This paper describes the methodology used by researchers at the Utah Criminal Justice Center and the Commission on Criminal & Juvenile Justice to assess program effectiveness for its inclusion in the Utah's Cost Benefit Model, including sources of data and descriptions of statistical methods used.

Methods for Reviewing Program Effectiveness (Systematic Review/Meta-Analysis)

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This project examines the economic and behavioral consequences of interventions that are designed to prevent criminal behavior. One important measure of the efficacy of criminal justice programming is the degree to which an intervention reduces recidivism. Given the cost of crime for victims and communities, federal and state agencies conduct ongoing research in order to determine which interventions have the greatest impact on offender behavior. Individual studies, however, can vary across factors such as program type and outcome measure, making it difficult to obtain a comprehensive understanding of a program's effectiveness from individual evaluations. Research findings can be synthesized across studies through the use of meta-analysis, wherein the results of multiple primary studies are statistically combined into a single metric. This metric, or overall effect size, is a standardized measure of the magnitude of an intervention on criminal behavior. Meta-analysis makes it possible to compare the relative effectiveness of different interventions to each other, and also to examine the contribution of moderators, such as treatment dosage or study quality, on the effect size.

In order to facilitate a comparison between program impact and cost effectiveness, the current project utilizes a meta-analytic strategy to determine the effectiveness of criminal justice interventions and then combines this effectiveness data with cost data in order to calculate cost-benefit ratios for various programs. This begins with a systematic review, in which the researchers seek to identify all relevant studies on a given topic. The following research questions were addressed:

1. To what extent do the following criminal justice programs decrease recidivism?
    a. Cognitive behavioral therapy
    b. Sex offender treatment
    c. Drug courts
    d. Mental health courts
    e. Intensive supervision, with and without treatment (includes Electronic Monitoring)

   f. Secure therapeutic communities for substance-using offenders
   g. Juvenile diversion, as an alternative to incarceration
2. To what extent do moderators contribute to the overall effectiveness of these criminal justice programs in reducing recidivism?
3. What is the relative cost-benefit ratio of these criminal justice programs?

1. Overview of Meta-analysis

Prior to reviewing the specific methodology used in this study, it is important to briefly review the core terminology and goals of a meta-analysis (see Borenstein, Hedges, Higgins, & Rothstein, 2009; Cooper & Hedges, 1994; Lipsey & Wilson, 2001). Meta-analysis is a method for combining and summarizing the quantitative results from independent primary studies that share a similar focus. Independent empirical studies provide information about specific populations, interventions, and outcomes; a meta-analysis combines the treatment effects from those primary studies into a standardized, common metric. This metric, called an effect size, describes the magnitude and the direction of the impact of the intervention. Cohen's d, which is one of the most commonly used effect sizes, is a measurement of standardized mean difference between groups. To calculate Cohen's d, the difference between group change scores (treatment and control) is divided by the pooled standard deviation. In effect size nomenclature, an effect size of d = 1.00 would suggest a group difference score equal to one full standard deviation between clients in the treatment condition relative to the comparison group. An effect size of d = -0.50 would suggest a group difference of one-half of a standard deviation in the negative direction. By calculating the effect size as a function of the standard deviation for each outcome reported, meta-analysis makes it possible to compare results between studies that use different outcome measures. Conventionally, an effect size in the range of d = 0.20 is considered small, while effect sizes in the range of d = 0.50 and d = 0.80 are considered moderate and large, respectively (Cohen, 1988).

2. The Current Review and Analysis

This review and analysis follows procedures described by Durlak and Lipsey (1991) and the Campbell Collaboration (Hammerstrom, Wade, & Jorgensen, 2010) for conducting a systematic review and meta-analysis. The steps are: 1) formulate specific research questions, 2) search the literature systematically and sort the articles for inclusion, 3) code the studies, 4) calculate the index of effect sizes in the studies 5) select the appropriate statistical test and conduct the analysis, and 6) report conclusions and findings of study. The following sections provide additional detail regarding the steps required to complete the systematic review and meta-analysis.

2.1 Formulate specific research questions

The research questions of this review were stated in the previous section. Program categories were identified by the Utah Criminal Justice Center research team and reflect interventions that are currently used by criminal justice agencies throughout Utah. For all program categories except juvenile diversion, this evaluation examines the efficacy of both juvenile and adult interventions.

2.2 Literature search

The purpose of a systematic review is to identify all of the relevant research on a given topic. One of the major methodological decisions in any systematic review is to determine, and document, a comprehensive search strategy. The researchers created a written search protocol for each program category, which serves to standardize the search process and ensures that the search can be replicated. Outcome studies in each program category were identified via three primary methods: reading existing systematic reviews and meta-analyses; identifying studies in the literature reviews of primary studies; and searching electronic databases. Prior to executing the electronic search, the research team developed and tested search terms for each category, based on the available literature. Once a search string was created that consistently identified the primary studies present in existing reviews, the research team used the terms to search the following portals: EBSCO was used to search *CINAHL, Criminal Justice Abstracts, ERIC, Family & Society Studies Worldwide, MEDLINE, and PsychINFO*; Social Services Abstracts was used to search *Applied Social Sciences Index and Abstracts, Social Service Abstracts, Sociological Abstracts, PAIS, National Technical Information Service, and Worldwide Political Science Abstracts.* Given the large number of corrections-based evaluations that are funded by state and federal governments, researchers also searched National Criminal Justice Reference Service (NCJRS), the Office of Justice Program's CrimeSolutions website, the Catalog of U.S Government Publications, and the Infobase of State Activities and Research (ISAR). The specific search strings, and number of studies returned through these searches, are detailed in Appendix A.

The initial search included all relevant databases that commonly publish research findings related to criminal justice and psychosocial interventions. From that broad search, researchers systematically excluded studies based on specific inclusion criteria.

2.3 Study selection

In a meta-analysis, the study selection and inclusion criteria are a large part of the research and deserve special attention (Petticrew & Roberts, 2006). Similar to sampling strategies in primary research, the sampling frame and the decisions regarding whether to include or exclude studies can skew the results. Study inclusion criteria were developed according to precedent from existing reviews as well as best-practice recommendations from the Campbell Collaboration (Borenstein et al., 2009; Cooper & Hedges, 1994; Durlak & Lipsey, 1991; Hammerstrom et al., 2010; Lipsey & Wilson, 2001; Littell, Corcoran, & Pillai, 2008; Petticrew & Roberts, 2006). Studies identified during the broad search were evaluated for inclusion in the analysis by the research team. Based on a review of title and abstract, researchers eliminated articles that were strictly theoretical or did not report evaluation results. The remaining articles were obtained in full and assessed according to inclusion criteria described below. Further details of the sorting, screening, and vetting process are detailed in Appendix A (search strategy, search terms, and number of studies identified) and Appendix B (screening and inclusion rules).

