Community Corrections Centers, Parolees, and Recidivism: An Investigation into the Characteristics of Effective Reentry Programs in Pennsylvania

FINAL REPORT

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May 2009

This project was supported by Grant Number 2004/2005-DS/JG-19/06-16505 awarded by the Pennsylvania Commission on Crime and Delinquency to the Center for Criminal Justice Research, University of Cincinnati. Points of view or opinions in this document are those of the authors and do not necessarily represent the official position, policy, or views of the Pennsylvania Commission on Crime and Delinquency

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Acknowledgements

The research team would especially like to thank Gary Zajac, Ph.D, Chief of Research and Evaluation, Michael Antonio, Ph.D., Research and Evaluation Manager, and the PADOC research team staff and all of the participating programs, their staff and residents for agreeing to be involved in this study. We were grateful for the time and effort that was put forth in preparing for our site visits and the cooperation and hospitality the research team was shown. Further, we are grateful to all of the research team staff from the University of Cincinnati, especially John Schwartz, Lori Lovins, Will Stadler, and the individual members of the research team that traveled to Pennsylvania for the site visits. Thanks to everyone for their valuable efforts.

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EXECUTIVE SUMMARY

While there were multiple goals to this study, the primary objective was to identify which community correction centers were successful in reducing recidivism for the State of Pennsylvania and to identify which individual and program level characteristics, if any, were significantly more likely to produce reductions in recidivism. This was a quasi-experiment that compared offenders that entered as well as successfully completed the halfway house programs with offenders that never received any treatment programming from these facilities. There were a total of 54 site visits made by research staff from the University of Cincinnati. The total offender sample size was comprised of 7,846 offenders that were matched on (1) sex, (2) race, (3) Level of Service Inventory-Revised (LSI-R) risk level, (4) sex offender status and (5) committing county. Individual level data were collected from the programs as well as electronically provided from the Pennsylvania Department of Corrections (PADOC). Program level data were collected by the research team, and all participating programs were scored and rated on program content and capacity based on the Evidence Based Correctional Program Checklist (CPC). Statistical analyses included bivariate correlations, t-tests, multivariate logistic regression and the calculation of probabilities to examine the treatment effects for the total sample as well as between the successful completion treatment and comparison groups. These probabilities were also conducted for the significant predictors of the four dichotomous outcome measures. A brief summary of the results from the bivariate and multivariate analyses as well as the CPC ratings follows.

Results from the crosstabulations, t-tests, and bivariate correlations indicated that the comparison group consistently had significantly lower rates of recidivism for all five outcome measures: (1) any technical violation, (2) any arrest, (3) any re-incarceration, (4) number of arrests and (5) any recidivism. These findings were also disaggregated by risk level based on the LSI-R and similar results were demonstrated suggesting that for the low, medium and high risk levels, the comparison group had lower recidivism rates for each of the dichotomous outcome measures.

Multivariate level analyses which examined the total sample as well as the successful completers and their matched comparison cases controlled for (1) sex, (2) race, (3) age, (4) time in the institution, (5) total LSI-R score, (6) facility type and (5) group status. These findings and corresponding probabilities further suggest that being a member of the treatment group, whether defined by just participation in or successful completion of these programs was significantly associated with each of the four dichotomous outcome measures. With the exception of time in the institution and occasionally race, each of these control variables was found to be a significant predictor

of failure. Specifically, being a young, non-white male with a high total LSI-R score was significantly predictive of recidivism.

Community contract facilities (CCF) did appear to be offering more treatment groups for offenders than the community correction centers (CCC) operated by the PADOC. However, when comparing these two facility types in the multivariate logistic regression models, the CCC programs had significantly lower recidivism rates than the CCF programs. With few exceptions, when examining these findings by risk level, the probability of recidivism was significantly higher for the treatment group than the comparison group. Notably, this finding remained despite comparing the successful completers from the treatment group to their matched counterparts, as well as for the analyses that examined the total sample. Corresponding probabilities which were calculated from the logistic regression models were compared to examine the mean difference in failure rates between the treatment and comparison groups. Mean differences between the treatment and comparison groups were often found to depict a significant difference in the average failure rates, including by risk level. Further, the rate of recidivism was generally higher for the treatment group. The two exceptions to this focus on the few occasions where the mean difference was not *significantly* different, which was noted when examining "any arrests" and the occasional finding that revealed a slightly higher rate of arrests for the comparison group, neither of which were significant.

As mentioned, each program site visited was scored on the CPC for both program content and capacity. Of the 54 programs, 93% were rated as needs improvement or ineffective. When comparing the groups by facility type, CCF and CCC programs, the overall average percentage was classified for both facility types as being ineffective. Low ratings in the areas of program content and capacity reflect these overall low ratings for the programs. Specifically, programs scored low in the content areas related to offender assessment and treatment characteristics and for quality assurance in the program capacity area. Very few programs used any form of actuarial risk assessment despite the PADOC assessing inmates with the LSI-R. During each of the site visits, offender file reviews were conducted and very few LSI-R scores were observed in the files. Upon receipt of the electronic individual level database from the PADOC it was confirmed that all programs were mixing risk levels. Given that the CCC programs were more likely to direct offenders to external treatment providers as well as encourage offenders to be employed, there was less time where the mixed risk groups were exposed to each other. Many of the CCF sites operated treatment programs within the facility. As such, the exposure to a mixed risk group was increased which potentially could be tied to these findings.

Limitations for this study included small sample sizes when disaggregating by program, use of a quasi-experimental design rather than a randomized experiment, issues related to generalizability as some programs closed or chose not to participate during the site visit process, and the potential for methodological issues that could not be controlled for in the analyses. However, even with these limitations, it is quite relevant to consider that the findings were fairly consistent regardless of the level of analysis.

Recommendations to the PADOC and the programs include the following: (1) the development of an organized strategy for distributing the LSI-R scores along with the domains and risk levels to the CCC and CCF programs, (2) an agreement to the creation of a systematic method to collaborate with the programs to share assessment information, treatment progress, treatment content and aftercare information between the PADOC facilities, parole officers as well the program directors and staff, (3) training for all of the appropriate PADOC and program staff on the risk principle, the impact of mixing risk levels, core correctional practices, and the principles of effective intervention, (4) the development of a structured plan for addressing the CPC deficiencies for each program especially quality assurance and (5) scheduling follow-up CPC evaluations for all programs to compare changes in the program content and capacity sections as well as overall.

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INTRODUCTION

The purpose of this report is to review the methodology, analysis, findings and recommendations related to the evaluation of the Pennsylvania Department of Corrections Community Corrections Centers and Facilities. Specifically, this research study was designed to examine the link between program integrity and effectiveness. Other than identifying the program characteristics associated with measures of effectiveness, the intention of this study was to: 1) provide information about the effectiveness of the Community Corrections Centers (CCC) and Community Contract Facilities (CCF) in Pennsylvania, 2) identify strengths and weaknesses in CCCs and CCFs, 3) provide a "blueprint" for developing more effective programs in Pennsylvania, 4) develop a protocol for matching parolees to programming based on risk and need, and 5) assist the state in identifying programming characteristics to be considered when making program funding decisions.

Data collection included both program level measures as well as individual level measures. There were 54 programs evaluated during the initial data collection process. Of these, there were a total of 41 participating CCFs and 13 participating CCCs.[1] These

[1] It should be noted that some of the CCFs operated more than one program. Further, there were programs that either closed or did not voluntarily agree to participate in this study. As such, these programs were not included in this study. Pittsburgh CCC #1 did not participate, Pittsburgh CCC #2 opened after the initial data collection phase, and the Lycoming House closed on the day the site visit was scheduled.

program evaluations began on August 2006 and concluded in November 2006. In addition to the macro-level data, the Pennsylvania Department of Corrections (PADOC) assisted with the individual level data collection. In particular, the PADOC provided recidivism data on 7,846 offenders[2]. This sample of offenders included the treatment sample which was comprised of parolees, pre-releases and halfway-backs who were residents of the CCCs and CCFs and the comparison sample with parolees who were not residents of the CCCs or CCFs.[3]

For clarity, this report is divided into several sections. Section I of this report provides a summary of the methodology for this study. Section II presents a description of the treatment and comparison samples based on demographic and outcome measures. In addition, Section II describes the program by facility type and reviews that data collected on the LSI-R risk level of offenders within the total sample. Section III presents the multivariate findings that predict recidivism for the individual level data. Section IV presents the findings related to program effectiveness and specifically presents the results related to effective program characteristics. Section V summarizes the primary findings for this study and identifies limitations of this research. Finally, Section VI provides the recommendations for the PADOC as well as the individual participating programs.

[2] It should be noted that the original database provided by the PADOC included offenders that were not from the programs where site visits were conducted which resulted in a smaller sample size. Further, the total sample size decreased as a result of the matching of treatment and comparison cases by (1) race, (2) sex, (3) committing county, (4) LSI-R category[2], and 5) sex offense.

[3] A description of both the macro and micro-level measures is included in the methodology section. In addition, the data collection instruments are available in the Appendix.

SECTION I: METHODOLOGY

This first section of the report will review the following five areas: (1) data collected on offenders, (2) data collected on programs, (3) methodology for program evaluations and the University of Cincinnati Institutional Review Board process, (4) cleaning and creating the databases and (5) statistical analysis utilized for this research.

Offender Data

Offender data was provided from the PADOC. Data on offenders included: Name, date of birth, SSN, sex, race, age at release, offense including sex offenses, level of offense seriousness, highest level of education completed, marital status, reading level, employment status, services and agencies referred to, location of current community correctional facility operated by the Pennsylvania Department of Corrections or contract community correctional facility, community supervision type, supervision level, time spent in prison, adjustment to institution, status of discharge from program and parole, technical violations on parole and with the community correctional facility, number of arrests and re-incarceration. In addition, data concerning the total score for the Level of Service Inventory-Revised (LSI-R) and risk level. Other measures provided by the PADOC included behavior indicators related to alcohol and drug use and assaultive behavior.

Program Data

The research team visited 54 sites in Pennsylvania. As stated previously, there were 41 CCF's and 13 CCC programs. There were a total of 78 group observations that

were made at each program actually conducting groups. Site visits began in early August 2006 and concluded at the end of October 2006. Site visits to Pennsylvania CCC and CCF programs were weekly and there was typically one program scheduled per day. Exceptions to this included programs such as the Joseph Coleman Center that had more than one program operating under that name, as such, this required more than one full day visit. In addition, a program closure and a program not wanting to participate also meant that the scheduled site visit did not occur when the research team was expected to visit that program on a set date. Finally, there were follow-up phone calls and emails that occurred with a number of programs to collect additional data that were not gathered at the time of the original site visit. Specifically, there a few programs that may not have had staff present on the date of the site visit. As such, follow up phone calls and email correspondence with these individuals permitted some data collection to occur through these methods. This form of data collection actually began in August 2006 and concluded in December 2006. Group observation data were coded on the Core Correctional Practices data collection forms from the CPAI-2000. At each site a program director or clinical supervisor was interviewed, staff were observed in intake sessions and facilitating groups, and offenders were interviewed. Program data were compiled into a program summary form that was completed at the end of each site visit. At the conclusion of the site visit, the research team would compile all materials from the site visit and collectively complete the program summary form. The materials used for the program summary form included interview data collection sheets, surveys, file review forms, and group observation data collection forms. This program summary data collection form is contained in the Appendix. A separate database with 910 variables

was created from the program summary form that identified each observation and measure captured during the site visits from all data collection sources. This program summary form and database was later used to score out each program based on program content and capacity as identified on the Evidence Based Correctional Program Checklist (CPC).

Evidence Based Correctional Program Checklist (CPC) and Core Correctional Practices

In an effort to provide a score for program content and capacity for the programs individually as well as combined for the PADOC, the items on the Evidence Based Correctional Program Checklist (CPC) were used as these matched the measures within the program summary database. On the CPC, program capacity evaluates the following areas: (1) program leadership and development, (2) staff characteristics and (3) quality assurance.

Specifically, program leadership and development considers the educational and professional experiences of the program director. Further, there are items that address the program director's involvement in the development of the program especially as it relates to the adherence to evidence-based research, as well as to determine if the program director follows a strict administrative role or has some responsibilities that are similar to the case managers, group facilitators and counselors within the program. Items related to program funding and sustainability and the piloting of programs before full implementation are also considered. Some of the items under the staff characteristics domain are similar to program leadership with respect to identifying the educational and professional experiences of the staff. In addition, this domain measures the support and

attitudes of the staff regarding the program treatment model. Finally, this domain identifies whether or not there is clinical supervision provided to the staff. Items under the quality assurance domain reflect the internal and external review strategies employed by a program to maintain the treatment model, demonstrate the staffs' skills pertaining to case management and group facilitation, offender progress, maintenance of records as well as to examine process and outcome measure through evaluation.

Program content examines offender assessment and treatment characteristics. Offender assessment considers whether or not the program is using an actuarial, standardized risk assessment that is valid for their target population and minimizes the mixing of risk levels. In addition, these items will identify if the program has a clear list of eligibility criteria as well as exclusionary criteria that is followed by the program director and staff. The items under the treatment characteristics domain examine: (1) whether or not the primary treatment targets of the program focus on criminogenic needs, (2) if the program model is centered around social learning or cognitive-behavioral theory, (3) that staff are appropriately matched to the program as well offenders based on specific responsivity factors, (4) that dosage is appropriate based on the risk level of the offender, (5) that the rewards and punishers given in the program are appropriate for the offender's behavior and that the ratio of rewards to punishers is 4:1, (6) that supervision of groups is maintained by staff and the (7) program completion rate is between 65-85%.

Each individual site was then scored out on these five areas for program content and capacity and then a total score was calculated for each program. Further, all programs were then given a rating based on the total score. The rating system ranges from highly effective for programs scoring 65% or over to ineffective for programs

scoring at 45% or less. Programs that score between 55%-64% are classified as effective and those scoring between 46%-54% are identified as needing improvement. It should be noted that many programs that are initially evaluated with the CPC often fall into the ineffective and needs improvement ratings. Upon implementation of the recommendations following an initial CPC evaluation, many programs will increase their overall rating on a subsequent CPC evaluation.

Along with the use of the CPC to score out programs, the research team was given permission to use the Core Correctional Practices section from the CPAI-2000. There are nine elements of core correctional practice. These include: (1) effective modeling (also called anti-criminal modeling), (2) effective reinforcement, (3) effective disapproval, (4) problem solving techniques, (5) structured learning for skill building, (6) effective use of authority, (7) advocacy and cognitive self change, (8) relationship practices and skills and (9) structuring skills. For each of the 78 group observations, a core correctional practices data collection form was completed and a separate database was created to record all items measuring the nine elements of core correctional practices. The intent of this data collection form is to identify if program staff are prosocial models for the offenders, and if staff consistently demonstrate appropriate behavior, attitudes, and effective problem solving skills while maintaining authority through a balance of effective reinforcement and disapproval.

Methodology for program evaluation and the University of Cincinnati Institutional Review Board process

There were multiple steps taken to carry out a study of this scope. Based on fulfilling the requirements of the University of Cincinnati Institutional Review Board that

approves and monitors research compliance for all research protocols on human subjects, all research team staff were required to be certified and trained on ethical practices of human subject research. Further, this certification was expected to be maintained in order to remain on the research team for this project. Given that offenders are considered a vulnerable population, the University of Cincinnati Institutional Review Board and the research team for this project were very cautious in avoiding all potential causes for coercion related to program directors, staff and especially offenders. All interviews, surveys and group observations required completed consent forms from all program directors, staff and offenders. These forms were signed and dated by all participating individuals, including the research staff, during a site visit. This included the anonymous staff surveys, since completion of the survey implied consent. These consent forms were maintained with the program file in a locked cabinet within a locked room at the University of Cincinnati in the Center for Criminal Justice Research.

All sites were mailed a letter requesting that the program prepare for each site visit by gathering certain materials that would expedite the process and would minimize the burden of staff to organize these materials on the date of the visit. Further, an initial and a follow-up phone call was made to each facility to schedule visits based on the availability of the program director, staff and the scheduling of groups for observation, if there were groups conducted at the particular site. Typically, each site was visited for one day, with a few exceptions when there were multiple programs at one site. Copies of the original letter mailed to each program, consent forms, and the survey are included in the Appendix. Per this project, all forms were provided and approved in the protocol submission process for the University of Cincinnati Institutional Review Board.

During the visits, the research team filled out the data collection forms and gathered any materials where copies were provided to the research team by the facility. The research team met at the conclusion of each site visit and collectively completed the program summary data collection sheet based on all information gathered. Data collection forms are described in the following section and copies are provided in the Appendix.

Creating and Cleaning the Databases

There were multiple databases created as a result of this project. Each will be discussed in detail below. Altogether, there were a total of five separate databases created from the data collection forms used during the site evaluations. These included databases for staff member forms, staff surveys, group observation, file review, and the program summary.[4] Staff member forms were provided to each site in advance of the visit. Employees were asked to voluntarily complete these anonymous forms which provided a brief overview of their educational background and employment history. Staff attitudinal surveys were distributed during the site visits. Questions were primarily in a Likert Scale format. Group observation forms were only completed at programs that were operating groups and where the facilitator and the group members consented to the observation.[5] Variables contained on the group observation forms focused on identifying core correctional practices between staff and offenders. File review forms were

[4] With the exception of the group observation form, copies of all forms are included in the appendix. Please note, the CPAI-2000 group observation form on core correctional practices was provided with permission by Dr. Paul Gendreau and is not available for release by the University of Cincinnati.
[5] All group members and facilitators at participating programs agreed to observation. There were no refusals.

completed at each site. These forms documented the contents of twenty offender files for each program. Finally, the program summary data collection form was completed at the end of each site visit. All data gathered as a result of the site visit were compiled and summarized into this final data collection form. This form allowed the research team to identify when there were discrepancies in the information gathered during the site visit as well as when there was collaborative support regarding observations made or data collected while on site.

In addition to the five databases and data collection forms described above, there was a program level database created that scored out each program and an individual level database that included electronic data from the PADOC on offenders for both the treatment and comparison groups. As described above in the program data section, these measures are similar to the Evidence Based Correctional Program Checklist (CPC) which reviews two main areas: program content and program capacity. Program capacity evaluates the following areas: (1) program leadership and development, (2) staff characteristics and (3) quality assurance. Program content examines offender assessment and treatment characteristics. Each individual site was then scored out on these five areas and then a total score was calculated for each program. Further, all programs were then given a rating based on the total score. The rating system ranges from highly effective for programs scoring 65% or over to ineffective for programs scoring at 45% or less. Programs that score between 55%-64% are classified as effective and those scoring between 46%-54% are identified as needing improvement.

As stated previously, the individual level data were provided electronically by the PADOC. Within this database, there were several programs or sites that were not

identified at the start of the project or site evaluations were not completed for various reasons and therefore were removed in the individual level database.[6] These sites were Lycoming, Pittsburgh CCC #1 and Pittsburgh CCC #2. In addition, there was one program, Riverside CCC, that did not have cases in the individual level database. As such, only program level data were examined for this program. Finally, Capitol Pavilion and Conewago Harrisburg were identified as the same program and were scored together in the program level database. Therefore, the individual level data were combined for these analyses.[7]

Measures within the individual database included all of the offender variables identified above. In order to match treatment cases to comparison cases, the following variables were used for this process: (1) race, (2) sex, (3) committing county, (4) LSI-R category[8], and 5) sex offense. In order to merge the individual level databases to the program level databases, the PADOC site identification numbers were used. Each of these site identification numbers corresponds to each of the community correction centers and the contract facilities. However, several of these sites had more than one program. As such, the site identification numbers were recoded to correspond by programs, which permitted the matching of treatment effects from the individual level database to the program level database. Phi coefficients or Pearson correlation coefficients were calculated for each outcome measure to examine the treatment effects for each program visited. In addition, a weight for each program was also calculated since there was variation in the sample size for each program.

[6] The site identification numbers that resulted in data being removed included: 111, 137 and 140. There were additional site identification numbers listed as part of the variable values, but no data accompanied these numbers.
[7] Please note that Conewago Harrisburg and Capitol Pavilion operate at the same address.
[8] LSI-R categories for the PADOC are: Low 0-20, Medium 21-28, High 29-54.

Program Description

Table 1 provides the sample size for each of the programs. There are a total of 41 contract programs identified and 12 state PADOC programs included in the individual level database[9]. The CCC programs had a total treatment sample size of 628 offenders while the CCF programs contained a total treatment sample size of 3295 offenders. Total sample sizes ranged from 8 to 496. Given that there are small sample sizes from some programs, it can be expected that there will be limitations with respect to generalizing findings for some programs. However, the total sample size for each of the treatment and comparison groups separately is 3,923 cases, which is a very substantial sample size and hence these findings will be more reliable when examined collectively.

[9] Recall that while the total number of programs is 54, this number applies to the site visits and that Riverside CCC did not have individual level data. Therefore, the number of programs in Table 1 only includes data reported on 53 programs.

Table 1. Programs and Sample Size

Program	Treatment	Comparison	Total
ADAPPT- ALCOHOL	41	41	82
ADAPPT- GROUP HOME	229	229	458
ALLE-KISKI PAVILION	148	148	296
ALLENTOWN CCC	75	75	150
ATKINS HOUSE	12	12	24
CAPITOL PAVILION & CONE. HARRIS.	155	155	310
CONEWAGO PLACE	111	111	222
CONEWAGO WERN. ALCOHOL	29	29	58
CONEWAGO WERN. GROUP	110	110	220
CONEWAGO WERN. PENNCAPP	82	82	164
DRC (Alcohol)	10	10	20
DRC (Group home)	86	86	172
DRC (Dual Diagnosis)	25	25	50
EAGLEVILLE D&A	67	67	134
ERIE CCC	99	99	198
GATEWAY-BRADDOCK	80	80	190
GATEWAY-ERIE	69	69	138
GAUDENZIA-COMMON GROUND	16	16	32
GAUDENZIA-CONCEPT 90	13	13	26
GAUDENZIA-ERIE	65	65	130
GAUDENZIA FIRST	14	14	28
GAUDENZIA PHILLY HOUSE	33	33	66
GAUDENZIA SIENA ALCOHOL	67	67	134
GAUDENZIA SIENA GROUP	121	121	242
GAUDENZIA WEST CHESTER	27	27	54
HANNAH HOUSE	33	33	66
HARRISBURG CCC	129	129	258
JOHNSTOWN CCC	81	81	162
JOSEPH COLEMAN- HARMONY	162	162	324
JOSEPH COLEMAN- SERENITY	4	4	8
JOSEPH COLEMAN TRANQUILITY	71	71	142
KEENAN HOUSE/TT	81	81	162
KINTOCK-ERIE AVENUE	247	247	494
LIBERTY MANAGEMENT	109	109	218
LUZERNE	72	72	144
MINSEC BROAD STREET	86	86	172
MINSEC CHESTER	134	134	268

MINSEC OF SCRANTON	128	128	256
MINSEC YORK STREET	60	60	120
PENN PAVILION	115	115	230
PHILADELPHIA CCC #2	22	22	44
PHILADELPHIA CCC #3	17	17	34
PHILADELPHIA CCC #4	28	28	56
PHILADELPHIA CCC #5	33	33	66
PITTSBURGH CCC #3	18	18	36
RENEWAL, INC.	248	248	496
SCRANTON CATHOLIC	47	47	94
SCRANTON CCC	48	48	96
SELF HELP MOVEMENT	44	44	88
SHARON CCC	45	45	90
TRANSITIONAL LIVING CTR	20	20	40
YORK CCC	33	33	66
YOUTHBUILD/CRISPUS ATTUCKS	9	9	18
Total	**3923**	**3923**	**7846**

Chart 1 provides the program's capacity, successful termination rate as well as the services offered within each program. The average successful termination rates for the CCC programs were nearly 90% whereas the average successful termination rates for the CCF programs were significantly lower at 82%. Unlike the CCF programs, there were no CCC programs that were co-ed and only two CCC programs (15%) were comprised of just females. Similarly, there were 3 CCF programs (7%) that housed females only. Of the 13 CCC programs, ten (77%) did not provide any services or programming for substance abuse. Further, eight of the 41 CCF programs (20%) did not offer substance abuse programming. Eight of the thirteen CCC programs (62%) had employment services for the residents and 30 of the 41 CCF programs (73%) had employment services. Services for targeting mental health issues, dual diagnosis, sex offending, cognitive restructuring and skill building were not offered as commonly as substance abuse and employment.

Chart 1. Program Services, Capacity, and Facility Type

Program name	Capactity	Successful Termination Rate	Serves Males/Females	Facility Type (CCC/CCF)	Substance Abuse	Employment	Mental health services	Dually-diagnosed	Sex Offender	Anger/Domestic Violence	PennCAPP	Cognitive restructuring	Skill Building
ADAPPT	178	65	M&F	CCF	X	X				X		X	
Alle-Kiski Pavilion	75	87	M	CCF	X	X							
Allentown CCC	62	83	M	CCC		X							
Atkins House	15	75	F	CCF	X	X				X		X	
Capitol Pavilion & Conewago Harrisburg	96	87	M&F	CCF									
Conewago Place	55	97	M&F	CCF	X	X				X		X	
Conewago Wernersville	250	88	M&F	CCF	X	X				X	X	X	
Diagnostic and Rehabilitation Center	148	64	M&F	CCF	X	X		X	X	X			
Eagleville D & A	40	82	M	CCF	X	X				X		X	
Erie CCC	70	96	M	CCC		X							
Gateway Braddock	90	83	M&F	CCF	X					X		X	
Gateway Erie	35	88	M&F	CCF	X	X				X		X	X
Gaudenzia Common Ground	6	100	M&F	CCF	X								
Gaudenzia Concept 90	42	92	M&F	CCF	X								
Gaudenzia Erie	55	83	M&F	CCF	X								
Gaudenzia First	22	36	M&F	CCF	X		X						
Gaudenzia Philly House	36	76	M	CCF		X							
Gaudenzia Siena House	99	78	M	CCF	X	X				X			X
Gaudenzia West Chester	22	100	M&F	CCF	X								
Hannah House	27	79	F	CCF		X							
Harrisburg CCC	120	88	M	CCC		X			X				
Johnstown CCC	62	91	M	CCC		X							
Joseph Coleman	260	83	M	CCF	X	X	X			X	X	X	
Keenan House	85	78	M&F	CCF	X	X				X		X	X
Kintock Erie Avenue	280	75	M&F	CCF	X	X				X		X	

Chart 1. Program Services, Capacity, and Facility Type Continued

Program name	Capactity	Successful Termination Rate	Serves Males/Females	Facility Type (CCC/CCF)	Substance Abuse	Employment	Mental health services	Dually-diagnosed	Sex Offender	Anger/Domestic Violence	PennCAPP	Cognitive restructuring	Skill Building
Liberty Management	100	73	M	CCF		X							
Luzerne	55	67	M	CCF	X	X							
Minsec Broad Street	112	76	M	CCF	X	X				X			
Minsec Chester	90	89	M	CCF		X							
Minsec of Scranton	58	88	M	CCF	X	X				X			X
Minsec York Street	75	78	M	CCF	X	X				X			
Penn Pavilion	75	85	M	CCF	X	X							
Philadelphia CCC #2	48	91	M	CCC									
Philadelphia CCC #3	25	88	F	CCC		X						X	
Philadelphia CCC #4	40	89	M	CCC		X						X	
Philadelphia CCC #5	70	85	M	CCC		X							
Pittsburgh CCC	19	100	F	CCC	X							X	
Renewal, Inc.	192	86	M&F	CCF	X						X	X	
Riverside CCC[10]	70	--	M	CCC		X							
Scranton Catholic Social Services	15	94	M&F	CCF		X							
Scranton CCC	36	92	M	CCC	X								
Self Help Movement	70	86	M	CCF	X	X				X			
Sharon CCC	28	87	M	CCC		X			X			X	X
Transitional Living Center	34	40	F	CCF		X							X
York CCC	35	97	M	CCC									
Youthbuild Crispus Attucks	20	100	M	CCF		X							

[10] Riverside CCC did not have individual level outcome data. As such, the successful termination rate was not available.

