

# PREPARED BY

Chengyuan Zhou, Emily Kulick, Erin Dalton and Kathryn Collins, Ph.D.

September 2014



The Allegheny County
Department of Human Services
One Smithfield Street
Pittsburgh, Pennsylvania 15222

PHONE 412.350.5701

FAX 412.350.4004

www.alleghenycounty.us/dhs

#### **Allegheny County Department of Human Services**

The Allegheny County Department of Human Services (DHS) is dedicated to meeting the human services needs of county residents, particularly the county's most vulnerable populations, through an extensive range of prevention, intervention, crisis management and after-care services.

This report was prepared by the Office of Data Analysis, Research and Evaluation (DARE), an office within DHS. DARE supports and publishes research related to the activities of DHS in a number of categories, including: Aging; Basic Needs; Behavioral Health and Disabilities; Child Development and Education; Children, Youth and Families; Crime and Justice; and Innovation, Reform and Policy.

DHS would like to thank the Vera Institute of Justice for its financial support and technical assistance, and its staff (Tina Chiu, Chris Henrichson and Sarah Galgano) for their technical assistance and support; we would also like to thank the following individuals who assisted in the preparation of the report: LaToya Warren, Deputy Warden, Allegheny County Jail; Tom McCaffrey, Criminal Court Administrator, Fifth Judicial District of Pa.; and Ron Seyko, Chief Probation Officer, Probation and Parole, Fifth Judicial District of Pa.

DHS research products are available for viewing and download at the DHS Research and Reports Web page at **www.alleghenycounty.us/dhs/research.aspx**. For more information about this publication or about DHS's research agenda, please send an email to **dhs-research@alleghenycounty.us**.

To learn more about DHS and available services, visit the DHS website at www.alleghenycounty.us/dhs/index.aspx or call 412-350-5701 (TDD 412-473-2017).

© 2014 Allegheny County DHS Published 2014 by Allegheny County DHS

#### **CONTENTS**

Acronyms 1

Executive Summary 2

Data Sources 4

Background 4

About the Allegheny County Day Reporting Centers 5

Methodology 6

Preliminary Findings 8

Conclusion 14

Bibliography 15

# **Tables**

- TABLE 1: Count of DRC Offenders by Risk Level 7
- TABLE 2: Count of Northside Offenders by Risk Level 7
- TABLE 3: Demographic Profile of Offenders, DRC Sample Group and Control Group 9
- TABLE 4: 12-month Technical Violations by Offender Group during Supervision 10
- TABLE 5: 12-month Recidivism by Offender Group, Convicted Violations and Jail Bookings 11
- TABLE 6: Jail-Bed Day Savings from March 2011 through January 2013 (DRC vs. Northside) 12

# **ACRONYMS AND DEFINITIONS**

# Acronyms

ACJ Allegheny County Jail

APCMS Adult Probation Case Management System

CBA Cost-Benefit Analysis

DHS [Allegheny County] Department of Human Services

DRC(s) Day Reporting Center(s)

WSIPP Washington State Institute for Public Policy

**Crime and Justice** 

#### **EXECUTIVE SUMMARY**

Allegheny County is committed to allocating criminal justice resources in a more systematic way, utilizing evaluation and evidence-based programming; incorporating better understanding of the costs and benefits of programs into decision-making; and maintaining/strengthening the collaboration between the courts, jail, other county government offices and law enforcement that has developed through years of work on the Criminal Justice Advisory Board. To further this goal, Allegheny County applied for and received a technical assistance grant from the Vera Institute of Justice to institute cost-benefit analysis throughout the justice system. Through a yearlong period of technical assistance, the Vera Institute of Justice helped Allegheny County create a system-wide cost database that includes agreed-upon unit costs within the county's criminal justice system. These costs include the cost of a jail-bed day, a day of adult probation, an arrest and a day of juvenile detention. In addition, the Vera Institute of Justice provided assistance in applying cost-benefit analysis to the evaluation of local criminal justice prevention programs, including Adult Probation's Day Reporting Centers.