3. Inclusion Criteria

Lipsey and Wilson (2001, pp. 16-17) propose seven study characteristics that form the basis for the

development of inclusion criteria for a meta-analysis. The criteria are set rules that distinguish the features of a qualifying study, which consist of decisions regarding: 1) research respondents, 2) key variables, 3) research design, 4) cultural and linguistic range, 5) time frame, and 6) publication type. Specific eligibility criteria were developed for study inclusion as follows: 1) the study must evaluate a criminal justice intervention; 2) the study population must consist of offenders, either juvenile or adult, who are under the supervision of the criminal justice system; 3) the study must report recidivism data as outcome variable; 4) the study design must include a comparison or control group; 5) the study must be published in English; and 6) studies can be books, reports, peer-reviewed articles, and program evaluations.

The research team screened all articles for inclusion. To promote consistency in the screening process, a minimum of 20% of the studies were double-screened by another member of the research team. Reliability statistics were calculated to assess bias in the screening process and any discrepancies were resolved through discussion. The full screening protocol is included in Appendix B and additional details on eligibility criteria are described in the following sections.

3.1 Distinguishing features

The studies that are eligible for inclusion in this analysis target criminal or juvenile justice populations. Primary prevention programs and programs serving non-court involved populations were excluded from the study.

3.2 Research respondents

Both the treatment and the comparison/control groups must be composed of adult or juvenile offenders who are in a secure facility or under some type of community supervision. Studies with fewer than five participants in any treatment condition were excluded from the analysis.

3.3 Key variables

Measures of recidivism are the key outcome variables in this analysis. Recidivism may be defined as new charges, arrests, convictions, re-incarceration, or technical violations. Recidivism data from official sources is preferred, but studies using only self-report recidivism measures were also eligible. Offenses committed while the offender was in a secure facility were not included; however, recidivism during the time that a participant was on community supervision was included.

Key moderator variables included in this analysis fall into three main categories: program characteristics, client characteristics, and study quality. The year of publication is an important moderator that may shed light on trends in criminal justice programs over time and also serves as a descriptive indicator of the prevalence of published studies on criminal justice interventions.

1) ***Program variables***. Program variables provide information about how different modalities and components of criminal justice programs affect study participants. Given their potential impact on the cost of a criminal justice program, the major moderators evaluated in this study are: the setting in which the intervention is delivered; the intervention dosage, in terms of supervisory

contacts or treatment length; and whether the intervention is administered in isolation or is part of a larger treatment or surveillance program.

2) ***Client variables.*** Client variables such as age, gender, ethnicity, index offense, criminal history, and risk level are important to study because of research demonstrating an association between those characteristics and an offender's likelihood of recidivism. As such, this analysis will examine the relationship between client characteristics and program effectiveness.

3) ***Study quality.*** Meta-analysis uses primary studies as the unit of analysis. With typical weighting strategies in meta-analysis, larger studies are given more weight than smaller studies. Generally, larger studies tend to have more rigorous methodology and lower overall calculated effect sizes (Weisburd, Lum & Petrosino, 2001). Smaller studies can yield much larger effect sizes, but because of small sample sizes they do not influence the overall effect, when combined via meta-analysis, as much as a larger study. Because the results of the meta-analysis are heavily influenced by the quality of each study, primary studies were assessed to determine their relative influence on the program's overall effect size. Studies included in this analysis were evaluated for rigor using a 5-point scale developed by Washington State Institute for Public Policy (Aos, Phipps, Barnoski, & Lieb, 2001) and modified from researchers at the University of Maryland (Gottfredson, MacKenzie, Reuter, & Bushway, 1997), as described below:

   5 = A **"5"** was assigned to an evaluation with well-implemented random assignment of subjects to a treatment group and a control group that did not receive the treatment/program. A good random assignment study should also indicate how well the random assignment actually occurred by reporting values for pre-existing characteristics for the program and control groups.

   4 = A **"4"** was assigned to a study that employed a quasi-experimental research design with a program and matched comparison group, controlling with statistical methods for self-selection bias that might otherwise influence outcomes. A level 4 study may also be used to represent an experimental random assignment design that had problems in implementation, perhaps with significant attrition rates.

   3 = A **"3"** indicates an evaluation where the program and comparison groups were matched for pre-existing differences in key variables. There must be evidence presented in the evaluation that indicates few, if any, significant differences in these variables. Alternatively, if an evaluation employs statistical techniques (e.g. logistic regression) to control for pre-existing differences, and if the analysis is successfully completed, then a study with some differences in matched pre-existing variables can qualify as a level 3 study.

   2 = A **"2"** involves a program and matched comparison group where the two groups lack comparability on pre-existing variables and no attempt to control for these differences was reported in the study.

1 = A **"1"** involves a study where no comparison group is utilized. Instead, the relationship between a program and an outcome, i.e., recidivism, is analyzed before and after the program.

Studies rated at a quality level of "2" or lower were not eligible for inclusion in this analysis. Study quality, coded from 3-5, was included in the meta-analysis as a moderator variable.

3.4 Research methods

Studies included in the statistical analysis must utilize an experimental or quasi-experimental design and report quantitative outcomes. Correlational, theoretical, qualitative, pre- and post-tests, or other experimental designs that did not compare group differences were excluded from the analysis. Studies that did not report sufficient statistical and descriptive data to calculate an effect size were excluded from the analysis.

3.5 Cultural and linguistic range

Only studies reported in English are included in the current analysis. Studies published in English in peer-reviewed journals were eligible for inclusion. Unpublished government and agency reports were eligible only if the study was conducted in the United States or Canada.

3.6 Timeframe

The earliest date on which studies were searched was January 1, 1987. The end date for inclusion was December 31, 2011. The search was conducted between January 1, 2012 and April 1, 2012.

3.7 Publication type

One of the largest threats to the validity of a meta-analysis is publication bias, which is a form of sampling bias. Meta-analyses often rely on published literature, much of which appears in peer-reviewed journals, because it is more accessible than other types of research. Sampling only from peer-reviewed literature, however, increases the chances that the study results will be inflated, with an upward bias, because research is more likely to be published if the authors find positive results than if the authors find nonsignificant results (Epstein, 2004). To account for publication bias, the research team made a concerted effort to locate government reports and independent evaluations that were not published in peer-reviewed journals. Despite these efforts, it is likely that even an exhaustive search will miss some studies; as such, statistical tests were conducted to assess for the impact of publication bias on the results (e.g., Rosenthal, 1979; Borenstein et al., 2009; Duval & Tweedie, 2000).

4. Coding Studies

Prior to analysis, relevant information was extracted from studies in a process called coding. The research team developed a coding sheet, which was pilot-tested among five members of the research team, to facilitate systematic data extraction (see Appendix C). Ten percent of all studies were double-coded by two members of the research team and discrepancies were resolved through conference and

discussion. Studies were coded for all of the variables described above. If a study reported multiple comparison groups, all comparison-contrasts were included as separate effect sizes. If a study reported multiple follow-up periods, or if multiple articles reported on different follow-up periods for the same study, the researchers tried to retrieve recidivism rates at one-, two-, and three-years post intervention. For studies that evaluated community supervision programs, recidivism data was coded for time at risk during supervision and after supervision ended, where possible. If a study reported multiple outcome measures, the research team coded the broadest measure of recidivism (e.g. a measure that included arrests, convictions, and incarceration). Additionally, the research team preferred measures of new criminal activity. Information on the number, and recidivism rate, of program completers and drop-outs was documented in the coding sheet and analyzed in the meta-analysis, as was information regarding control variables and the degree of matching between the comparison/control group and the intervention group.