Statistical Analysis

Given the amount of data collected for this project, the need for a structured analysis plan was created in order to address the objective for this study. Specifically, there were six steps taken in conducting these analyses. The following discussion provides a summary of the analysis plan including what statistics were run and why these specific analyses were conducted.

First, it was necessary to provide a descriptive profile of the offender population included in this sample. As such, descriptive statistics (frequencies, means and standard deviations) were conducted for the demographic characteristics (sex, race, age at release, highest grade completed, employment status six months prior in the community and marital status) for both the treatment and comparison group. In addition, descriptive statistics were examined for the total LSI-R score and the corresponding risk level based on the cutoffs established by the PADOC. While treatment and comparison cases were matched on: (1) race, (2) sex, (3) committing county, (4) LSI-R category[11], and 5) sex offense, additional data that would further describe the target treatment population included behavioral indicators for alcohol and drug use as well as assaultive behavior, time in the institution and institutional adjustment. Finally, descriptive statistics are reported on all outcome measures. These included: technical violations on parole and within the community correctional facility, number of arrests and re-incarceration. Number of arrests was also dichotomized in order to conduct logistic regression analyses that require a dichotomous dependent variable. In addition to providing these general demographics, basic crosstabulations were conducted that identified if members of the

[11] LSI-R categories for the PADOC are: Low 0-20, Medium 21-28, High 29-54.

treatment group who were found to have a drug or alcohol indicator were then sent to a program that provided such treatment. For the measures that the cases were not matched on, crosstabulations and Pearson chi-square values were calculated for the dichotomous measures to examine whether or not there was a significant difference between the comparison and treatment samples. Similarly, for the metric measures, t-tests, which compare the difference in the mean values were also conducted to determine if there was a significant difference between the two groups.

Second, descriptive statistics related to all of the participating programs by facility type which is defined as identifying programs that are operating as community correction centers (CCC) or community contract facilities (CCF) are reported. In particular, this will include the basic demographic information provided above, including: sex, race, age and LSI-R total score and risk levels. Further, crosstabulations were calculated when examining the facility type. Further, an additional layer to the crosstabulation analysis examined facility type and group membership by outcome. Finally, while slightly outside the scope of this project, there was a consistent observation made by research team staff regarding the LSI-R data at the visited sites which were recorded on the file review data collection forms. Specifically, upon review of twenty files at each program, very few contained any LSI-R information at all. Further, few programs were conducting their own LSI-R. As such, given that the individual level database provided both the total LSI-R score and the corresponding risk level based on LSI-R cutoffs, data were available to examine whether or not these cutoffs were appropriate for the PADOC based on an examination of the outcome data. Bivariate correlations were conducted to examine the predictive validity of the total LSI-R score and the three primary outcome

measures by the total sample and then disaggregated by group membership. Further, crosstabulations for the LSI-R risk level cutoffs were calculated on the dichotomous outcome measures for both the treatment and comparison groups. This permitted an examination of the cutoffs to determine if there was an increase in recidivism as the level of risk increased.

Third, this study examined what individual level characteristics were related to success for the treatment group. In particular, multivariate logistic regression analysis examined what variables may significantly predict success in being paroled back to the streets while controlling for other individual level measures. These measures included: sex, race, LSI-R total score, age, sex offense[12] and length of time in the institution. For all other multivariate logistic regression analyses these dichotomous measures were coded in the following manner: (1) sex- 0= male, 1= female; (2) race- 0= non-white, 1= white; (3) sex offense- 0= non-sex offender, 1= sex offender and (4) group- 0= treatment, 1= comparison.

Fourth, one of the main research questions examined was if the individual level measures had an impact on recidivism. In addition, these analyses examined whether the treatment or comparison group was more likely to recidivate. As such, there were multiple variables that needed to be controlled for. Therefore, multivariate logistic regression analysis was conducted on all dichotomous outcome measures (any arrest, any technical violation, any re-incarceration) for the total sample. In addition, one recidivism measure, labeled as "any recidivism" was created in the database. This recidivism measure was scored as 0= no recidivism and 1= at least one technical violation, arrest or

[12] Please note that for sex offense, this was a constant for some analyses and was removed from the model as a result.

re-incarceration. Simply put, it basically merged the primary three outcome measures into one dichotomous variable. The variables that were controlled for in these analyses included: sex, race, LSI-R total score, age, sex offense[13] and length of time in the institution. These analyses were also conducted by offender status (paroled, halfway back and pre-release), and by facility type (CCC and CCF).

Finally, multivariate logistic regression analyses were conducted after selecting only the successful treatment completers and comparing these offenders to their matched counterparts that were not involved in any program. Given that the multivariate models control for variables that may potentially impact the outcome measures, it was useful to examine the probabilities for failure between the successful treatment group and the comparison group. In addition, these probabilities were also disaggregated and reviewed by risk level to see if there was a significant difference between the groups. Since the sample sizes of some program decreased when only looking at the successful completers group, programs with fewer than 30 cases were removed from these analyses and combined into an overall "small program" successful treatment and comparison group. The small programs included: Philadephia CCC#2, Philadelphia CCC#3, Philadelphia CCC #4, Philadelphia CCC #5, Gaudenzia West Chester, Hannah House, Gaudenzia First, Gaudenzia Philly House, Atkins House, Transitional Living Center, Conewago Harrisburg, Gaudenzia Common Ground, Youthbuild Crispus Attucks, Gaudenzia

[13] Please note that for sex offense, this was a constant for some analyses and was removed from the model as a result.

Concept-90, and Pittsburgh CCC #3. These multivariate analyses and probabilities were repeated then for the small program groups.[14]

Fifth, this study also examined program level measures. As stated previously, each of the participating sites was scored on the areas and topics associated with program content and capacity. These scores are then presented by program capacity areas: (1) program leadership and development, (2) staff characteristics and (3) quality assurance and program content which examines offender assessment and treatment characteristics. Further, the treatment effect associated with each program was also calculated. This was done by calculating Phi coefficients for the dichotomous outcome measures and taking into consideration the weight for each individual program. As demonstrated in Table 1, weights were needed to address the variation in sample size among the different facilities. The phi coefficients can then be interpreted as whether or not treatment had a positive effect on these participants in comparison to the offenders who did not participate in the treatment programs. For the interval outcome measure, numbers of arrests, bivariate correlations were conducted. These findings are presented in the Appendix.

Sixth, the group observation form that was used at the sites that were conducting groups measured core correctional practices. Elements of core correctional practice include: effective modeling, effective reinforcement, effective disapproval, problem solving techniques, structured learning for skill building, effective use of authority, advocacy and cognitive self change, relationship practices and skills and structuring

[14] While the individual programs are always listed in the probability figures in the findings section, the findings for the individual small programs may not be reliable due to small sample size. Individual findings should be interpreted cautiously for the programs identified as a small program.

skills (Andrews & Bonta, 2003).[15] For each group session and within the context of the observations between site staff and residents of these facilities, programs were scored out on these elements and an overall score was provided. However, not all of the participating programs did conduct groups and several of the programs conducted multiple groups. Therefore, this section of the report will be limited to only those programs that conducted groups.

The following sections of the report will present the findings followed by a discussion of the study's limitations and recommendations for the PADOC and its programs to consider. Section II presents a description of the treatment and comparison samples and programs by facility type.

SECTION II: DESCRIPTION OF TREATMENT AND COMPARISON SAMPLES AND PROGRAMS BY FACILITY TYPE

The first set of findings presented in this section include the individual measures that the treatment and comparison groups were matched on as well as measures related to behavior, the LSI-R and the outcome measures. Table 2 depicts the demographics for both the treatment and comparison group. As stated previously, each member of the treatment group was matched to a comparison case on the following measures: 1) race, (2) sex, (3) committing county[16], (4) LSI-R category[17], and 5) sex offense. While this means that there were no differences between the two groups based on these measures, there were other demographic characteristics that were examined and did provide some

[15] For additional discussion on core correctional practices, please see Andrews and Bonta (2003), *The Psychology of Criminal Conduct*, which discusses core correctional practices, the relationship principle discussed from PIC-R and presents meta-analytic findings related to the elements of core correctional practice.

[16] While not depicted within a table, during the matching of treatment and comparison cases, the committing counties were matched identically.

[17] LSI-R categories for the PADOC are: Low 0-20, Medium 21-28, High 29-54.

additional description on the target population that comprises the Pennsylvania CCC and CCF programs. Regarding the sex of offenders, the majority of both samples were male offenders with less than 7% of females included in each group. Slightly over 57% of the samples were comprised of non-white offenders and nearly 43% were white offenders. Approximately 83% of the comparison group and 87% of the treatment group were not married. Over half of both the comparison and treatment groups had an education level of high school or above, 60% and 55% respectively. When examining if offenders were employed six months prior to incarceration, 73% of the comparison group and slightly over 78% of the treatment group were employed. The average age of the comparison group was 33 years and the treatment group was nearly 36 years. It should be noted that the Pearson chi-square and p-values suggest that there was a significant difference between the comparison and treatment groups based on marital status, education level and employment six months prior to incarceration. T-tests were conducted to examine a difference of means between the two groups for the metric measures, age and time in the institution. This analysis resulted in a significant difference between the groups for both time in the institution and age.

Table 2. Descriptive Statistics- Demographic Variables for the Total Sample

Variable	Comparison Group		Treatment Group	
	N	%	N	%
Sex				
Male	3667	93.5	3667	93.5
Female	256	6.5	256	6.5
Race				
Non-white	2252	57.4	2252	57.4
White	1671	42.6	1671	42.6
Marital Status[a]				
Not Married	3272	83.4	3398	86.6
Married	651	16.6	525	13.4
Education Level[b]				
Less than High School	1582	40.3	1756	44.8
High School or above	2341	59.7	2167	55.2
Employed six months prior[c]				
Employed	2862	73.0	3070	78.3
Unemployed	1061	27.0	853	21.7
	Mean	S.D.	Mean	S.D.
Age	33.4	10.1	35.7	9.5
Years in the Institution	3.57	4.19	6.64	5.3

[a] Pearson $x^2 = 15.880$, p = .000
[b] Pearson $x^2 = 15.786$, p = .000
[c] Pearson $x^2 = 29.897$, p = .000

Table 3 provides some additional descriptive information on the total sample. In addition to the offenders being matched on sex, race, and committing county, cases were also matched on whether or not the individual was convicted as a sex offender and the risk level of the offender based on the LSI-R total score. Further, this table also provides the percentages regarding institutional adjustment as well as indications of alcohol and drug use and assaultive behavior. Regarding current offense seriousness, nearly 16% of the comparison group and 9% of the treatment group had a current offense that was considered to be low. The majority of the comparison and treatment samples, 75% and

74% respectively had current offenses that were identified as medium. Just slightly over 17% of the treatment group and 10% of the comparison group had current offenses that where the seriousness was high. Both groups were matched on sex offending. As such, exactly 99% of the samples were comprised of non-sex offenders. For both samples, the majority of offenders experienced good institutional adjustments, 66% for the comparison group and 62% for the treatment group. Nearly 16% of the treatment group and almost 10% of the comparison group had a satisfactory adjustment. Approximately 21% of the comparison group and 20% of the treatment group had a marginal or a poor institutional adjustment. Regarding the behavior indicators for alcohol and drug use and assaultive behavior, the majority for both the comparison and the treatment group were found to have such indicators. Almost 64% of the comparison group and 60% of the treatment group had an alcohol indicator and 79% of both samples had a drug indicator. Similarly, 66% of both the treatment and comparison groups were found to have indications related to assaultive behavior. Given that the cases were matched based on risk level, there were no differences for this measure and the average LSI-R scores were just slightly different between the treatment (25.5) and the comparison groups (25.3). Upon examination of the Pearson chi-square values, only the indication of alcohol was found to be significantly different between the comparison and treatment group. The difference between the two groups was not significant for the indicators of drug use or assaultive behavior. A t-test comparing the difference in the average total LSI-R score did not result in a significant difference between the comparison and treatment groups.

Table 3. Descriptive Statistics- Offense Seriousness, Behaviors and LSI-R for the Total Sample

Variable	Comparison Group		Treatment Group	
	N	%	N	%
Current Offense Seriousness				
Low	620	15.8	358	9.1
Medium	2925	74.6	2892	73.7
High	378	9.6	673	17.2
Sex Offender				
No	3885	99.0	3885	99.0
Yes	38	1.0	38	1.0
Institutional Adjustment				
None known	88	2.5	69	2.5
Good	2306	65.7	1737	62.1
Satisfactory	345	9.8	436	15.6
Marginal	428	12.2	318	11.4
Poor	341	9.7	235	8.4
Indications of Alcohol Use[a]				
No	1419	36.2	1553	39.6
Yes	2504	63.8	2370	60.4
Indications of Drug Use[b]				
No	820	20.9	843	21.5
Yes	3103	79.1	3080	78.5
Indications of Assault[c]				
No	1328	33.9	1339	34.1
Yes	2595	66.1	2584	65.9
LSI-R Risk Level				
Low (0-20)	946	24.1	946	24.1
Moderate (21-28)	1656	42.2	1656	42.2
High (29-54)	1321	37.7	1321	37.7
	Mean	S.D.	Mean	S.D.
Total LSI-R Score	25.3	7.0	25.5	7.6

[a] Pearson $x^2 = 9.726$, p = .002
[b] Pearson $x^2 = .404$, p = .525
[c] Pearson $x^2 = .069$, p = .793

Table 4 provides the descriptive statistics for the five outcome measures: (1) any technical violation, (2) any arrest, (3) any re-incarceration, (4) any recidivism and (5) number of arrests. Upon first glance in comparing the groups, these findings indicate that a higher percentage of the treatment group recidivated in contrast to the comparison group. Specifically, 31% of the comparison group committed technical violations, whereas slightly over 53% of the treatment group experienced technical violations. Regarding any arrest, 31% of the treatment group and nearly 24% of the comparison group were arrested. The mean number of arrests for the treatment group was 1.34, just slightly higher than the comparison group mean number of arrests at 1.20. Further, approximately 32% of the comparison group was re-incarcerated, while nearly 55% of the treatment group were re-incarcerated. Finally, when examining the any recidivism measure, nearly 38% of the comparison group recidivated whereas 61% of the treatment group recidivated. For all dichotomous outcome measures there was a significant difference between the comparison and treatment groups based on Pearson chi-square values. However, a t-test comparing the difference in the average number of arrests by group was not found to be significant. Figure 1 provides a graphical illustration of these findings.

Table 4. Descriptive Statistics: Recidivism Measures for Total Sample

Variable	Comparison Group		Treatment Group	
	N	%	N	%
Any Technical violation[a]				
No	2702	68.9	1832	46.7
Yes	1221	31.1	2091	53.3
Any arrest[b]				
No	2992	76.3	2696	68.7
Yes	931	23.7	1227	31.3
Any re-incarceration[c]				
No	2672	68.1	1782	45.4
Yes	1251	31.9	2141	54.6
Any recidivism[d]				
No	2441	62.2	1545	39.4
Yes	1482	37.8	2378	60.6
	Mean	S.D.	Mean	S.D.
Number of arrests	1.20	3.14	1.34	3.19

[a] Pearson x^2 = 3.955E2, p = .000
[b] Pearson x^2 = 56.004, p = .000
[c] Pearson x^2 = 4.114E2, p = .000
[d] Pearson x^2 = 4.094E2, p = .000

Figure 1. Crosstabulations between Group Membership and Recidivism Measures

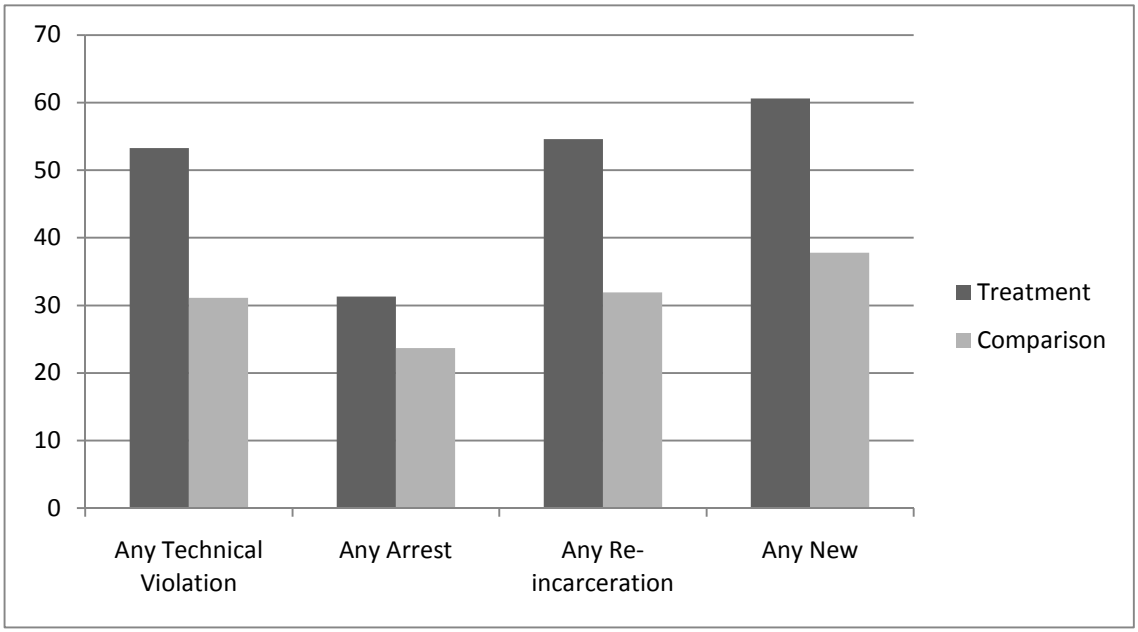


Table 5 examines the recidivism measures by offender status. Offender status includes individuals on pre-release, parole and individuals that are identified as halfway back. For technical violations, slightly over 46% of the halfway back offenders received technical violations in comparison to 42% of the parole group and 38% of the pre-release group. Regarding any arrest, nearly 29% of the parole group and 28% of the halfway back group were re-arrested. The pre-release group was slightly less at 23%. The mean number of arrests for the pre-release, parole and halfway back groups was 1.07, 1.33 and 1.20 respectively. T-tests comparing the difference in the average number of arrests between these groups suggest there is a significant difference between the pre-release group and the parolees but not the pre-release and halfway back groups. In addition, a t-test examining the average number arrests between the parolee and halfway back groups was not significant. Finally, approximately 47% of the halfway back and 43% of the

parole group were re-incarcerated, while 40% of the pre-release group were re-incarcerated.

Table 5. Descriptive Statistics: Recidivism Measures by Offender Status for Total Sample

Variable	Pre-release		Parole		Halfway back	
	N	%	N	%	N	%
Any Technical Violation[a]						
No	699	62.1	3045	58.0	790	53.7
Yes	427	37.9	2205	42.0	680	46.3
Any arrest[b]						
No	864	26.2	3756	71.5	1068	40.2
Yes	76.7	23.3	1494	28.5	72.7	27.3
Any re-incarceration[c]						
No	675	59.9	3002	57.2	777	52.9
Yes	451	40.1	2248	42.8	693	47.1
Any recidivism[d]						
No	630	56.0	2685	51.1	671	45.6
Yes	496	44.0	2565	48.9	799	54.4
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Number of arrests	1.07	2.87	1.33	3.30	1.20	2.90

[a] Pearson x^2 =18.460, p = .000
[b] Pearson x^2 = 12.542, p = .002
[c] Pearson x^2 = 14.162, p = .001
[d] Pearson x^2 = 27.819, p = .000

To summarize the descriptive profile of the treatment group, the majority of offenders were comprised of non-white males that were approximately 36 years old at release. These offenders were mostly not married, had a high school degree or above and were employed at least 6 months prior to incarceration. While most of these offenders were moderate risk, based on the LSI-R total score, 38% of the group was high risk. The

seriousness of the current offense for the treatment group was primarily classified as moderate followed by high. The majority of offenders in the treatment group had a good institutional adjustment and averaged over 6 years in prison. For behavior indicators, the majority of the treatment group had alcohol, drug and assaultive behavior concerns. While not depicted in a tabular format, it should be noted that 16% (N=381) of the treatment group that was found to have an alcohol indicator was directed to an alcohol or drug program and .1% (N=2) were directed to a residential substance abuse program. Nearly 76% (N=1796) were directed to a group home. Similarly, when examining those with an indication of drugs, nearly 15% (N=450) were sent to an alcohol or drug program, .1% (N=3) were sent to a residential substance program and the majority were sent to a group home, 77% (N=2375).

Given that the comparison group was exactly matched to the treatment group based on sex, race, sex offense, LSI-R risk level and committing county, the findings were identical for these measures. In addition, these groups were not significantly different based on total LSI-R score, indicators of drugs and indicators of assaultive behavior. However, there were significant differences regarding these two groups based on marital status, education level and employment status and indicators of alcohol. Based on these findings, the comparison group had a higher percentage of cases where the offenders were married and had a high school education or above. Yet, slightly more of the treatment group members were employed six months prior to incarceration. The comparison group members had slightly more indicators of alcohol use than the treatment group. Further, comparison group members were slightly younger and spent less time in the institution than their treatment counterparts. Finally, these findings indicated that

there was a larger percentage of high current offense seriousness in the treatment group, rather than the comparison group and that institutional adjustment may have been slightly better for the treatment group.

Regarding recidivism, a significantly higher percentage of the treatment group members experienced failure for all four dichotomous outcome measures and the average number of arrests was slightly higher, although not significantly higher, than the comparison group. These descriptive findings provided clear indication that the treatment group did not perform as well as the comparison group with respect to recidivism.

Description of successful treatment completers and matched comparison cases

Since the multivariate analyses will focus on the total sample as well as a comparison of the successful treatment completers and matched cases, this section will provide a brief description of both groups. Similar to the total sample, these cases were also matched on based on sex, race, sex offense, LSI-R risk level and committing county, so these findings will focus on the recidivism measures between these groups.

Table 6 provides the descriptive statistics in comparing the successful completers to their matched counterparts for the five outcome measures: (1) any technical violation, (2) any arrest, (3) any re-incarceration, (4) any recidivism and (5) number of arrests. These findings indicate that a higher percentage of the treatment group recidivated in contrast to the comparison group. Specifically, 39% of the comparison group committed technical violations, whereas slightly over 61% of the treatment group experienced technical violations. Regarding any arrest, 55% of the treatment group and nearly 45% of the comparison group were arrested. The mean number of arrests for the treatment group

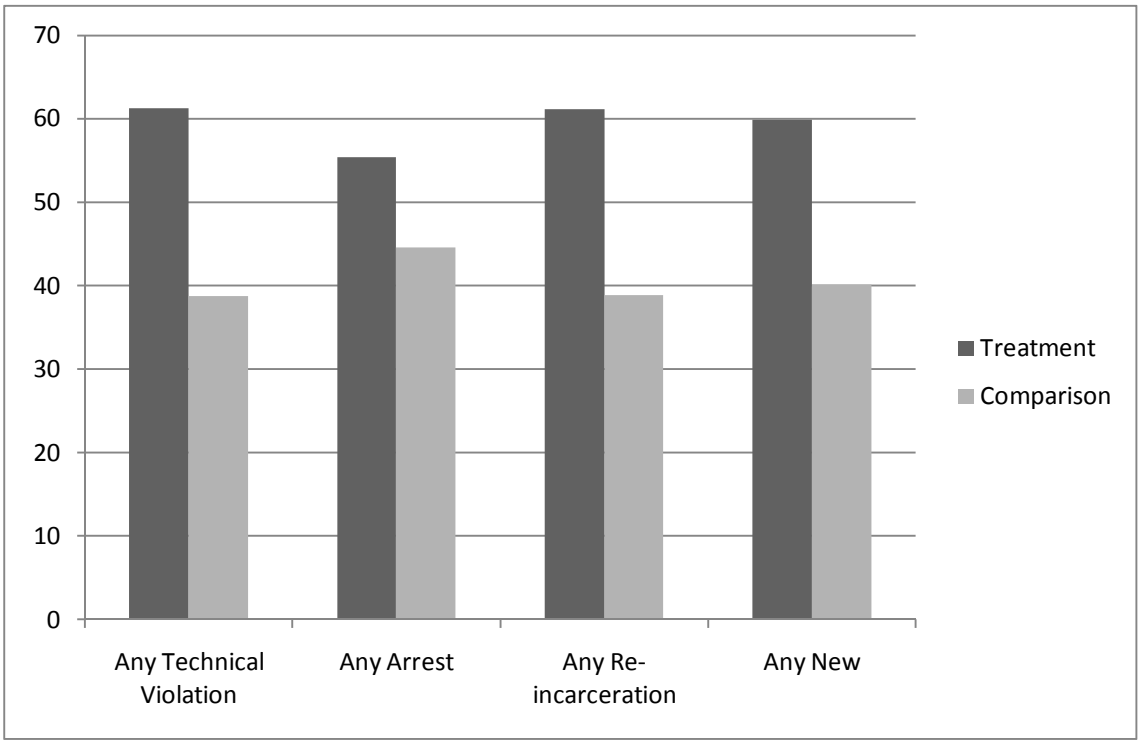
was 1.24, just slightly higher than the comparison group mean number of arrests at 1.15. Further, approximately 39% of the comparison group was re-incarcerated, while 61% of the treatment group were re-incarcerated. Finally, when examining the any recidivism measure, slightly over 40% of the comparison group recidivated whereas 60% of the treatment group recidivated. This suggests that there is a nearly 20% increase in the any recidivism measure for the successful treatment completers group. For all dichotomous outcome measures, there was a significant difference between the comparison and treatment groups based on Pearson chi-square values. However, a t-test comparing the difference in the average number of arrests by group was not found to be significant. Figure 2 provides a graphical illustration of these findings.

