COMMONWEALTH OF PENNSYLVANIA

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SUBJECT: Research in Review

TO: Executive Staff

Superintendents Other Readers

FROM: Gary Zajac, Ph.D.

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Enclosed please find Volume 8, Number 3 of *Research in Review* (RIR). This issue includes a series of reviews of articles published in a new journal that debuted in 2005 – the *Journal of Experimental Criminology*, which focuses on experimental and evaluation research (especially using random assignment) that contributes to the advancement of evidence-based criminal justice policy and practice. These articles cover various issues such as sex offender treatment, electronic monitoring, ex-offender employment programs, as well as broad reviews of evidence-based treatment and experimental research within criminal justice.

As always, we welcome your feedback on RIR. We also welcome your suggestions for specific topical areas for future issues. While we cannot promise that we can produce an issue in response to all suggestions offered, we are very much interested in knowing what questions and topics are most interesting to our readers. Future issues of RIR will continue with a review of our own departmental research, as well as article reviews, book reviews, and other relevant pieces.

Thank you for your ongoing interest in Research in Review.

Research in Review

Office of Planning, Research, Statistics and Grants

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Summary and Major Findings of Articles Reviewed

Christy Visher, et al. 2005. "Ex-Offender Employment Programs and Recidivism: A Meta-Analysis." *Journal of Experimental Criminology*, 1(3), 295-315.

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This article is a meta-analysis of community-based employment programs for released offenders. Evidence from this meta-analysis suggests that such programs are largely ineffective in reducing recidivism rates.

Guy Bourgon, et al. 2005. "Transferring the Principles of Effective Treatment Into a 'Real World' Setting." *Criminal Justice and Behavior*, 32(1), 3-25.

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This article provides more evidence of the validity of the "principles of effective correctional intervention" through a study of over 600 inmates in the Canadian federal prison system. Among several interesting findings from this study, each additional week of treatment provided to the offenders in this study resulted in a reduction in recidivism of up to 1.7 percent. The greatest treatment effects were seen for high risk offenders, who required at least 200 hours of treatment before any effects were seen.

Marc Renzema, et al. 2005. "Can Electronic Monitoring Reduce Crime for Moderate to High Risk Offenders?" *Journal of Experimental Criminology*, 1(2), 215-237.

This study examines the body of research over the past two decades on various forms of electronic monitoring (EM) in an attempt to derive overall conclusions about the impact of EM on reducing recidivism. This analysis found that the existing research on EM is relatively limited, and what conclusions can be drawn do not support the notion that EM by itself has significant impacts on criminal behavior.

Friedrich Losel, et al. 2005. "The Effectiveness of Treatment for Sexual Offenders: Page 7 A Comprehensive Meta-Analysis." *Journal of Experimental Criminology*, 1(1), 117-146.

This article reports on a review of nearly seventy evaluations of a variety of sex offender treatment programs in several countries, finding that treatment for sex offenders reduces recidivism on average by 6 percentage points. The most effective approaches were cognitive-behavioral treatment programs.

David Farrington, et al. 2005. "Randomized Experiments in Criminology: What Have We Learned in the Last Two Decades?" Journal of Experimental Criminology, 1(1), 9-38. Page 8

This article reviews findings from 83 randomized experiments in criminology over the past two decades. Findings are somewhat disappointing in that only 16 of 83 experiments produced significantly desirable results. Given the relative dearth of experimental research in criminology, this review also points to the need for an expansion of such studies.

Christy Visher, Laura Winterfield, and Mark Coggeshall. 2005. "Ex-Offender Employment Programs and Recidivism: A Meta-Analysis." *Journal of Experimental Criminology*, 1(3), 295-315.

In the emerging prisoner reentry literature, some research has indicated that maintaining a legitimate job serves as a protective factor that lessens the probability of recidivism for released offenders. Over the past 30 years, both in-prison and community-based job training programs have expanded to aid offenders in the area of employment upon release from prison. The evaluation literature has provided mixed to negative support for the effectiveness of in-prison job training programs, including a meta-analysis of 33 such programs. While several evaluations of community-based employment programs have also been conducted, the results have not been systematically compiled and reviewed. This meta-analysis examines the existing empirical evidence of the impact of community-based employment programs on recidivism.

