

RESEARCH UPDATE**REPORTS ON RECENT
DRUG COURT RESEARCH**

This issue of the Drug Court Review synthesizes reports on two studies in the field of drug court research and evaluation, and has included the Executive Summary of each: The New York State Adult Drug Court Evaluation: Policies, Participants, and Impacts; and A Cost-Benefit Analysis of the St. Louis City Adult Felony Drug Court.

ARTICLE SUMMARIES**NEW YORK STATE
EVALUATION**

[15] This study is among the first to analyze drug court policies and participant characteristics across eleven drug court sites, including urban, suburban, medium-sized cities, and semi-rural areas. This study is also among the first to demonstrate consistent and meaningful recidivism impacts across a large number of sites.

**SAINT LOUIS COST-
BENEFIT ANALYSIS**

[16] This study found that while the overall initial costs of drug court exceeded those of probation, when compared against the benefits to the community after drug court, a net savings of \$2,615 per graduate was realized in the first 24 months following drug court; similarly, a net savings of \$7,707 per drug court participant was realized over four years following drug court.

**THE NEW YORK STATE ADULT
DRUG COURT EVALUATION:
POLICIES, PARTICIPANTS AND IMPACTS**

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EXECUTIVE SUMMARY

By combining drug treatment with ongoing judicial supervision, drug courts seek to break the cycle of addiction, crime, and repeat incarceration. While practice varies widely from state to state (and county to county), the outlines of the drug court model are clear: addicted offenders are linked to treatment; their progress is monitored by a drug court team composed of the judge, attorneys, and program staff; participants engage in direct interaction with the judge, who responds to progress and setbacks with a range of rewards and sanctions; and successful participants generally have the charges against them dismissed or reduced, while those who fail receive jail or prison sentences.

This report evaluates adult drug courts in New York State, one of a handful of states that is engaged in a coordinated effort to institutionalize drug courts statewide. With funding from the Bureau of Justice Assistance of the U.S. Department of Justice, the Center for Court Innovation, in collaboration with the New York State Unified Court System, has spent the past three years documenting the policies, participant characteristics, and performance of participants in eleven of the state's oldest and largest drug courts. Among other analyses, this report evaluates the impact of six drug courts on recidivism and identifies the

participant characteristics and programmatic features that increase the likelihood of successful drug court outcomes.

METHODOLOGY

[15] This report includes an analysis of drug court policies and participant characteristics in eleven drug courts¹. Four are from large urban counties of New York City (Bronx, Brooklyn, Manhattan, and Queens); one is suburban (Suffolk); three are from medium-sized cities (Syracuse, Rochester, and Buffalo); and three are from small city/semi-rural areas (Tonawanda, Lackawanna, and Ithaca).

This study is also among the first to demonstrate consistent and meaningful recidivism impacts across a large number of sites and over a relatively long-term tracking period. At each of six sites, the recidivism analyses compare the reconviction rates of drug court participants with similar defendants *not* entering the drug court. These comparisons include among the longest measurement periods in the research literature – at least three years following the initial arrest (four years in Brooklyn and Rochester); and, in separate analyses, at least one year after program completion or final case disposition (two years in Brooklyn and Rochester).²

¹ Quantitative findings were based on analyses of program participation data provided by the New York State Unified Court System and criminal history and recidivism data provided by the New York State Division of Criminal Justice Services. Drug court policy information was obtained from two surveys administered in April 2001 and July 2002; and from stakeholder interviews and court observations during site visits at nine of the eleven courts.