Table 6. Descriptive Statistics: Recidivism Measures for Successful Completers and Matched Comparison Cases

Variable	Comparison Group		Treatment Group	
	N	%	N	%
Any Technical violation[a]				
No	2279	57.3	1697	42.7
Yes	1002	38.7	1584	61.3
Any arrest[b]				
No	2513	51.9	2328	48.1
Yes	768	44.6	953	55.4
Any re-incarceration[c]				
No	2256	57.4	1672	42.6
Yes	1025	38.9	1609	61.1
Any recidivism[d]				
No	2065	58.5	1466	41.5
Yes	1216	40.1	1815	59.9
	Mean	S.D.	Mean	S.D.
Number of arrests	1.15	3.02	1.24	3.08

[a] Pearson x^2 = 2.162E2, p = .000
[b] Pearson x^2 = 26.957, p = .000
[c] Pearson x^2 = 2.163E2, p = .000
[d] Pearson x^2 = 2.200E2, p = .000

Figure 2. Crosstabulations between Group Membership and Recidivism Measures for Successful Completers and Matched Cases



LSI-R Data

The LSI-R is the risk and needs assessment tool that has been adopted by the PADOC. Given the amount of data available for this study it was possible to examine whether or not the total LSI-R score was a valid predictor of future offending based on the recidivism measures: any technical violation, any arrest, any re-incarceration and any recidivism. Table 9 presents the bivariate correlations related to the predictive validity of the LSI-R for the four outcome measures. This analysis was done for the total sample and then individually by group membership. In addition, receiver operating characteristics or ROC values were also calculated for these four recidivism measures. Rice and Harris (1995) suggest that calculating the ROC value allows for examining the strength of the instrument's predictive validity. ROC values plot the ratio of true positives to false positives (Schmidt, Hoge and Gomes, 2005). The graph that is

produced from such an analysis is a diagonal line and the area under the curve (AUC) depicts the strength of prediction. AUC values over .50 suggest that the instrument predicts better than chance. This analysis was done on all four outcome measures for the total sample as well as for the treatment and comparison groups separately.

As depicted in Table 7, the total LSI-R score was significantly correlated with all four recidivism measures for the total sample and then the sample divided by group membership. While these may be relatively modest correlations, these values are positive, suggesting that as the total LSI-R score increases, the likelihood for future offending also increases. When examining the ROC values, the LSI-R total score did predict better than chance for all four outcome measures. The strength of prediction was greatest for any recidivism.

Table 7. Bivariate Correlations: LSI-R total score and recidivism

	Total Sample	ROC	Comparison	ROC	Treatment	ROC
Any Technical Violation	.177**	.601	.170**	.604	.186**	.606
Any Arrest	.128**	.580	.126**	.578	.129**	.582
Any Re-incarceration	.180**	.602	.173**	.606	.189**	.606
Any Recidivism	.186**	.604	.178**	.612	.196**	.604

** $p \leq .01$

Table 8 presents the findings related to the PADOC LSI-R cutoffs and the four outcome measures, any technical violation, any arrest, any re-incarceration and any recidivism. The values in Table 8 indicate the total N and percentage of the sample that did recidivate. As illustrated, there were substantial increases in recidivism when moving from the low risk level to the high risk level for each of the four outcome measures.

Based on the Pearson x^2 values, these findings are significant. As such, these cutoffs appear to be appropriate for this PADOC sample.[18]

Table 8. Crosstabulations: LSI-R Cutoffs and recidivism (N=7846)

Risk Level	Any Technical Violation[a]		Any Arrest[b]		Any Re-incarceration[c]		Any Recidivism[d]	
	N	%	N	%	N	%	N	%
Low (0-20)	544	28.8	351	18.6	553	29.2	652	34.5
Moderate (21-28)	1433	43.3	939	28.4	1476	44.6	1681	50.8
High (29-54)	1335	50.5	868	32.9	1363	51.6	1527	57.8

[a]Pearson x^2= 2.170E2, p= .000
[b]Pearson x^2= 1.152E2, p= .000
[c]Pearson x^2= 2.288E2, p= .000
[d]Pearson x^2= 2.458E2, p= .000

Table 9 presents the crosstabulations and Pearson x^2 values for the PADOC LSI-R cutoffs for the treatment and comparison groups. As depicted in Table 9, the percentage of recidivism increases as the risk level increases for both the treatment and comparison group and for each outcome measure. This provides further support that the cutoffs currently used by the PADOC are appropriate for separating groups by risk level. Finally, the percentages of failure by risk level are higher for all recidivism measures for the treatment group rather than the comparison group. Specifically, the differences in percentages for any technical violations, any arrest, any re-incarceration and any recidivism were 22.2%, 7.6%, 22.7% and 22.8% respectively. This indicates that for three of the four outcome measures, the treatment group was slightly over 22% more

[18] While this study was not a validation of the LSI-R for the PADOC, this provides an analysis which demonstrates that these cutoffs reflect ranges of LSI-R scores that can be used to separate offenders for treatment and services based on risk level.

likely to recidivate. Figure 3 through Figure 6 provide a graphical illustration of these findings.

Table 9. Crosstabulations of Recidivism Measures by Risk Level- Total Sample

Group	Any Technical Violation[a]		Any Arrest[b]		Any Re-Incarceration[c]		Any New[d]	
	No	Yes	No	Yes	No	Yes	No	Yes
Treatment								
Low (N=946)	60.6%	39.4%	78.5%	21.5%	59.8%	40.2%	55.0%	45.0%
Moderate (N=1656)	46.2%	53.8%	67.6%	32.4%	44.7%	55.3%	37.8%	62.2%
High (N=1321)	37.4%	62.6%	63.1%	36.9%	36.0%	64.0%	30.2%	69.8%
Total	46.7%	53.3%	68.7%	31.3%	45.4%	54.6%	39.4%	60.6%
Comparison								
Low (N=946)	81.9%	18.1%	84.4%	15.6%	81.7%	18.3%	76.1%	23.9%
Moderate (N=1656)	67.3%	32.7%	75.7%	24.3%	66.1%	33.9%	60.7%	39.3%
High (N=1321)	61.5%	38.5%	71.2%	28.8%	60.9%	39.1%	54.2%	45.8%
Total	68.9%	31.1%	76.3%	23.7%	68.1%	31.9%	62.2%	37.8%

[a] Pearson x^2 =1.19E2, p = .000 (Treatment), [a] Pearson x^2 =1.102E2, p = .000 (Comparison)
[b] Pearson x^2 = 62.643, p = .000 (Treatment), [b] Pearson x^2 = 53.509, p = .000 (Comparison)
[c] Pearson x^2 = 1.273E2, p = .000 (Treatment), [c] Pearson x^2 = 1.155E2, p = .000 (Comparison)
[d] Pearson x^2 = 1.446E2, p = .000 (Treatment), [d] Pearson x^2 = 1.154E2, p = .000 (Comparison)

Figure 3. Crosstabulations between Risk Levels, Group Membership and Any Technical Violation

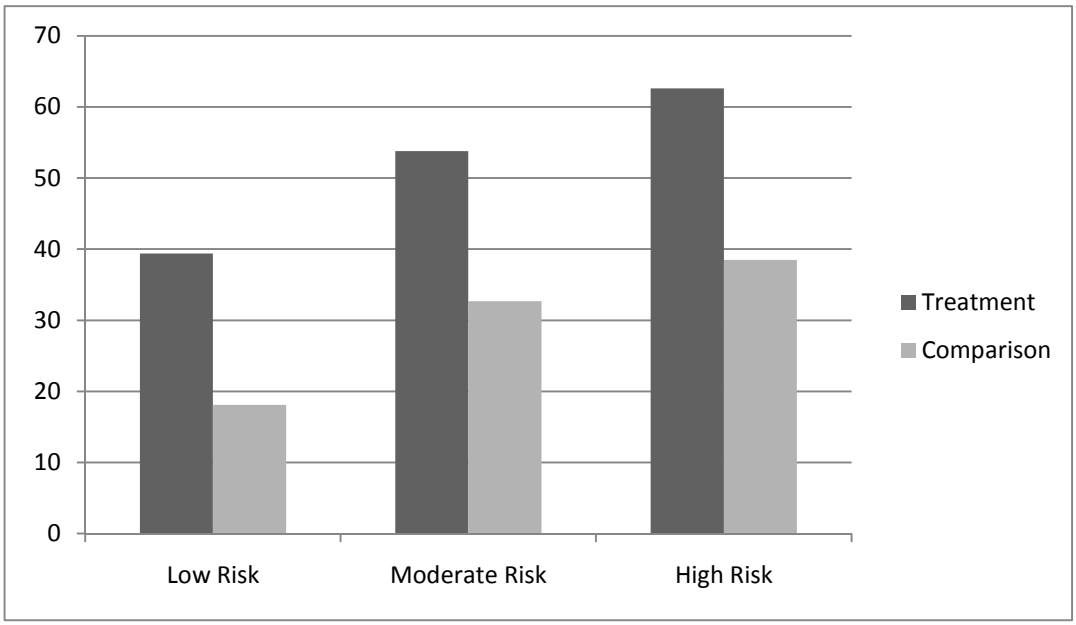


Figure 4. Crosstabulations between Risk Levels, Group Membership and Any Arrest

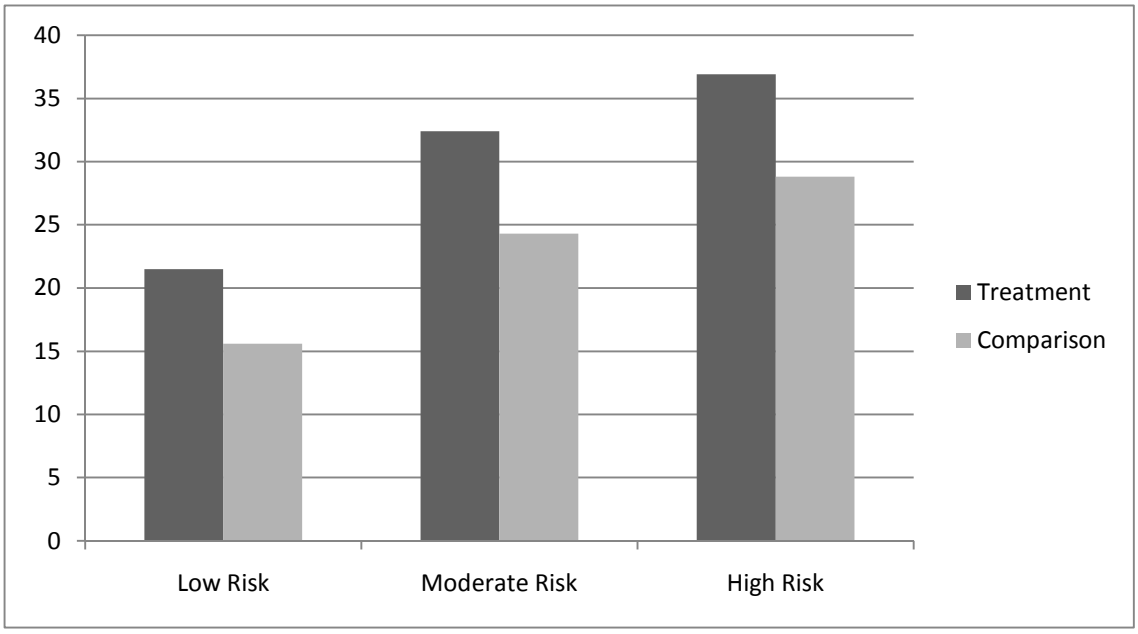


Figure 5. Crosstabulations between Risk Levels, Group Membership and Any Re-Incarceration

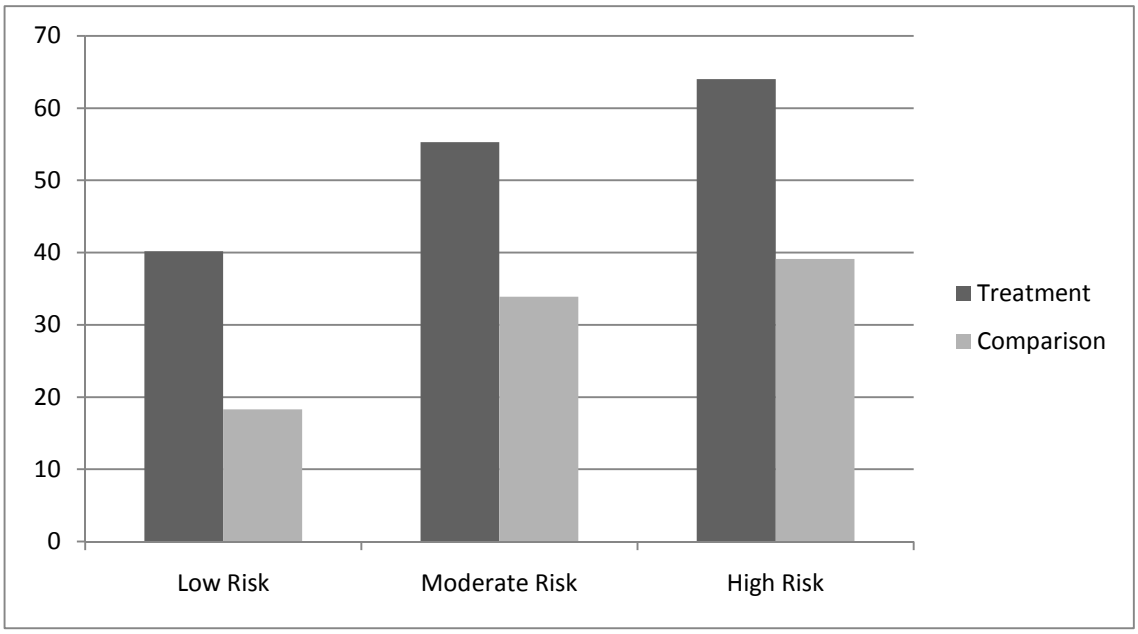
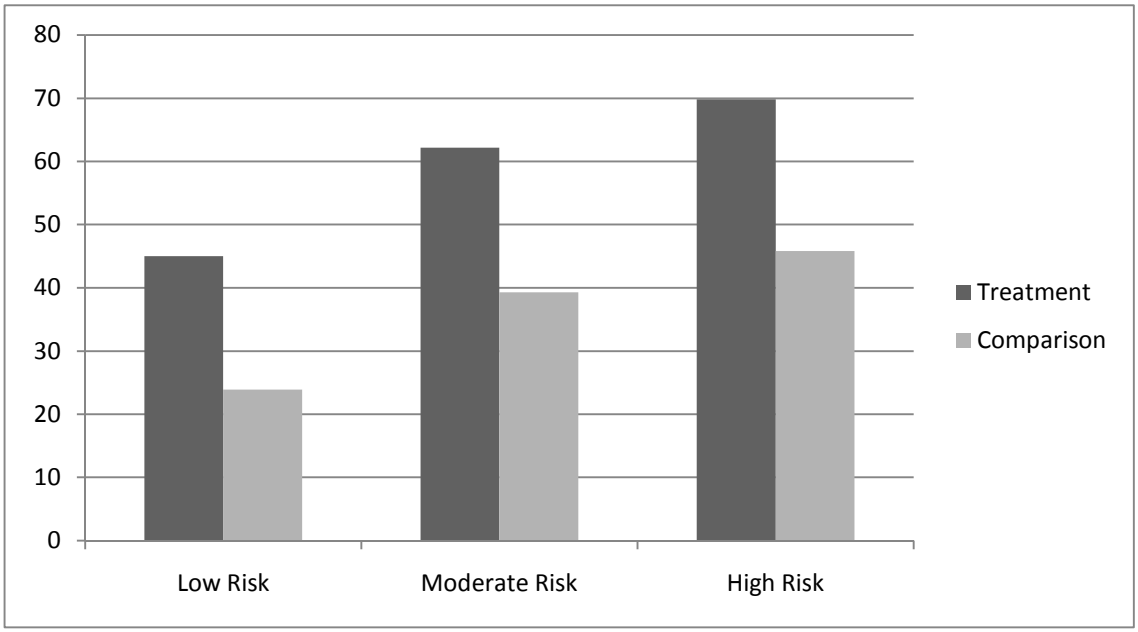


Figure 6. Crosstabulations between Risk Levels, Group Membership and Any Recidivism



Description of programs by facility type

This subsection is intended to provide some additional insight into the programs by facility type. As stated previously, there are a total of 41 contract programs (CCF) identified and 12 state PADOC programs (CCC) included in the individual level database.[19] The findings presented in this section are descriptive statistics on the demographics of the treatment group only. Crosstabulations also examined the differences by facility type and the outcome measures as well as adding group membership as an additional layer in the crosstabulations.

Table 10 presents the descriptive statistics on the demographic variables and the LSI-R total score and levels for the treatment group only by facility type. Please note, unlike previous tables, the numbers and percentages found in this table for the variables sex, race and LSI-R risk levels are simply frequencies and were not calculated as a crosstabulation. Regarding the sex of offenders, the majority of both samples were male offenders with less than 7% of females included in each group. There was no significant differences by sex for facility type. Slightly over 49% of the CCC sample and 59% of the CCF group were comprised of non-white offenders. For the CCC group, nearly 51% were white offenders and 41% of the CCF sample were white. Pearson x^2 statistics indicate that there was a significant difference between facility types by race. When reviewing the percentages by risk level, 42% of both samples were comprised of moderate risk offenders. However, only 29% of the CCC sample were low risk, in comparison to 23% of the CCF sample. In addition, slightly over 28% of the CCC group were identified as high risk and nearly 35% of the CCF group were high risk. Similar to

[19] Riverside CCC is found in the program level database, but there was not outcome data provided on this program in the individual level database. Therefore, characteristics of this program are not contained in this subsection.

race, there was a significant difference between facility type by risk levels. Both the CCC and CCF offenders had an average age of 36 years. Further, the mean LSI-R total score for the CCC group was almost 25 and the CCF group was slightly higher at 26. T-tests were conducted on the metric measures, age and total LSI-R score, and indicated that there was not a significant difference by age; however, there was a significant difference by total LSI-R scores.

Table 10. Descriptive Statistics- Demographic Variables of the treatment group by Facility Type (N= 3923)

Variable	CCC		CCF	
	N	%	N	%
Sex[a]				
Male	593	94.4	3074	93.3
Female	35	5.6	221	6.7
Race[b]				
Non-white	310	49.4	1942	58.9
White	318	50.6	1353	41.1
LSI-R risk levels[c]				
Low	184	29.3	762	23.1
Moderate	266	42.4	1390	42.2
High	178	28.3	1143	34.7
	Mean	S.D.	Mean	S.D.
Age	36.2	10.3	35.6	9.3
LSI-R total score	24.5	7.7	25.7	7.5

[a] Pearson x^2 =1.112, p = .292
[b] Pearson x^2 = 19.776, p = .000
[c] Pearson x^2 = 14.646, p = .001

Table 11 presents the crosstabulation findings by the facility type and the group membership status for the three primary outcome measures, any technical violation, any arrest, any re-incarceration and any recidivism. This table examines the recidivism rates between the treatment and comparison group within the CCC facilities and the treatment and comparison groups within the CCF programs. In addition, the percentages

experiencing failure across programs were also compared. While these findings can be discussed separately, when examining the percentages of failure between the groups within a facility type, the treatment group consistently experienced significantly higher rates of recidivism for all four outcome measures. When examining the differences in rates between the treatment and comparison groups for the CCC facilities there was a 15.1% increase in technical violations experienced by the treatment group. For any arrest, there was a 5.8% increase in any arrests for the treatment group. Regarding any re-incarceration, the difference in rates between the treatment and comparison group was 15.7%. In addition, the rate difference for the any recidivism measure produced a 17.9% point increase for the treatment group. When examining the differences in rates for the CCF groups, the percentage increase between the treatment and comparison group was 23.6% for any technical violations, 7.9% for any arrest, 14% for any re-incarceration and 23.8% for any recidivism. Further, when reviewing the recidivism rates across facility types, the treatment group consistently had higher rates of recidivism that were assigned to the CCF programs rather than the CCC programs. For example, when examining any technical violation between the CCC and CCF treatment groups, the difference in percentages of those experiencing failure was almost 13%. In addition, there was nearly an 8% increase in failure for the CCF treatment group than the CCC treatment group for any arrest. Similar to the difference in failure percentages for any technical violations, the treatment group within the CCF experienced nearly a 13% increase for any re-incarcerations. Finally, the difference in failure between the CCC and CCF treatment groups was slightly over 12% for any recidivism.

Table 11. Descriptive Statistics: Recidivism Measures by Facility Type and Group Membership

Variable	CCC- Treat.		CCC- Comp.		Rate Diff.	CCF- Treat.		CCF- Comp.		Rate Diff.
	N	%	N	%		N	%	N	%	
Any Technical violation[a]										
No	361	57.5	456	72.6		1471	44.6	2246	68.2	
Yes	267	42.5	172	27.4	15.1	1824	55.4	1049	31.8	23.6
Any arrest[b]										
No	473	75.3	509	81.1		2223	67.5	2483	75.4	
Yes	155	24.7	119	18.9	5.8	1072	32.5	812	24.6	7.9
Any re-incarceration[c]										
No	352	56.1	451	71.8		1430	43.4	2221	67.4	
Yes	276	43.9	177	28.2	15.7	1865	56.6	1074	32.6	14.0
Any recidivism[d]										
No	313	49.8	425	67.7		1232	37.4	2016	61.2	
Yes	315	50.2	203	32.3	17.9	2063	62.6	1279	38.8	23.8

[a] Pearson x^2 =31.605, p = .000 (CCC); Pearson x^2 =3.706E2, p = .000 (CCF)
[b] Pearson x^2 = 6.050, p = .002 (CCC); Pearson x^2 =50.246, p = .000 (CCF)
[c] Pearson x^2 = 33.841, p = .000; Pearson x^2 =3.843E2, p = .000 (CCF)
[d] Pearson x^2 = 41.214, p = .000 (CCC); Pearson x^2 =3.732E2, p = .000 (CCF)

To summarize the final subsections in Section II of this report, the treatment group experienced higher rates of failure for each of the primary outcome measures. This was found when comparing the treatment and comparison groups within a facility type and across facility types. In particular, percentages of recidivism were highest for the treatment group in the CCF facilities as opposed to the CCC facilities. Moreover, both the CCC and CCF facilities had mixed risk groups within their targeted populations based on the LSI-R cutoffs provided in the individual level database from the PADOC. Finally, the total LSI-R score was found to be a significantly valid predictor of any technical violation, any arrest, any re-incarceration and any recidivism.

SECTION III: MULTIVARIATE FINDINGS

Section III of this report presents the multivariate logistic regression models for two sets of analyses. First, the initial multivariate models examined the treatment and comparison groups within the total sample for all four dichotomous outcome measures while controlling for sex, race, age, time in the institution, facility type, total LSI-R score, sex offender status and group membership. Second, the last set of analyses examined whether or not successful completers of the program were associated with lower recidivism rates than their matched counterparts. Similar to the multivariate models for the total sample, these models also controlled for the same measures. Findings on the individual level data examined the following outcome measures: (1) success of being paroled back to the streets for the treatment group, (2) any technical violation, (3) any re-arrest , (4) any re-incarceration, (5) any recidivism[20]. Dichotomous measures were coded in the following manner: (1) sex- 0= male, 1= female; (2) race- 0= non-white, 1= white; (3) sex offense- 0= non-sex offender, 1= sex offender and (4) group- 0= treatment, 1= comparison, (5) all recidivism measures- 0= did not recidivate, 1= did recidivate, (6) treatment success- 0= not paroled to streets, 1= paroled to streets, (7) facility type- 0= CCC, 1= CCF. Variables were considered significant predictors if the significance level was .05 or higher. These analyses were mostly done comparing both groups on outcome while controlling for other dichotomous variables.

Table 12 provides the findings related to success in being paroled back to the streets for the treatment group while controlling for sex, race, age, time in the institution,

[20] The 'any recidivism' measure was scored as 0= no recidivism and 1= at least one technical violation, arrest or re-incarceration. Simply put, it basically merged the primary three outcome measures into one dichotomous variable.

LSI-R total score, facility type and sex offense.[21] Variables that significantly predict success in being paroled back to the streets include: age, total LSI-R score, facility type and race. Interpretation of the parameter estimates (B) suggests that white offenders are significantly associated with success. Further, offenders who are slightly older are significantly related to being paroled to the streets. Participants in the CCC, rather than CCF programs are significantly associated with successful completion. Finally, lower total LSI-R scores significantly predict being paroled to the streets in comparison to those with a high total risk score.

Figure 7 graphically depicts the impact of the significant predictors on successful termination. Specifically, age impacted the likelihood of being a successful completer by 3%. When comparing low and high risk offenders, being low risk was associated with a 14% difference in being paroled to the streets and an 8% difference between the moderate and high risk. When examining the impact of race on being paroled to the streets, a 6% difference was calculated between whites and non-whites, with white offenders having the higher probability to be identified as successful completers. Finally, there was an 8% difference between participants in the CCC and CCF programs with CCC participants having a higher probability of being successful completers.

[21] This analysis did not compare the success of being paroled back to the streets by group since this outcome measure was a matched release type for yoking the cases.