For a study to be included in this meta-analysis, several selection criteria were chosen. First and foremost, only studies were selected that utilized an experimental design with random assignment to either a treatment or control condition, in order to ensure a pool of only the most methodologically rigorous studies. Second, only studies of adult offenders were eligible for review; studies of juvenile offenders were precluded. Third, all included studies had to have been of programs delivered outside of prison (studies of programs in halfway homes or group homes were eligible). All included programs had to have incorporated a job-placement or job-training component, although other additional components such as life-skills training and remedial education may have been a part.

Since one criticism of meta-analysis has been its over-reliance on summarizing published studies where positive programming effects are often more likely to be reported, the studies in this meta-analysis were not limited to those that had been published. Contacts with leading researchers, searches of bibliographies from related literature, and searches of computerized databases turned up 35 potential studies. Of these studies, eight met the criteria for inclusion in the meta-analysis. Combining across all eight studies, a sample of slightly over 6,000 offenders were represented in this review. The represented programs included a diverse range of targets and participants. Four of the eight studies included programs with female offenders. The follow-up periods for the studies ranged from 6 to 36 months.

The results of this meta-analysis suggest that, on average, community-based employment programs such as the ones represented in these eight studies have no significant impact on the likelihood of reoffending among ex-offenders. From the eight studies, ten measures of program impact (i.e., effect sizes) were extracted. The average effect size was found to be 0.03, which is not statistically significant. This provides strong evidence to suggest that, taken as a whole, the treatment and control groups in these studies reported virtually equal recidivism rates. In fact, four of the effect sizes actually slightly favored those assigned to the control groups over those assigned to community-based employment programs, although the differences were insignificant from a

statistical standpoint. Even when several quasi-experimental studies of more recent community-based employment programs were examined, none reported that the programs significantly reduced recidivism. Thus inclusion of these studies in the meta-analysis appeared unlikely to alter the conclusion. The only significant effect size favoring those who participated in a community-based employment program was for a sample of older subjects (ex-offenders who were 26 or older), perhaps suggesting that community-based employment programs provide some reduction in recidivism for older ex-offenders.

This meta-analysis reveals the need for further rigorous evaluations of employment training programming for ex-offenders. Only eight studies could be identified that used an experimental design with random assignment. Of the eight studies, the primary interventions and target populations were quite disparate. Future evaluations may reveal significant reductions in recidivism for programs with certain employment targets or that serve specific sub-populations of offenders (e.g., older offenders). Given the current standing evidence, however, community-based employment programs appear largely ineffective in reducing recidivism rates.

Guy Bourgon and Barbara Armstrong. 2005. "Transferring the Principles of Effective Treatment Into a 'Real World' Setting." *Criminal Justice and Behavior*, 32(1), 3-25.

A significant body of research evidence supports the conclusion that prison and community-based treatment interventions can contribute to a reduction in recidivism of criminal offenders. This reverses a consensus that seemed to have developed in the 1970's that "nothing works" in rehabilitating criminals. We understand now that the more appropriate question is "what works for whom and under what circumstances?".

Not all treatment programs are created equal. Some have a much better chance of succeeding than others. Exactly how treatment services are organized, managed and delivered explains a great deal of the variation in their effectiveness. Decades of research and evaluation of offender programs have identified a set of characteristics of effective programs that have been distilled in the "principles of effective correctional intervention". Programs that closely follow these principles can reduce recidivism rates by thirty percentage points or more; programs that ignore these principles can actually put offenders at an increased risk of continued criminal activity.

One of the most important principles is the *risk principle*, which states that treatment (especially intensive treatment) should be targeted to high risk offenders (those most likely to continue committing criminal acts), as they are likely to fail without treatment. Low risk offenders should receive little if any treatment, as they will likely succeed even without intervention. Intensive treatment provided to low risk offenders can actually increase their risk of recidivism. The *needs principle* indicates that treatment should be targeted to those factors that are directly predictive of criminality, such as antisocial attitudes and poor decision making. The *intensivity principle* tells us that treatment must reach a certain threshold of intensity (usually at least three months) to be effective.

