Policy, Oversight, and Administration: Research Methods and Statistics Qualifying Exam  
August 2011

Instructions: You have four hours to answer two questions. The exam is in two parts. Students must answer all elements of Part 1 and pick one question in Part 2 to answer. Be sure to read the questions carefully and to answer as fully and concisely as possible.

Attached is a two-page summary of the Brooklyn Treatment Court (BTC) program that provides an overview of program goals, target population, services provided, and evaluation outcomes. The summary is abstracted from the CrimeSolutions.gov website. CrimeSolutions.gov is a project of the U.S. Department of Justice, Office of Justice Programs that features evidence-based analysis of programs that have shown tangible results in preventing and reducing crime and serving crime victims.

Part 1: Answer the following

How would you go about estimating the actual costs and benefits of the BTC program? Use a “bottom-up” approach in valuing the program’s costs and benefits. In describing the program costs, use the categories of direct costs, overhead costs, and capital costs. In considering both program costs and benefits, differentiate between the perspectives of: a) the individual/target (program recipient), b) the victim, c) the organization/program sponsor, and d) the community or society in general. In considering the benefits of the program, how would you go about valuing different outcomes of the BTC program, including: a) better recidivism rates at 3 & 4 years, b) a longer time to re-arrest among those who did recidivate, and c) fewer felony, misdemeanor, and drug convictions. As no financial data is provided in the program summary, you are limited to identifying areas or categories of costs and benefits rather than specific values. Provide references to the cost-benefit analysis literature as appropriate.

Part 2: Select one of the following two questions

Question A

Describe some of the alternative methods used to estimate the costs of crime, including contingent valuation, proxy values (e.g., jury awards), and revealed preferences (e.g., hedonic pricing). Use information from the BTC program description in providing examples. Discuss the pros and cons of using each of these techniques, citing the cost benefit analysis literature (e.g., March, Cohen, Netten, Bowles, etc.) in support of your views. Conclude your essay by taking and defending a position either supporting or opposing more widespread use of cost-benefit analysis in the evaluation of criminal justice programs.

Question B:

Although at least one outcome evaluation of the BTC has already been conducted, discuss how an evaluability assessment of the program might be used to help better assess program theory and clarify the program design. Provide a basic flowchart (or logic model) of the program impact theory suggested in the description of the BTC program. Include, at minimum, the program inputs, activities, outputs, and outcomes (including both proximal and distal outcomes). How would you describe the service utilization plan of the BTC (i.e., “the sequence of events through which the intended clients are expected to interact with the intended services” (Rossi, Lipsey & Freeman, 2004, p. 168))? Finally, what, if any, additional information about the BTC program would you like to have in order to more thoroughly articulate the service utilization plan?
Program Goals
The Brooklyn Treatment Court (BTC) is the first drug court in New York City that offers substance abuse treatment for nonviolent felony and misdemeanor drug offenders. Through court-monitored treatment for eligible defendants, the court aims to break the cycle of addiction, crime, and incarceration. BTC uses a postplea model in which defendants plead guilty to an eligible drug charge before participating in the drug court and agree to a specific jail or prison sentence to be served in the event of program failure. Upon graduation, the plea is vacated, and the case, dismissed.

Target Population/Eligibility
BTC begins with an automatic screening process at arraignment. Paper-eligible cases (cases that involve defendants arrested on drug felony charges within Brooklyn) are identified and referred to BTC for legal and clinical screening. The legal screening is used to determine whether a case involves heavy trafficking as opposed to sales to support a drug habit, sales that occurred inside a store, and sales that occurred near school property. For cases found legally eligible, the clinical screening is conducted by an onsite case manager to determine whether the defendant has a drug addiction and whether certain other criteria are met (such as U.S. legal residence and no severe co-occurring physical or mental illness).

Depending on the charges in the plea agreement and the defendant’s prior criminal history, BTC participants must agree to one of four treatment mandates: misdemeanor, first felony, multiple felony, or predicate felony. The treatment mandates determine the minimum length of participation in BTC and the amount of time defendants must serve if they fail the program. For example, defendants who plead guilty to a misdemeanor are mandated to a minimum of 8 months in BTC and face 6 months in jail if they fail. In addition to the time requirements, defendants who plead guilty to a misdemeanor must complete two community service projects; all other defendants must complete three.