Table 12 Logistic Regression: Paroled to Streets for Treatment Group

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	.131	.194	.455	1	.500	1.140	.779	1.669
Race	.370	.096	14.910	1	.000	1.447	1.200	1.746
Age	.024	.006	18.572	1	.000	1.024	1.013	1.035
Time in	.000	.000	.646	1	.422	1.000	1.000	1.000
SO	-.589	.505	1.362	1	.243	.555	.206	1.492
LSI-R	-.060	.006	93.899	1	.000	.942	.930	.953
Facility	-.620	.147	17.800	1	.000	.538	.404	.718
Constant	2.835	.271	109.692	1	.000	17.023		

-2 Log Likelihood= 3311.964, Pseudo R^2= .068

Figure 7. Impact of Significant Predictors on Successful Termination (Paroled to Streets)

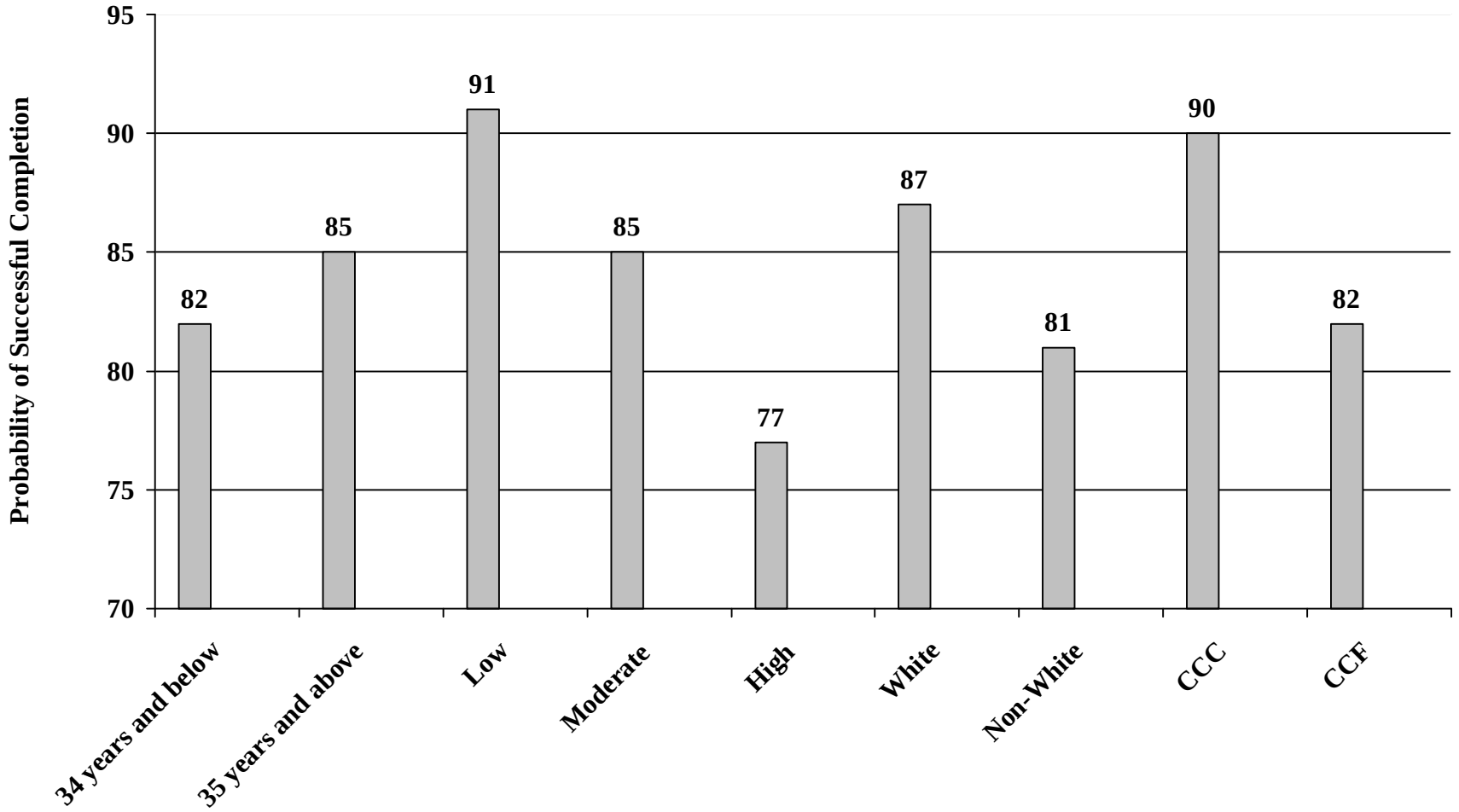


Table 13 depicts the logistic regression findings on the outcome, any technical violation for the total sample. The variables that were able to significantly predict any technical violation were: sex, age, total LSI-R score, facility type and group membership. In addition, the direction of prediction can also be interpreted by examining the values of the parameter estimates. Specifically, males were significantly more likely to have a technical violation than females. By age, younger offenders, rather than older offenders, significantly predicted any technical violation. Higher LSI-R total scores were significantly related to any technical violation. Participants from the CCF programs were significantly more likely to experience any technical violation. Finally, being a member of the treatment group was significantly associated with experiencing technical violations. Upon examination of the Exp (B) value, it is important to remember the range of values for most of these variables is from 0 to 1 as most are dichotomous. However, the total LSI-R score, which is a limited metric variable that ranges from 0-54, was one of the strongest predictive measures in this model.

Figure 8 illustrates the probability for recidivism based on the significant predictors for technical violations when examining the total sample. Being male was associated with a 14% increase in the likelihood for experiencing a technical violation. Age impacted the likelihood of having a technical violation by 6%. When comparing low and high risk offenders, being low risk was associated with a 21% difference in technical violations and a 9% difference between the moderate and high risk. Further, there was a 12% increase between low and moderate risk for technical violations. When examining the impact of facility type a 9% difference was calculated between the CCC and CCF facilities with CCF participants having a higher probability for technical

violations. Lastly, being a member of the treatment group was associated with a 22% increase in the likelihood of experiencing a technical violation than being in the comparison group.

Table 13. Logistic Regression: Any Technical Violation- Total Sample

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.625	.107	34.020	1	.000	.535	.434	.660
Race	-.068	.050	1.818	1	.178	.934	.847	1.031
Age	-.028	.003	96.748	1	.000	.973	.968	.978
Time in	.000	.000	.614	1	.433	1.000	1.000	1.000
SO	.245	.262	.875	1	.350	1.277	.765	2.132
LSI-R	.053	.003	234.937	1	.000	1.055	1.047	1.062
Group	-1.021	.051	393.877	1	.000	.360	.326	.398
Facility	.340	.069	24.594	1	.000	1.405	1.229	1.608
Constant	-.483	.140	11.934	1	.001	.617		

-2 Log Likelihood= 9803.219 Pseudo R^2= .136

Figure 8. Impact of Significant Predictors on Any Technical Violation – Total Sample

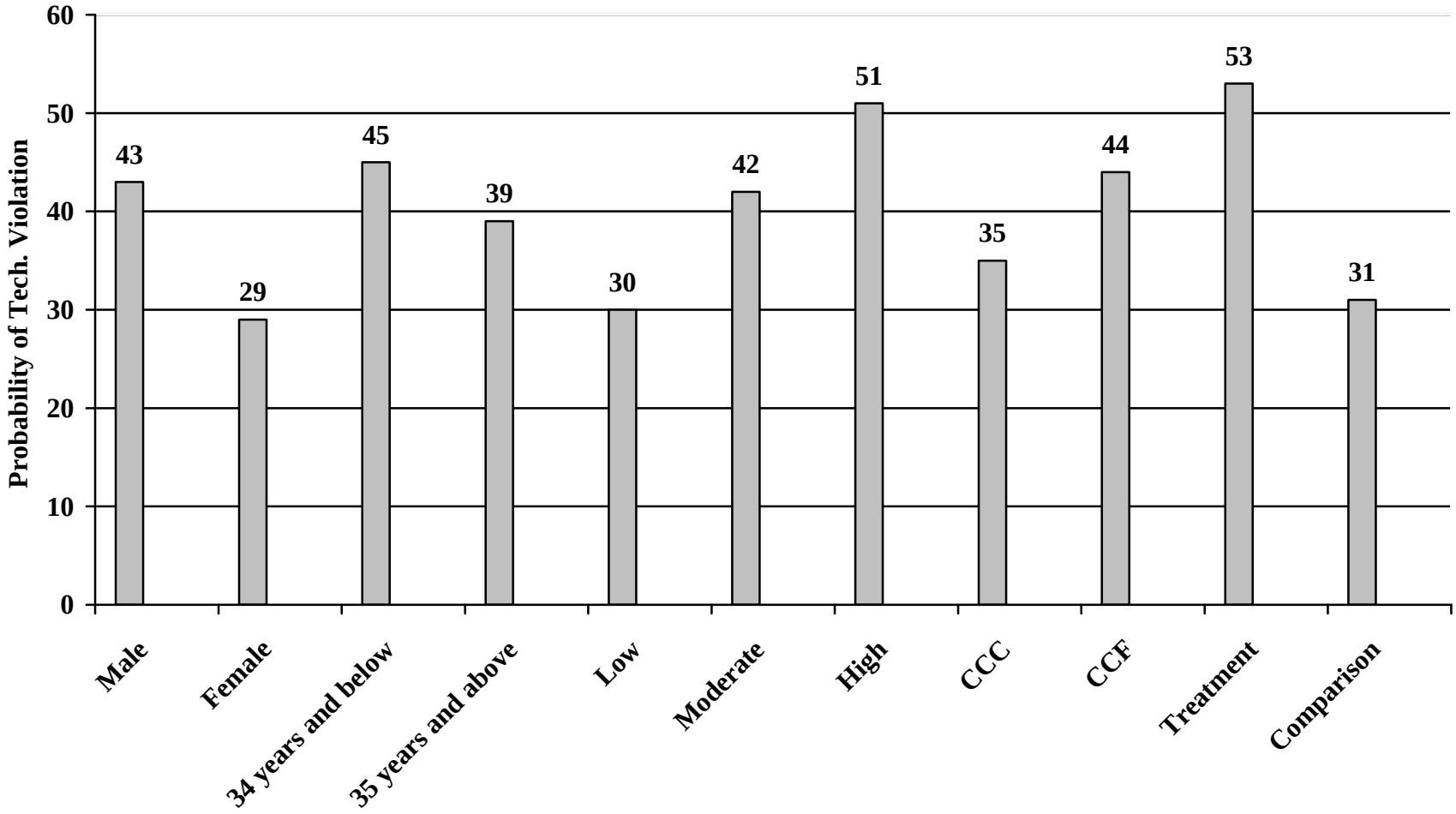


Table 14 displays the logistic regression model which examined any arrest for the whole sample. There were six variables that significantly predicted any arrest: (1) sex, (2) race, (3) age, (4) LSI-R total score (5) facility type and (6) group membership. Interpretations of the parameter estimates indicate that males rather than females, non-whites rather than whites and younger offenders are significantly associated with any arrest. In addition, higher LSI-R total scores and members of the CCF programs and the treatment group are also significantly related to any arrest. Similar to the findings for any technical violation, the total LSI-R score appears to be one of the strongest predictors of any arrest.

Figure 9 depicts the impact of the significant predictors on any arrest for the total sample. Specifically, being male was associated with a 9% increase in re-arrests than being female. Age impacted the likelihood of being re-arrested 10% for offenders ages 34 and below. In comparing low and high risk offenders, being low risk was associated with a 14% difference in being re-arrested and a 6% difference between the moderate and high risk. Being re-arrested was associated with an 8% difference between the low and moderate risk, with the likelihood of arrest favoring the moderate risk. When examining the impact of race on re-arrests, a 7% difference was calculated between whites and non-whites, with non-white offenders having the higher probability to be re-arrested. Participants from the CCF programs were associated with a 6% increase in the probability of being re-arrested than their CCC counterparts. Finally, there was a 7% difference between the treatment and comparison group, with the treatment group having a higher probability of being re-arrested.

Table 14. Logistic Regression: Any Arrest – Total Sample

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.402	.120	11.261	1	.001	.669	.529	.846
Race	-.323	.055	34.299	1	.000	.724	.650	.807
Age	-.038	.003	141.961	1	.000	.962	.956	.969
Time in	.000	.000	.023	1	.879	1.000	1.000	1.000
SO	-.392	.367	1.141	1	.285	.676	.329	1.387
LSI-R	.042	.004	129.102	1	.000	1.043	1.036	1.051
Group	-.478	.056	74.147	1	.000	.620	.556	.691
Facility	.278	.076	13.244	1	.000	1.321	1.137	1.535
Constant	-.642	.154	17.327	1	.000	.526		

-2 Log Likelihood= 8716.779 , Pseudo R^2= .080

Figure 9. Impact of Significant Predictors on Any Arrest- Total Sample

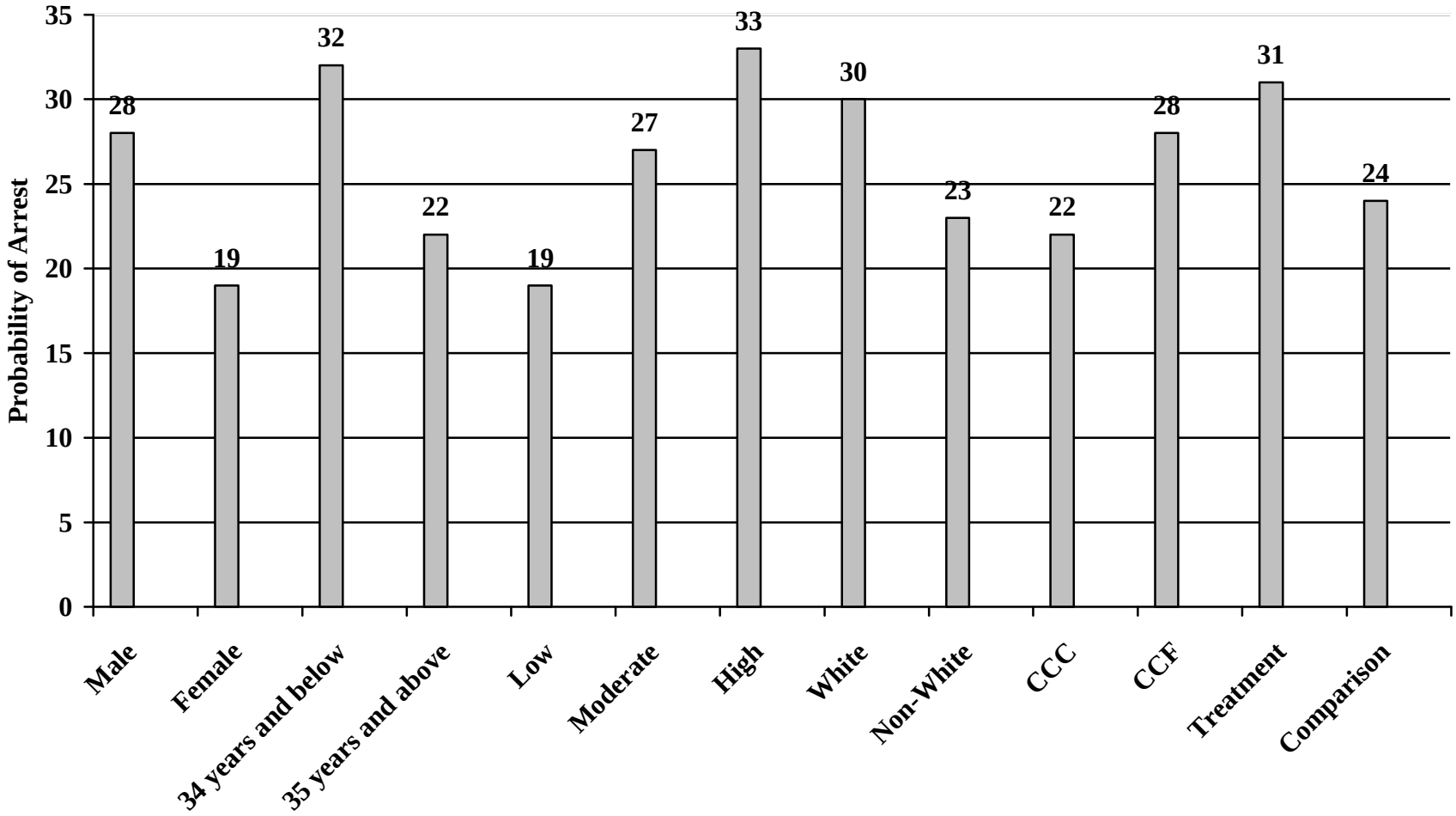


Table 15 presents the multivariate logistic regression findings related to any incarceration. Recall, that between the treatment and comparison group, nearly 55% of the treatment group were re-incarcerated, whereas only 32% of the comparison group experienced such a failure. Significant predictors of any re-incarceration included sex, age, total LSI-R score, facility type and group membership. Similar to previous interpretations of the parameter estimates, being male and younger were significantly associated with re-incarceration. Further, having a higher total LSI-R score significantly predicted any re-incarceration. Finally, being a member of the treatment group and participating in CCF programming was significantly related to re-incarceration. Just like previous models, the interpretation of the Exp(B) values suggests that the total LSI-R score is one of the strongest predictors in the model.

Figure 10 graphically depicts the impact of the significant predictors on re-incarceration. Being male was associated with a 15% increase in the likelihood for re-incarceration. Specifically, age impacted the likelihood of being a re-incarcerated 7%, with the higher probability of failure associated with being 34 years of age or younger. Regarding risk level, having a higher LSI-R score was associated with re-incarceration. Specifically, when comparing low and high risk offenders, being low risk was associated with a 21% difference in re-incarceration and a 10% difference between the moderate and high risk. There was an 11% difference between the low and moderate risk offender. There was an 8% difference between participants in the CCC and CCF programs with CCF participants having a higher probability of being re-incarcerated. Finally, there was a 22% difference between the treatment and comparison group members experiencing re-incarceration, with the greater likelihood involving the treatment group participants.

Table 15. Logistic Regression: Any Re-Incarceration – Total Sample

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.642	.107	36.168	1	.000	.526	.427	.649
Race	-.062	.050	1.531	1	.216	.940	.852	1.037
Age	-.028	.003	99.550	1	.000	.973	.967	.978
Time in	.000	.000	.142	1	.707	1.000	1.000	1.000
SO	.213	.262	.659	1	.417	1.237	.740	2.066
LSI-R	.054	.003	247.320	1	.000	1.056	1.049	1.063
Group	-1.042	.051	409.983	1	.000	.353	.319	.390
Facility	.324	.068	22.454	1	.000	1.382	1.209	1.581
Constant	-.433	.140	9.631	1	.002	.648		

-2 Log Likelihood= 9816.920, Pseudo R^2= .140

Figure 10. Impact of Significant Predictors on Re-Incarceration – Total Sample

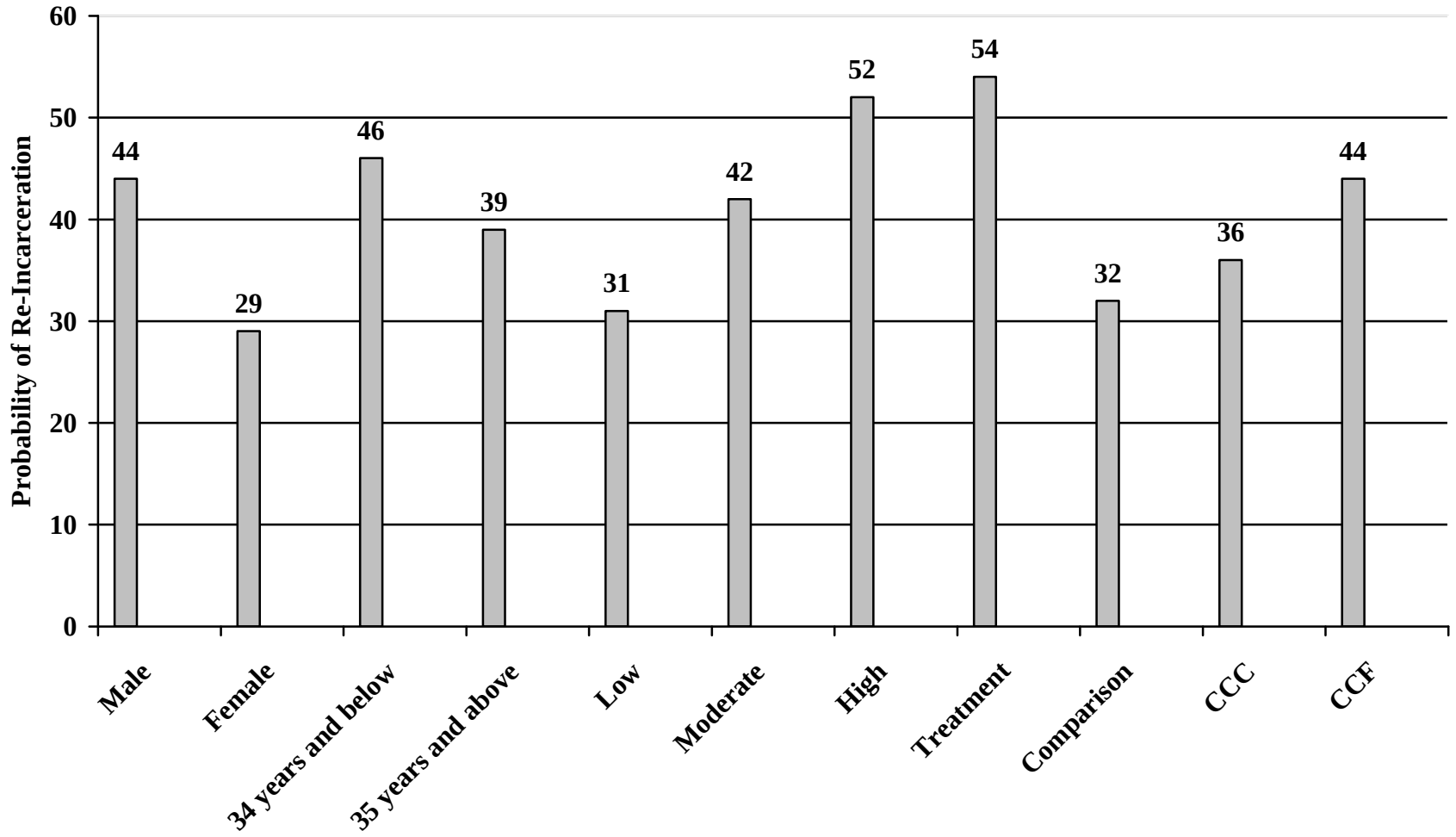


Table 16 illustrates the logistic regression findings for any recidivism. This measure combined the three previous outcomes: any technical violation, any arrest and any re-incarceration. The same control variables were included in this multivariate model. The any recidivism measure was coded as 0= no new recidivism and 1= at least one technical violation, arrest or re-incarceration. The significant predictors of any recidivism are sex, race, age, total LSI-R score, facility type and group membership. When examining the parameter estimates of the significant predictors, males were significantly more likely to recidivate than females and non-whites more than whites. Younger offenders were significantly more likely to recidivate than older offenders, Similar to the interpretation of the parameter estimates for these measures in the previous tables, as the risk score increased on the LSI-R, offenders were significantly more likely to experience any failure. Offenders that participated in the CCF programs were significantly more likely to recidivate. Finally, members of the treatment, rather than the comparison group were significantly associated with any recidivism outcome. While having a larger range of values than the dichotomous group membership variable, the Exp(B) value for total LSI-R score indicates that the LSI-R score is one of the strongest predictors in this model.

Figure 11 illustrates the probability for any recidivism based on the significant predictors presented in the logistic regression model below. Being male was associated with a 14% increase in the likelihood for experiencing any recidivism. Age impacted the

likelihood of recidivating 9%, with recidivism being significantly associated with the younger offenders. A 5% difference was calculated between whites and non-whites, with non-white offenders having the higher probability to recidivate. When comparing low and high risk offenders, being low risk was associated with a 23% difference in any recidivism and a 10% difference between the moderate and high risk. Further, there was a 13% increase between low and moderate risk for any recidivism. When examining the impact of facility type, a 9% difference was calculated between the CCC and CCF facilities with CCF participants having a higher probability for any recidivism. Lastly, being a member of the treatment group was associated with a 22% increase in the likelihood of recidivating than being in the comparison group.

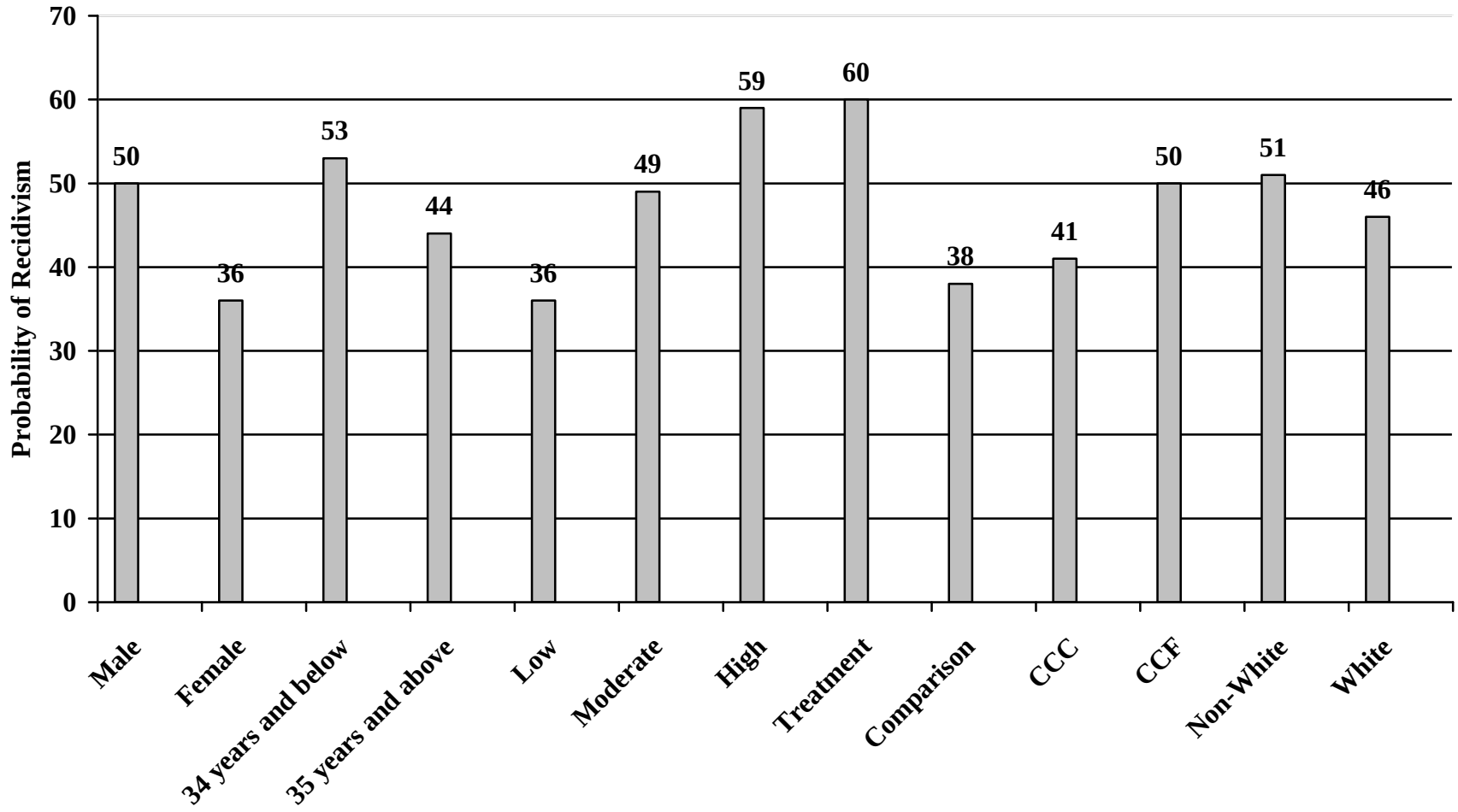
Table 16. Logistic Regression: Any Recidivism – Total Sample

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.574	.102	31.365	1	.000	.563	.461	.689
Race	-.124	.050	6.168	1	.013	.883	.801	.974
Age	-.032	.003	134.168	1	.000	.969	.963	.974
Time in	.000	.000	.052	1	.820	1.000	1.000	1.000
SO[22]	.152	.259	.343	1	.558	1.164	.701	1.932
LSI-R	.056	.003	263.690	1	.000	1.058	1.050	1.065
Group	-1.060	.051	427.060	1	.000	.346	.313	.383
Facility	.343	.067	26.138	1	.000	1.410	1.236	1.608
Constant	-.031	.138	.050	1	.823	.970		

-2 Log Likelihood= 9897.647, Pseudo R^2= .149

[22] Regarding sex offense, this variable was practically a constant, which may have resulted in these findings for this measure. This variable was removed from the model and the analysis was run again; however, there was little difference in the findings and no differences in the overall interpretation of significant findings related to any new recidivism.