² The post-program period begins on the graduation date for drug court graduates, the release date from jail or prison for drug court failures, and, for the comparison group on the release date or if there was no sentence of incarceration on the disposition date. Defendants were assumed to serve two-thirds of any jail sentence (a

In developing comparison group criteria, a uniform set of research design principles was implemented. Comparison defendants had to have no contact with the drug court on the instant case, meet the same paper eligibility criteria as drug court participants, and be convicted on the instant case. In four sites (Bronx, Queens, Suffolk, and Syracuse), the comparison group consisted of defendants arrested just prior to the opening of the drug court. In two sites (Brooklyn and Rochester), the comparison group consisted of defendants arrested during a contemporaneous period but who were not referred to the drug court for reasons unrelated to program eligibility or defendant interest in participating.³

For each site, comparison samples were further refined using a *propensity score matching* methodology (e.g., see Rubin 1973; and Rosenbaum and Rubin 1983). Propensity score matching is among the strongest methodological alternatives to random assignment, since the approach ensures that each drug court's final comparison sample closely matches the drug court participant sample across a range of important background characteristics, such as sex, age, race/ethnicity, specific charges and criminal history.

standard “good time” assumption) and the minimum prison sentence if there was a range.

³In the first four years of the Brooklyn program, defendants were not routed to the drug court if arrested in two of five geographic arrest zones in Brooklyn; hence defendants arrested mainly in those zones could comprise the comparison group. In Rochester, in the early years of the program, certain arraignment judges did not refer cases to the drug court; hence defendants arraigned by one of those judges could comprise the comparison group.

IMPACT ON RECIDIVISM

All six drug courts (Bronx, Brooklyn, Queens, Suffolk, Syracuse, and Rochester) produced recidivism reductions compared with conventional case processing. The six courts represent a mix of geographic areas and policies (e.g., regarding eligibility criteria, screening and assessment protocols, graduation requirements, approach to sanctions, and supplemental services). Since the measurement periods tracked defendants at least three years after the initial arrest and at least one year after program completion, the results indicate that positive drug court impacts are durable over time.

The six drug courts generated an average 29% recidivism reduction over the three-year postarrest period and an average 32% reduction over the one-year post-program period. Major findings are as follows:

-Reduced post-arrest recidivism: Drug court participation led to a lower probability of recidivism three years after the initial arrest (significant in five courts and $p < .10$ in the sixth). Depending on the drug court, recidivism reductions ranged from 13% to 47% (average reduction = 29%) relative to the comparison group level.

-Reduced post-program recidivism: Drug court impacts extended beyond the period of program participation. Drug court participation led to a lower probability of recidivism at one year post-program (significant in three courts, $p < .10$ in one court, and suggested by the numbers but not significant in two). Post-program recidivism reductions ranged from 19% to 52% (average reduction = 32%).

-Survival over time: When comparing *in-program* to *post-program* recidivism rates for drug court

participants, recidivism did *not* rise in the post-program period, but rather *declined* in three of the six courts. Further, when comparing participant and comparison group recidivism rates after each additional year following the initial arrest (a “survival analysis”), in only one of the six courts was there clear evidence of *attenuation* of the drug court impact over time. This was contrary to the expectation that the magnitude of the drug court impact would peak immediately following the arrest (when judicial monitoring is most intensive); instead, results in most sites revealed positive *long-term* impacts persisting beyond the period of active judicial supervision.

-Impact of drug court graduation: Drug court graduates were *far* less likely than comparison defendants to recidivate in all six courts; however, drug court failures were as likely, if not more so, as comparison defendants to recidivate in four of the six courts. Translation: the benefits of drug court participation largely accrue to those who successfully graduate.

-Impact of arrest charge: In Rochester, participants arrested on drug charges performed better relative to the comparison group than participants arrested on a select number of non-drug charges. Although the analysis is relatively limited in scope and requires future replication, the findings suggest that drug courts may be more successful in curtailing drug-based criminal behavior (indicated by *drug* charges) than in curtailing criminal behavior driven by other criminal propensities.

-Other predictors of recidivism: Among drug court participants and comparison defendants alike, those with prior misdemeanor convictions and of younger

age were generally more likely than others to recidivate across all courts and analyses.

IMPACT ON CASE PROCESSING AND CASE OUTCOMES

For the same six sites, the impacts of drug courts on criminal case processing and case outcomes were analyzed. Key findings include:

-Initial case processing speed: Drug court cases reach initial disposition more quickly than conventional court cases. Participants in all six drug courts spent significantly *less* time from arrest to initial disposition/program entry than comparison defendants.