5. Statistical Procedures

This section describes the statistical procedures employed in the study, including the index of effect that was used to calculate the effect size, as well as the tests of significance, frame, and model used for the statistical analysis. Given the outcome of interest in this study (recidivism), the majority of studies reported dichotomous results (recidivate/not recidivate). The effect size for each comparison within each study was calculated, using Cohen's d for continuous data and the log odds ratio for dichotomous data. In order to make comparisons across studies, all of the effect sizes were converted to Cohen's d via the following transformation (Borenstein, 2009 pp. 47-48):

$$d = LogOddsRatio \times \frac{\sqrt{3}}{\pi}$$

The variance of *d* is calculated with the following equation:

$$V_d = V_{LogOddsRatio} \times \frac{3}{\pi^2}$$

5.1 Effect size statistic

Hedges's *g* (Hedges & Olkin, 1985) is used to calculate a weighted effect size in this analysis. The calculation for Hedges's *g* is derived from Cohen's *d* but accounts for small sample sizes, which can artificially inflate the effect size. The simplest way to calculate *g* is to use the correction factor *J* to convert from *d* to *g*. The equation for *d* is presented below, followed by the equation for *J*, which leads to the calculation of Hedges's *g* (Borenstein, 2009 pp. 26-27):

$$d = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}}$$

$$J = 1 - \frac{3}{4df - 1}$$

$$Hedges'g = J \times d$$

An effect size *g* is considered significant if the 95% confidence interval does not include 0.000. This statistic is a more accurate measure of effect than a standardized mean difference *d* because it weights studies according to the standard error of the effect, also referred to as inverse variance weighting (Lipsey & Wilson, 2001). A simple way to interpret an effect size is that the value represents a ratio of the standard deviation. For example if *g* = 1.000, this represents a treatment effect of one standard deviation in the positive direction from the mean of the sample. In normally distributed data, this can also be expressed as the mean difference moving from the 50th percentile to the 84th percentile. This weighted, standardized effect size is used with the random effects model for calculating the effect sizes throughout the analysis.

Many studies in the analysis report more than one recidivism outcome variable, more than one follow-up period at which recidivism was measured, or multiple study groups. These subgroups were coded separately, allowing for more precise determination of effect and further moderator analyses. Within the included studies, multiple unique effect sizes were calculated. These unique effect sizes emerged from the reported data in one of three ways: 1) if a study uses multiple comparison groups (e.g., a study with two treatment groups and a control group could have three different comparisons - Treatment Group A to Control, Treatment Group B to Control, and Treatment Group A to Group B); 2) if a study uses more than one outcome measure to assess the effect of an intervention (e.g., a study reporting data from both re-arrest data and re-conviction data would have two effect size calculations); and 3) if a study reports more than one post-intervention measure (e.g., the study assesses the outcome immediately after the intervention and at multiple follow-up time points). The calculation of separate effect sizes within each subgroup of a study provides information for further moderator analysis.

Within each program category, a summary effect size was calculated by combining the weighted effect sizes from each included study. This summary effect size represents the overall impact of a given criminal justice program in reducing recidivism. Individual studies may have multiple effect sizes, because they include multiple comparison groups or outcome measures, but only one effect size from each study was used to calculate this summary effect size. If a study had more than one outcome variable, making it possible to calculate more than one effect size, the effect size means were averaged and entered into the analysis. Averaging the effect sizes is important, in order to protect against the impact of statistical dependence on the overall effect, but this process also loses some of the detail available within studies. In order understand the impact of moderators, such as treatment dosage, on program impact, regression analyses were also conducted using the individual effect sizes within each study (Borenstein et al., 2009).

5.2 Statistical analysis

This section describes meta-analysis as a research strategy and provides the framework for the statistical analysis, including justification and explanation of the statistical models and tests used in this meta-analysis.

In addition to describing the basic characteristics of the empirical studies of criminal justice programs, this study attempted to address three questions that are commonly explored via a meta-analysis (Johnson, Mullen, & Salas, 1995). First, meta-analysis investigates the central tendency of the combined effect sizes. In this way, the overall treatment effect of criminal justice programs is assessed. Second, meta-analysis seeks to understand the variance of the overall effect size. If variance is low, then the overall effect size may be a good estimate of the effect of this intervention across the included studies. If the variance of the effect size is high, as indicated by a significant Cochran *Q* score, then the overall effect size may not be a good estimate of overall effect. The Q-within (Q_w) tests the heterogeneity within a group of effect sizes. A significant Q_w statistic that reaches the ($p < 0.05$) suggests a probability that the effect sizes are not homogeneous and the overall effect cannot be interpreted as representative of all criminal justice programs within a given category.

Meta-analyses also evaluate the contribution of moderators on variability. To predict or understand high variability and understand the effects of the moderators, two types of analyses were conducted: 1) an analog to the ANOVA of *Q*-between (Q_b), wherein effect size differences are examined based on categorical variables within studies (e.g., treatment format, type of comparison group used), and 2) a weighted multiple regression, which uses continuous variables (e.g., treatment length) as potential predictors of the mean effect size (Bornstein et al., 2009). By first assessing the overall effect, then analyzing the variability in effect sizes, and then investigating the moderators, this study will answer the proposed research questions.

5.3 Model for meta-analysis

An important decision to make prior to undertaking a meta-analysis is to decide between fixed or random effects models for analysis. A fixed effects model assumes that the effect size for all the studies is homogenous and that any variance seen in effect sizes is due to sampling error. The fixed effect model is inappropriate for this study because we cannot assume that criminal justice programs have consistent effects across studies. The random effects model, also called the mixed effect model, assumes that the effect sizes for each study are heterogeneous and the effect sizes are clustered around the mean and reflect a true difference or effect size rather than sampling error. In addition, the random effects model is more balanced in assigning weights to studies and this model allows for the analysis of more diverse studies and outcomes (Borenstein et al., 2009). Based on these assumptions of the models for analysis, the random effects model was used throughout the analysis.

5.4 Frame for analysis

The analysis of aggregate data requires making several methodological and statistical decisions prior to the analysis. These decisions about how to treat the data fall into two categories: 1) decisions guided by the main research questions and literature review that determine how data are grouped and coded,

and 2) the statistical analysis of the data that considers the underlying assumptions and limitations of the various statistical tests, and selects the most appropriate test considering the data. The strategy for searching the literature, the coding, and the grouping of variables was reviewed earlier. A description of the frame for statistical analysis follows.