Figure 11. Impact of Significant Predictors on Any Recidivism – Total Sample



To summarize the multivariate findings when examining the entire sample based on the four outcome measures, being male significantly predicted any technical violation, any arrest any incarceration and any recidivism. Regarding race, being non-white was significantly associated with increased rates of any arrest and any recidivism. Younger offenders were significantly more likely to receive a technical violation, any arrest, any incarceration and any recidivism. Time in the institution and being a sex offender did not significantly predict any outcome measures. Perhaps not surprisingly, higher total LSI-R scores significantly predicted all outcome measures and were considered the strongest predictor for all four models. Participating in CCF rather than CCC program was also significantly associated with all four measures of recidivism. Finally, being a member of the treatment group, rather than the comparison group, was significantly related to all recidivism measures. The next section examines these four multiple logistic regression analyses with the successful treatment completers and their respective matched comparison cases.

Multivariate models examining recidivism on successful completers

Table 17 depicts the logistic regression findings on the outcome measure, any technical violation for the successful completers. The variables that significantly predicted any technical violations were: sex, age, total LSI-R score, facility type and group membership. In addition, the direction of prediction can also be interpreted by examining the values of the parameter estimates. Specifically, males were significantly more likely to have a technical violation than females. By age, younger offenders, rather than older offenders, significantly predicted any technical violation. Higher LSI-R total

scores were significantly related to any technical violation. Participants from the CCF programs were significantly more likely to experience any technical violation. Finally, being a member of the treatment group was significantly associated with experiencing technical violations.

Figure 12 graphically depicts the probability for technical violations based on the significant predictors examining the successful completion sample. Being male was associated with a 14% increase in the likelihood for experiencing a technical violation. Age significantly influenced the likelihood of having a technical violation 6%. Increases in LSI-R risk level were significantly associated with increases in technical violations. In particular, when comparing low and high risk offenders, being low risk was associated with an 18 percentage point difference in technical violations and a 9% difference between the moderate and high risk. In addition, there was a 10% increase between low and moderate risk for technical violations. When examining the impact of facility type, a 6% difference was calculated between the CCC and CCF facilities with CCF participants having a higher probability for technical violations. Overall, being a member of the treatment group was associated with an 18% increase in the likelihood of experiencing a technical violation than being in the comparison group.

Table 17. Logistic Regression: Any Technical Violation- Successful Completers

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.664	.118	31.759	1	.000	.515	.409	.649
Race	-.065	.055	1.419	1	.234	.937	.842	1.043
Age	-.025	.003	65.976	1	.000	.976	.970	.981
Time in	.000	.000	.081	1	.776	1.000	1.000	1.000
SO	.355	.276	1.658	1	.198	1.427	.831	2.450
LSI-R	.050	.004	177.517	1	.000	1.052	1.044	1.059
Group	-.845	.056	226.484	1	.000	.430	.385	.480
Facility	.245	.072	11.490	1	.001	1.277	1.109	1.472
Constant	-.592	.151	15.292	1	.000	.553		

-2 Log Likelihood= 8228.248, Pseudo R^2= .106

Figure 12. Impact of Significant Predictors on Technical Violations- Successful Completers

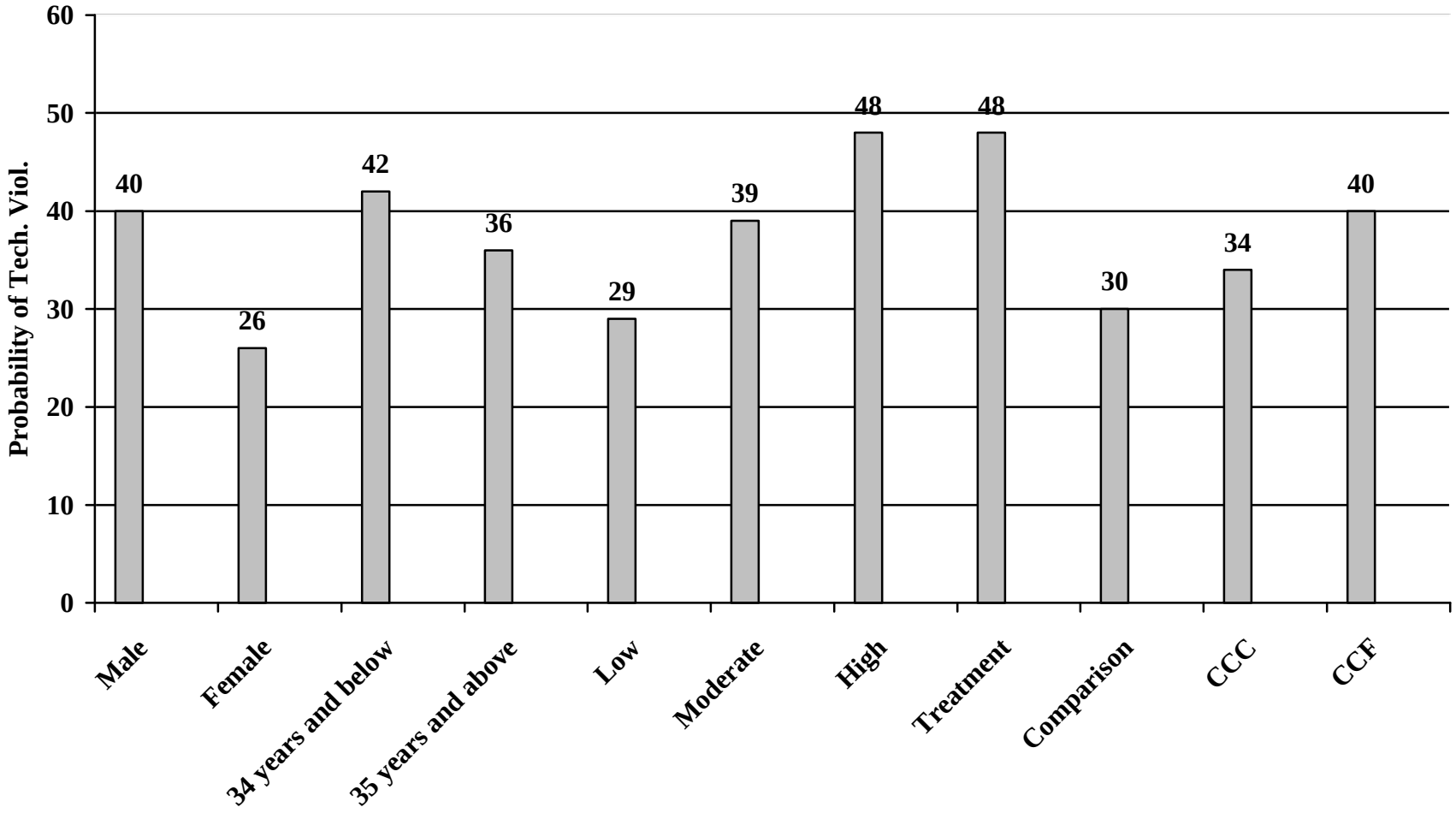


Table 18 displays the logistic regression model which examined any arrest for the successful completers. There were six variables that significantly predicted any arrest: (1) sex, (2) race, (3) age, (4) LSI-R total score (5) facility type and (6) group membership. Interpretations of the parameter estimates indicate that males rather than females, non-whites rather than whites and youthful offenders are significantly associated with any arrest. In addition, higher LSI-R total scores and members of the CCF programs and the treatment group are also significantly related to any arrest.

Figure 13 graphically illustrates the influence of the significant predictors on any arrest for the successful completer sample. Being male was associated with a 9% increase in re-arrests than being female. Age impacted the likelihood of being re-arrested 9% for offenders ages 34 and below. When comparing low and high risk offenders, being low risk was associated with a 13% difference in being re-arrested and a 6% difference between the moderate and high risk. Further, being re-arrested was associated with a 7% difference between the low and moderate risk, with the likelihood of arrest favoring the moderate risk. When examining the impact of race on re-arrests, a 6% difference was calculated between whites and non-whites, with non-white offenders having the higher probability to be re-arrested. Participants from the CCF programs were associated with a 6% increase in the probability of being re-arrested than the CCC group members. Finally, there was a 6% difference between the treatment and comparison group, with the treatment group having a higher probability of being re-arrested.

Table 18. Logistic Regression: Any Arrest – Successful Completers

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.424	.131	10.404	1	.001	.654	.506	.847
Race	-.281	.060	21.628	1	.000	.755	.670	.850
Age	-.037	.004	109.111	1	.000	.964	.957	.970
Time in	.000	.000	.000	1	.998	1.000	1.000	1.000
SO	-.284	.389	.533	1	.465	.753	.351	1.613
LSI-R	.042	.004	105.001	1	.000	1.043	1.035	1.052
Group	-.397	.061	41.839	1	.000	.672	.596	.758
Facility	.263	.082	10.412	1	.001	1.301	1.109	1.527
Constant	-.755	.169	19.996	1	.000	.470		

-2 Log Likelihood= 7172.136 , Pseudo R^2= .072

Figure 13. Impact of Significant Predictors on Any Arrest- Successful Completers

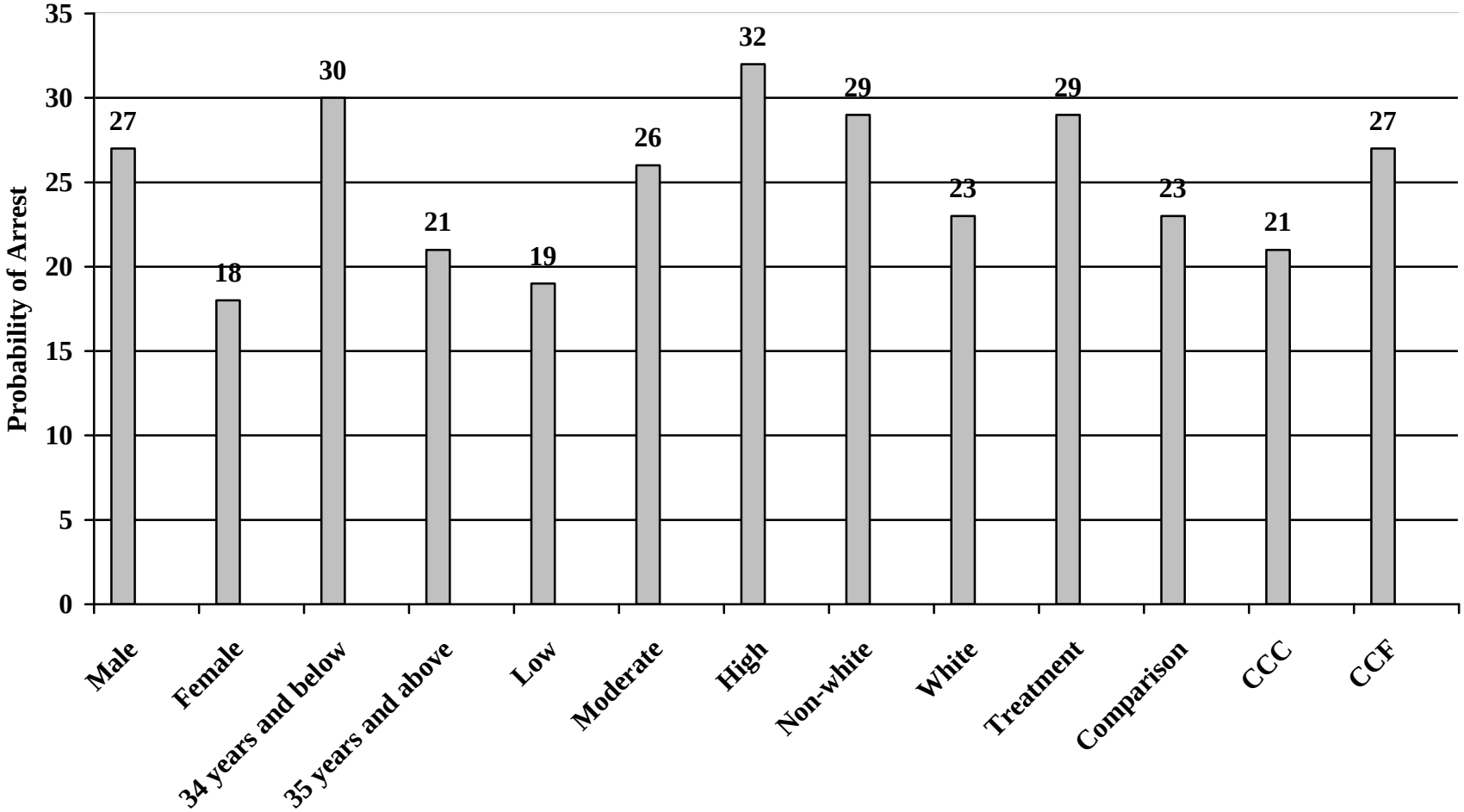


Table 19 presents the multivariate logistic regression findings related to any incarceration. Significant predictors of any re-incarceration included sex, age, total LSI-R score, facility type and group membership. Similar to previous interpretations of the parameter estimates, being male and younger were significantly associated with re-incarceration. Further, having a higher total LSI-R score significantly predicted any re-incarceration. Finally, being a member of the treatment group and participating in CCF programming was significantly related to re-incarceration.

Figure 14 depicts the impact of the significant predictors on re-incarceration from the successful completers' logistic regression model presented below. Being male was associated with a 15% increase in the likelihood for re-incarceration. Age influenced the likelihood of being a re-incarcerated 7%, with the higher probability of failure associated with being 34 years of age or younger. Regarding risk level, having a higher LSI-R score was associated with re-incarceration. Specifically, when comparing low and high risk offenders, being low risk was associated with a 20% difference in re-incarceration and a 9 percentage point difference between the moderate and high risk. There was an 11% difference between the low and moderate risk offender. When comparing the CCC and CCF participants, there was a 6% difference between the CCC and CCF members with the CCF participants having a higher probability of being re-incarcerated. Finally, there was an 18% difference between the treatment and comparison group members experiencing re-incarceration, with the greater likelihood for re-incarceration favoring inclusion in the treatment group.

Table 19. Logistic Regression: Any Re-Incarceration – Successful Completers

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.674	.117	33.006	1	.000	.510	.405	.642
Race	-.053	.055	.938	1	.333	.949	.852	1.056
Age	-.025	.003	67.487	1	.000	.975	.970	.981
Time in	.000	.000	.009	1	.924	1.000	1.000	1.000
SO	.354	.276	1.649	1	.199	1.425	.830	2.448
LSI-R	.052	.004	187.635	1	.000	1.053	1.045	1.061
Group	-.846	.056	227.602	1	.000	.429	.385	.479
Facility	.257	.072	12.697	1	.000	1.293	1.123	1.489
Constant	-.596	.151	15.540	1	.000	.551		

-2 Log Likelihood= 8249.212, Pseudo R^2= .108

Figure 14. Impact of Significant Predictors on Reincarceration- Successful Completers

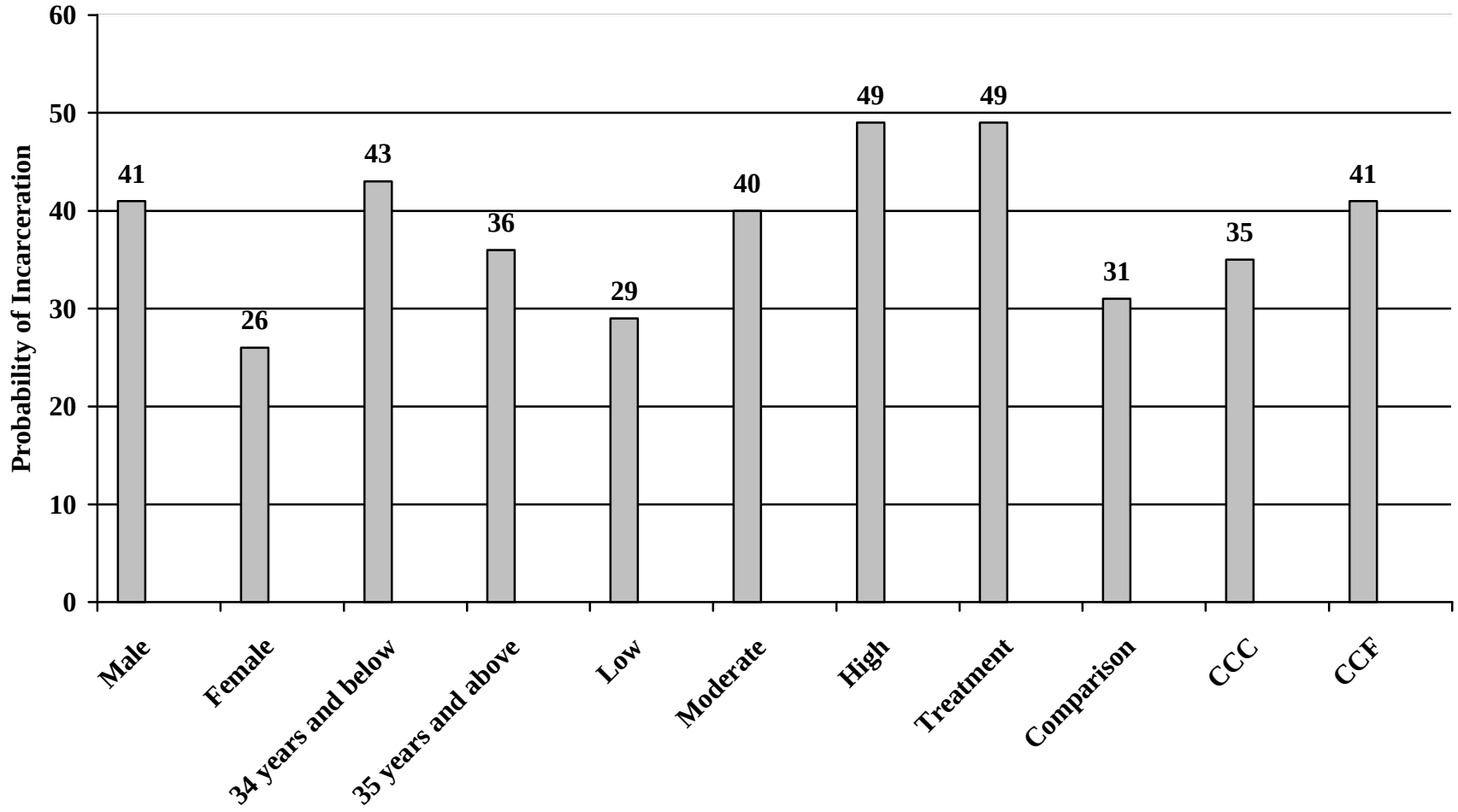


Table 20 illustrates the logistic regression findings for any recidivism. The significant predictors of any recidivism are sex, age, total LSI-R score, facility type and group membership. When examining the parameter estimates of the significant predictors, males were significantly more likely to recidivate than females. Younger offenders were significantly more likely to recidivate than older offenders. Similar to the interpretation of the parameter estimates for these measures in the previous tables, as the risk score increased on the LSI-R, offenders were significantly more likely to experience any failure. Offenders that participated in the CCF programs were significantly more likely to recidivate. Finally, members of the treatment, rather than the comparison group were significantly associated with any recidivism outcome.

Figure 15 illustrates the probability for any recidivism on the successful completer sample based on the significant predictors presented in the logistic regression model below. Similar to examining the total sample findings, being male was associated with a 14% increase in the likelihood for experiencing any recidivism. Age impacted the likelihood of recidivating 9%, with recidivism being significantly associated with the more youthful offenders. Being low risk was associated with a 22% difference in any recidivism and a 10% difference between the moderate and high risk. In addition, there was a 12% increase between low and moderate risk for any recidivism. When examining the impact of facility type, a 7% difference was calculated between the CCC and CCF facilities with CCF participants having a higher probability for any recidivism. Finally,

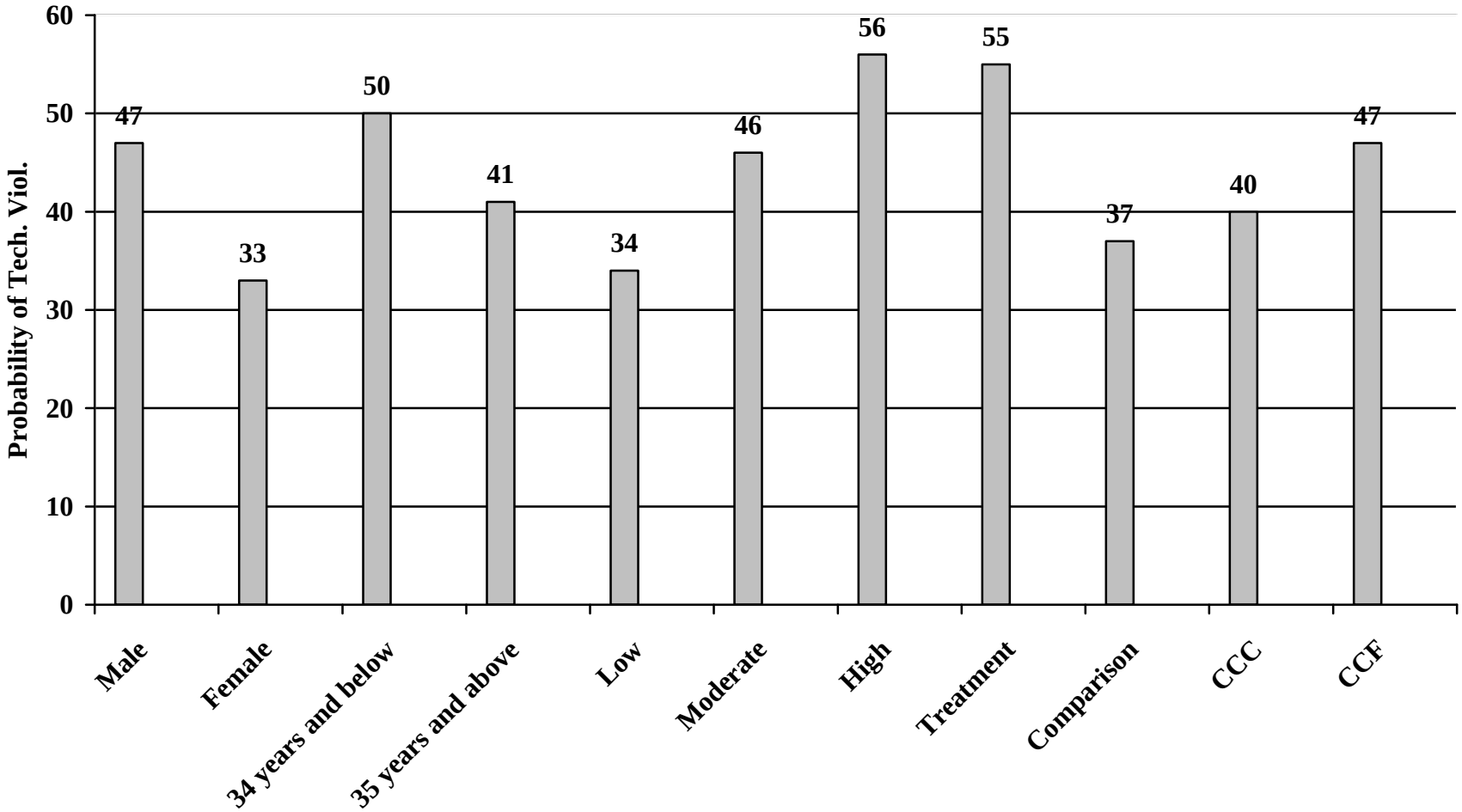
being a member of the treatment group was associated with an 18% increase in the likelihood of recidivating than being in the comparison group.