-Total Time Pending: When in-program participation time was included in the calculation, processing time for participants was far *longer* than for comparison defendants (due to the length of the drug court program). Hence to achieve positive impacts such as lower recidivism, drug courts require a significant up-front investment of court resources.

-Sentencing: Average sentence length stemming from the initial criminal case is sometimes shorter than in conventional prosecution – and sometimes not. Whereas graduates are never sent to jail or prison, drug court failures receive *longer* incarceration sentences than comparison defendants in five of the six courts. This highlights the importance of drug court graduation in reducing the use of incarceration. When considering initial case outcomes for all participants at once (combining graduates and failures), drug court participants averaged significantly *shorter* jail or prison sentences in three of six courts; but in one court, drug court participants

were sentenced for significantly *longer* on average and in the remaining two courts, there was no significant difference.

PROGRAM RETENTION RATES

Retention is a key measure of program success. A one-year retention rate indicates the percentage of participants who, exactly one year after entering drug court, had either graduated or remained active in the drug court program. Earlier research finds that retention not only indicates success in treatment but also predicts future success in the form of lower *post-program* recidivism and drug use. Drug courts generally produce *higher* retention rates than community-based treatment programs accepting a combination of voluntary and court-mandated treatment participants.⁴ Key findings about program retention and graduation rates across the eleven drug courts studied here include:

-Retention rates: The one-year retention rate exceeds the national standard of 60% for drug courts in eight of eleven courts studied (five New York State courts exceeded 70%).

-Long-term retention/graduation rates: When the retention period is extended to two and three years, more than half of participants in eight of eleven New York State courts are retained – and the rate exceeds

⁴ Belenko (1998) estimates that drug courts nationwide have an average one-year retention rate of 60%, which substantially exceeds retention rates outside of drug courts. *Three-month* retention rates range from just 30% to 60% across a nationwide sample of community-based treatment programs (Condelli and DeLeon 1993) and one-year retention rates range from 10-30% across a sample of therapeutic communities, a common residential treatment modality (Lewis and Ross 1994).

60% in three courts. The three-year retention rate gives a close approximation of each drug court's final graduation rate.

PREDICTORS OF SUCCESS

Across five drug courts (Bronx, Brooklyn, Queens, Suffolk, and Syracuse), several characteristics consistently predicted both drug court graduation and lower recidivism:

-Participant characteristics: Consistent with earlier studies, age predicted success; older defendants were more likely to graduate and less likely to recidivate. A primary drug of heroin made graduation *less* likely (in two of three courts examined for this effect) and prior criminal convictions were near universally predictive of future recidivism. Also, participants entering on *property* charges were somewhat more likely to return to criminal activity than those entering on *drug* charges.

-Immediacy: Immediate engagement in treatment (e.g., avoidance of early warranting) universally and strongly predicted drug court graduation.

-Importance of graduation: Graduation is itself a powerful predictor of avoiding *postprogram* recidivism; those who failed drug court were *far* more likely to recidivate in the post-program period.⁵ Further, contrary to previous research with non-drug court populations, no benefit was found to spending more total *time in treatment* only to fail in the end.

⁵ The impact of graduation status on post-program recidivism was significant in three of four courts tested. In Queens, the fourth court, there was a small sample of drug court failures available for the analysis, leading the effect to be non-significant; but the odds ratio of .311 suggests the possibility of a similarly powerful impact.

Among those who failed, more time in the drug court program (measured in four courts) or more days specifically attending treatment (measured in one court) had no impact on post-program recidivism. These results strongly point to drug court *graduation* as the pivotal indicator of long-term outcomes.

