Table 3.6: Criteria Youth

		% of Intakes into Programs
Criteria Youth	Yes	91.7%
	No	8.3%

Program Variables

Table 3.7: Funding Year

		% of Intakes into Programs
Funding Year	FY 06-07	35.7%
	FY 07-08	33.3%
	FY 08-09	31.0%

Table 3.8: Organization Type

		% of Intakes into Programs
Organization Type	Community-based Non-profit	45.8%
	District Attorney's Office	51.0%
	Police Department	2.8%
	County Agency	0.4%

Table 3.9: Geographic Settings

		% of Intakes into Programs
Geographic Setting	Rural	20.8%
	Urban	79.2%

Table 3.10: Referring Organization

		% of Intakes into Programs
Referring Organization	DA Intake Deputy	41.5%
	DA Juvenile Diversion Program	30.2%
	District Court Judge /Magistrate	13.8%
	District Court Probation	6.0%
	Police / Sheriff	3.0%
	Municipal Court / Attorney / Probation	1.5%
	School / School Resource Officer	1.1%
	Other	2.9%

Table 3.11: Diversion Behavioral Contract Developed

		% of Intakes into Programs
Diversion Behavioral Contract Developed	Yes	83.9%
	No	16.1%

Service Variables

Table 3.12: Service Variables

	% Juveniles who Received Service		
	Provided By Grantee	**Referred Out**	**Total**
Case Management	97.4%	0.8%	98.2%
Community Service	30.2%	46.3%	76.5%
Life Skills	59.0%	3.0%	62.0%
Drug/Alcohol testing	20.8%	30.3%	51.1%
Victim Empathy	24.5%	1.5%	26.0%
Screening/Assessment	21.9%	2.0%	23.8%
Victim/Offender Services	21.8%	1.4%	23.3%
Education/Tutoring/GED	12.4%	6.6%	19.0%
Restitution	15.5%	3.8%	19.3%
Cognitive/Behavioral	18.6%	3.6%	22.2%
Mental Health Counseling/Treatment	8.4%	9.4%	17.8%
Employment/Vocational	12.5%	1.9%	14.4%
Tracking/Mentoring	10.5%	1.3%	11.9%
Other Restorative	10.7%	2.3%	13.0%
Drug/Alcohol Counseling Treatment	3.1%	8.4%	11.5%
Other	6.7%	1.7%	8.4%
Offense-Specific Services	2.5%	4.3%	6.8%
Electronic Monitoring	0.9%	1.2%	2.1%

Appendix Four: Complete Chi-square and Correlation Analyses

Table 4.1: Chi-Square Analyses Predicting Successful Program Completion

Successful Program Completion

		% Successful	Chi-Sq	Significance ($p<$)
Gender	Male	83%	1.091	.296
	Female	84%		
Race	Caucasian	84%	.195	.659
	Minority	83%		
School status at Intake	In school	83%	1.358	.373
	Not in school	85%		
School status at exit	**In school**	**89%**	**788.194**	**.000**
	Not in school	**24%**		
Case Management Services	Did not receive	79%	1.354	.244
	Received	84%		
Electronic Monitoring	**Did not receive**	**84%**	**36.735**	**.000**
	Received	**61%**		
Tracking / Mentoring	Did not receive	83%	.025	.875
	Received	84%		
Drug / Alcohol Testing	**Did not receive**	**88%**	**63.581**	**.000**
	Received	**79%**		
Screening / Assessment	**Did not receive**	**85%**	**23.847**	**.000**
	Received	**79%**		
Mental Health Counseling / Treatment	**Did not receive**	**85%**	**28.872**	**.000**
	Received	**77%**		
Drug / Alcohol Counseling / Treatment	**Did not receive**	**85%**	**96.905**	**.000**
	Received	**69%**		
Offense-specific Services	**Did not receive**	**84%**	**8.341**	**.004**
	Received	**78%**		
Victim / Offender Services	**Did not receive**	**83%**	**12.091**	**.001**
	Received	**87%**		
Community Service	**Did not receive**	**78%**	**28.273**	**.000**
	Received	**85%**		
Restitution	Did not receive	**84%**	**14.122**	**.000**
	Received	**79%**		
Victim / Empathy Services	**Did not receive**	**83%**	**6.063**	**.014**
	Received	**86%**		
Other Restorative Services	**Did not receive**	**82%**	**44.318**	**.000**
	Received	**93%**		
Education /	**Did not receive**	**84%**	**10.539**	**.001**

Tutoring / GED services	**Received**	**80%**		
Cognitive / Behavioral Services	Did not receive	84%	2.423	.120
	Received	82%		
Life Skills	Did not receive	83%	.041	.839
	Received	84%		
Employment / Vocational Services	Did not receive	83%	2.248	.134
	Received	85%		
Other Services	**Did not receive**	**83%**	**6.641**	**.010**
	Received	**88%**		

*Note: Statistically significant chi-square analyses are in **bold**.*

Table 4.3: Chi-square Analyses Predicting Recidivism

		Recidivism		
		% Recidivism	**Chi-Sq**	**Significance ($p<$)**
Gender	**Male**	**25%**	**40.057**	**.000**
	Female	**18%**		
Race	**Minority**	**21%**	**4.404**	**.036**
	Caucasian	**24%**		
School status at Intake	Not in school	26%	3.611	.057
	In school	22%		
School status at exit	Not in school	26%	1.566	.211
	In school	23%		
Case Management Services	Did not receive	24%	.027	.870
	Received	23%		
Electronic Monitoring	Did not receive	23%	.182	.669
	Received	25%		
Tracking / Mentoring	Did not receive	23%	.736	.391
	Received	25%		
Drug / Alcohol Testing	Did not receive	23%	.375	.000
	Received	24%		
Screening / Assessment	Did not receive	23%	.292	.589
	Received	23%		
Mental Health Counseling / Treatment	Did not receive	23%	.163	.687
	Received	24%		
Drug / Alcohol Counseling / Treatment	Did not receive	23%	.025	.876
	Received	23%		
Offense-specific Services	Did not receive	23%	.157	.692
	Received	24%		
Victim / Offender Services	Did not receive	23%	.043	.836
	Received	23%		
Community Service	Did not receive	23%	.028	.866
	Received	23%		
Restitution	Did not receive	22%	3.542	.060
	Received	25%		
Victim / Empathy Services	Did not receive	23%	1.683	.195
	Received	24%		
Other Restorative Services	Did not receive	23%	1.750	.186
	Received	25%		
Education / Tutoring	Did not receive	23%	.315	.575