The analysis of the data was conducted using two statistical software packages, SPSS Version 18.0 (www.spss.com) and Comprehensive Meta-Analysis Version 2.2.027 (Borenstein et al. 2005; www.Meta-Analysis.com). The data entry was conducted by the research team. All studies meeting all inclusion criteria are included in the meta-analysis. The study level data was first entered into SPSS for ease of data entry, to calculate descriptive statistics, and to explore and determine the distribution of the data. The data were then copied into Comprehensive Meta-Analysis. This software is specifically designed to analyze data, test for heterogeneity, and conduct moderator and meta-regression analyses in a meta-analysis. The data entered included sample size, means, standard deviations, group difference scores, correlations, statistical test values (*t, F*), and *p* values.

Studies that reported nonsignificant findings without reporting descriptive statistics (i.e., means and standard deviations) can be troublesome in a meta-analysis. Although the study may report nonsignificant findings, it is unlikely that the findings are equivalent to an effect of exactly zero. Including nonsignificant studies, and using zero as the effect index of the study, has the potential to underestimate true effect size while not including nonsignificant studies has the potential to overestimate the index of effect (Durlak & Lipsey, 1991). This study includes findings that report nonsignificant findings and reports the effect size as zero.

The statistical meta-analysis was conducted using *Hedges' g* as the index of effect. Further statistical testing of moderators was conducted using *Q* tests with categorical data and meta-regression with continuous data. The study used a random effects model and conducted analysis using specialized statistical and meta-analytic software. Ultimately, the effect sizes were converted into a percent difference between groups and entered into the cost model.

APPENDIX A: Program Categories and Search Criteria

The following section describes the program characteristics of eligible studies, the search terms used to identify studies, and the number of studies identified in the initial search. The asterisk is a Boolean *truncation* symbol that captures various versions of the root word (i.e., training, trainer, trained, etc.). Two words separated by the letter "n" followed by a number captures all instances of the words within two words of each other.

Drug Court

Drug courts are specialized problem-solving courts that rely on pre-plea or post-plea case processing to handle cases involving drug-using offenders in a non-adversarial fashion. In order to be included in this review, a study must evaluate a drug court program that includes the following elements: comprehensive supervision, drug testing, treatment services, and immediate sanctions and incentives. Other specialized courts, such as DUI/DWI and domestic violence court were not eligible for inclusion in this study.

Electronic databases were searched using the following terms:

drug N2 court*
AND
evaluation OR recidiv* OR re-arrest OR rearrest OR reconvict* OR re-convict* OR reoffen* OR re-offen* OR effective*

Combining the results from all of the electronic searches, the researchers identified 1,085 studies. After an initial review of abstracts, the researchers pulled 196 studies for further evaluation. After removal of studies that were ineligible or used overlapping samples, 54 studies (42 adult, 12 juvenile) met inclusion criteria and were coded.

Mental Health Court

Mental health courts are specialized problem-solving courts that rely on pre-plea or post-plea case processing to handle cases involving mentally ill offenders in a non-adversarial fashion. In order to be included in this review, a study must evaluate a mental health court program that includes the following elements: comprehensive supervision, treatment services, and immediate sanctions and incentives.

Electronic databases were searched using the following terms:
mental* health N2 court*
AND
evaluation OR recidiv* OR re-arrest OR rearrest OR re-convict* OR reconvict* OR re-offend OR reoffend OR effective*

Combining the results from all of the electronic searches, the researchers identified 702 studies. After an initial review of abstracts, the researchers pulled 42 articles for further evaluation. After removal of studies that were ineligible or used overlapping samples, 9 studies (9 adult, 0 juvenile) met inclusion criteria and were coded.

Sex Offender Treatment

For the purposes of this study, sex offender treatment includes chemical and therapeutic interventions, administered in an outpatient, community-based, or secure setting. Studies evaluating sex offender policies, such as residence restrictions, were not eligible for inclusion.

Electronic databases were searched using the following terms:

sex* N2 offend*
AND
treatment OR intervention OR program
AND
evaluation OR recidiv* OR re-arrest OR rearrest OR re-convict* OR reconvict* OR re-offend OR reoffend OR effective*

Combining the results from all of the electronic searches, the researchers identified 3,750 studies. After an initial review of abstracts, the researchers pulled 159 studies for further evaluation. After removal of studies that were ineligible or used overlapping samples, 26 (21 adult, 5 juvenile) studies met inclusion criteria and were coded.

Cognitive Behavioral Therapy

Studies were eligible for inclusion in this category if the evaluated the impact of one of the following "brand name" cognitive behavioral therapy (CBT) programs on offender behavior: Reasoning and Rehabilitation, Thinking for a Change, Moral Reconation Therapy, Relapse Prevention Programs, Aggression Replacement Training, or Cognitive Intervention Programs. Studies that evaluated a modified version of one of those programs were eligible as well. Studies were included if the intervention was administered in either secure or community settings, as well as group and individual formats. CBT programs that targeted sex offenders were included in the sex offender treatment category.

Electronic databases were searched using the following search terms:

crim* N2 (think* OR thought*)
OR
cognitive N2 (behavior* OR rehabilitation OR restructure*)
OR
Reasoning and Rehabilitation OR Moral Reconation Therapy OR Aggression Replacement Training OR

Thinking for a Change OR Cognitive Interventions Program OR Relapse Prevention Program
AND
program OR intervention OR treatment OR therapy
AND
offend* OR prison* OR inmate OR incarcerate*
AND
evaluation OR recidiv* OR re-arrest OR rearrest OR re-convict* OR reconvict* OR re-offend OR reoffend OR effective*

Combining the results from all of the electronic searches, the researchers identified 1,343 studies. After an initial review of abstracts, the researchers pulled 114 studies for further evaluation. After removal of studies that were ineligible or used overlapping samples, 34 (27 adult, 7 juvenile) studies met inclusion criteria and were coded.

Intensive Supervision

Intensive supervision programs utilize a higher degree of surveillance than traditional probation and parole. Intensive supervision can be imposed as an alternative to incarceration or as an enhancement to regular supervision. In order to be eligible for inclusion in this study, an intensive supervision program must include increased frequency or intensity of contact with a probation/parole officer as compared to regular probation. Contact may be in the form of face-to-face interaction, drug or urinalysis testing, or collateral contacts with employers, supervisors, etc. While studies that evaluate programs that combine treatment with intensive supervision are eligible for inclusion, interventions that rely on other forms of intensive contact (e.g., case managers or treatment professionals) in the context of regular supervision are not eligible for inclusion. In order to identify studies that were similar in scope to the Drug Offender Reform Act (DORA) program, the search string included the names of specific alternative sentencing programs, upon which DORA was modeled.

Electronic databases were searched using the following terms:

intensive* N2 supervis* OR probation OR parole
AND
Breaking the Cycle OR Treatment Alternatives to Street Crime OR Arizona Substance Abuse and Crime Prevention and Control Act of 1996 OR Drug Treatment Alternatives to Prison OR Substance Abuse and Crime Prevention Act of 2000 (Prop 36) OR Drug Treatment and Education Fund (Proposition 200)
AND
offend*
AND
revocation OR evaluation OR recidiv* OR re-arrest OR rearrest OR re-convict* OR reconvict* OR re-offend OR reoffend OR effective*

Combining the results from all of the electronic searches, the researchers identified 1,933 studies. After an initial review of abstracts, the researchers pulled 116 for further evaluation. After removal of

studies that were ineligible or used overlapping samples, 37 studies (20 adult, 17 juvenile) met inclusion criteria and were coded.