DRUG COURT POLICIES AND PARTICIPANT CHARACTERISTICS

In considering the drug court policies and participant characteristics in eleven courts, the analysis produced four general findings:

-Diversity of approaches: There is no single drug court model. All eleven courts mandate community-based treatment, regular drug testing, case management visits, updates before a dedicated judge, and rewards and sanctions in response to progress or noncompliance. However, policies vary considerably across several domains – legal eligibility criteria, whether a guilty plea is required prior to entry (the pre-plea or post-plea models), approach to treatment and case management, specific sanctioning practices, graduation requirements, legal consequences of graduation (e.g., case dismissal or charge reduction), and legal consequences of failure (e.g., length of resulting jail or prison sentence).

-Drug use patterns: The eleven courts also treat participants with different presenting problems. The median duration of drug use ranges from eight years (Manhattan and Queens) to eighteen (Brooklyn); and while the five most common primary drugs are similar statewide (heroin, crack, cocaine, marijuana, and alcohol), they are used in different proportions in each jurisdiction.

-Socioeconomic disadvantage: In all eleven courts, nearly half of the participants (and a much higher percentage in several) were neither employed nor in school at intake. More than a quarter of participants were currently or formerly homeless in seven courts.

-Female participants: The challenges faced by female drug court participants were particularly acute (including *more* severe drug use, treatment histories, and socioeconomic disadvantage than males), highlighting the need for supplemental services for this population.

TREATMENT AND RECOVERY

Major findings about the treatment and recovery process include:

-Treatment capacity: Despite early questions about whether there is sufficient treatment capacity in New York State to serve the increased demand for treatment generated by drug courts, so far participants have been able to enter treatment rapidly. The median time from drug court intake to treatment placement is less than one month in eight of nine courts examined and less than ten days in three courts.⁶

-Treatment modality: Over half of participants begin in an outpatient modality, in all but two courts.

⁶ Many courts do experience delays placing certain categories of participants: (1) with co-occurring mental health disorders, (2) requiring residential treatment, and (3) experiencing a case processing delay between intake and formalization of drug court participant status. This last finding highlights the need for streamlined referral and intake processes designed to move cases rapidly through the system.

When clinically feasible, most courts prefer to begin participants in *outpatient* treatment and then upgrade to inpatient in response to relapses or other compliance problems. Characteristics generally indicating a higher probability of inpatient care are primary drug of choice (heroin), living situation (homeless), employment status (unemployed) and age (younger defendants).

-Relapse: Relapse and noncompliance are common, even among those who ultimately succeed. In seven of eight courts examined, at least half of all graduates had at least one positive drug test, and many had several positives – usually in the earlier stages of participation. This highlights the value of drug courts according multiple chances to participants experiencing early problems.

-Graduated sanctions: In responding to noncompliance, drug courts apply sanctions, such as writing an essay, observing drug court for several days from the jury box, more frequent court appearances or case management visits, community service, or short jail stays. However, drug courts vary widely in the type and severity of sanctions most frequently used. Across three courts examined in depth (Brooklyn, Queens, and Suffolk), none routinely follow a “graduated sanctions” model, where successive infractions are met with increasingly severe sanctions. Instead, some infractions are *always* met with a similar sanction response. For example, a warrant or new arrest in Brooklyn nearly always incurs a jail sanction. Also, drug court teams frequently make individualized decisions based on what they believe will be most effective with a particular participant rather than adhering to a rigid schedule of graduated sanctions.

-Achievements beyond substance abuse recovery: Beyond substance abuse recovery, drug courts seek to promote further achievements and lifestyle changes in the areas of employment, education, vocational training, housing, and family reunification. Consistent with these goals, across all nine courts examined, graduates were significantly *more* likely to be employed at graduation than intake. Also, graduates in five of the nine courts were significantly more likely to be in school at graduation than intake.