Adult Probation, part of the Criminal Division, Fifth Judicial District of Pennsylvania, currently operates two Day Reporting Centers throughout the county. These centers provide a home base for the increasingly mobile probation officer force that supervises offenders in the communities where they live while, at the same time, providing a central hub of social services that offenders

A report on the Day Reporting Centers is available at: http:// www.alleghenycounty.us/ WorkArea/DownloadAsset. aspx?id=40408. can access. Offenders are referred to social services based on need and risk assessments conducted by probation officers. Offenders are mandated to attend and complete these programs as a condition of their probation. Services include GED classes, anger management classes, life skills classes, assistance in job searches, housing counseling and emergency housing provision, and community service.<sup>1</sup>

With guidance from the Vera Institute of Justice, the Allegheny County Department of Human Services (DHS) worked with Adult Probation to conduct a cost-benefit analysis of the Day Reporting Centers. The analysis examined three groups of offenders (low-risk, medium-risk and high-risk) participating in employment services at the DRCs from March 2011 through January 2013 and compared them to matched control groups of offenders supervised through a traditional field office.

The analysis found that participants in the DRCs had lower rates of recidivism (as defined by a convicted violation during supervision or booking into the jail during or up to a year after supervision). For all groups, DRC participants had higher levels of technical violations than the control group. Technical violations are tools that are used by probation officers to gain compliance. Because offenders participating in the DRCs are seen more regularly, we would expect them to be better monitored and have higher rates of these types of violations. This does not mean that these offenders committed another crime or were re-incarcerated.

When examining re-offending, medium- to high-risk participants in the DRC had much lower rates of re-booking and convicted violations than the control groups, while low-risk offenders had relatively similar rates to the control group. This result supports the research literature that states that more intense supervision of low-risk offenders does not yield positive benefits.

The differences in re-booking and conviction violation rates for DRC participants as compared to a control group indicate that, on average, the DRCs reduced rates of recidivism for participants. These reductions can be monetized to provide a dollar value on the benefit of the DRCs. When comparing the differences in the re-booking rate and average Length of Stay for DRC participants as compared to the control groups, total jail-bed savings accrued from March 2011 through January 2013 were \$105,548². Fifty-five percent of the benefits came from the high-risk group. This is mainly because the re-booking rate and jail stays for high-risk offenders in the DRCs were both much lower than those of the comparison group. Forty percent of the benefits came from serving medium-risk clients. Benefits associated with low-risk offenders were the smallest — only five percent. Though offenders across all risk levels who received DRC services had better outcomes than the Northside comparison groups, the most significant outcome differential was with high-risk probationers, with a jail-bed savings of \$739 per person.

<sup>2</sup> The cost for a jail-bed day was calculated to be \$16 (See Collins, Kathryn; Chengyuan Zhou and Erin Dalton, 2014, Calculating Unit Costs in Allegheny County: A Resource for Justice System Decision-Making and Policy Analysis. Allegheny County, Pa.: Allegheny County Department of Human Services.

#### **DATA SOURCES**

A variety of data sources were used to create the cost estimate tables in the following report. In addition, as the data were collected, meetings were held between the Allegheny County Budget Office, the Department of Human Services (DHS) and Adult Probation to ensure agreement with the numbers used.

#### Adult Probation Case Management System (APCMS)

A cohort of offenders on supervision who were referred to the DRC for select services from March 2011 through January 2013 was provided from the Adult Probation Case Management System. In addition, APCMS provided the comparison group of offenders assigned to a traditional field-based office during the same time period. Probation violation data were obtained from APCMS for these offenders from March 2011 through May 2013.

# **Allegheny County Budget Office**

The total operating costs of the DRCs for 2011 and 2012 were provided by the Allegheny County Budget Office. This information included total operating costs, costs for personnel, fringe benefits, supplies, materials, repair and maintenance, fixed assets, and services.

#### **Allegheny County Jail**

The Allegheny County Jail provided information on all jail bookings from March 2011 through April 2013. This included both dates of admission and release, used to calculate the Length of Stay within the jail for each booking.