Electronic Monitoring

Electronic monitoring is an intermediate sanction that uses technology to restrict or monitor offenders' behavior while they are under community supervision, such as probation or parole. Electronic monitoring can be a diversion from institutionalization or an enhancement to regular supervision. Electronic monitoring includes the use of radio frequency (RF) devices that indicate whether an offender is in a particular location (often home confinement). Global positioning system (GPS) devices, which monitor the offender as s/he moves to different locations, were also eligible for inclusion in this study.

Electronic databases were searched using the following terms:

electron* N2 monitor*
OR
(home OR house) N2 (confine* OR arrest)
AND
offend* OR probation* OR parole*
AND
revocation OR evaluation OR recidiv* OR re-arrest OR rearrest OR re-convict* OR reconvict* OR re-offend OR reoffend OR effective*

Combining the results from all of the electronic searches, the researchers identified 1,758 studies. After an initial review of abstracts, the researchers pulled 21 studies for further evaluation. After removal of studies that were ineligible or used overlapping samples, 8 studies (8 adult, 0 juvenile) met inclusion criteria and were coded.

Therapeutic Communities for Substance-abusing Offenders

Therapeutic communities (TC) are residential settings that use a hierarchical model with treatment stages that reflect increased levels of personal and social responsibility. TCs differ from other treatment approaches in their use of the community, comprising treatment staff and those in recovery, as agents of change. This approach is often referred to as "community as method." TC members interact in structured and unstructured ways to influence attitudes, perceptions, and behaviors associated with drug use. For inclusion in this review, studies had to evaluate a therapeutic community with the following elements: residents live in a separate unit within a secure facility (prison, jail, or detention); treatment focused on substance use; peer influence, mediated through a variety of group processes, is used to help individuals learn and assimilate social norms and develop more effective social skills; strict and explicit behavioral norms are reinforced with specific contingencies (rewards and punishments); and residents progress through a hierarchy of privileges and responsibilities.

Electronic databases were searched using the following terms:

therapeutic communit* OR treatment communit* AND substance abuse
AND
prison* OR offend* OR inmate OR incarcerate*
AND
evaluation OR recidiv* OR re-arrest OR rearrest OR re-convict* OR reconvict* OR re-offend OR reoffend OR effective*

Combining the results from all of the electronic searches, the researchers identified 1,108 studies. After an initial review of abstracts, the researchers pulled 124 for further evaluation. After removal of studies that were ineligible or used overlapping samples, 22 studies (20 adult, 2 juvenile) met inclusion criteria and were coded.

Juvenile Diversion

Only juvenile diversion programs that function as an alternative to detention were included in this evaluation. Eligible studies evaluated programs that included the following elements as part of sentencing: home detention, intensive supervision, treatment or other services, and day reporting centers. Programs that divert youth from criminal justice processing were not included in this study.

Electronic databases were searched using the following terms:

juvenile* OR youth* OR adolescen*
AND
offend* OR delinquen*
AND
day report* center OR home confinement OR home detention OR home arrest OR house arrest OR (alternative N2 detention)
AND
evaluation OR recidiv* OR re-arrest OR rearrest OR re-convict* OR reconvict* OR re-offend OR reoffend OR effective*

Combining the results from all of the electronic searches, the researchers identified 138 studies. After an initial review of abstracts, the researchers pulled 19 studies for further evaluation. After removal of studies that were ineligible or used overlapping samples, 4 studies met inclusion criteria and were coded.

APPENDIX B: Study Inclusion Criteria

	Criteria		
Dates	Study published from 1987 through 2011		
Type of Publication	Peer Reviewed Journal	Any Location	
	Government-funded reports, Program evaluations, Agency reports	United States and Canada	
Participants	Criminal Offenders	Adult	Secure Community
		Juvenile	Secure Community
Programs	Cognitive Behavioral Programs	Aggression Replacement Training Cognitive Interventions Program Moral Reconation Therapy Reasoning and Rehabilitation Program Relapse Prevention programs Thinking for a Change Modified version of one of the above programs	
	Intensive Supervision	With Treatment Without Treatment	
	Juvenile Diversion	Day Reporting Centers, post-adjudication, alternative to incarceration	
	Problem Solving Court	Drug Court Mental Health Court	
	Sex Offender Treatment	Secure	Behavioral Chemical Cognitive Behavioral Psychotherapy
		Community	
	Therapeutic Community	Substance Abuse	Secure, with aftercare Secure, without aftercare
Methods	Experimental	Random assignment of participants to control group	

	Quasi-experimental	Non-random assignment to comparison group	Matching Statistical Control Analysis of pre-existing differences
Outcomes	Recidivism	Arrest Conviction Reinstitutionalization Technical Violation	Official Record Self-Report
Information	Study must report enough information to calculate an effect size		

APPENDIX C: Study Coding Protocol

Section/Topic	#	Notes	Code
IDENTIFYING INFORMATION			
Coder		Use coder's initials	
Date		Month/Day/Year that coding was done	(XX/XX/XXXX)
StudyId		Assign each study a separate 5-digit number as determined by the study category. Assign numbers consecutively. Sex Offender Tx, start with 10000 Problem Solving Court start with 20000 Intensive Supervision start with 30000 Diversion start with 40000 Therapeutic Community start with 50000 Correctional Education/Training start with 60000 CBT start with 70000	
Exclude		Before coding the entire study, go to the Methodological Rigor section and determine if the study should receive a "1" or "2" for study quality. If so, include the reason for exclusion here.	
DblCode		Was the study double coded? If you are the second coder on a study, you should fill out the second set of variables (same names but everything has a 2)	1=Yes, 2=No
StudyRelated		If this study is reporting follow-up results for another study that is also included in this sample, list first author and date for that study (if there are multiple studies, list only the oldest one). OR If this article is reporting a different set of outcomes for a study that has already been included in the sample, list the first author and date for that study (e.g. one article reports arrest rates and the other reports conviction rates for the same study).	