Table 20. Logistic Regression: Any Recidivism – Successful Completers

Variables	B	S.E.	Wald	df	Sig	Exp(B)	95% C.I.	
							Lower	Upper
Sex	-.605	.111	29.626	1	.000	.546	.439	.679
Race	-.105	.054	3.774	1	.052	.901	.810	1.001
Age	-.029	.003	96.549	1	.000	.971	.965	.977
Time in	.000	.000	.519	1	.471	1.000	1.000	1.000
SO	.318	.272	1.363	1	.243	1.374	.806	2.343
LSI-R	.053	.004	203.051	1	.000	1.055	1.047	1.062
Group	-.868	.055	245.491	1	.000	.420	.376	.468
Facility	.286	.071	16.455	1	.000	1.331	1.159	1.529
Constant	-.188	.148	1.606	1	.205	.829		

-2 Log Likelihood= 8411.668, Pseudo R^2= .118

Figure 15. Impact of Significant Predictors on Any Recidivism- Successful Completers



The following section examines the average differences in failure rates for each of the four outcome measures using the predicted probabilities calculated from the logistic regression models described above. The purpose of comparing the mean differences is to examine whether or not the probability of recidivism was significantly greater for the treatment or comparison groups and to determine if there were significant differences based on LSI-R risk levels. These analyses are slightly more rigorous than the crosstabulations as these calculations have controlled for sex, race, age, time in the institution, sex offense, total LSI-R score, facility type and group membership from the logistic regression models.

Mean Difference in Recidivism Measures for the Total Sample

The following tables and figures present the treatment effects for the CCC sample and the CCF sample by risk level. These predicted probabilities were calculated from the multivariate logistic regression models that controlled for (1) sex, (2) race, (3) age, (4) time in the institution, (5) sex offender, (6) total LSI-R score (7) facility type and (8) group membership. To interpret these tables, the treatment and comparison group columns indicate the predicted probability of that specific recidivism measure occurring after controlling for the above-listed variables. Figures that follow each table depict a graphical illustration of the mean difference values by program. Negative values for the mean differences favor the comparison group. As noted for all tables presented in this section, the comparison group was favored for each facility and for each of the recidivism measures. An exception to this would be that not every difference in the predicted

probability was significant; however, the majority were. Significant differences between the groups are highlighted in yellow.

Given that some of the samples by program were smaller than 30 cases when examining the successful completer groups, a new program variable called "Small CCCs" was created. The Small CCC program variable pools all of these specific cases together to examine the treatment effect between the comparison and treatment groups as well as by risk level. As previously discussed, the sample sizes at several facilities were rather small which may impact the reliability of the findings. As such, findings from these smaller programs need to be cautiously interpreted when presented separately.[23]

Table 21 presents the predicted probabilities for any technical violation between groups for the full CCC sample. Regardless of risk level, the treatment group consistently had a higher probability of technical violations that the comparison group. All mean differences were found to be significant between groups collectively and when disaggregated by LSI-R risk level. Figures 16 through 19 graphically illustrate these significant mean differences for all CCC programs and then disaggregated by LSI-R risk level.

[23] While all CCC programs were represented in these tables, those with fewer than 30 cases should be viewed cautiously.

Table 21. CCC Facility Sample- Predicted Rates of Technical Violations by Group and Risk Level

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	45	25	34	17	45	24	57	33
Philadelphia CCC #2	40	22	30	17	43	20	56	31
Philadelphia CCC #3	28	11	23	10	36	12	37	18
Philadelphia CCC #4	39	22	31	18	45	25	53	29
Philadelphia CCC #5	43	25	36	19	46	27	56	36
Scranton CCC	44	24	35	16	43	24	53	32
Allentown CCC	45	25	34	17	46	26	58	33
Harrisburg CCC	47	26	36	17	46	25	58	36
York CCC	44	24	36	20	44	23	55	35
Johnstown CCC	49	26	35	15	48	24	58	33
Pittsburgh CCC #3	34	15	21	8	32	12	45	23
Erie CCC	50	26	37	18	46	25	61	33
Sharon CCC	45	27	35	18	44	26	57	36
Small programs	38	20	30	16	41	21	52	29

Figure 16. Treatment Effects for the CCC Sample for Technical Violations (Mean Difference)

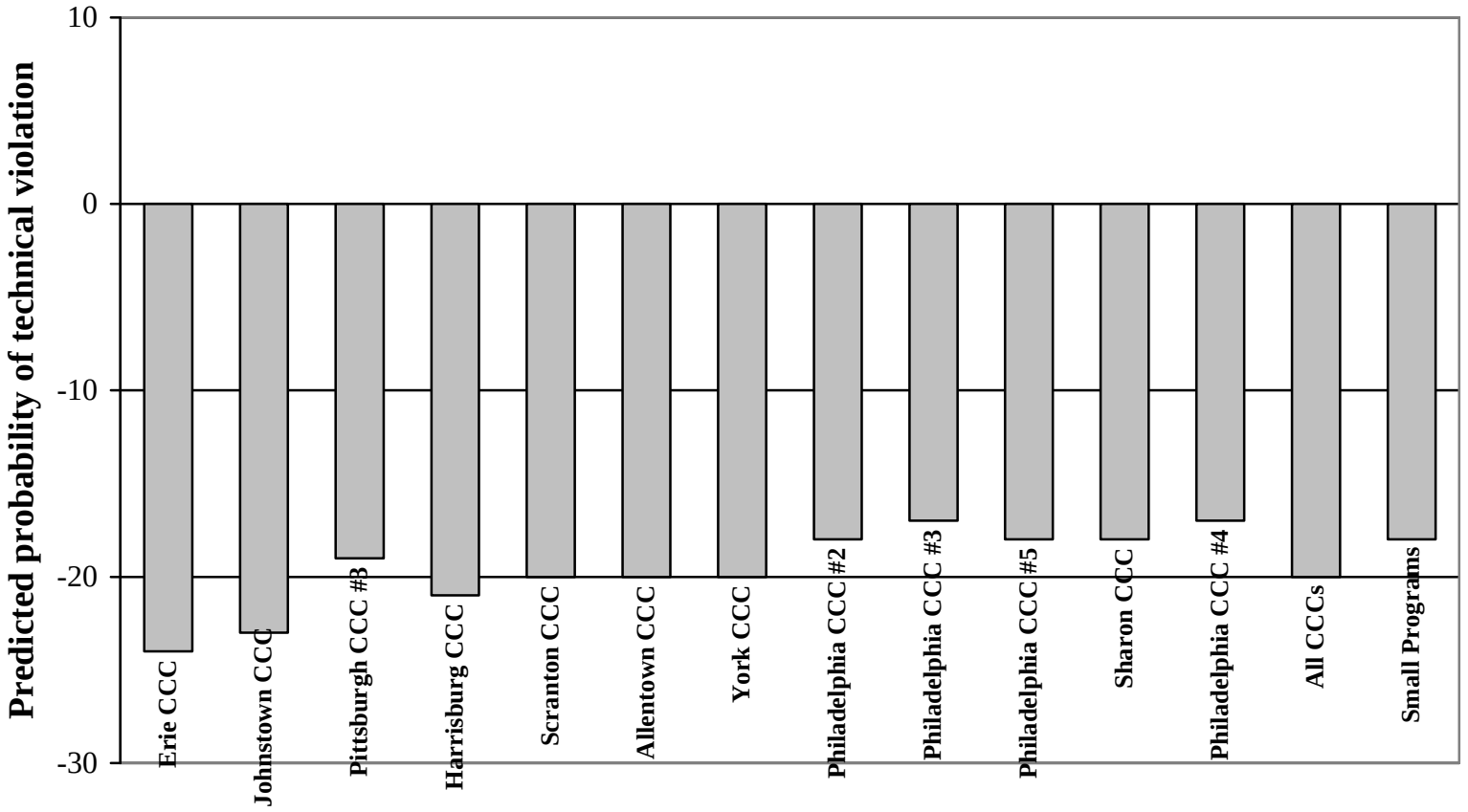


Figure 17. Treatment Effects for the Low Risk CCC Sample for Technical Violations (Mean Difference)

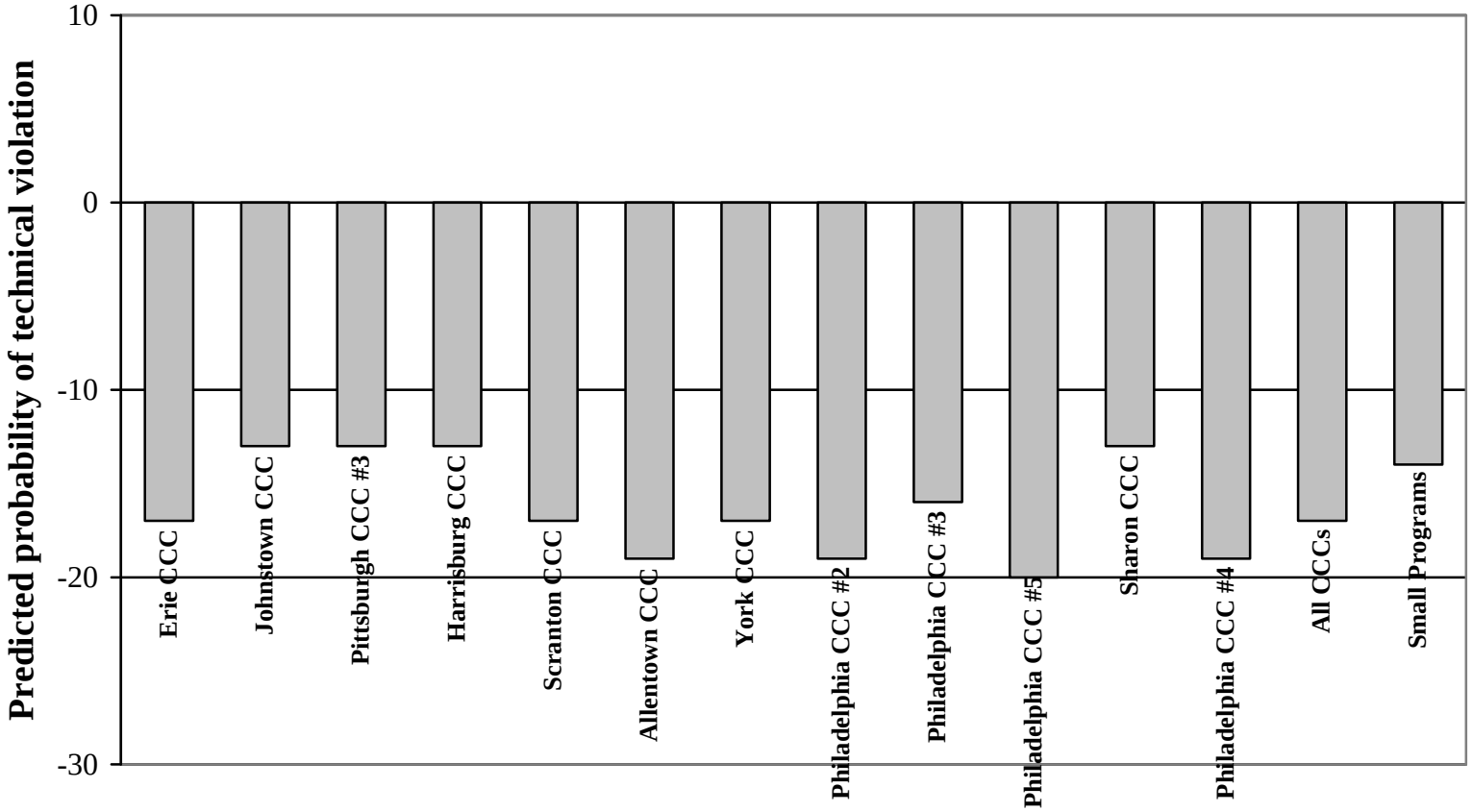


Figure 18. Treatment Effects for the Moderate Risk CCC Sample for Technical Violations (Mean Difference)

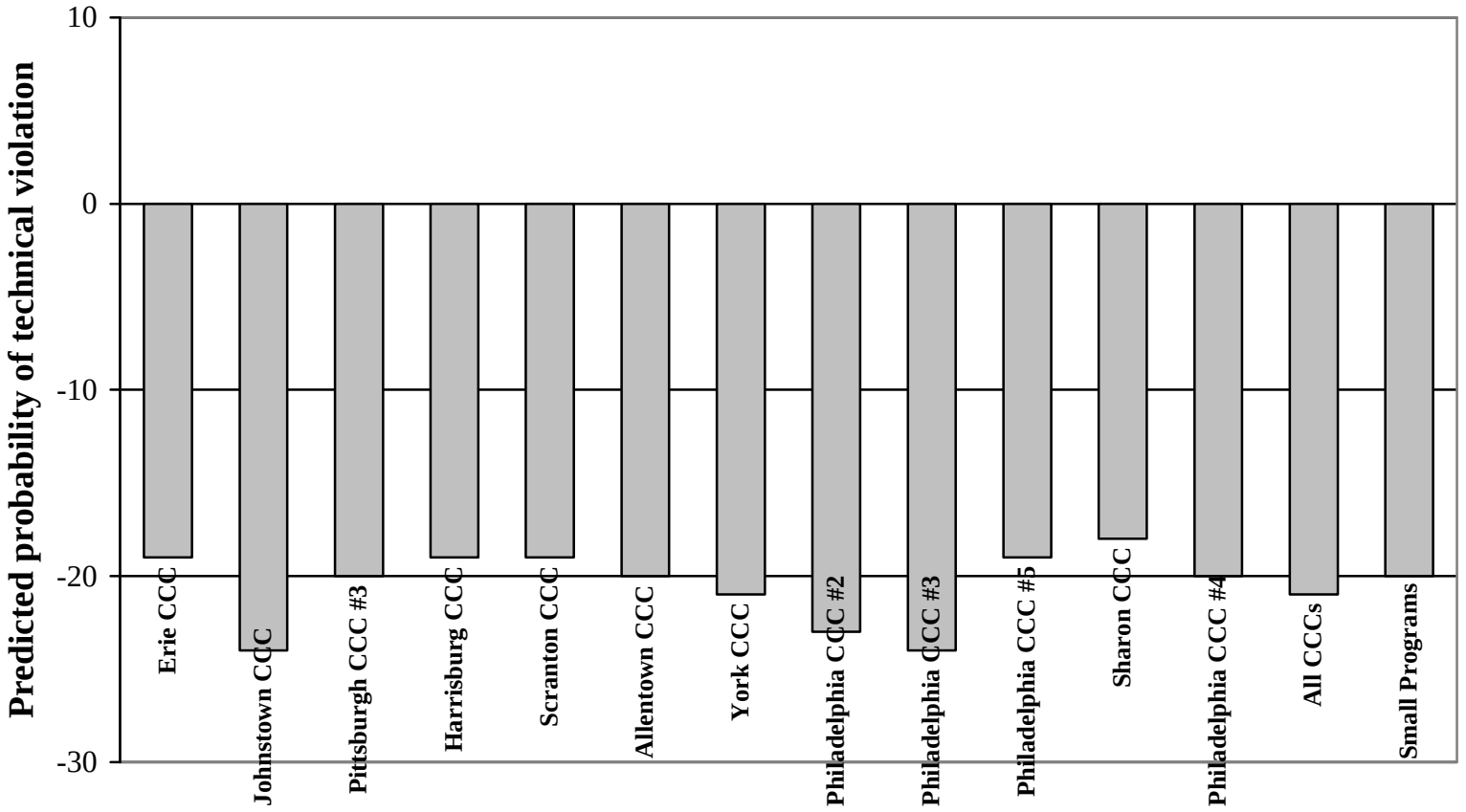


Figure 19. Treatment Effects for the High Risk CCC Sample for Technical Violations (Mean Difference)

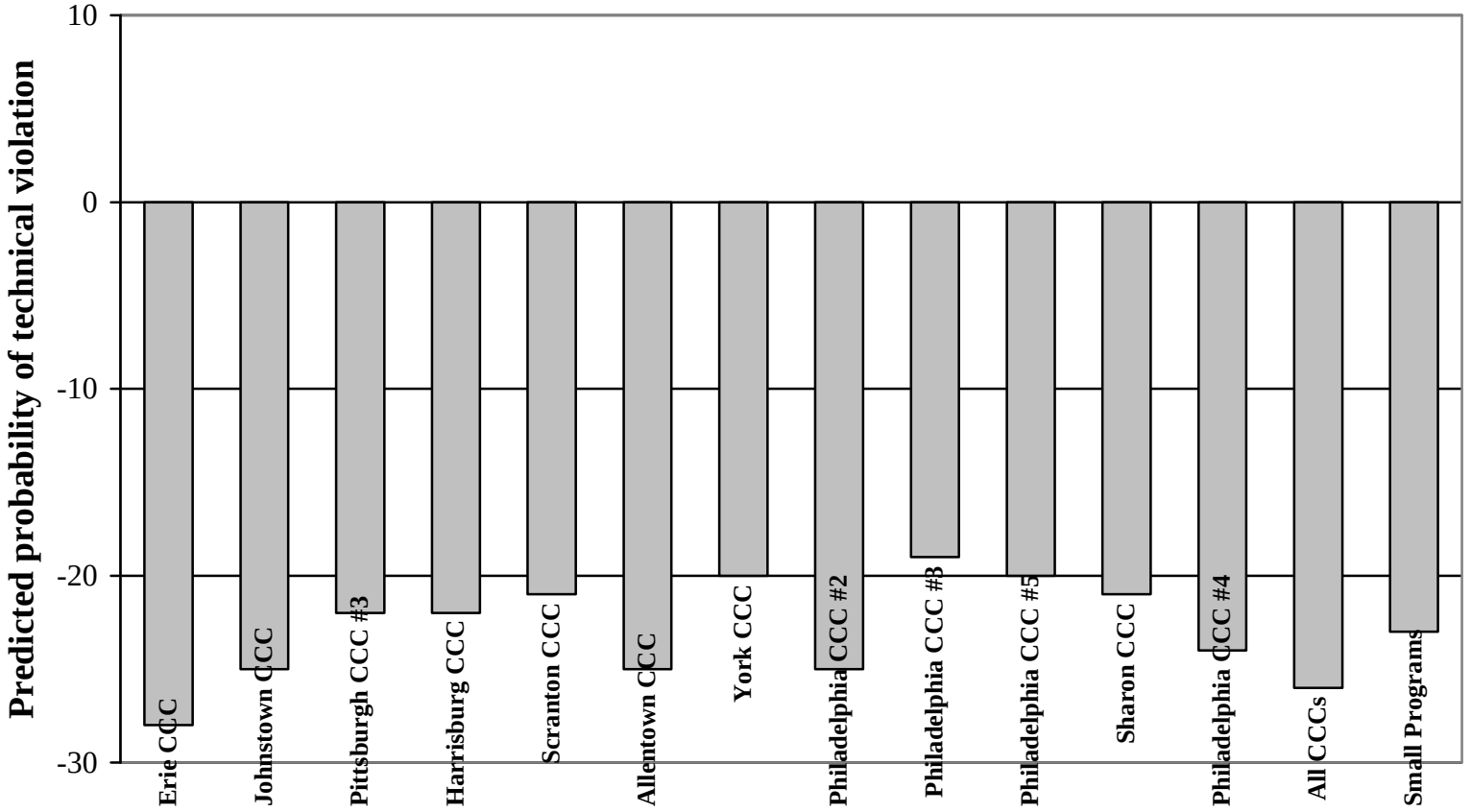


Table 22 presents the treatment effects and mean difference between the treatment and comparison groups for any arrest. These values were calculated from the logistic regression models, which controlled for (1) sex, (2) race, (3) age, (4) time in the institution, (5) sex offender, (6) total LSI-R score, (7) facility type and (8) group membership. Multivariate logistic regression requires that the outcome measure be dichotomous, so for any arrest, 0= no arrest and 1= arrest. Recall, the total number of arrests is also an outcome measure but given that the level of measurement is metric, logistic regression models were not calculated with this measure of recidivism, rather Pearson correlation coefficients were calculated. Bivariate correlations presented in the Appendix of this report do show a positive treatment effect for some programs based on total number of arrests; however, this analysis does not control for any of the seven variables found in the multivariate models.[24] While the treatment group did consistently experience a higher probability for any arrests, these differences were not always significant. Rates highlighted in yellow represent a significant difference between the treatment and comparison groups. Figures 20-23 graphically display the mean differences for each of the CCC programs on the predicted rates of re-arrest by group membership and disaggregated by risk level.

[24] This distinction between the negative mean difference shown in Table 22 and Figure 11 examining any arrest is provided for clarification since the bivariate correlations with total number arrests for some programs in the Appendix 46 are positive.

Table 22. CCC Facility Sample- Predicted Rates of Any Arrest by Group and Risk Level

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	25	19	18	14	25	19	32	24
Philadelphia CCC #2	21	15	17	15	22	13	28	19
Philadelphia CCC #3	19	11	15	10	25	12	22	16
Philadelphia CCC #4	21	17	18	15	25	19	24	19
Philadelphia CCC #5	24	20	20	16	27	24	30	25
Scranton CCC	22	17	17	12	22	17	27	23
Allentown CCC	25	19	17	13	26	21	34	23
Harrisburg CCC	26	20	19	14	25	19	34	28
York CCC	25	19	21	18	24	17	32	27
Johnstown CCC	27	19	17	10	26	18	33	24
Pittsburgh CCC #3	19	12	12	7	18	10	26	18
Erie CCC	28	19	20	14	25	18	35	24
Sharon CCC	24	20	18	14	24	20	31	25
Small programs	21	16	18	14	24	17	27	20

Figure 20. Treatment Effects for the CCC Sample for Any Arrest (Mean Difference)

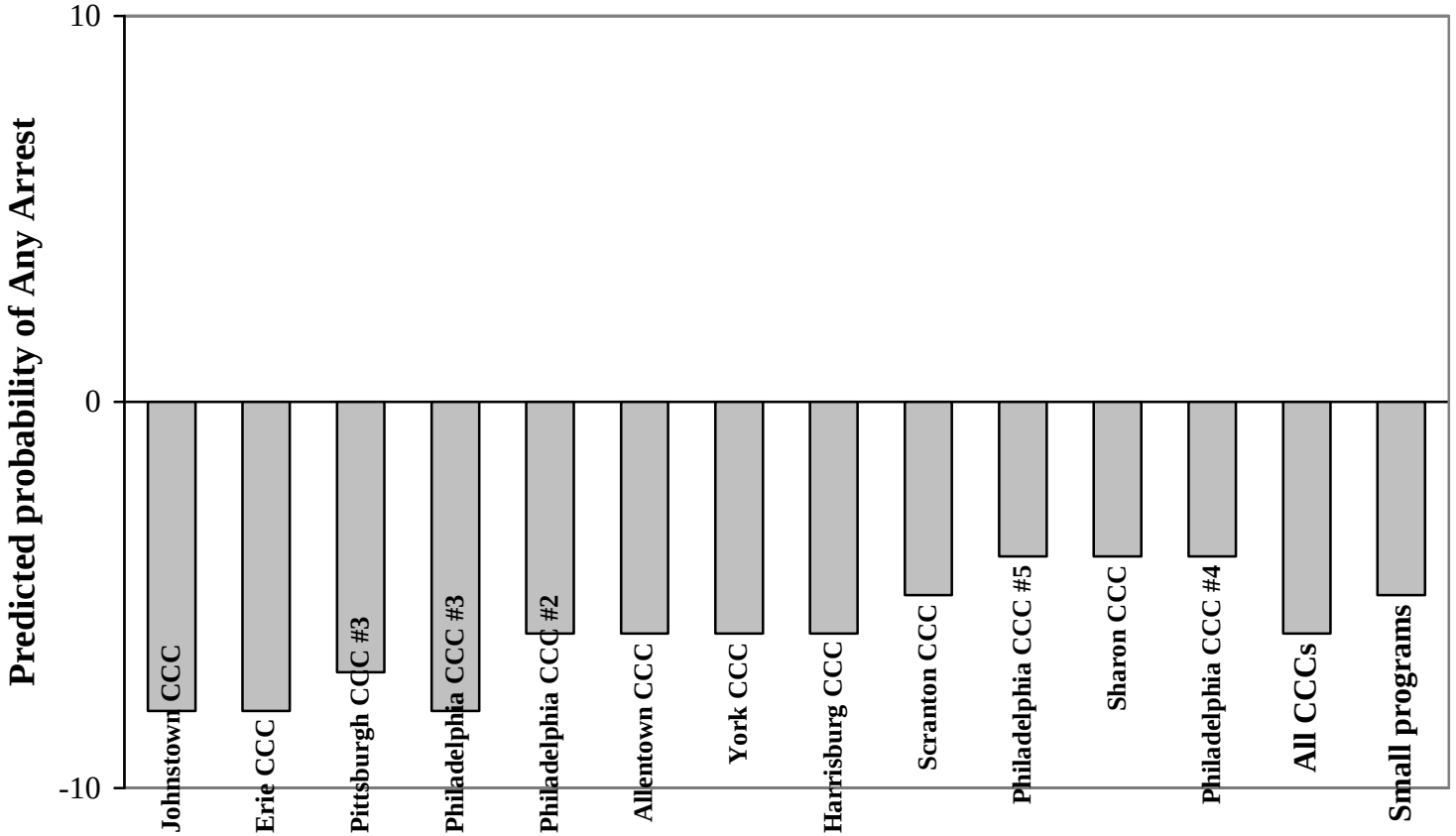


Figure 21. Treatment Effects for the Low Risk CCC Sample for Any Arrest (Mean Difference)