#### **BACKGROUND**

## **About Allegheny County and the City Of Pittsburgh**

Allegheny County is committed to evidence-based programming and to incorporating evaluation into all new programs and initiatives. For example, Allegheny County redesigned its pre-trial services office using national standards, commissioned a study of its Mental Health Court that included a cost-benefit analysis (CBA), and designed its new Re-entry Program using best practices identified by the Council of State Governments and the U.S. Department of Justice. That Re-entry Program benefited greatly from the CBA produced by the Washington State Institute for Public Policy (WSIPP). Allegheny County used this analysis to select the programs for a \$1.5 million pool of services — services that now include cognitive behavioral therapy, drug treatment/aftercare, education and employment skills development.

In spite of this commitment to CBA and evidence-based decision-making, there are challenges to integrating CBA into Allegheny County's criminal justice operations. Allegheny County received two Justice Reinvestment technical assistance grants from the Bureau of Justice Assistance; these grants laid the groundwork for CBA both by bringing together the necessary cross-system team (President Judge of the Court of Common Pleas, County Executive and

County Manager, and the directors of each court and county agency in criminal justice and human services), and by conducting the baseline analysis needed to understand the drivers of costs within the criminal justice system. This team is now implementing a set of strategies that aim to lower those costs and redirect the savings to evidence-based and fiscally-sound programs.

Between June 2012 and June 2013, the Vera Institute of Justice provided technical assistance that allowed Allegheny County to work with its existing partnerships and data resources to demonstrate CBA on two justice programs in the county and to create a system-wide cost database designed to support evaluation of existing programs and planning of new ones. One of these demonstration projects examined the Day Reporting Centers operated by Adult Probation, part of the Criminal Division, Fifth Judicial District of Pennsylvania. Operating since 2009, the Day Reporting Center model is a new model of supervision in the county, assisting in the transition to a mobile probation officer force that supervises offenders in the neighborhoods where they live and providing a "one-stop shop" for social services and supervision tools. Probation officers, through risk and needs assessments, refer and mandate that offenders participate in services that ultimately reduce their likelihood of recidivism. The yearlong technical assistance from the Vera Institute of Justice helped produce this demonstration project and also helped to create a common language around costs and benefits within DHS, the justice system and the budget office that will support future decision-making and evaluation activities.

# ABOUT THE ALLEGHENY COUNTY DAY REPORTING CENTERS

Adult Probation operates two Day Reporting Centers (DRCs): DRC South<sup>3</sup> and DRC East.<sup>4</sup> Grounded in evidence-based research, these centers are designed to serve medium- to high-risk offenders in their communities by matching their risks and needs with services that will help reduce their likelihood of re-offending. Research has shown that supervision and treatment levels should match the risk of the offenders. In practice, this means that low-risk offenders should receive less supervision and services and higher-risk offenders should receive more intensive supervision and services. In Allegheny County, an evidence-based proxy risk level is calculated based on the offender's age, number of arrests and age at first arrest.

Studies have shown that programs that expose low-risk offenders to higher-risk offenders actually increase the likelihood of recidivism in the low-risk group through their interaction with offenders with pro-criminal attitudes (Latessa, 2004; Lowenkamp and Latessa, 2004). Additional research has shown that factors most associated with recidivism include substance abuse, poor family relationships, unemployment or under-employment, and pro-criminal attitudes (Andrews and Dowden, 2007). Based upon this research, medium- to high-risk offenders receive more intensive supervision and are served separately from and with a different model than low-risk offenders.

Offenders first meet with their probation officer at these centers and, after a risk and needs assessment, probation officers refer (and mandate) offenders to social services and supervision supports that are housed in these centers. Types of services include high school equivalency

- <sup>3</sup> DRC South, or "DRC 1," is located in the Arlington neighborhood. It opened in February 2009.
- <sup>4</sup> DRC East, or "DRC 2," is located in the East Liberty neighborhood. It opened in April 2011.

- exam preparation, life skills, anger management, cognitive behavioral therapy, batterer intervention programs, and job search assistance. In addition, there are drug testing facilities, areas for probation officers to work and/or meet with offenders if necessary, and video conferencing technologies that allow probation officers to participate in violation hearings conducted at the Allegheny County Jail and downtown. If an offender tests positive for drugs, there are qualified providers available to perform a drug and alcohol assessment and refer the offender to the necessary treatment. Community service activities are operated out of these centers, with services performed in the surrounding neighborhoods, helping to facilitate connections between the offenders and the communities in which they live.<sup>5</sup>
- <sup>5</sup> A full report on the Day Reporting Centers is available at: http://www. alleghenycounty.us/ WorkArea/DownloadAsset. aspx?id=40408.