CONCLUSION

This study provides strong evidence that drug courts produce lasting changes in their participants, persisting even after the period of active judicial supervision. In general, the study reveals impacts consistent with those detected in other evaluations that covered shorter timeframes and fewer courts. This study also finds that final program status is a critical predictor of subsequent outcomes. Drug court graduates had far lower recidivism rates than comparable defendants not entering the drug court, while drug court failures had similar or, in some courts, higher recidivism rates than the comparison group. Accordingly, future research should seek to pinpoint which policies and practices can help drug courts produce both more graduates and lower recidivism rates. With drug courts demonstrating considerable diversity in their geography, policies, and practices, the next generation of studies should seek to answer *why* drug courts work and *how* they can produce positive outcomes for more of their participants.

A COST-BENEFIT ANALYSIS OF THE ST. LOUIS CITY ADULT FELONY DRUG COURT

Institute of Applied Research, St. Louis, Missouri

Provided to the St. Louis City Adult Felony Drug Court,
City of St. Louis, 22nd Judicial Circuit
2004

HIGHLIGHTS OF FINDINGS

The St. Louis Adult Felony Drug Court in the City of St. Louis is a pre-plea drug court that began in April 1997 and accepts individuals charged with drug crimes shortly after arrest. The program is voluntary. Participants must submit to regular breath testing for alcohol and urinalysis for drugs, make regular court appearances, find and maintain employment, and participate in prescribed drug and alcohol treatment. If they successfully complete the program, which averages nearly a year and a half in length, their original charges are dismissed.

- The study was a cost-benefit analysis that compared the first 219 drug court graduates, who had completed drug court before 2001, with a carefully matched control group of 219 individuals charged with a drug crime who had pleaded guilty, had entered probation during the same period, were not offered drug court, and had successfully completed probation.
- The control group contained no individuals who were sentenced to prison. For this reason, the estimates of this study are conservative since drug court graduates with class A and class B felonies and those who are prior and persistent offenders would most likely have been sentenced to prison terms had they not been accepted into Drug Court.

- **The study collected consistent data on costs and benefits from a wide variety of data sources at the state and local level.** These included: wages, welfare, Medicaid, drug and alcohol treatment, mental health treatment, criminal arrests, criminal convictions, time in jail, prison sentences, court hearings and other court activities, administration and supervision in drug court and probation programs, and births of drug-exposed infants.
- **The overall costs of drug court exceeded those of probation.** Adding together costs of administration, supervision, drug and alcohol treatment, court hearings, urinalysis, and pretrial detention, it cost an average of \$7,793 for a drug court graduate to successfully complete drug court compared to an average of \$6,344 for an individual to successfully complete probation. The excess costs of drug court averaged \$1,449 per person.
- **Various benefits (cost savings) were found for drug court graduates compared to probationers** during and after drug court and probation.
 - Costs of *jail time* were less overall for drug court graduates
 - Costs of *pretrial detention* were dramatically less for drug court graduates.
 - *Wages* of drug court graduates were higher during and after drug court.
 - Drug court graduates also averaged significantly more months working than probationers. This led to:
 - ~ Higher taxes and FICA paid by graduates of drug court.

~ Lower TANF and food stamps utilized by drug court graduates.

- *Health care costs and mental health services* were significantly lower for drug court graduates after drug court.

- Drug court graduates who were incarcerated were *incarcerated for shorter periods* after graduation with reduced incarceration costs.

- *Costs to the criminal justice system and costs to victims of crime* were lower for drug court graduates compared to probation completers.

- The number of *infants who were born drug-exposed* and the consequent costs were greater for probation completers than for drug court graduates.

- o [16] Comparing the excess costs of drug court with the benefits after drug court:

- **A net savings of \$2,615 per graduate was found during the first 24 months after drug court compared to probation completers.**

- **A total of \$2.80 in outcome savings was realized for Missouri citizens for every \$1.00 in additional costs of drug court during the first 24 months after drug court or probation.**

Overall Costs and Benefits. By projecting all follow-up costs and benefits for an additional 24-month period, calculations of costs and benefits were possible over a four-year period.

- **Net savings over four years after drug court or probation amounted to \$7,707 per drug court**

participant. This represents the expenses that would have been incurred by the taxpayer had these drug court clients attended regular probation.