The current study represents another empirical exploration of these principles. The Rideau Correctional and Treatment Center (RCTC) in Ontario, Canada, offers a broad-based cognitive behavioral treatment regimen to incarcerated offenders in either a five, ten or fifteen week dosage. Each week represents approximately twenty hours of treatment. This program targets the antisocial attitudes, values, beliefs and skills that maintain criminal deviance. All three versions of this program had previously been assessed with the Correctional Program Assessment Inventory (CPAI) and scored well on this tool that rates programs against the principles.

This study followed 482 offenders who received the RCTC treatment and another 138 inmates who did not for a period of at least one year following their release from prison. Recidivism was defined as <u>any</u> return to prison within one year. Inmates admitted to RCTC are assessed for risk of recidivating with the *Level of Service Inventory* and receive various needs assessment tools, such as the *Criminal Sentiments Scale* (a version of which is also used in the PADOC). The vast majority of the inmates in the study demonstrated multiple risk factors, such as substance use, anger control and criminal attitudes. Inmates who did not receive treatment (the comparison group of 138 inmates) were mostly those who were not able to be moved into a treatment slot before release from the program, although all were classified as needing treatment.

For all 620 inmates in the study, recidivism was found to be moderately to strongly and significantly correlated with risk level (LSI score) and with number of criminogenic needs; the higher risk/needs offenders had higher recidivism rates, regardless of treatment. Non-criminogenic needs (e.g. anxiety/depression) were not found to be related to recidivism. This reinforces the importance of assessing risk and need and of targeting those factors most directly correlated with criminal behavior.

Looking at treatment effects, this study found support for the intensivity principle. Overall, each additional week of treatment (up to the maximum of fifteen weeks) produced a reduction in recidivism of up to 1.7 percent, controlling for risk and need level. For all 482 treated inmates, who averaged nearly two months of treatment, the recidivism rate was 28.4 percent. For the inmates in the comparison group receiving no treatment, the rate was 41.3 percent. Thus, treatment overall at RCTC produced a significant reduction in recidivism.

The intention at RCTC is generally to assign inmates to a length of treatment corresponding to their risk/needs, with higher risk/needs inmates receiving more treatment. As with any treatment program, however, practical considerations sometimes confound this intention. The result is that a certain number of inmates receive either shorter or longer treatment than would be indicated by their assessment. This produced an ideal situation for evaluation, enabling the researchers to examine differential outcomes across varying dosages of treatment and levels of need.

For lower to moderate risk offenders presenting with relatively few needs, the five week treatment modality was sufficient to reduce recidivism significantly, compared to similar offenders receiving either no treatment or more treatment. Inmates who were recommended for fifteen weeks of treatment (high risk, multiple needs inmates) and who actually received fifteen weeks of treatment recidivated at lower rates than similar inmates who received a lower dosage of treatment. The five week treatment model had no impact on these high risk/needs inmates. Interestingly, even though the high risk/needs inmates receiving the full fifteen weeks of treatment recidivated at a rate that was twenty percentage points lower than their completely untreated counterparts, this difference was not statistically significant (meaning it could have been a product of chance). Thus, while increasing levels of treatment for these high risk offenders did push down their recidivism rates, even 300 hours of treatment was not sufficient to generate a high level of confidence that treatment overall made a significant difference for them.

This study finds more support for the principles of risk, need, and intensivity, although it leaves open the question of how much treatment is enough for the highest risk offenders. Even 300 hours of intervention (nearly a four month program) did not seem sufficient to produce a large impact on the worst offenders. This suggests that programs shorter than four months may have little benefit for changing the worst actors in the criminal justice system. More research is needed into the threshold of effect for higher risk offenders.

Marc Renzema and Evan Mayo-Wilson. 2005. "Can Electronic Monitoring Reduce Crime for Moderate to High Risk Offenders?" *Journal of Experimental Criminology*, 1(2), 215-237.