<sup>6</sup> Recidivism is defined as any convicted violation or jail

booking within a year post-referral to the DRC (or the North Side office).

<sup>7</sup> Offenders receiving other services provided at the DRC but funded by outside

organizations were not included in this sample. **METHODOLOGY** 

This report examined whether offenders who received services in the DRCs recidivated at lower rates than the comparison groups (low-risk, medium-risk and high-risk offenders assigned to the North Side Community-Based Office, a traditional probation office, who were not referred for DRC services). Three outcome measures — technical violations, convicted violations and jail bookings — were examined for both DRC participants and non-participants. In addition, we conducted a straightforward cost analysis on the two DRCs by comparing the costs of providing DRC services to the costs of recidivism.<sup>6</sup> Technical violations were also examined to determine process differences between the supervision models, but are not considered recidivism.

# **DRC Group / Treatment Group**

At the time of sample construction, 519 offenders received at least one of the following DRC service referrals from 3/1/2011 through 1/17/2013: Interviewing Skills Training, Employment Search and Community Service. These services were provided by probation officers or community monitors at the DRCs. The treatment group offenders accessing services within the DRCs during this time period are a representative sample of all offenders accessing DRC services.<sup>7</sup>

# North Side Group / Control Group

The comparison groups include 1,294 offenders who were assigned to the North Side Community-Based offices during the same time frame, who had not received services in the DRCs.

- <sup>8</sup> Data on probation violations from 3/1/2011 to 5/9/2013 were obtained from Adult Probation, through APCMS.
- <sup>9</sup> Allegheny County Jail bookings from 3/1/2011 through 4/15/2013 were obtained.

# Measurement

The outcomes analyzed include the number of technical/convicted violations<sup>8</sup> and Allegheny County Jail bookings. 9 Jail bookings cover both revoked probation sentences and new arrests post-supervision. For both types of violations, we calculated the proportion of probationers who violated supervision terms and the average time to first violation.

For technical violations, we further calculated the proportion of violations that were revoked. There are different degrees of technical violations — those that are revoked are more serious in nature.

Recidivism measures must be calculated over a specified follow-up period. In this analysis, a 12-month follow-up period was used. For a DRC offender, we included any convicted violation or jail booking within 12 months of the first DRC service referral. For a North Side offender, we counted any violation or jail booking within 12 months of assignment to the North Side office. Twelve months was chosen as the follow-up window because for both low-risk DRC offenders and high-risk North Side offenders, the number of individuals with an exposure time longer than 12 months was very small.<sup>10</sup>

#### **Control Variables**

Risk level was controlled for when measuring the three outcome measures. We examined low-, medium- and high-risk offenders, as classified by proxy scores used by Adult Probation. The two tables below show the distribution of DRC and North Side offenders by risk level. The majority of the probationers were of medium risk at both the DRCs and the North Side location. Note that the DRCs had very few low-risk offenders (65) and the North Side had very few high-risk offenders (43). DRCs are designed to serve higher-risk and higher-need offenders.

TABLE 1: Count of DRC Offenders by Risk Level

	TOTAL OF	FENDERS	OFFENDERS THAT QUALIFIED FOR 12-MONTH FOLLOW-UP PERIOD					
			PROBATION	VIOLATIONS	JAIL BO	OKINGS		
RISK LEVEL	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT		
Low	65	13%	42	13%	38	12%		
Medium	375	72%	237	71%	220	71%		
High	79	15%	56	17%	53	17%		
Total	519	100%	335	100%	311	100%		

TABLE 2: Count of North Side Offenders by Risk Level

	TOTAL OF	FENDERS	OFFENDERS THAT QUALIFIED FOR 12-MONTH FOLLOW-UP PERIOD					
			PROBATION	VIOLATIONS	JAIL BO	OKINGS		
RISK LEVEL	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT		
Low	432	33%	298	35%	275	36%		
Medium	819	63%	512	61%	466	60%		
High	43	3%	34	4%	33	4%		
Total	1,294	100%	844	100%	774	100%		

# **Study Limitations**

# **Small Sample Size**

The effective sample size for low-risk DRC offenders and all high-risk offenders was low. For outcome measures with an effective sample size lower than 30, statistical tests were not conducted.