PubType		Type of publication (book, peer reviewed journal, government report, etc)	1=Book, 2=Dissertation, 3=Government Report, 4=Non-government agency report, 5=Peer Reviewed Journal
Author		List the last names of the first three authors, separated with commas. If there are more than three authors, list the last name of the first author and et al.	
PubYear		This is the publication date	(XXXX)
Country		This is the country where the study was conducted	1=US, 2=Canada, 3=Other
State		If the study is conducted in the US, list the state abbreviation (e.g. UT)	
INTERVENTION-COMPARISON CONTRAST			
Intervention		What type of intervention (program) is the study evaluating	1=Sex Offender Treatment, 2=Problem Solving Court 3=Intensive Supervision 4=Diversion (Juvenile) 5= Therapeutic Community 6=Corrections-based Education, Vocation, and Employment 7=Cognitive Behavioral Programs

IntCharacteristics		Identify the following characteristics of the intervention, where relevant	1=Sex Offender Tx, CBT 2=Sex Offender Tx, Psychotherapeutic 3=Sex Offender Tx, Behavioral 4=Sex Offender Tx, Chemical 5=Sex Offender Tx, Surgical 6=Problem Solving Court, Drug Court 7=Problem Solving Court, Mental Health Court 8=Intensive Supervision, without Treatment 9=Intensive Supervision, with Treatment 10=Corrections-based Education 11=Corrections-based Vocational Program 12=Corrections-based Employment Program 13=CBT, Moral Reconation Therapy 14=CBT, Aggression Replacement Training 15=CBT, Thinking for a Change 16=CBT, Reasoning and Rehabilitation Program 17=CBT, Relapse prevention 18=Cognitive Intervention Programs 19=Other (describe)
IntDescription		If the intervention combines elements of different types of programs (e.g. if it is a sex offender treatment program that uses a CBT relapse prevention model), list the elements of the program	
OffendType		What type of offender is the study targeting? If the study targets offenders who have committed drug crimes, code this as 3. If the study targets drug using behavior in other types of offenders, code according to offender type not drug use.	1=Sex Offender, 2=Violent Offender, 3=Drug Offender, 4=Mentally Ill Offender, 5=General Offender
OffenseLev		What level of offense is the study evaluating?	1=Misdemeanor, 2=Felony, 3=Both Felony and Misdemeanor 4=Status, 5=Not Specified
OffendSystem		Does this study target adult or juvenile offenders (Do not use age to answer this question: if the study population is served by adult authorities code as adult,If the population is served by juvenile authorities code as juvenile).	1=Adult, 2=Juvenile

IntSetting		In what setting in is the intervention conducted	1=Prison/Secure Juvenile, 2=Jail/Juvenile Detention, 3=Secure,Psychiatric, 4=Community, Residential 5=Community, Outpatient 6=Community, Day Treatment Center/Reporting Center, 8=Community, Probation/Parole
IntLength		What is the length of the intervention (in weeks)? If reported, give the ideal dosage for the intervention. If the study gives a wide range (e.g. 52 to 100 weeks), use the average.	
IntSess		How many total sessions (or contacts) does the offender have with therapist/probation/parole during the intervention?	
IntSessLen		How long is a typical session/contact for the intervention group (in minutes)? If the study reports a range (e.g. 60-90 minutes, then report the average)	
IntDosage		What is the total dosage of the intervention for the intervention group? (To calculate, multiply number of contacts x length of the contact sessions)	
CgGrp		What type of intervention does the comparison group receive?	1= Intervention as Usual, 2=Other Treatment, 3=Waitlist, 4=Can't Answer
CgInt		Briefly describe the intervention that the comparison group receives	
CgIntLen		What is the length of the comparison group intervention in weeks? If reported, give the ideal dosage for the intervention. If the study gives a wide range (e.g. 52 to 100 weeks), use the average.	

CgIntSess		How many total sessions (or contacts) does the offender have with therapist/probation/parole during the intervention in the comparison group?	
CgIntSessLen		How long is a typical session/contact for the comparison group?	
CgDosage		What is the total dosage of the intervention for the comparison group (To calculate, multiply number of contacts x length of the contact sessions)	
METHODOLOGICAL RIGOR			
StudyDesign		What is the study design?	4=Randomized, 3=Convenience sample with testing for group equivalence, 2=Convenience sample without testing for group equivalence, 1=Matched groups
CntrlVar		Does the study control for initial group differences? For yes, circle the number that corresponds to the control method	1=Matched Groups 2=Statistical Controls, 3=Does not Control, 4=Can't Answer
CntrlVarList		List the number of variables that the study controls for (include those used in statistical control or matching)	
CntrlMatch		List the number of variables for which the study controls (either by matching, statistical controls such as logistic regression, or group comparison w/ tests for significance) on which the groups are matched. For instance, if the study compares groups on 10 variables and they are statistically different on 3 of those, put the number 3 here.	

StudyQual		What is the quality of the research design? Note: if the study receives a "1" or a "2" on study quality it should not be included in the meta-analysis. Record the reason the study was excluded in the first section of the code sheet. Studies that use treatment non-completers or treatment refusers as the only comparison group should not be included in the meta-analysis.	5=A **"5"** is assigned to an evaluation with well-implemented random assignment of subjects to a treatment group and a control group that does not receive the treatment/program. A good random assignment study should also indicate how well the random assignment actually occurred by reporting values for pre-existing characteristics for the program and control groups. 4=A **"4"** is assigned to a study that employs a quasi-experimental research design with a program and matched comparison group, controlling with statistical methods for self-selection bias that might otherwise influence outcomes. These methods may include an instrumental variables or Heckman approach to modeling self-selection.A level 4 study may also be used to represent an experimental random assignment design that had problems in implementation, perhaps with significant attrition rates. 3=A **"3"** indicates an evaluation where the program and comparison groups were matched for pre-existing differences in key variables. There must be evidence presented in the evaluation that indicates few, if any, significant differences in these variables. Alternatively, if an evaluation employs statistical techniques (e.g. logistic regression) to control for pre-existing differences, and if the analysis is successfully completed, then a study with some differences in matched pre-existing variables can qualify as a level 3 study. 2=A **"2"** involves a program and matched comparison group where the two groups lack comparability on pre-existing variables and no attempt to control for these differences was reported in the study. 1=A **"1"** involves a study where no comparison group is utilized. Instead, the relationship between a program and an outcome, i.e., recidivism, is analyzed before and after

			the program.
SAMPLE CHARACTERISTICS			
InterventionN		Total number of individuals in the intervention group at the beginning of the study	
CgN		Total number of individuals in the comparison group at the beginning of the study	
IntAge		What is the mean age of offenders in the intervention group? Use the mean as reported in the study. If the study only gives a range, report the age of the youngest person in the study.	
CgAge		What is the mean age of offenders in the comparison group? Use the mean as reported in the study. If the study only gives a range, report the age of the youngest person in the study.	
IntGend		What percent of offenders in the intervention group are male?	
CgGend		What percentage of offenders in the comparison group are male?	
IntEthnicity		What is the race/ethnicity of offenders in the intervention group, give percentages for each?	A=African American B=Asian C=Caucasian D=Hispanic/Latino E=Other F=Not Specified
CgEthnicity		What is the race/ethnicity of offenders in the control group, give percentages for each?	A=African American B=Asian, C=Caucasian D=Hispanic/Latino E=Other F=Not Specified
RiskAssess		Does the study report risk levels for offenders?	1=Yes, 2=No
RiskAssesTool		Does the study use the LSI to assess offender risk?	1=Yes, 2=No
IntRiskLow		Does the intervention group include offenders assessed as low risk?	1=Yes, 2=No