Electronic monitoring (EM) of offenders on community release, or as an *alternative* to more restrictive sanctions such as prison, began on an experimental basis in the 1960's. EM achieved much more currency as a correctional supervision strategy in the 1980's, and has since branched out to include "traditional" ankle bracelets, devices that automatically test for alcohol or other drug consumption in homes or automobiles through analysis of sweat or breath, and most recently Global Positioning Systems (GPS) that can provide real time data on offender location. There is even a quasi-scholarly journal dedicated to EM systems – the *Journal of Offender Monitoring*. At present there are approximately 100,000 offenders on some form of electronic monitoring at any given time in the U.S.

Despite this growing utilization of the various forms of EM, no definitive conclusions have been drawn about the effectiveness of EM in reducing offender recidivism. At least a half dozen attempts have been made to synthesize and review the existing body of EM research. On the whole, none of these reviews were able to substantiate any positive impacts of EM in reducing recidivism. At least one review found some evidence of an increase in recidivism associated with EM. Other evidence points to a modest reduction in recidivism when EM is coupled with treatment, but it is unclear what was contributing the most to these effects – the treatment or the EM by itself.

The present study undertakes another review (meta-analysis) of the EM evaluation literature. They attempt to improve on previous reviews in several ways: by including unpublished studies and agency reports, that may have been ignored in the past, by including only studies that meet certain

minimum methodological standards (as established by the *Campbell Collaboration*, which reviews social science research into effective public policy solutions), by searching for studies that include longer follow-up periods, by examining the integrity with which the EM strategy was actually implemented (i.e. was EM used as intended in the program that was studied, or were there significant deviations from the monitoring strategy that would threaten the validity of the findings), and by more closely examining any treatment elements used in conjunction with the EM. This review also focused only upon EM as applied to higher risk offenders, given that one is most likely to find intervention effects of any sort with high risk offenders.

The authors searched for research studies conducted from 1986 to 2002 in the U.S. and at half a dozen other countries. A total of 119 possible evaluation studies were found, which were subjected to the rigorous selection process outlined above, resulting in only three studies that met the criteria for inclusion in this review. One study evaluated a program in Georgia, another a program in Canada, and the third a program in England. None of these involved GPS tracking – the latest development in EM technology. Nine other studies nearly met the criteria for inclusion in this review, but still contained some "fatal flaw" that could not allow the reviewers to have sufficient confidence in the findings.

None of the three studies could support a strong conclusion that EM by itself had a significant impact on offender behavior. The Georgia evaluation founds modest effects of EM on suppressing deviant behavior while the offenders were actively subject to the EM; after removal from EM, these offenders recidivated at the same levels as offenders in the no-EM control group. Many of the sex offenders in the Georgia study received an intensive treatment program while on EM. The reviewers were not able to disentangle the effects of this treatment from the effects of the EM itself based upon the report of this study. The Canadian study could not provide evidence that EM by itself reduced recidivism rates, but it did find that EM seemed to promote higher levels of compliance with the treatment that the monitored offenders were participating in, thus possibly have an indirect positive impact on recidivism. The British study found that nearly three-quarters of the offenders subjected to EM had been reconvicted of a new crime within two years, hardly a promising picture for EM.

The authors conclude that at this point there is simply no solid basis for drawing strong conclusions about the effectiveness of EM in reducing criminal behavior of offenders. Much more needs to be learned about how these technologies interact with more traditional treatment approaches in controlling offender behavior. What evidence does exist suggests that EM may be more useful for controlling offenders (e.g. promoting their compliance with terms of supervision) than for actually changing them (i.e. producing lasting improvements in their behavior). The broader body of knowledge about "what works" in rehabilitating offenders would support this conclusion.

The authors offered several suggestions to policy makers considering the adoption of EM: consider carefully the full range of options available for supervising offenders including but not limited to EM; match EM with appropriate treatment programs; develop specific goals around the use of EM (e.g. for tracking offenders who pose a special risk to public safety); recognize that EM may cause unintended consequences (e.g. reincarceration of offenders who become delinquent on fees

associated with EM, which may explain the increases in recidivism found with EM in some studies); carefully monitor the benefits that EM is producing for your agency. EM may be a useful part of an overall correctional strategy, but it is not likely to be a panacea.

Friedrich Losel and Martin Schmucker. 2005. "The Effectiveness of Treatment for Sexual Offenders: A Comprehensive Meta-Analysis." *Journal of Experimental Criminology*, 1(1), 117-146.