<sup>10</sup>Only eight low-risk DRC offenders and 24 high-risk North Side offenders had

exposure time of 18 months or more. Expanding the

follow-up period to 18 months

would have resulted in an inadequate sample size

As noted previously, this study examines only those offenders who participated in a discrete set of DRC services, even though a variety of other services are offered at the DRCs. This sample was chosen as a way to better compare the costs and benefits of operating these centers. To conduct a full CBA of the centers, all offenders who utilize the DRCs and all service providers and their costs should be included.

#### **Comparison Sample Selection**

The racial compositions differed significantly between the DRCs and the North Side. The percentage of African American individuals in the DRCs was twice as high as that of the North Side. Going forward, with more data available, matching based on statistical methods should be applied to reduce selection bias in the comparison group.

# Lack of Distinction between Supervision and Post-Supervision Periods

The 12-month follow-up period used in this analysis does not differentiate between supervision and post-supervision periods. Recidivism is defined as any new arrest or convicted violation within 12 months of the start of supervision, regardless if the episode of supervision was completed prior to the 12-month window or continued after it.

# **PRELIMINARY FINDINGS**

## **Demographics**

**Table 4** presents demographic profiles on all offenders. Statistical tests<sup>11</sup> were performed to see if there was a significant difference in racial distribution, gender distribution and mean age between the groups. There were significant differences in the racial composition of offenders served by the DRC as compared to offenders served at the North Side location, with the percent of low- and medium-risk African American offenders in the DRCs twice as high as that of the North Side offenders. In addition, there were higher rates of medium-risk male participation in the DRCs than in the North Side field office. Reflecting the risk assessment tool, higher-risk offenders had lower average ages (24 at the DRCs and 25 at the North Side office).

<sup>11</sup> Pearson Chi-square Test was used to test whether the percent of each racial and gender categories for the two groups were significantly different from each other. For mean age, the Mann-Whitney test was used to test the difference.

TABLE 3: Demographic Profile of Offenders, DRC Sample Group and Control Group

	LOW	RISK	MEDIU	M RISK	HIGH	RISK	TOTAL	
	DRC (N = 65)	NORTH SIDE (N = 432)	DRC (N = 375)	NORTH SIDE (N = 819)	DRC (N = 79)	NORTH SIDE (N = 43)	DRC (N = 519)	NORTH SIDE (N = 1,294)
RACE								
White	25%***	54%	18%***	47%	22%**	49%	19%	50%
African American	57%***	22%	67%***	33%	53%	37%	64%	29%
Biracial/Multiracial	9%*	4%	9%	7%	20%	9%	11%	6%
Other/Unknown	9%	21%	5%***	13%	5%	5%	6%	15%
GENDER								
Female	35%	33%	17%	21%	4%	12%	17%	25%
Male	63%	66%	83%*	78%	96%	88%	83%	74%
Mean Age at Referral/Assignment	43	41	31	31	24	25	_	_

<sup>\*</sup>Significant at 10% level, \*\*Significant at 5% level, \*\*\*Significant at 1% level

The DRCs and the North Side office are community-based. Offenders are assigned by their addresses, so the DRC group and the North Side group represent offenders living in different parts of the City of Pittsburgh. Nonetheless, crime rates, poverty levels and educational levels are similar between the North Side and the southern part of the city and East Liberty (where the DRCs are located).

# **Technical Violations**

During the course of their supervision, offenders can violate their probation or parole in one of two ways — a technical violation (failing to comply with the technical conditions of their supervision [e.g., failing to report, drug use]) or another criminal charge (arrest and conviction for another criminal charge). Probation officers can use technical violations as a means to ensure compliance by the offender. If an offender is not fulfilling the requirements set forth by the court and/or probation officer, the probation officer may file a technical violation with the courts.