IntRiskMed		Does the intervention group include offenders assessed as medium/moderate risk?	1=Yes, 2=No
IntRiskHigh		Does the intervention group include offenders assessed as high risk?	1=Yes, 2=No
CgRiskLow		Does the comparison group include offenders assessed as low risk?	1=Yes, 2=No
CgRiskMed		Does the comparison group include offenders assessed as medium/moderate risk?	1=Yes, 2=No
CgRiskHigh		Does the comparison group include offenders assessed as high risk?	1=Yes, 2=No
OUTCOME MEASURE(s) (DEPENDENT VARIABLES)			
OutcomeMeasure		What is the outcome (recidivism measure) of the study? If the study reports on multiple outcomes, create a new row on the Excel Spreadsheet for each outcome	1=Arrest, 2=Charge, 3=Conviction, 4=Reinstitutionalization, 5=Technical Violation, 6=Unknown, 7=Other
OutcomeOffense		What types of offenses are included in recidivism measure? Record this information for each outcome. If the study reports on multiple types of offenses, create a new row on the Excel Spreadsheet for each offense type.	1=All Offenses, 2=Drug Offenses, 3=Sex Offenses, 4=Violent Offenses, 5=Technical or Status Offense, 6=Property Offenses
OutcomeOffenseLev		What levels of offense are included in the outcome measure?	1=Felony, 2=Misdemeanor, 3=Both, 4=Not Stated
OutcomeSource		What is the source of the recidivism data? Record this information for each outcome. If the study reports on multiple data sources, create a new row on the Excel Spreadsheet for each data source	1=Self report, 2=Official record, 3=Not Stated

OutcomeTime		At what time point is data collected on the outcome (recidivism) measure? Report this for each outcome. If the study gives a range (e.g. 3 months to 12 months) without reporting separate outcomes for each timeframe, use the average (e.g. 3+12=15/2=7.5 months) If the study reports on multiple data collection points, create a new row on the Excel Spreadsheet for each data collection point	
BEFORE YOU MOVE ON THE NEXT SECTION, BE SURE THAT YOU HAVE CREATED NEW ROWS IN THE EXCEL SPREADSHEET FOR EACH POSSIBLE COMBINATION OF OUTCOME MEASURE, OFFENSE TYPE, OUTCOME SOURCE, AND TIME POINT.			
IF THE STUDY REPORTS RESULTS IN TERMS OF NUMBER OF PARTICIPANTS IN THE COMPARISON AND CONTROL GROUPS WHO RECIDIVATED, COMPLETE THE FOLLOWING SECTION. IF YOU ARE ABLE TO COMPLETE THE FOLLOWING SECTION, AND THE STUDY DOES NOT USE STATISTICAL METHODS TO CONTROL FOR GROUP DIFFERENCES, YOU ARE DONE CODING THIS STUDY. IF THE STUDY DOES NOT REPORT ENOUGH INFORMATION TO COMPLETE THIS SECTION, LEAVE THIS SECTION BLANK AND SKIP TO THE NEXT SECTION. IF THE STUDY USES STATISTICAL METHDODS (E.G. REGRESSION) TO CONTROL FOR GROUP DIFFERENCES, YOU SHOULD ALSO RECORD DATA FOR THE ODDS- OR RISK-RATIO. DEMARCATION BETWEEN SECTIONS IS INDICATED BY A CHANGE OF COLOR.			
OutomeIntN		Total number of participants in the intervention group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point.	
OutcomeIntR		Number of participants in the intervention group who were not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeIntNonC		Number of participants in the intervention group who did not complete treatment (non-completers) Record this information for each outcome measure, offense type, outcome source, and data collection point	

OutcomeIntNonCR		Number of non-completers in the intervention group who were not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeCgN		Number of participants in the comparison group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeCgNR		Number of participants in the comparison group who were not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeCgNonC		Number of participants in the comparison group who did not complete the study (non-completers) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeCgNonCR		Number of non-completers in the comparison group who were not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
Page Num		Record the page number where you found the number of participants who did recidivate	
Table Num		Record the table number where you found the number of participants who did recidivate	

IF THE STUDY REPORTS THE RESULTS IN TERMS OF PERCENTAGE OF PARTICIPANTS IN THE INTERVENTION AND COMPARISON GROUP WHO RECIDIVATED, COMPLETE THE FOLLOWING SECTION. IF YOU ARE ABLE TO COMPLETE THE FOLLOWING SECTION, AND THE STUDY DOES NOT USE STATISTICAL METHODS TO CONTROL FOR GROUP DIFFERENCES, YOU ARE DONE CODING THIS STUDY. IF THE STUDY DOES NOT REPORT ENOUGH INFORMATION TO COMPLETE THIS SECTION, LEAVE THIS SECTION BLANK AND SKIP TO THE NEXT SECTION. IF THE STUDY USES STATISTICAL METHDODS (E.G. REGRESSION) TO CONTROL FOR GROUP DIFFERENCES, YOU SHOULD ALSO RECORD DATA FOR THE ODDS- OR RISK-RATIO. DEMARCATION BETWEEN SECTIONS IS INDICATED BY A CHANGE OF COLOR.			
OutcomeIntPerN		Number of total participants in the intervention group Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeIntPerR		Percentage of the intervention group that was not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeIntPerNonC		Number of participants in the intervention group who did not complete the intervention (non-completers) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeIntPerNonCR		Percentage of non-completers who were not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeCgPerN		Number of participants in the comparison group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	

OutcomeCgPerR		Percentage of the control group that was not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeCgPerNonC		Number of participants in the comparison group who did not complete the study (non-completers) Record this information for each outcome measure, offense type, outcome source, and data collection point	
OutcomeCgPerNonCR		Number of non-completers in the comparison group who were not successful (did recidivate) Record this information for each outcome measure, offense type, outcome source, and data collection point	
Page Per		Record the page number where you found the percentage successful Record this information for each outcome measure, offense type, outcome source, and data collection point	
Table Per		Record the table number where you found the percentage successful Record this information for each outcome measure, offense type, outcome source, and data collection point	
IF THE STUDY REPORTS THE RESULTS IN TERMS OF A CHI-SQUARE, COMPLETE THE FOLLOWING SECTION. IF YOU ARE ABLE TO COMPLETE THE FOLLOWING SECTION, YOU ARE DONE CODING THIS STUDY. IF THE STUDY DOES NOT REPORT ENOUGH INFORMATION TO COMPLETE THIS SECTION, LEAVE THIS SECTION BLANK AND SKIP TO THE NEXT SECTION. SECTION DEMARCATIONS ARE INDICATED BY A CHANGE OF COLOR.			
ChiSquareN		What is the total sample size (both groups) Record this information for each outcome measure, offense type, outcome source, and data collection point	

ChiSquare		What is the chi-square value Record this information for each outcome measure, offense type, outcome source, and data collection point	
Page Chi		Record the page number where you found the Chi Square	
Table Chi		Record the table number where you found the Chi Square	
IF THE STUDY REPORTS THE RESULTS IN TERMS OF AN ODDS-RATIO OR A RISK-RATIO, COMPLETE THE FOLLOWING SECTION. IF YOU ARE ABLE TO COMPLETE THE FOLLOWING SECTION, YOU ARE DONE CODING THIS STUDY. IF THE STUDY DOES NOT REPORT ENOUGH INFORMATION TO COMPLETE THIS SECTION, LEAVE THIS SECTION BLANK AND SKIP TO THE NEXT SECTION. SECTION DEMARCATIONS ARE INDICATED BY A CHANGE OF COLOR.			
RatioIntN		Number of participants in the intervention group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	
RatioCgN		Number of participants in the comparison group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	
OddsRatio		What is the value of the odds-ratio? If the study reports an odds-ratio, you will not record a risk-ratio, but you should record upper and lower confidence intervals. Record this information for each outcome measure, offense type, outcome source, and data collection point	