Sex offenders represent what is often thought to be one of the most difficult types of criminal offender to rehabilitate. A consensus has emerged over the past several decades that treatment for offenders in general can and does work, and the common assumption is that this conclusion applies equally to sex offenders. On the whole, research into the efficacy of sex offender treatment suggests that such treatment moderately reduces recidivism rates.

The authors of this study argue that the existing body of evidence supporting the effectiveness of sex offender treatment is not as clear as one might wish. They note difficulties with studying these types of programs, such as the reluctance of the criminal justice system *not* to treat sex offenders (making comparison groups difficult) and the low *official* rate of sexual recidivism (thus requiring large samples to find significant effects). They characterize their current study as the most comprehensive review of sex offender treatment research to date and attempt to draw more substantial conclusions about what works with sex offenders.

The authors searched for sex offender research studies published up through 2003 that met a set of eight criteria for inclusion in their review, such as a threshold for sample size, a clearly described measure of recidivism and evidence of other methodological components that would ensure some basic quality to the evaluation. Their search produced 549 studies that appeared to meet their criteria. After further review and screening, a total of 69 studies were deemed eligible for inclusion in their review, representing over 22,000 sex offenders from several countries (the majority were in North America). The programs evaluated in these studies included prison and community-based treatment, juvenile and adult programs, behavioral and physical therapeutic (e.g. physical castration and hormonal therapy) approaches, and programs targeted towards the wide range of sex offenders (e.g. molesters, rapists, non-contact offenders, etc.). Each study included a recidivism follow-up period of at least one year. Although it is not clearly specified, it appears that all programs focused only on male offenders.

Taking all 69 studies as a whole, the average *sexual* recidivism rate for the untreated sex offenders was 17.5 percent; for the treated sex offenders, it was 11.1 percent. Thus, sex offender treatment produced a 37 percent, or 6.4 percentage point, reduction in sex offending. Looking at *all* types of recidivism (sexual and non-sexual), the rate was 32.5 percent for the untreated sex offenders and 22.4 for the treated sex offenders; thus, treatment reduced general offending for sex offenders by 31 percent, or 11.1 percentage points.

Looking at type of treatment, physical treatments (e.g. castration, hormonal therapy) had larger effects than non-physical treatment (e.g. traditional psychosocial therapy). The authors suspect that the offenders accepting extreme "therapies" such as castration may be highly motivated to extinguish their sexually deviant behavior and thus may be lower risk than the comparison group inmates in these studies, thus calling into question the true impact of such approaches. Among non-physical therapies, cognitive-behavioral approaches were found to be the most effective; non-behavioral approaches such as insight oriented psychotherapy (i.e. "talking cures") showed no impact at all. Indeed, the findings with regard to cognitive-behavioral therapy seemed to be among the strongest of this review.

Looking at other interactions between treatment and outcome, the following seemed to be associated with larger reductions in recidivism: treatment in a community as opposed to a prison setting, completing a treatment program (treatment drop-outs had significantly elevated rates of recidivism) and treatment for juveniles as opposed to adults. Neither individual versus group settings nor compulsory versus voluntary treatment seemed to make a large difference in outcomes.

The authors conclude that their review of the literature on sex offender treatment provides support for such treatment, especially where cognitive-behavioral interventions are used. The existing body of research, though, is of a moderate level of quality, using a technique to rate the rigor of research designs. They conclude that more rigorous evaluation of these treatment approaches would further refine our understanding of their potential for changing deviant sexual behavior.

David P. Farrington and Brandon C. Welsh. 2005. "Randomized Experiments in Criminology: What Have We Learned in the Last Two Decades?" *Journal of Experimental Criminology*, 1(1), 9-38.

A large body of evaluation literature has accumulated over the past several decades in criminology. Unfortunately, one of the major methodological problems facing the bulk of this accumulated research involves concerns over internal validity (i.e., alternative explanations for observed findings). In short, relatively very few studies have been able to utilize methodologies that unambiguously attribute the effects of the researched intervention to a dependent outcome variable such as rearrest or reincarceration. A randomized experiment, in which units are randomly assigned to either an experimental or control condition, is recognized within behavioral and social science as the "gold standard" of research design with the highest possibility of ruling out threats to internal validity. Despite the methodological advantages of randomized experiments, however, surprisingly few such studies have been carried out in criminology. The main aim of Farrington and Welsh's paper is to review randomized experiments in criminology that have been published since 1982 and include some sort of criminal offending outcomes.