Participation in the Day Reporting Center programs allows offenders to be seen more often than in traditional probation offices. In addition, technical violations can be observed much more quickly than in traditional field offices because a probation officer can speak with the social service provider or staff of the DRCs to determine if the offender is in compliance. As a result, we would expect technical violations to be higher (and the time to violation shorter) within the DRCs. Offenders at DRCs have frequent contact with probation officers and thus are more easily cited for technical violations such as failure to appear for drug testing.

Table 4 displays the technical violation rate by risk level for DRC and North Side offenders. The sample sizes (N) in this table are lower than what we present in Table 3 (the demographics table) because only individuals who have a follow-up time period of no less than 12 months are used for calculating recidivism measures. For low-risk offenders, the average technical violation rate for the DRC Group is 38 percent compared to 17 percent of the Northside group. This difference is statistically significant at the one percent level. The average technical violation rate for the medium-risk DRC Group is 32 percent compared to 18 percent of the North Side group, which is statistically significant at the one percent level. In contrast to low- and medium-risk offenders, there is no statistical difference between the rates of technical violation for high-risk DRC and North Side offenders.

Probation and paroles can be revoked as a result of technical violations. This revocation can result in a new probation sentence and/or a jail or prison sentence. For low-risk offenders, the percent of probationers who had technical violations that resulted in revocations was also higher for the DRC Group; seven percent (three out of 42) violators had a revocation in DRC while only two percent (seven out of 298) did so in the North Side. For these more serious violations, the average time to violation for DRC probationers was about 3.4 months less than that of the North Side offenders. However, the differences in these two measures were not statistically significant. For medium-risk offenders, DRC offenders also had higher rates of technical violations that resulted in revocations (seven percent for the DRC compared to two percent for the North Side), a difference that is statistically significant at the one percent level.

TABLE 4: 12-month Technical Violations by Offender Group during Supervision

	LOW RISK		MEDIUM RISK		HIGH RISK		TOTAL	
	DRC (N = 42)	NORTH SIDE (N = 298)	DRC (N = 237)	NORTH SIDE (N = 512)	DRC (N = 56)	NORTH SIDE (N = 34)	DRC (N = 335)	NORTH SIDE (N = 844)
All Technical Violations	38%***	17%	32%***	18%	29%	26%	32%	18%
Average Months to Violation	4.6	5.9	6.5	5.7	6.4	4.6	6.2	5.7
Revocations as the Violation Result	7%	2%	7%***	2%	5%	6%	7%	2%
Average Months to Revocation Violation	2.9	6.3	6.1	5.5	7.3	5	5.9	5.7

<sup>\*</sup>Significant at 10% level, \*\*Significant at 5% level, \*\*\*Significant at 1% level

#### Recidivism

Recidivism, as defined by a convicted violation booking into the jail within 12 months of the start of supervision, is the rate at which these offenders are re-offending. The re-booking rate covers revocations to jail and new arrests. Medium- to high-risk participants in the DRC recidivated at lower rates than did North Side offenders, while low-risk offenders in both groups recidivated at similar rates. Twenty-two percent of the medium-risk North Side offenders had convicted violations

during supervision compared to only 12 percent of their DRC counterparts (significant at the one percent level). In addition, the average time to violation for DRC offenders was longer than that of North Side offenders by an average of 2.3 months, or 70 days. The average rebooking rate was 32 percent for the DRC group and 36 percent for the Northside group.

TABLE 5: 12-month Recidivism by Offender Group, Convicted Violations and Jail Bookings