RiskRatio		What is the value of the risk ratio? If the study reports a risk-ratio, you will not record an odds-ratio, but you should record upper and lower confidence intervals. Record this information for each outcome measure, offense type, outcome source, and data collection point	
RatioCLUp		Record the value of the upper confidence limit (for either the odds-ratio or risk-ratio) Record this information for each outcome measure, offense type, outcome source, and data collection point	
RatioCLLow		Record the value of the lower confidence limit (for either the odds ratio or risk ratio) Record this information for each outcome measure, offense type, outcome source, and data collection point	
Page Ratio		Record the page number where you found the risk or odds ratio	
Table Ratio		Record the table number where you found the risk or odds ratio	
IF THE STUDY REPORTS THE RESULTS IN TERMS OF A LOG ODDS-RATIO OR A LOG RISK-RATIO, COMPLETE THE FOLLOWING SECTION. IF YOU ARE ABLE TO COMPLETE THE FOLLOWING SECTION, YOU ARE DONE CODING THIS STUDY. IF THE STUDY DOES NOT REPORT ENOUGH INFORMATION TO COMPLETE THIS SECTION, LEAVE THIS SECTION BLANK AND SKIP TO THE NEXT SECTION. SECTION DEMARCATIONS ARE INDICATED BY A CHANGE OF COLOR.			
LogRatioIntN		Number of participants in the intervention group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	

LogRatioCgN		Number of participants in the comparison group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	
OddsRatio		What is the value of the log odds-ratio? If the study reports a log odds-ratio, you will not record a log risk-ratio. You should report standard error for the log odds-ratio Record this information for each outcome measure, offense type, outcome source, and data collection point	
LogRiskRatio		What is the value of the log risk-ratio? If the study reports a log risk-ratio, you will not record a log odds-ratio. You should report standard error for the log risk-ratio Record this information for each outcome measure, offense type, outcome source, and data collection point	
LogRatioStanErr		What is the standard error (for log odds-ratio and log risk-ratio only). If the study does not report standard error for the log odds-ratio or log risk-ratio, you should record the variance (below) Record this information for each outcome measure, offense type, outcome source, and data collection point	
Page LogRatio		Record the page number where you found the risk or odds ratio	
Table LogRatio		Record the table number where you found the risk or odds ratio.	

THE STUDY DOES NOT REPORT THE STANDARD ERROR FOR THE LOG ODDS-RATIO OR THE LOG-RISK RATIO, FILL IN THE FOLLOWING ROW (VARIANCE). IF THE STUDY DOES NOT PROVIDE STANDARD ERROR OR VARIANCE FOR THE LOG ODDS-RATIO OR LOG RISK-RATIO, LEAVE THIS SECTION BLAND AND SKIP TO THE NEXT SECTION.			
LogRatioVar		What is the variance (for log odds-ration or log risk-ratio only) Record this information for each outcome measure, offense type, outcome source, and data collection point	
IF THE STUDY REPORTS THE RESULTS IN TERMS OF A HAZARD RATIO (SURVIVAL ANALYSIS OR TIME TO RECIDIVISM), COMPLETE THE FOLLOWING SECTION. IF YOU ARE ABLE TO COMPLETE THE FOLLOWING SECTION, YOU ARE DONE CODING THIS STUDY. IF THE STUDY DOES NOT REPORT ENOUGH INFORMATION TO COMPLETE THIS SECTION, LEAVE THIS SECTION BLANK AND SKIP TO THE NEXT SECTION. SECTION DEMARCATIONS ARE INDICATED BY A CHANGE OF COLOR.			
HazardIntN		Number of participants in the intervention group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	
HazardCgN		Number of participants in the comparison group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	
HazardCLUp		Record the value of the upper confidence limit Record this information for each outcome measure, offense type, outcome source, and data collection point	
HazardCLLow		Record the value of the lower confidence limit Record this information for each outcome measure, offense type, outcome source, and data collection point	
Page Haz		Record the page number where you found the hazard ratio	
Table Haz		Record the table number where you found the hazard ratio.	

IF THE STUDY REPORTS THE RESULTS IN TERMS OF A LOG HAZARD RATIO (SURVIVAL ANALYSIS OR TIME TO RECIDIVISM), COMPLETE THE FOLLOWING SECTION. IF YOU ARE ABLE TO COMPLETE THE FOLLOWING SECTION, YOU ARE DONE CODING THIS STUDY. IF THE STUDY DOES NOT REPORT ENOUGH INFORMATION TO COMPLETE THIS SECTION, LEAVE THIS SECTION BLANK AND SKIP TO THE NEXT SECTION. SECTION DEMARCATIONS ARE INDICATED BY A CHANGE OF COLOR.			
LogHazardIntN		Number of participants in the intervention group at the time of data collection Record this information for each outcome measure, offense type, outcome source, and data collection point	
LogHazardCgN		Number of participants in the comparison group at the time of the intervention Record this information for each outcome measure, offense type, outcome source, and data collection point	
LogHazard		If the study reports the results of a survival analysis (time to recidivism), using a log hazard ratio, give the value of the log hazard ratio Record this information for each outcome measure, offense type, outcome source, and data collection point	
LogHazardSE		What is the standard error of the log hazard ratio Record this information for each outcome measure, offense type, outcome source, and data collection point	
Page LH		Record the page number where you found the log hazard ratio	
Table LH		Record the table number where you found the log hazard ratio.	
IF THE STUDY REPORTS A LOG HAZARD RATIO AND STANDARD ERROR, STOP HERE. IF THE STUDY REPORTS A LOG HAZARD RATIO BUT NOT THE STANDARD ERROR, FILL IN THE NEXT ROW (VARIANCE)			
LogHazardVar		What is the variance of the log hazard ratio Record this information for each outcome measure, offense type, outcome source, and data collection point	

IF YOU WERE ABLE TO COMPLETE INFORMATION ON STUDY OUTCOMES FOR ANY ONE OF THE ABOVE SECTIONS,YOU ARE DONE CODING THE STUDY. IF THE STUDY DID NOT REPORT INFORMATION ON THE OUTCOME MEASURES IN ANY OF THE ABOVE FORMATS, COMPLETE THE FOLLOWING ROWS AND CALL FOR HELP (911).			
ResultsPage		Record the page number where study results are located	
ResultsTable		Record the table number where the study results are located	
Notes		Record information regarding the location of the study, type of offender, assignment of participants, intervention type, and whether there is a difference between groups. Also include information on any decisions you made that would not be obvious based on parameters in code sheet.	

NOTES