/ GED services	Received	24%		
Cognitive / Behavioral Services	Did not receive	23%	.026	.873
	Received	23%		
Life Skills	Did not receive	22%	1.369	.242
	Received	24%		
Employment / Vocational Services	Did not receive	23%	1.344	.246
	Received	25%		
Other Services	Did not receive	23%	.261	.610
	Received	24%		

Note: Statistically significant chi-square analyses are in ***bold****.*

Appendix Five: Complete Logistic Regression Analyses

Table 5.1: Regression Predicting Successful Program Completion

	B	S.E.	Wald	df	Sig.	Exp(B)
Funding Year	-.059	.057	1.079	1	.299	.942
Gender	.165	.110	2.255	1	.133	1.179
Age	-.019	.028	.444	1	.505	.982
Race (Caucasian vs. Non-Caucasian	.039	.106	.140	1	.708	1.040
School Status at Exit	**1.571**	**.090**	**302.775**	**1**	**.000**	**4.810**
Additional Felonies at Arrest	.201	.155	1.681	1	.195	1.222
Additional Misdemeanors at Arrest	.005	.059	.008	1	.928	1.005
Prior Felonies	-.549	.329	2.784	1	.095	.577
Prior Misdemeanors	-.018	.094	.036	1	.849	.982
Services						
Case Management	.230	.400	.330	1	.566	1.259
Electronic Monitoring	**-1.315**	**.293**	**20.094**	**1**	**.000**	**.268**
Tracking/Mentoring	-.227	.175	1.688	1	.194	.797
Drug/Alcohol Testing	**-.491**	**.124**	**15.577**	**1**	**.000**	**.612**
Screening and Assessments	-.140	.159	.774	1	.379	.869
Mental Health Services	-.199	.155	1.642	1	.200	.820
Alcohol/Drug Counseling	**-.535**	**.158**	**11.514**	**1**	**.001**	**.586**
Offense Specific Services	-.064	.217	.087	1	.768	.938
Victim Offender Mediation	.300	.169	3.149	1	.076	1.350
Community Service	.306	.117	6.861	1	.009	1.358
Restitution	-.547	.132	17.131	1	.000	.579
Victim Empathy Services	.118	.157	.563	1	.453	1.125
Other Restorative Services	**.785**	**.222**	**12.497**	**1**	**.000**	**2.193**
Educational/GED Services	.011	.141	.006	1	.937	1.011
Cognitive Behavioral Therapy	.104	.155	.447	1	.504	1.109
Life Skills	-.227	.122	3.486	1	.062	.797
Employment/Vocational training	**.616**	**.192**	**10.276**	**1**	**.001**	**1.852**
Other Services	.297	.245	1.471	1	.225	1.346
Constant	.743	.620	1.440	1	.230	2.103

Table 5.2: Regression Predicting Recidivism

	B	S.E.	Wald Test	df	Sig.	Exp(B)

Funding Year	**.312**	**.046**	**45.189**	**1**	**.000**	**1.32**
Gender	**-.420**	**.096**	**19.054**	**1**	**.000**	**.657**
Age	**.082**	**.025**	**11.143**	**1**	**.001**	**1.086**
Race (Caucasian vs. Non-Caucasian	-.119	.092	1.664	1	.197	.888
School Status at Exit	-.093	.089	1.097	1	.295	.911
Additional Felonies at Arrest	.112	.098	1.295	1	.255	1.118
Additional Misdemeanors at Arrest	.023	.043	.281	1	.596	1.023
Prior Felonies	-.188	.332	.319	1	.572	.829
Prior Misdemeanors	-.002	.078	.000	1	.984	.998
Services						
Case Management	.000	.356	.000	1	.999	1.000
Electronic Monitoring	.244	.265	.845	1	.358	1.276
Tracking/Mentoring	-.038	.152	.061	1	.805	.963
Drug/Alcohol Testing	.118	.104	1.292	1	.256	1.125
Screening and Assessments	-.233	.139	2.798	1	.094	.792
Mental Health Services	.180	.131	1.887	1	.170	1.198
Alcohol/Drug Counseling	-.042	.153	.075	1	.784	.959
Offense Specific Services	.165	.179	.848	1	.357	1.179
Victim Offender Mediation	-.131	.140	.886	1	.347	.877
Community Service	-.040	.100	.162	1	.688	.961
Restitution	.208	.115	3.247	1	.072	1.231
Victim Empathy Services	.163	.126	1.656	1	.198	1.177
Other Restorative Services	.224	.146	2.351	1	.125	1.251
Educational/GED Services	-.017	.122	.020	1	.888	.983
Cognitive Behavioral Therapy	-.051	.132	.150	1	.699	.950
Life Skills	.025	.100	.062	1	.803	1.025
Employment/Vocational training	.121	.139	.765	1	.382	1.129
Other Services	.086	.182	.221	1	.638	1.089
Constant	**-1.288**	**.550**	**5.485**	**1**	**.019**	**.276**