	LOW	RISK	MEDIU	MEDIUM RISK		RISK	TOTAL	
	DRC (N = 42)	NORTH SIDE (N = 298)	DRC (N = 237)	NORTH SIDE (N = 512)	DRC (N = 56)	NORTH SIDE (N = 34)	DRC (N = 335)	NORTH SIDE (N = 844)
CONVICTED VIOLATIONS								
All	17%	17%	12%***	22%	7%	29%	12%	21%
Average Time to Violation (in months)	5.3	3.5	6.2	3.9	5.3	3.5	3.8	4.2
	DRC (N = 38) <sup>12</sup>	NORTH SIDE (N = 275)	DRC (N = 220)	NORTH SIDE (N = 466)	DRC (N = 53)	NORTH SIDE (N = 33)	DRC (N = 311)	NORTH SIDE (N = 774)
JAIL BOOKINGS								
All	26%	30%	32%	36%	34%	48%	32%	34%
Months to Rebooking (ave.)	5.6	5.5	5.7	5.2	5.6	5.7	5.6	5.3
Jail Beds Used Per Person (ave.)	2.1	2.4	3.1	3.4	3.4	5.5	3.1	3.2

<sup>12</sup>The number of individuals eligible for a 12-month jail re-booking check is lower because we have shorter data time frames for jail bookings than for probation violations. (3/1/2011 to 4/15/2013 for jail bookings versus 3/1/2011 to 5/9/2013 for probation violations).

\*Significant at 10% level, \*\*Significant at 5% level, \*\*\*Significant at 1% level

The average convicted violation rate was 29 percent for high-risk North Side offenders while the rate was only seven percent for their DRC counterparts. The 12-month re-booking rate was 34 percent for the DRCs and 49 percent for the North Side. The mean Length of Stay by those re-booked in the DRC was 3.4, about two months less than that of the North Side group. For low-risk offenders, the average convicted violation rate was 17 percent for both groups, and the re-booking rate was 26 percent for the DRC group and 30 percent for the North Side group. The average jail-bed days used for a DRC re-booked offender was 0.3 months (or nine days) fewer than the comparison group. However, these differences are not statistically significant.

# **Jail Re-Booking Cost Analysis**

Lower rates of recidivism by DRC offenders as compared to North Side offenders resulted in savings for taxpayers and government. Using the 12-month re-booking outcomes, we are able to estimate the number of jail-bed days saved by the DRCs and the corresponding monetary savings. Table 6 summarizes the jail-bed day savings across all risk groups.

TABLE 6: Jail-Bed Day Savings from March 2011 through January 2013 (DRC vs. North Side)

		DRC			NORTH SIDE					
RISK LEVEL	JAIL MARGINAL COST <sup>13</sup>	RE-BOOK RATE	AVE. LOS	RE-BOOK COST	RE-BOOK RATE	AVE. LOS	RE-BOOK COST	BENEFIT PER PERSON	DRC POP.	TOTAL DRC BENEFIT
Low	\$16	26%	63	\$262	30%	72	\$346	\$84	65	\$5,429
Medium	\$16	32%	93	\$476	36%	102	\$588	\$111	375	\$41,760
High	\$16	34%	102	\$555	49%	165	\$1,294	\$739	79	\$58,359
Total jail-	Total jail-bed savings from March 2011 to Jan 2013									

<sup>&</sup>lt;sup>13</sup>See Collins, Zhou and Dalton,. 2014. "Calculating Unit Costs in Allegheny County: A Resource for Justice System **Decision-Making and Policy** Analysis" for a calculation of the marginal cost of a jail-bed day.

Re-booking cost is defined as the sum product of re-booking rate, average jail-bed days used per person (average Length of Stay), and marginal jail-day cost. The re-booking cost per person for low-risk DRC probationers was \$84 less than that of the North Side group. From March 2011 through January 2013, the DRCs served 65 low-risk offenders in employment services. Therefore, the resulting jail-day savings was \$5,429.

The re-booking cost per person for medium-risk offenders in the DRCs was \$476, about \$111 less than the North Side group. Because the DRCs served 375 medium-risk offenders, the estimated jail-day savings was \$41,760.

The re-booking cost per person for high-risk offenders in the DRCs was \$555, about \$739 less than the North Side group. Because the DRCs served 79 high-risk offenders, the associated jail-bed day savings was \$58,359.

Total jail-bed savings accrued from March 2011 through January 2013 for the 519 DRC offenders analyzed were \$105,548. Fifty-five percent of the benefits came from the high-risk group. This is mainly because the re-booking rate and jail stays for high-risk offenders in the DRCs were both much lower than those of the comparison group. Forty percent of the benefits came from serving medium-risk clients. Benefits associated with low-risk offenders were the smallest at only five percent.