- For every dollar in additional costs for drug court for the 219 drug court graduates, taxpayers realized a savings of \$6.32 over the four-year period.

Gross Savings over Four years: The total cost of drug court for the 219 graduates was \$1,706,775 or \$7,793 per graduate. The benefits during the four-year period after drug court amounted \$2,005,274 for all 219 graduates or \$9,156 per graduate:

- After four years the benefits exceeded the total drug court cost associated with graduating 219 individuals by \$298,399 or \$1,362 per drug court graduate.

EXECUTIVE SUMMARY

The St. Louis Adult Felony Drug Court in the City of St. Louis is a pre-plea drug court that accepts individuals charged with drug crimes shortly after arrest. The program is voluntary. Participants must submit to regular breath testing for alcohol and urinalysis for drugs, make regular court appearances, find and maintain employment, and participate in prescribed drug and alcohol treatment. If they successfully complete the program, which averages nearly a year and a half in length, their original charges are dismissed.

The St. Louis Adult Felony Drug Court began operating on April 7, 1997 in the City of St. Louis (22nd Judicial Circuit). The graduates selected for this study were the first 219 to successfully complete the program. A number of reforms, including a special program for youthful

defendants, have been introduced since that time that are designed to enhance drug court outcomes. This group of graduates predates most of those reforms.

Research indicating the benefits of drug courts has accumulated during the previous decade. However, there have been few *controlled* studies designed to demonstrate whether the value of those benefits to the community offset the costs of operating the programs. The primary goal of the present study was a cost-benefit analysis of the St. Louis Adult Felony Drug Court that compared the first 219 drug court graduates, who had completed drug court before 2001, with a carefully matched group of other individuals charged with drug crimes who were not offered drug court but completed probation.

Selecting the Control Group. The study employed an experimental design. The control group was composed of individuals selected from probation records that had pleaded guilty to drug crimes, had entered probation during the same period and had successfully completed probation. A probation completer was identified that was the best match to each drug court graduate on criminal charge (primarily drug offenses), prior criminal convictions, age, race, gender and residential zip code, and had entered probation at approximately the same time the graduate had entered drug court. Like drug court participants, none had criminal charges indicating violence. All probation completers were assessed to have drug or alcohol problems, although none had been offered to participate in drug court.

The control group contained no individuals who were sentenced to prison. For this reason, the estimates of this study are conservative since drug court graduates with class A and class B felonies and those who are prior and persistent offenders would most likely have been sentenced to prison terms had they not been accepted into Drug Court.

The Approach to Costs and Benefits: The Taxpayers Perspective. The primary perspective or viewpoint assumed in this study is that of the ordinary citizen, the Missouri “taxpayer.” Under this perspective any relative increase in government expenditures, such as for welfare or publicly supported treatment, or decrease in taxes paid by drug court defendants would be considered a cost while a corresponding decrease in expenditures or an increase in taxes paid by defendants would be considered a benefit. Similarly, relative reduction in costs to taxpayers directly (such as a reduction in victim costs of crime) would be considered a benefit.

Improved Methods. The present study improved on previous drug court studies in several ways:

1. Limiting the control group to “probation completers” was a conservative measure designed to *avoid comparing success in drug court with failure in other criminal justice settings*. In this way the highest possible standard was set for the cost-benefit study.
2. Although control group members would have been eligible for drug court, none had applied for drug court and, consequently, none had been rejected from drug court.
3. Data on costs and benefits were collected for the two-year period *preceding* drug court or probation, the period of participation, and the two-year period *after* completion. This approach permitted the performance of individuals in the study to be adjusted based on their past history. By collecting data during drug court and probation, costs and benefits could be assessed from the day participants entered. Data from the two years after drug court or probation

permitted an assessment of longer-term cost and benefit outcomes.

4. The study collected consistent data on costs and benefits from a wide variety of objective data sources at the state and local level. These included: wages, welfare, Medicaid, drug and alcohol treatment, mental health treatment, criminal arrests, criminal convictions, time in jail, prison sentences, court hearings and other court activities, administration and supervision in drug court and probation programs, and births of drug-exposed infants.