Experiments were included in this review if: 1) the units of analysis (i.e., persons or places) were randomly assigned to either a treatment or control condition, 2) at least 50 units were initially assigned to each condition, 3) an outcome measure of offending was used (as opposed to self-

reported drug use, childhood antisocial behavior or inmate misconduct, for example), and 4) the experiment was published in English. A systematic search of books, journals, online databases, and agency reports, as well as consultation with other leading researchers, was utilized to identify the pool of eligible experiments. A total of 83 experiments were identified for inclusion. Results were summarized by categorizing experiments into five categories: policing, prevention, corrections, court, and community.

Twelve policing experiments were reviewed. Seven of these experiments examined the effects of arresting suspected perpetrators of domestic violence (as opposed to ordering the suspect to leave the premise for eight hours, etc.) on subsequent rearrests for spousal assault. Two of the seven experiments produced statistically significant results, both favoring the experimental group (rearrests decreased by around 50% for those initially arrested in these two studies). Two police experiments examined the effects of deterrent police activity in "hot spots" (or high crime locations), where the units of randomization in these studies were areas instead of individuals. Both studies found that areas targeted as "hot spots" reported decreased crime calls for police service, although the decrease was statistically significant in only one of the two studies. One study compared the impact of the role of police in controlling social disorder or civil remedies (e.g., coercing landlords to clean up blighted properties, enforcing civil law codes, etc.) versus the role of police in using traditional police tactics (surveillance, arrests and field interrogations). Observations of street blocks demonstrated that the mean number of males selling drugs decreased from 3 to 2 on those blocks where police were randomly assigned to primarily monitor civil disorder, compared to an increase in the mean number of males selling drugs from 5 to 22 on blocks where traditional police tactics were used. One experiment investigated the impact of a repeat offender program where police targeted certain chronic offenders to try and increase their probability of being convicted. The experimental offenders were significantly more likely to be eventually convicted. Finally, in an experiment where rental properties suspected of drug activity were randomly assigned to either receive a letter/visit from the police or no "treatment", it was found that significantly fewer crimes were reported in the 30-month follow-up period in those places receiving a letter/visit from police.

Thirteen prevention experiments were examined in this review. Five of the 13 experiments found that the intervention had significantly desirable effects in reducing later offending. A study of a home visitation/parent education program where nurses visited mothers and gave them advice about child-rearing practices found that children of visited mothers were arrested at significantly (54%) lower rates than children of non-visited mothers during a 15-year follow-up period. Three studies of the impact of cognitively-oriented preschool programs on arrest rates found mostly positive results, although none were statistically significant. Another evaluation of a multi-modal program focusing on a combination of child skills training and parent training found statistically significant reductions in future offending (53%) for young boys, while a second multi-modal program targeted at reducing the number of risk factors to which adolescents are exposed produced positive but statistically insignificant results. Five experiments evaluated the widely-utilized Multisystemic Therapy (MST) program, a multimodal intervention for serious juvenile offenders. Four of the five trials of MST found that the intervention was effective in reducing later offending, with two of the four reductions reaching the level of statistical significance. An evaluation of the Big Brothers Big Sisters program

found that while the program had some auxiliary beneficial effects, it had no effect on self-reported violence. Finally, a vocational/educational program for juveniles (Job Corps) demonstrated statistically significant reductions in future arrest rates for those juveniles who had never been arrested (re-arrest rates were not significantly reduced for those juveniles who had previously been arrested).