In sum, offenders across all risk levels who received DRC services had better outcomes than the North Side comparison group. The most significant outcome differential was with high-risk probationers, with a jail-bed savings of \$739 per person.

# 14The DRCs served 2,704 people in 2012 in a variety of capacities. The average cost per person is calculated by dividing the total operating budget by 2,704. Offenders are served at varying levels of intensity, and this number represents the average cost to serve an offender during a year.

# **Costs of Operating the Day Reporting Centers**

On average, it cost \$283 per person per year to run the Day Reporting Centers in 2012.<sup>14</sup> These costs include personnel, rent and supplies but do not include the salaries and benefits of probation officers or services that are provided by independent social service organizations. More than 70 percent of these costs are personnel costs, with rent and supplies accounting for the remaining 30 percent. There were initial start-up costs for technical equipment that are not included in this cost per person.

# **Comparing Costs and Benefits**

On average, the financial benefit of the DRCs (as measured by reductions in jail bookings) was \$311 per person. For every dollar invested in the DRCs, that dollar was recouped and an additional \$0.10 of benefit was produced. For high-risk offenders, the return on investment was much higher, at \$1.61 additional return (over the initial investment), primarily as a result of the lower re-booking rate for offenders at the DRC as compared to high-risk offenders in the comparison group. In addition, offenders who recidivated in the comparison group had on average more days in jail than DRC participants (165 days compared to 102 days). The 15 percent difference in re-booking at more than two months fewer jail bed-days accounts for the large financial benefit accrued in serving high-risk offenders at the DRC. These trends were seen across all risk groups, though the benefit per person for lower-risk groups may not be greater than the costs to serve these offenders.

In addition to jail bed day savings, there are benefits that were not monetized in this evaluation, including savings in court costs, savings to law enforcement and savings to victims for crimes prevented. In addition, by preventing crimes and jail time, offenders participating in the DRCs can be productive members of society, working and paying taxes.

The presence of video conferencing equipment in the Day Reporting Centers allows probation officers to conduct violation hearings without having to travel to downtown Pittsburgh, resulting in travel time and parking savings that are not included in this analysis. Community service is performed by offenders in the neighborhoods where the DRCs are located, resulting in benefits to those communities that can be monetized in future analysis (but were not included here). In addition to jail bed day savings, these additional benefits can produce significant financial returns that are not captured in this analysis. Offenders participating in services provided by outside social service agencies were not included in this analysis. To conduct a full CBA of these centers, all offenders served in the DRCs should be included as well as the additional costs to the social service providers of providing services in the DRCs.

# **CONCLUSION**

The Day Reporting Centers in Allegheny County represent a new model of supervision in the county. This model yields positive results. Participants in the DRCs are less likely to re-offend than participants in traditional field-based offices, resulting in substantial savings to Allegheny County and its taxpayers. This study supports national research that found that working with medium- to high-risk offenders is the most effective way to allocate resources. The largest return on investment at the DRCs is in serving high-risk offenders, followed by serving medium-risk offenders.

The Fifth Judicial District of Pennsylvania's Adult Probation office is committed to investing in evidence-based practices and programs. The office seeks to transform all supervision in the county to this new model of supervision, with probation officers mobile and supervising offenders in their neighborhoods and communities, and a central social service center that allows for more efficient monitoring of court order stipulations, and easier and more complete access to the services that offenders need to become contributing members of society. A new risk and needs assessment is currently being implemented; this assessment will improve how offenders are identified for services, ultimately leading to more effective services that reduce the likelihood that offenders will recidivate.

# **BIBLIOGRAPHY**

Latessa, E. J. (2004, Winter). "Best Practices of Classification and Assessment," *Journal of Community Corrections*, 13(2), pp. 4–9.

Lowenkamp, C. T. and Latessa, E. J. (2004). "Understanding the risk principle: How and why correctional interventions can harm low-risk offenders," in National Institute of Corrections (Series Ed.), *Topics in Community Corrections: Assessment issues for managers*, pp. 3–8, Washington, D.C.: National Institute of Corrections.