Administrative, Supervision and Treatment Costs of Drug Court versus Probation. While offenders were in the drug court and probation programs, the costs of drug court overall were somewhat higher than the costs of maintaining offenders in probation.

- *Administrative costs* averaged \$429 per drug court graduate compared to an estimated \$195 per probation completer.
- *Supervision* was primarily the responsibility of regular probation officers for members of the control group, while probation officers specially assigned to the drug court (called diversion managers) supervised drug court graduates. Supervision averaged \$81 per completer and \$62 per graduate primarily because probation completers spent about three months more in probation than graduates spent in drug court.
- The average cost of *urinalysis* for graduates was \$651 compared to \$40 for probation completers.
- All drug court graduates participated in alcohol and drug treatment, the costs of which averaged \$147 per graduate. Only a minority of probation completers

was assigned to such treatment averaging \$41 per completer. The costs of court hearings were calculated to be \$504 per drug court graduate compared to \$237 per probation completer.

Other Costs and Benefits. Certain benefits, including increased taxes paid and reduced costs of public programs of drug court graduates, began to accrue during the program. These continued to increase during the follow-up period after graduation. By the end of the entire follow-up period of four years (two years of collected data and two years of projected data), the relative benefits of drug court substantially outweighed those of probation.

- Costs of *jail time* were greater for drug court participants while they were in drug court because jail-time was a sanction individually applied by the drug court judge. During the period of drug court and probation participation, costs of jail time averaged \$795 per drug court graduate and \$359 per probation completer. The situation was reversed during the two years after completion: \$264 per graduate and \$497 per completer. Pretrial detention (prior to the original drug charge) was essentially zero for drug court graduates since they were placed on personal recognizance (rather than remaining in jail or paying bail) and were immediately diverted to drug court. Some probation completers, however had jail time prior to bond or recognizance release. These costs were \$0 for drug court graduates but averaged \$2,737 per probation completer.
- Average monthly *wages* of drug court graduates were higher during drug court (\$639) than probationers during probation (\$614). This trend continued after drug court and probation: a 24-month average of \$18,251 for drug court graduates compared to \$16,822 for probation completers. These differences

were in part attributable to longer periods of employment for graduates.

- Federal, state and local *taxes and FICA* were about equivalent during the drug court probation period: the monthly average for drug court graduates was \$106 and for probation completers was \$107. However after completion of drug court or probation the 24-month average was greater for graduates (\$5,234) than for completers (\$4,782).
- Reception of welfare (*AFDC/TANF and food stamps*) reflected the difference in wages and time working. Monthly combined averages during drug court/probation were \$56 per graduate compared to \$59 per completer. The 24-month averages after graduation or completion were \$1,291 per graduate and \$1,468 per completer.
- *Health care costs and mental health services* were significantly different for the two groups. Other research has shown that a substantial benefit of drug and alcohol treatment is reduced health care costs. This was the finding of this study as well, since only a minority of probationers received alcohol and drug treatment services. While monthly Medicaid costs were about the same for graduates and completers (\$75 versus \$84, respectively), 24-month costs after the program were substantially lower for graduates (\$1,062) compared to completers (\$1,520). Mental health service costs averaged \$3 per month for graduates and \$7 per month for completers while they were in drug court or probation. But afterward the 24-month averages were \$12 for drug court graduates versus \$71 for probation completers.
- Other variables tracked included the costs of subsequent *arrests and incarcerations*. Graduates

were incarcerated for shorter periods after graduation with costs averaging \$104 per graduate compared to \$214 per completer.

- *Costs to victims and other costs to the criminal justice system* of later crimes were estimated based on the type of crime and costing methods used in other studies. Later crimes of probation completers more often involved crimes against persons, such as assault and robbery, while the later crimes of graduates were almost exclusively drug crimes. Consequently, 24-month averages were \$104 in tangible costs per graduate versus \$212 per completer and \$376 in intangible costs per graduates versus \$1,572 per completer.
- Finally, the costs associated with *infants who were born drug-exposed* were greater for completers than graduates. Among babies born to probation completers in the control group, six were identified as drug exposed leading to an average 24-month cost of \$789 per completer. One drug-exposed infant was found among graduates for an average 24-month cost of \$132.