Fourteen experiments of correctional interventions met the criteria for inclusion in this review. The first two experiments examined the impact of Scared Straight programs, both concluding that the program significantly increased re-offending for Scared Straight participants. Four experiments evaluated the effectiveness of juvenile boot camps. Three of the four experiments found no effect for juvenile boot camp participants while the fourth actually found a significant increase in reoffending for participants. Interestingly, four experimental evaluations of cognitive-behavioral treatment programs (i.e., Paint Creek, Reasoning and Rehabilitation, Social Therapy, and Moral Reconation Therapy) revealed no significantly desirable impact on offending for these programs. Re-offending rates were somewhat lower for the Paint Creek, Reasoning and Rehabiliation, and Social Therapy programs but did not reach a level of statistical significance. These findings are somewhat unexpected, given the general support that cognitive-behavioral programs have received in recent meta-analytic reviews of correctional programming. Three experiments evaluated prisonbased therapeutic community (TC) programs for drug-involved inmates. Two of the three studies found lower re-offending rates for TC participants, however only one of the two reductions reached a level of statistical significance. The third TC study revealed higher but statistically insignificant re-offending rates for TC participants. Finally, one experimental evaluation of a cognitivebehavioral program for sex offenders produced statistically insignificant reductions in sexual reoffending for the treatment group.

A total of 22 court experiments were identified. Three experiments examining the impact of court-mandated treatment for male domestic violence offenders found mostly encouraging results, although only one study demonstrated re-offending rates that reached a level of significance. Five experiments on the impact of frequent pretrial drug testing on arrests while on bail produced mixed findings, with one study producing a significantly desirable effect, a second study producing a significantly undesirable effect, and the remaining studies producing mixed insignificant results. Experimental evidence appears to support the "drug court" model, with two out of three evaluations of drug courts producing a significant decrease in re-arrests for participants. An evaluation of court petitioning versus release of arrested juveniles revealed significantly higher rearrest rates for those juveniles who were referred to the court. The remaining ten court experiments involved evaluations of restitution orders or similar restorative justice type practices. While the majority of the studies (seven) found positive effects for such sanctions, none of the ten studies produced a statistically significant effect size.

Lastly, a total of 22 community experiments were identified in this study. The overwhelming majority of these experiments (13 studies) examined the impact of intensive probation/parole supervision. Only one of these studies reported a significant reduction in re-offending for those under intensive supervision. Most studies reported a null effect for such supervision. One study

actually concluded that there was a 94% increase in re-offending for those under intensive probation/parole supervision. Three experimental evaluations of aftercare/reintegration programming for ex-offenders produced no significant findings (i.e., no significant differences in re-offending between treatment and control groups). The final six community experiments were quite heterogeneous, all producing statistically insignificant differences between treatment and control groups. These studies included an evaluation of: 1) the Reasoning and Rehabilitation program among parolees, 2) community service, 3) involuntary outpatient commitment, 4) a relapse prevention program for drug addicts, 5) an outpatient acupuncture program, and 6) a voucher program enabling poor families to move to better areas.

While the use of randomized experiments in criminology has increased over the past two decades, such studies remain relatively uncommon in comparison to the vast body of existing studies using less rigorous methodologies. Further, the outcomes of these studies have been somewhat disappointing, given that only 16 out of 83 experimental studies have produced significantly desirable results (only 1 out of 14 producing significantly desirable results in the area of corrections). This review of criminological experiments provides a balanced contrast to findings from previous reviews of criminological research using meta-analysis. The advantage of this review is that only the most rigorous criminological studies are summarized, whereas the advantage of a meta-analytic review is that problems relating to statistical significance testing due to smaller sample sizes are accounted for. A statistically significant result in an individual study might reflect a large effect within a small sample or a small effect within a large sample. Indeed, several of the experiments summarized above revealed fairly impressive reductions in re-offending rates for the experimental group yet failed to demonstrate any statistically significant results due to smaller sample sizes (although all sample sizes were above 100, as noted in the inclusion criteria). Clearly more experimental research needs to be combined with meta-analytic summaries of such research to further improve our confidence in the results. Still, this review of randomized experiments within criminology serves as a balanced caution against assuming that we know more than is actually known in our understanding of criminal behavior. In the end, the motivation should be to improve our methodologies and expand the use of experimental research within corrections (and more broadly in criminology). As the authors of this review point out, "there is a moral imperative for randomized experiments in crime and justice because of our professional obligation to provide valid answers to questions about the effectiveness of interventions."