Each treatment mandate is divided into three distinct phases of treatment. All three phase minimums must be completed as consecutive drug-free and sanction-less time. To complete phase 1, for example, a defendant must complete 4 consecutive months of treatment and remain drug free and sanctionless. If a participant does receive a positive drug test or a sanction, the time count starts over at month 0. This makes it more challenging for defendants to complete phase 1 than to simply total 4 cumulative months of treatment time.

BTC participants must also agree to a treatment plan that specifies an initial assignment to a specific treatment modality, such as detoxification, residential, intensive outpatient, methadone maintenance, or halfway house. Once participation begins, the court can change the treatment plan as deemed appropriate and necessary.

Services Provided
A case management team is responsible for all key clinical decisions, including eligibility, initial treatment plan, placement in a specific program, and decisions to change the treatment plan during participation. Program participants continue to see their case manager during treatment to discuss progress or problems. During these visits, case managers can provide support for participants doing well with treatment, or, in some cases, provide warnings to those who are doing poorly. Participants are drug tested whenever reporting for a scheduled visit with their case manager.

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Summary of the Brooklyn Treatment Court (BTC) from the Office of Justice Programs’ CrimeSolutions.gov website (http://www.crimesolutions.gov/ProgramDetails.aspx?ID=44)
In addition to visits with a case manager, BTC also requires regular court appearances before the drug court judge. The appearances are usually every 1 to 2 weeks at the beginning of participation, and then monthly thereafter. The judge is in charge of administering a system of graduated rewards and sanctions. Rewards may include verbal encouragement, requests for courtroom applause, or a formal certificate of achievement. The judge may sanction a participant by requiring extra court visits, reassigning participants to a more intensive treatment modality, or ordering a temporary jail stay. BTC has a formal schedule to help standardize and clearly convey to participants the likely consequences of each type of infraction; the judge, however, can deviate from the schedule on a case-by-case basis.

Evaluation Outcomes:
Postarrest Recidivism
Rempel and colleagues (2001) found that participation in the Brooklyn Treatment Court (BTC) reduced recidivism by 27 percent after 3 years and by 18 percent after 4 years, relative to the comparison group level. For those who did recidivate at least once, the average number of days to the first rearrest within 4 years was 524 days for BTC participants, compared to 391 days for the comparison group. With respect to specific charges, after 3 years, BTC participants were about half as likely as the comparison group to have a new felony conviction; the difference continued and remained significant at 4 years as well. BTC participants were also less likely to have a new misdemeanor and new drug conviction at both 3 and 4 years.

Multivariate analysis allowed the study authors to control for the significant differences between the treatment and comparison group on three variables (prior felony conviction, sex, and race/ethnicity). After controlling for background characteristics, BTC participants still had a significantly lower probability of recidivism at 3 and 4 years. Survival analysis showed that at the 18-month mark, 79 percent of the treatment group but only 66 percent of the comparison group had avoided rearrest, a 13 percent difference. However, by year 4, the difference between the groups had declined, such that 64 percent of the treatment group and 56 percent of the comparison group had avoided rearrest, a difference of only 8 percentage points.

Postprogram Recidivism
The results showed that BTC participants had a significantly lower probability of reconviction than comparison group members at 1 year postprogram (17 percent versus 23 percent, respectively). After 2 years, the magnitude of impact was similar but did not reach statistical significance (28 percent versus 33 percent). The 1-year outcomes show that drug court participation resulted in a 26 percent relative reduction in reoffending. The impact on recidivism was strongest for BTC participants who graduated from the program. Only 6 percent of graduates were reconvicted within the 1 year postprogram and only 11 percent within 2 years. Of the BTC participants who failed, 27 percent had a new conviction within the 1 year, and 46 percent after 2 years.

The logistic regression confirmed results from the bivariate analysis. BTC participation predicted significantly lower recidivism at 1 year. There was a similar positive impact after 2 years, but it was not statistically significant. Drug court participants were also half as likely as the comparison group to have a new felony conviction after 1 year (4 percent versus 8 percent, respectively) but there were no significant differences in misdemeanor or drug-related offending.