Costs and Benefits during Drug Court and Probation and during the 24 Months afterward. These were calculated directly based on data collected for each study participant over two years.

- **Program Costs:** Costs computed for the two programs consisted of administration, supervision, urinalysis, pretrial detention, jail sanctions (and new arrests), court activities, court fees, drug and alcohol treatment services and mental health services. The costs of drug court for the 219 graduates totaled \$1,706,775 while the costs of probation for the 219

probation completers were \$1,389,460. The average costs per participant, therefore, were:

- Average per drug court graduate: \$7,793
- Average per probation completer: \$6,344
- Difference (excess cost of drug court): \$1,449

- **Benefits associated with Outcomes:** Adding costs of participation in later programs and subtracting savings from payment of taxes and FICA, the total dollars associated with outcomes were calculated for the first 24 months after drug court or probation. For drug court these were a positive \$172,053 while for probation the total was negative \$717,908. These resulted when costs of public programs, cost of probation supervision for later offenses, jail for later offenses, TANF, food stamps, Medicaid expenses, psychiatric payments by the state, later drug and alcohol treatment services, prison terms for later offenses, costs to victims of crime, and costs of drug-exposed infants born to graduates and completers) were subtracted from taxes and FICA paid. The averages per participant were:

- Average benefits (cost offsets – costs) per drug court grad: \$3,278
- Average benefits (cost offsets – costs) per probation completer: \$(786)
- Difference (in favor drug court): \$4,064

- **Net Savings over Two years:** The net savings for the first 24 months after drug court or probation may be calculated by subtracting the differences in program costs from the difference in benefits (\$889,961 - \$317,315). The savings attributable to drug court totaled \$572,646 for the entire group of 219 graduates.

- There was an average saving of \$2,615 per graduate for the first 24 months after drug court. This represents the expenses that would have been incurred by the taxpayer over the first two years after drug court or probation had the drug court clients attended regular probation.
- **Ratio of Costs to Benefits over Two years.** The cost-benefit ratio is obtained by dividing differences in benefits by differences in program costs (\$889,961 / \$317,315): This amounted to:
 - A total of \$2.80 in outcome savings was realized for Missouri citizens for every \$1.00 in additional costs of drug court during the first 24 months after drug court or probation.

Overall Costs and Benefits. Follow-up costs and benefits were projected for an additional 24 months primarily through trend analyses. Projections were validated by comparing results to extended data (beyond 24 months) that was available for individuals who had entered drug court or probation during its earliest days. By adding two years of projected values to measured values for the first two years after drug court or probation, four-year costs and benefits were calculated.

- **Net Savings over Four Years:** The net savings attributable to drug court totaled \$1,687,859 for the entire group of 219 graduates.
 - Net savings of over four years after drug court or probation amounted to \$7,707 per drug court participant. This represents the expenses that would have been incurred by the taxpayer over a four year period had the drug court clients attended regular probation.

- **Ratio of Costs to Benefits over Four years:** It costs about \$317,315 more to put these 219 individuals through drug court than sending them through probation. However, the relative savings associated with better outcomes of drug court compared to probation was \$2,005,174 over four years. Thus:
 - **For every dollar in added costs for drug court for the 219 drug court graduates, taxpayers realized a savings of \$6.32 over four years.**
- **Gross Savings over Four years:** The total cost of drug court for the 219 graduates was \$1,706,775 or \$7,793 per graduate. The benefits during the four-year period after drug court amounted \$2,005,274 for all 219 graduates or \$9,156 per graduate:
 - **After four years the benefits exceeded the total drug court cost associated with graduating 219 individuals by \$298,399 or \$1,362 per drug court graduate.**