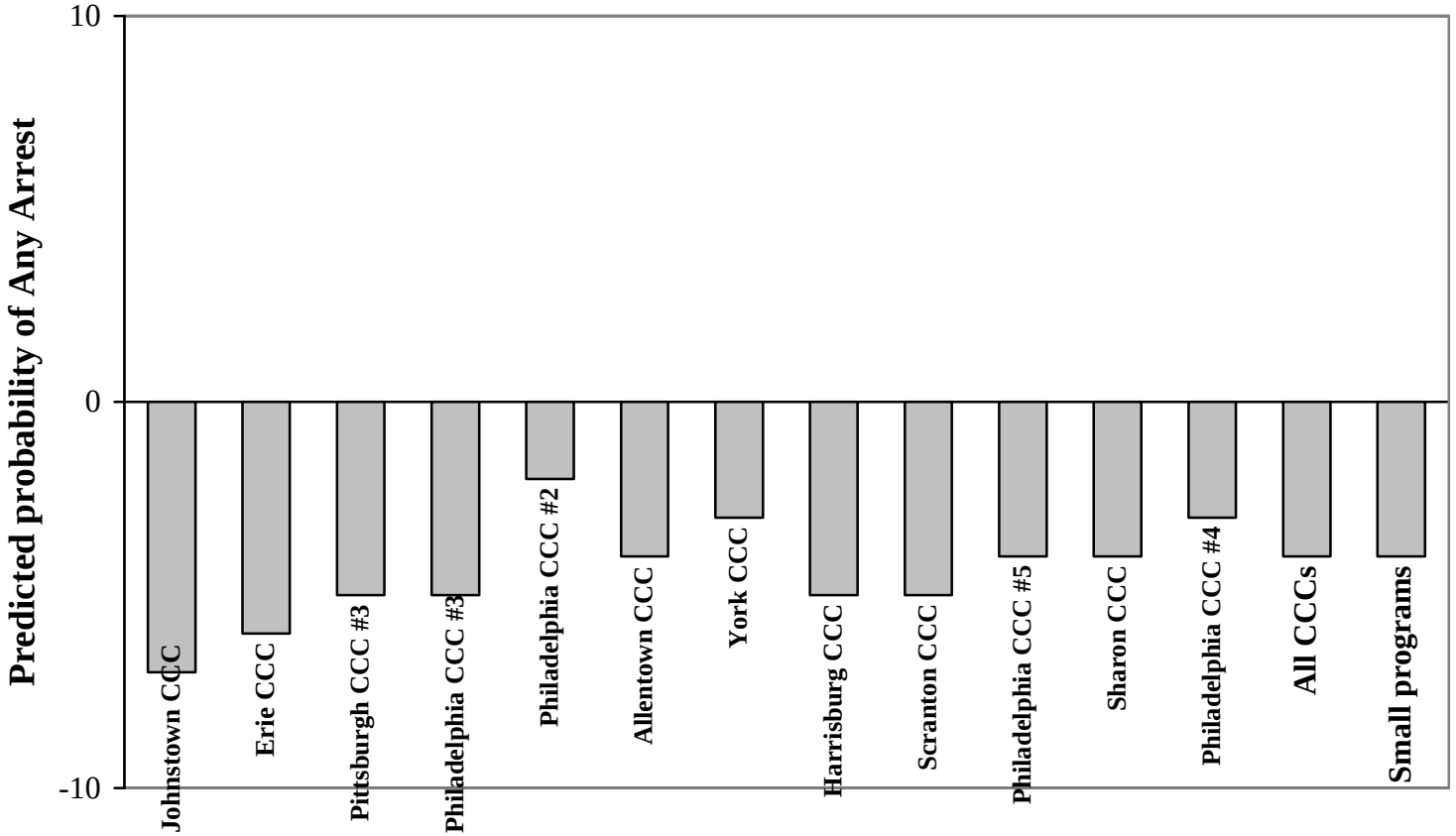


Figure 22. Treatment Effects for the Moderate Risk CCC Sample for Any Arrest (Mean Difference)

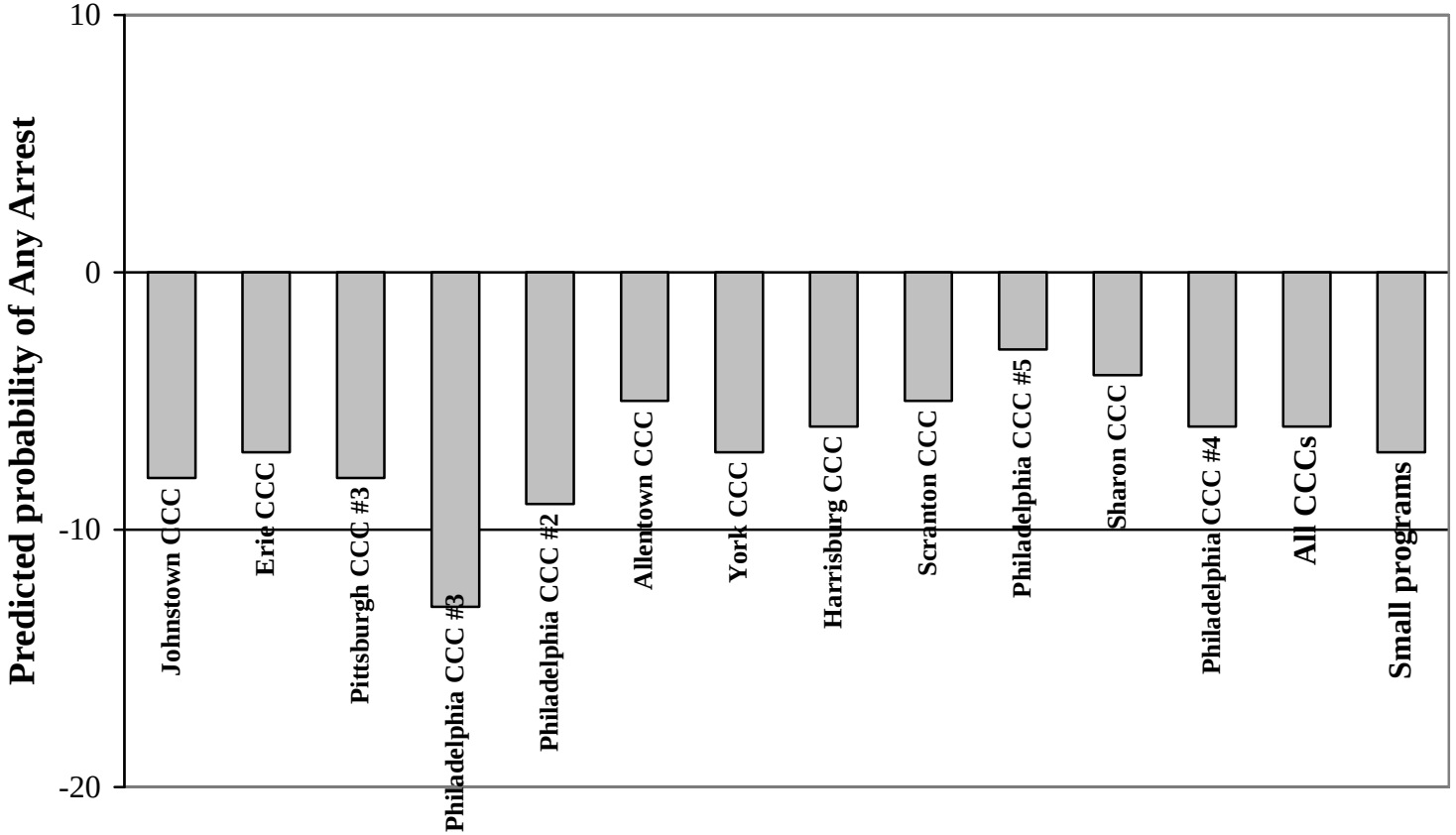


Figure 23. Treatment Effects for the High Risk CCC Sample for Any Arrest (Mean Difference)

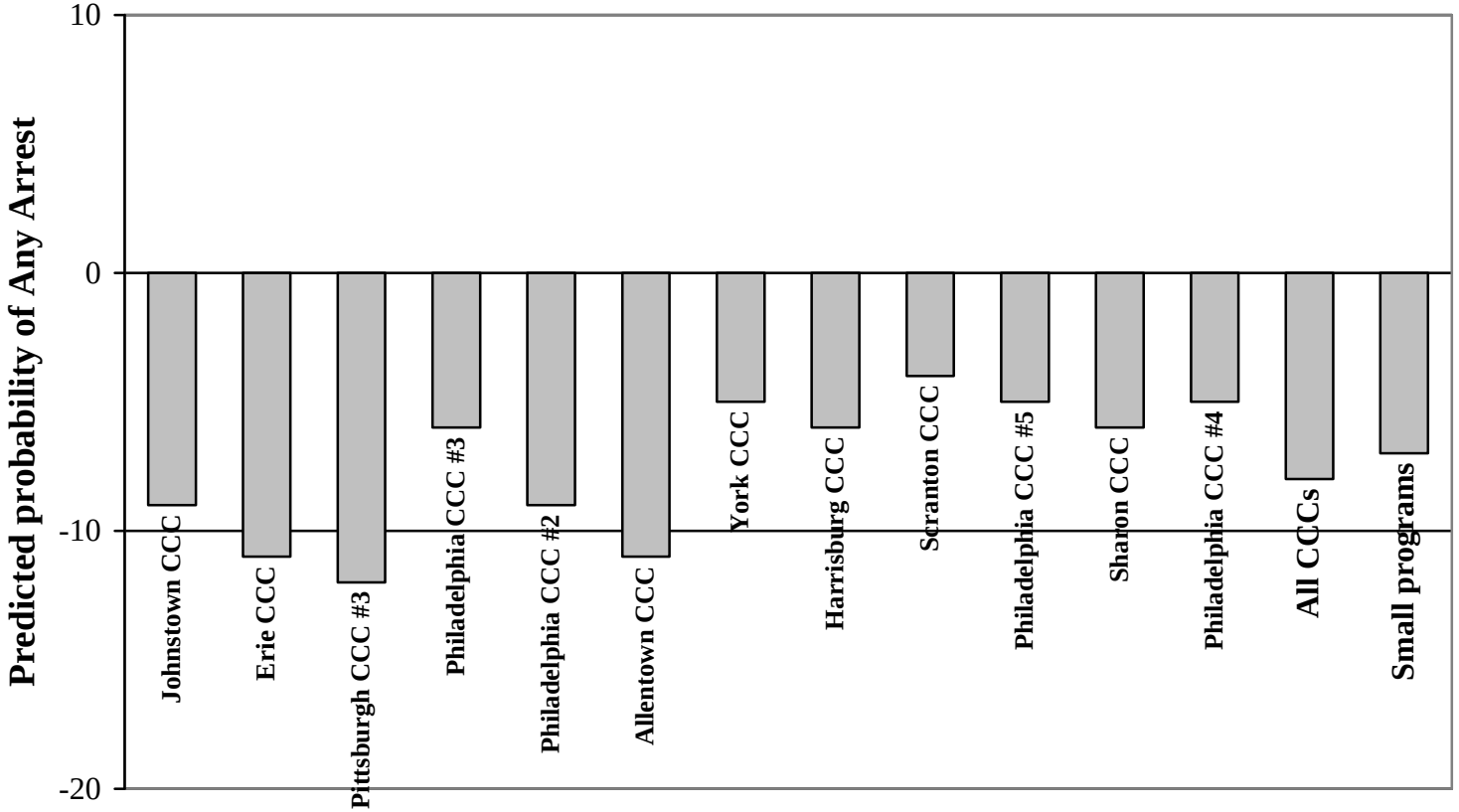


Table 23 presents the predicted probability comparison for the rates of re-incarceration by group and then disaggregated by risk level. Similar to the predicted probabilities on technical violations, the mean differences between the treatment and comparison groups are statistically significant for the whole table. These significant mean differences are presented in Figures 24-27 by group and by risk level.

Table 23. CCC Facility Sample- Predicted Rates of Re-incarceration by Group and Risk Level

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	47	26	35	17	47	25	59	34
Philadelphia CCC #2	41	22	31	18	44	20	56	32
Philadelphia CCC #3	29	12	24	10	37	12	38	19
Philadelphia CCC #4	41	23	32	19	46	26	54	30
Philadelphia CCC #5	44	25	37	19	47	28	57	37
Scranton CCC	46	25	36	17	45	25	55	33
Allentown CCC	46	25	35	18	47	27	59	34
Harrisburg CCC	48	27	27	18	48	26	60	38
York CCC	45	25	38	21	46	24	57	36
Johnstown CCC	51	27	37	16	49	25	60	34
Pittsburgh CCC #3	35	15	21	8	33	12	48	24
Erie CCC	51	27	38	18	48	26	62	34
Sharon CCC	46	28	36	18	46	27	59	37
Small programs	39	21	31	16	43	21	53	30

Figure 24. Treatment Effects for the CCC Sample for Any Re-Incarceration (Mean Difference)

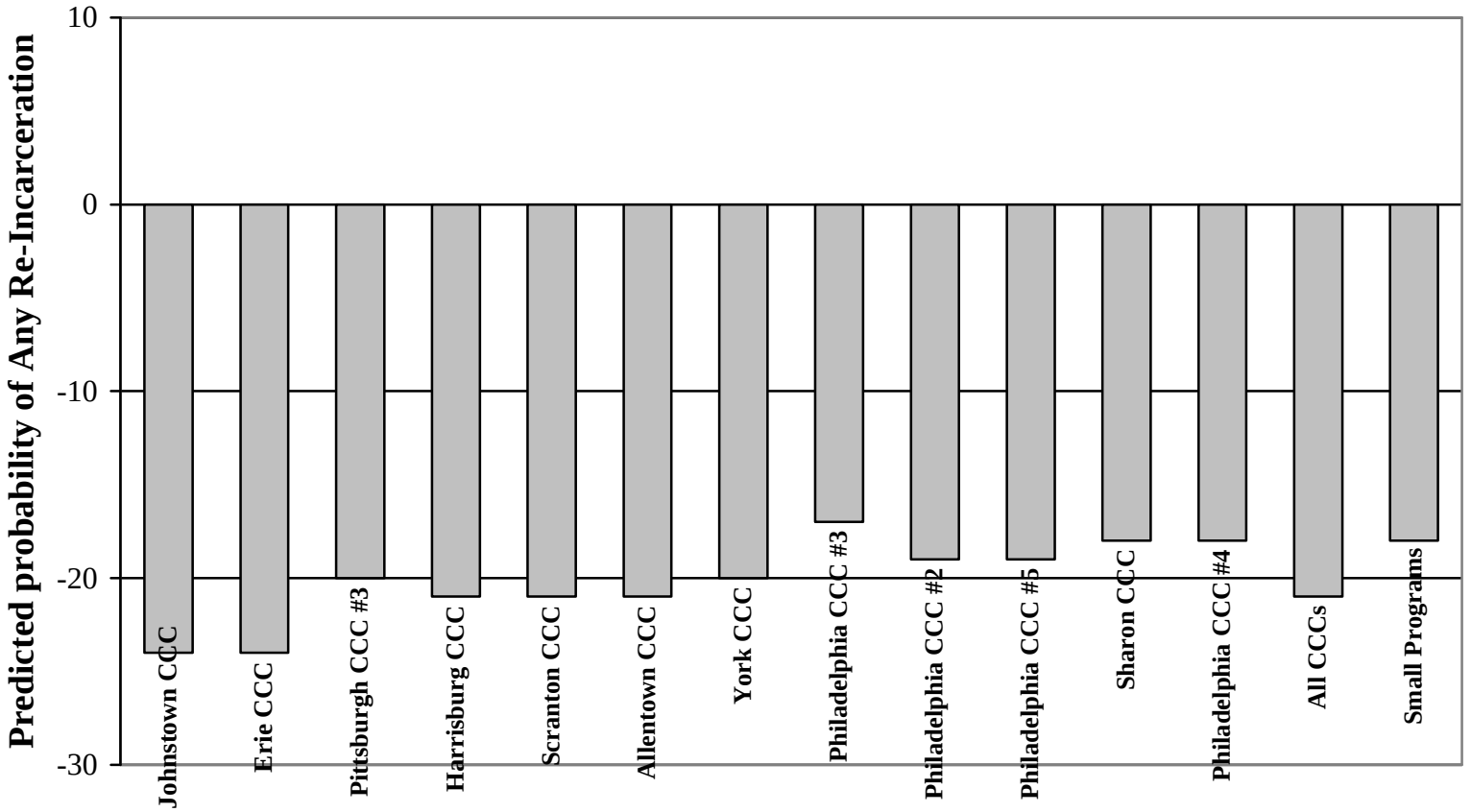


Figure 25. Treatment Effects for the Low Risk CCC Sample for Any Re-Incarceration (Mean Difference)

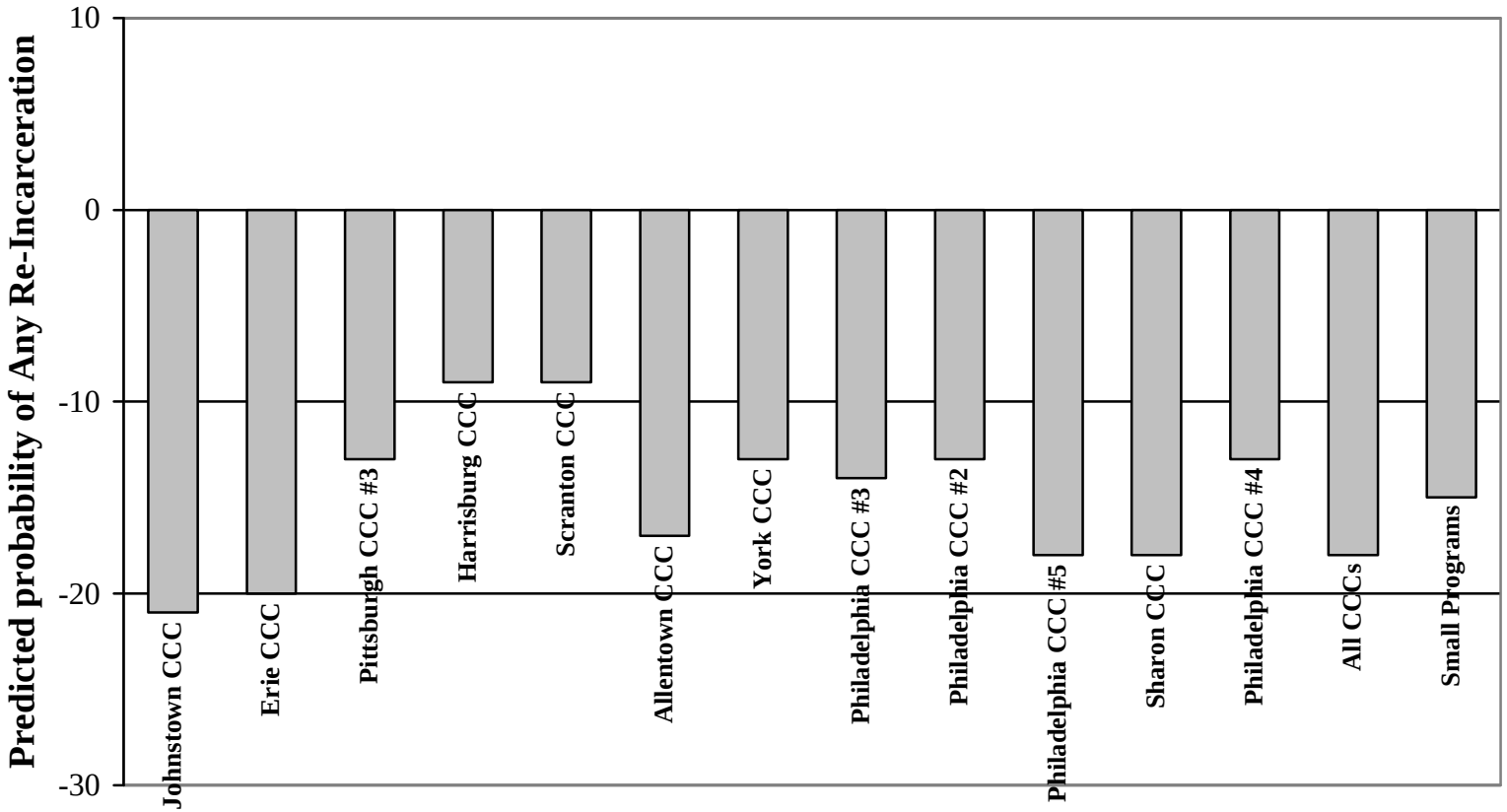


Figure 26. Treatment Effects for the Moderate Risk CCC Sample for Any Re-Incarceration (Mean Difference)

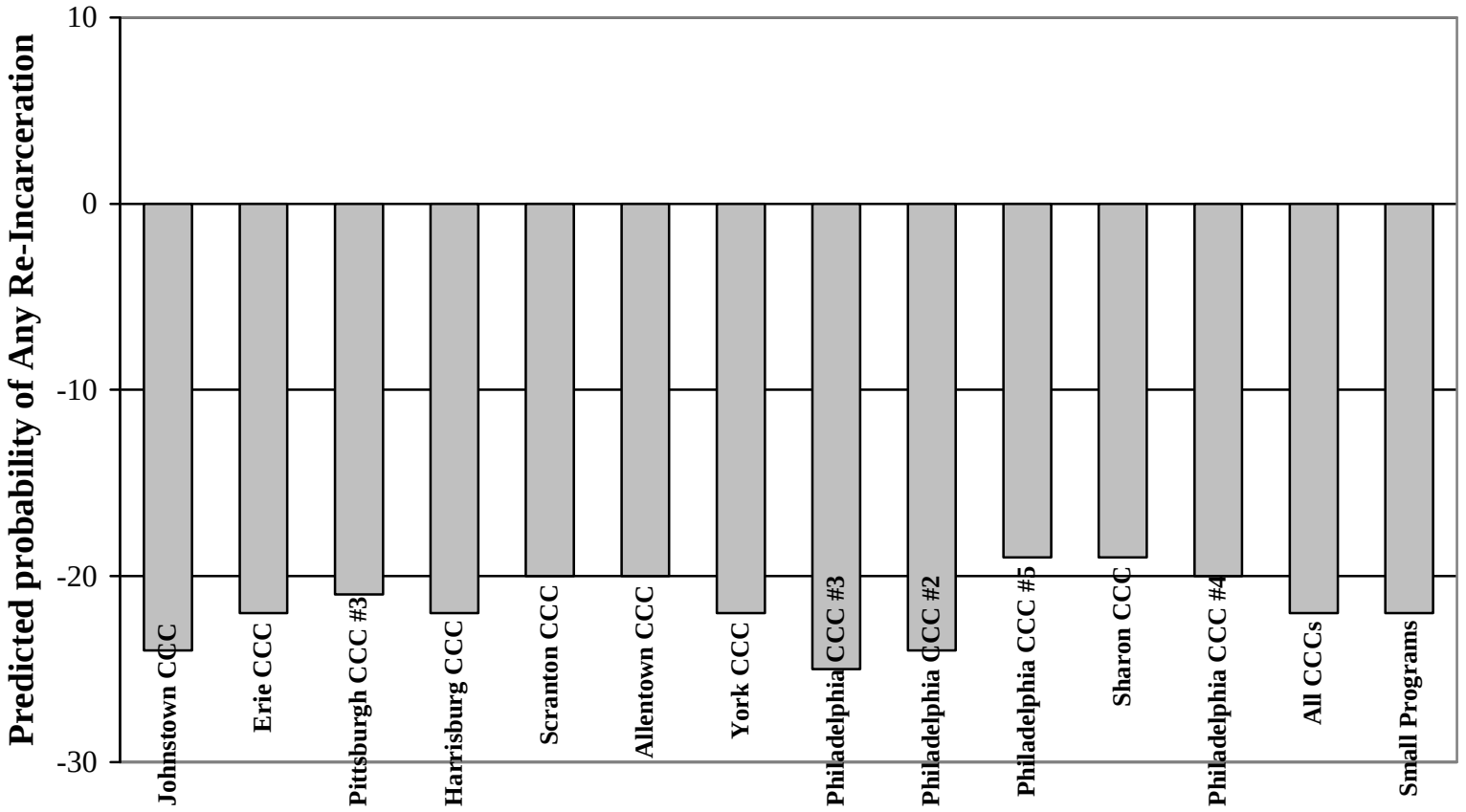


Figure 27. Treatment Effects for the High Risk CCC Sample for Any Re-Incarceration (Mean Difference)

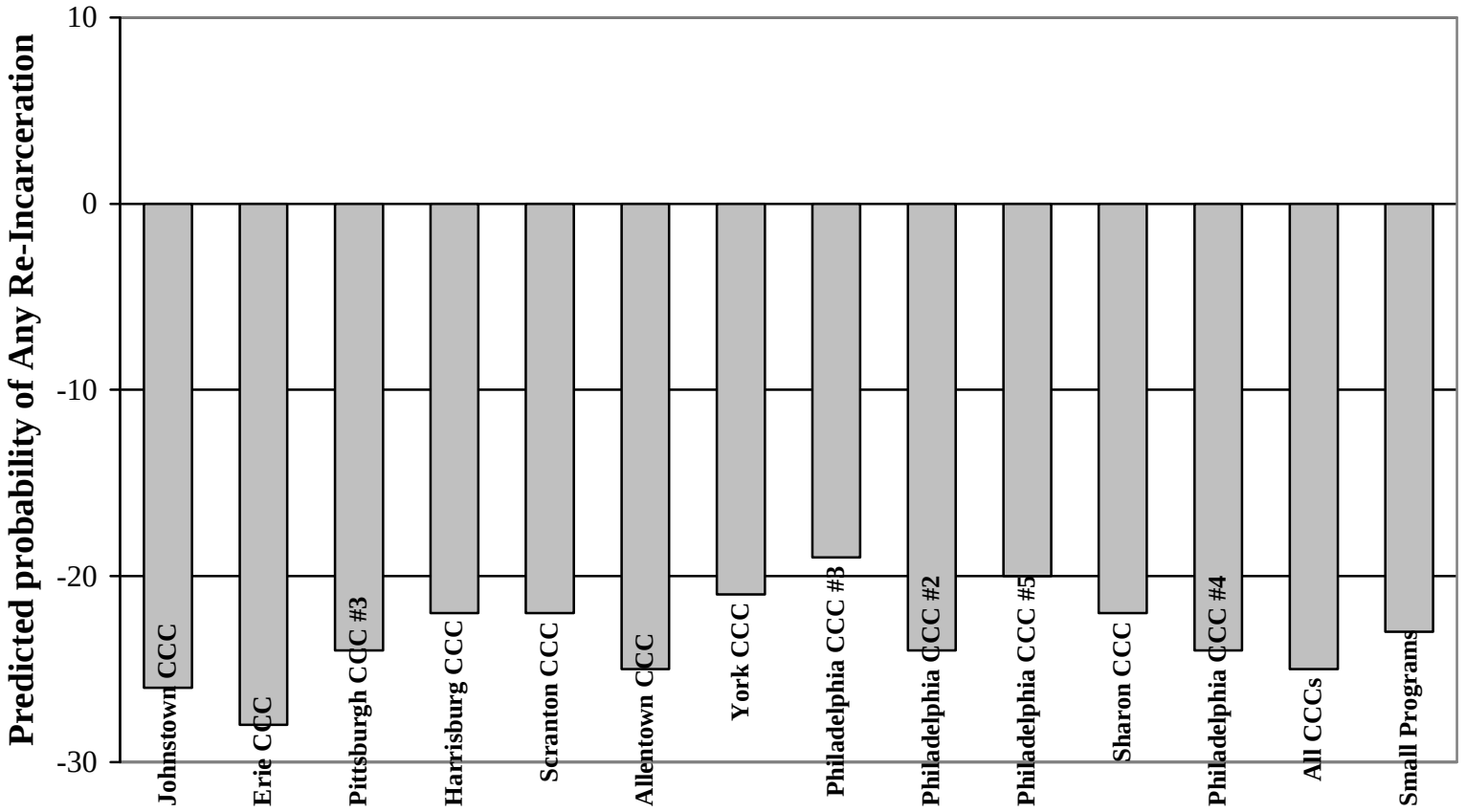


Table 24 presents the predicted probability rates of any new recidivism. This was done for the entire CCC facility sample group and then was calculated by risk level. Similar to the predicted probabilities on technical violations and re-incarcerations, the mean differences between the treatment and comparison groups are statistically significant when examining the total CCC sample and when evaluating the mean differences in any recidivism by LSI-R risk level. These significant mean differences are presented in Figures 28-31.

Table 24. CCC Facility Sample- Predicted Rates of Any Recidivism by Group and Risk Level

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	52	30	40	21	52	30	64	40
Philadelphia CCC #2	46	26	36	22	49	24	61	36
Philadelphia CCC #3	36	15	30	13	46	16	46	25
Philadelphia CCC #4	46	27	37	23	52	31	58	34
Philadelphia CCC #5	51	30	43	24	53	35	63	43
Scranton CCC	51	30	41	20	50	29	60	38
Allentown CCC	52	31	40	21	53	32	65	40
Harrisburg CCC	54	32	42	21	53	31	66	44
York CCC	51	30	44	25	52	28	63	43
Johnstown CCC	57	32	41	18	55	30	65	40
Pittsburgh CCC #3	42	19	27	11	40	16	55	30
Erie CCC	57	32	43	22	53	30	68	40
Sharon CCC	52	33	41	22	51	32	64	43
Small programs	45	25	37	20	49	26	58	35

Figure 28. Treatment Effects for the CCC Sample for Any Recidivism (Mean Difference)

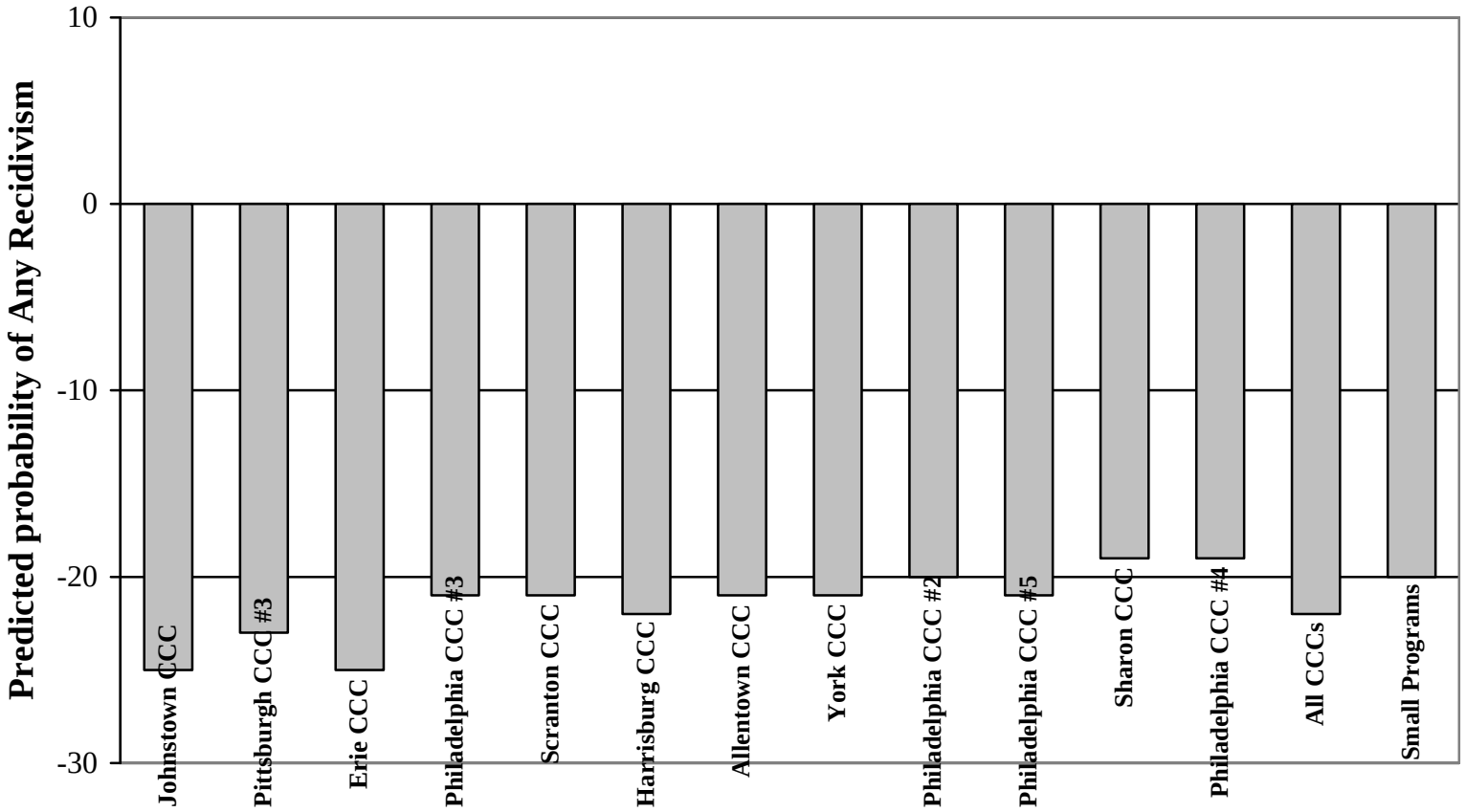


Figure 29. Treatment Effects for the Low Risk CCC Sample for Any Recidivism (Mean Difference)

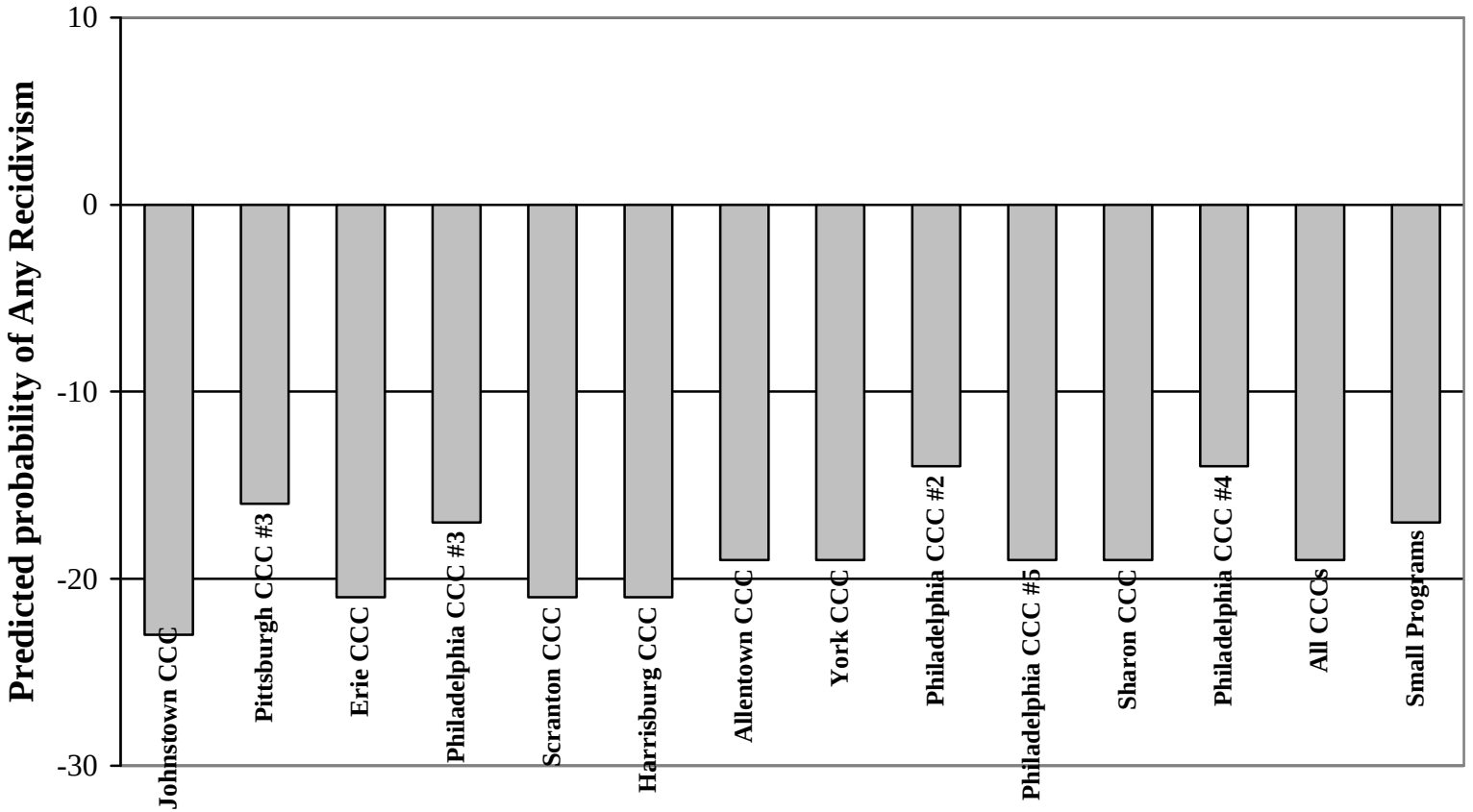


Figure 30. Treatment Effects for the Moderate Risk CCC Sample for Any Recidivism (Mean Difference)

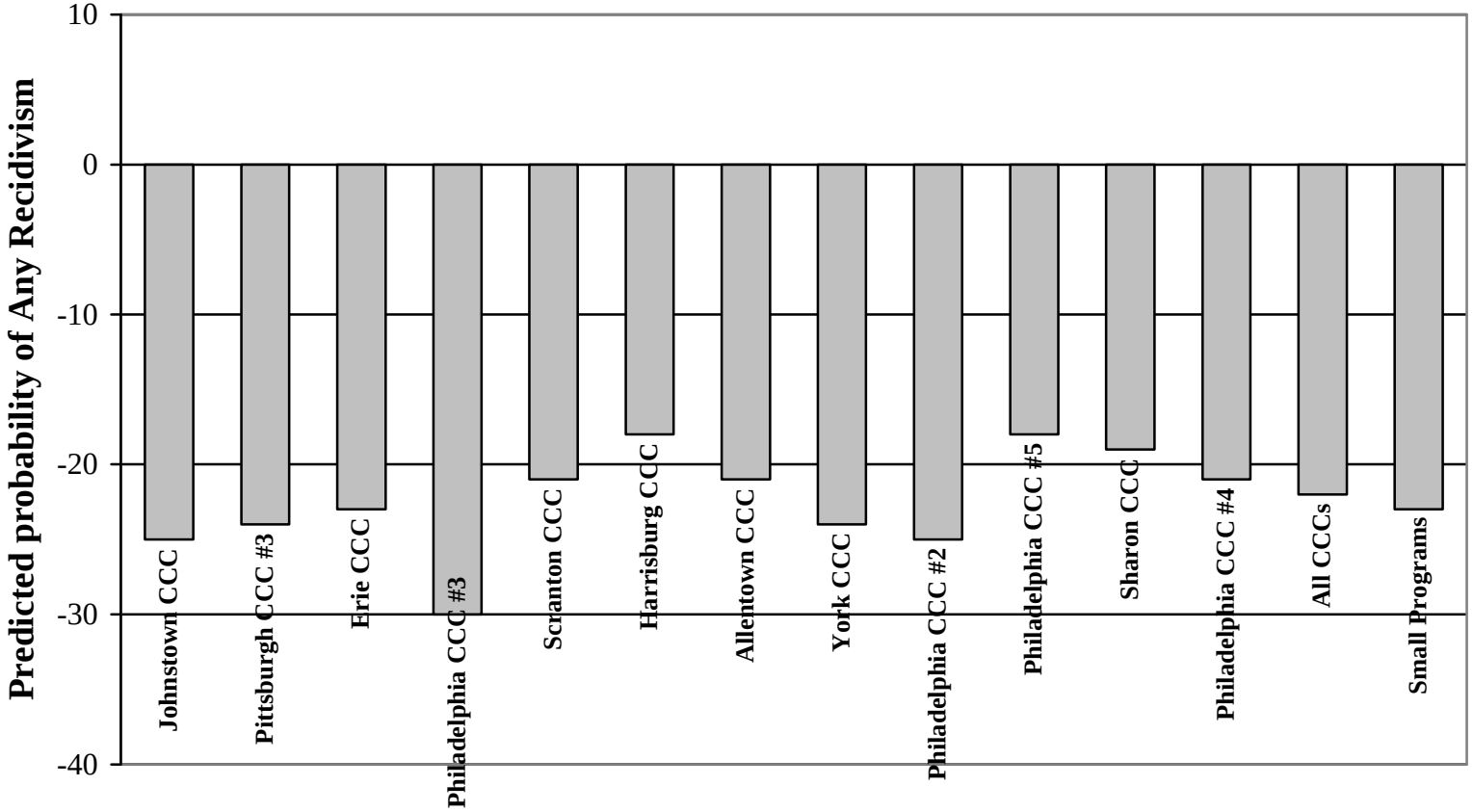
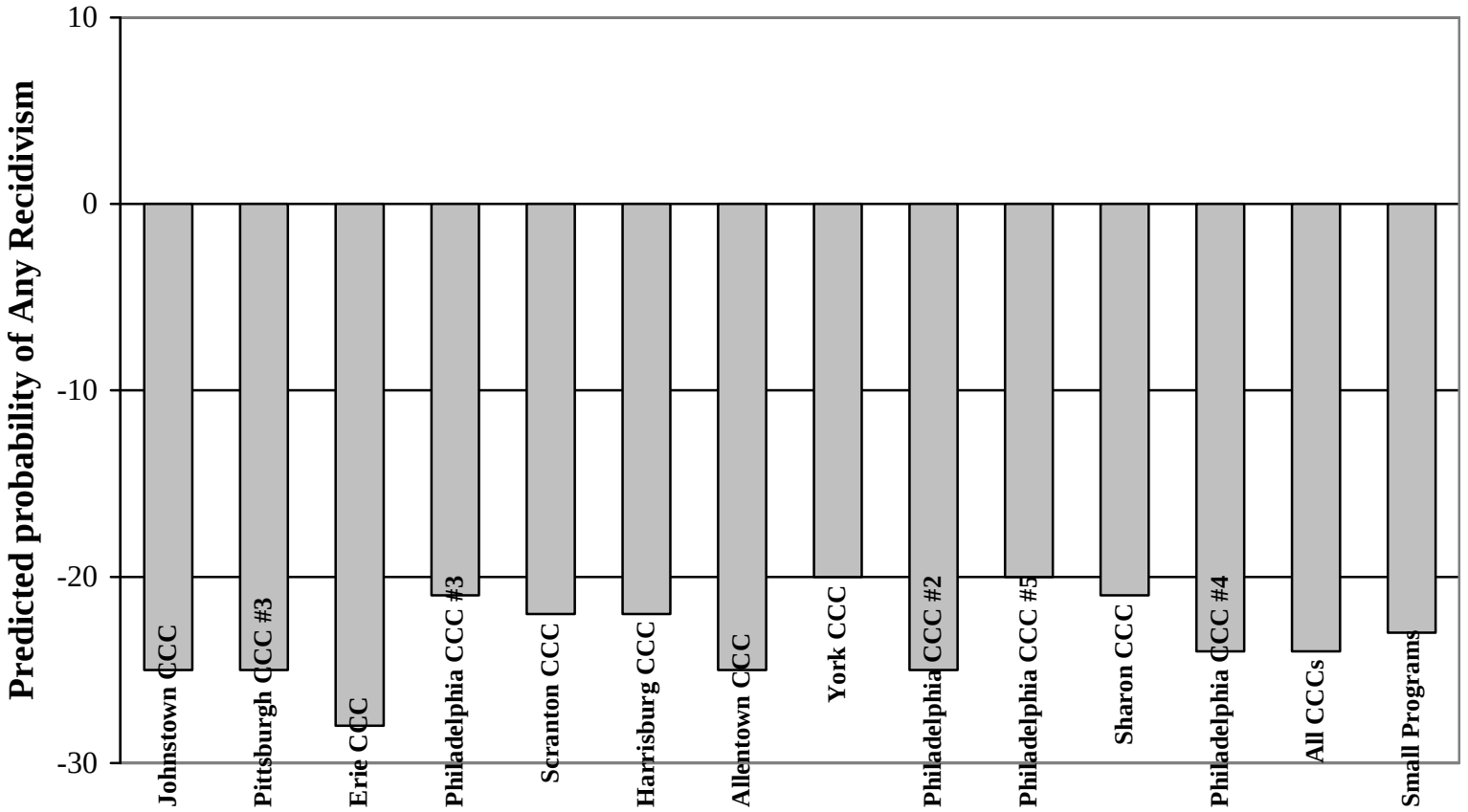


Figure 31. Treatment Effects for the High Risk CCC Sample for Any Recidivism (Mean Difference)



This next section examines the predicted probabilities and their respective mean differences based on the logistic regression models for the successful completers and their matched counterparts with each of the four dichotomous outcome measures. The measures controlled for in the multivariate models included: sex, race, age, time in the institution, facility type, total LSI-R score, sex offender status and group membership. Highlighted sections in the upcoming tables suggest that there is a significant difference between the rates of failure for a particular outcome measure when comparing the predicted probabilities between groups. Similar to the analyses conducted previously, these findings will need to be presented by risk level as well.

Table 25 provides the results for the predicted probabilities examining the rates of technical violations by group and then by risk level. The treatment group consistently had a higher predicted probability of technical violations than the matched comparison group. The mean difference between the treatment and comparison groups was significant throughout the whole analysis. Figures 32-35 graphically depict the significant mean differences for each program.

Table 25. CCC Facility Sample- Predicted Rates of Technical Violations by Group and Risk Level For Successful Completers

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	42	26	32	18	43	26	54	34
Philadelphia CCC #2	37	23	30	19	41	22	53	34
Philadelphia CCC #3	26	12	21	10	34	13	34	19
Philadelphia CCC #4	38	24	31	20	43	27	51	31
Philadelphia CCC #5	40	25	35	21	43	30	53	32
Scranton CCC	42	26	34	18	42	26	51	33
Allentown CCC	41	25	34	19	42	28	56	33
Harrisburg CCC	44	27	34	19	44	27	55	37
York CCC	42	26	34	21	42	24	53	36
Johnstown CCC	47	28	34	17	45	26	55	35
Pittsburgh CCC #3	31	15	19	9	29	13	50	30
Erie CCC	47	28	35	19	44	26	57	35
Sharon CCC	43	29	33	19	42	28	55	39
Small programs	35	21	29	17	39	23	47	28

Figure 32. Treatment Effects for the CCC Sample for Technical Violations (Mean Difference)- Successful Completers

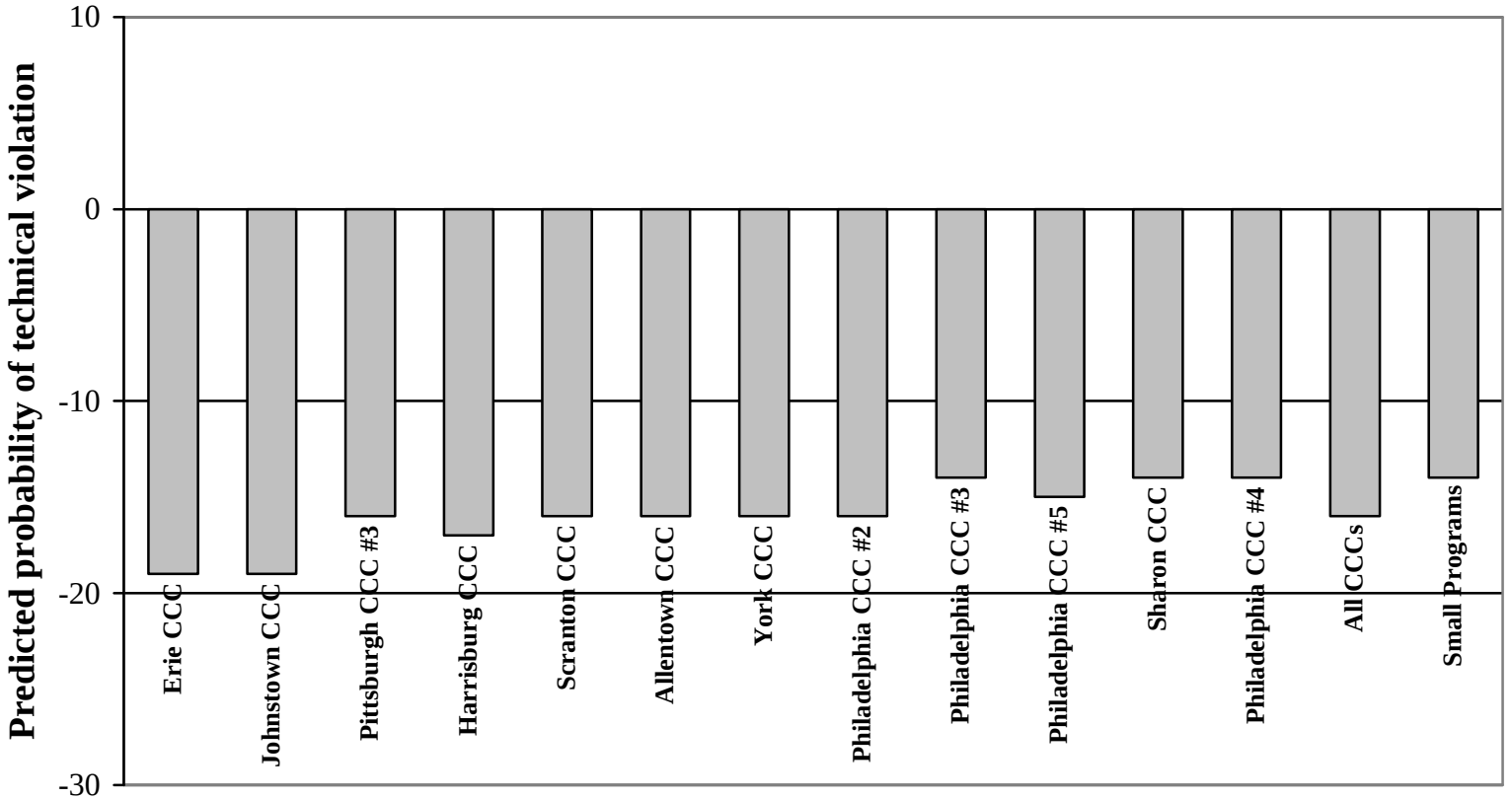


Figure 33. Treatment Effects for the Low Risk CCC Sample for Technical Violations (Mean Difference)- Successful Completers

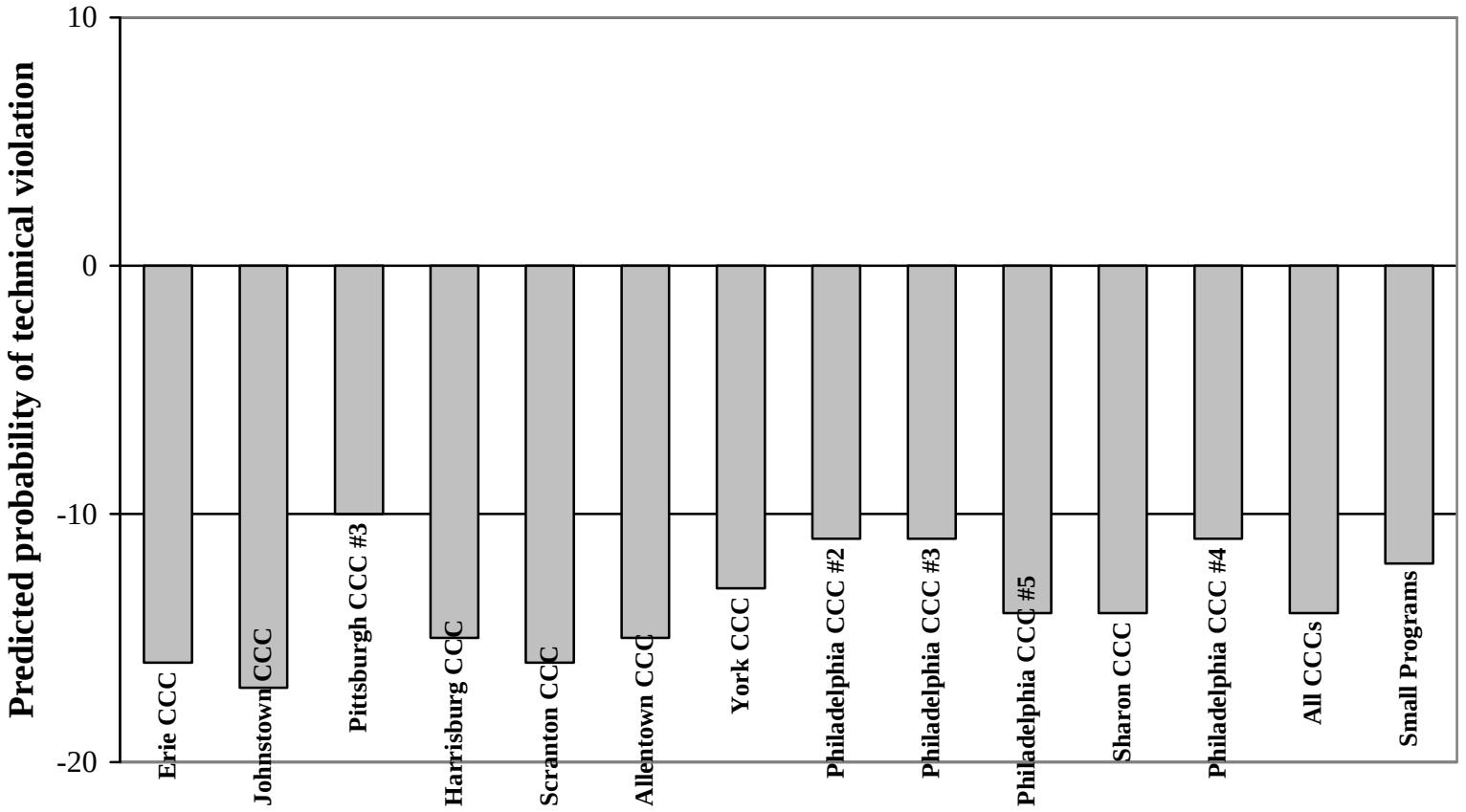


Figure 34. Treatment Effects for the Moderate Risk CCC Sample for Technical Violations (Mean Difference)- Successful Completers

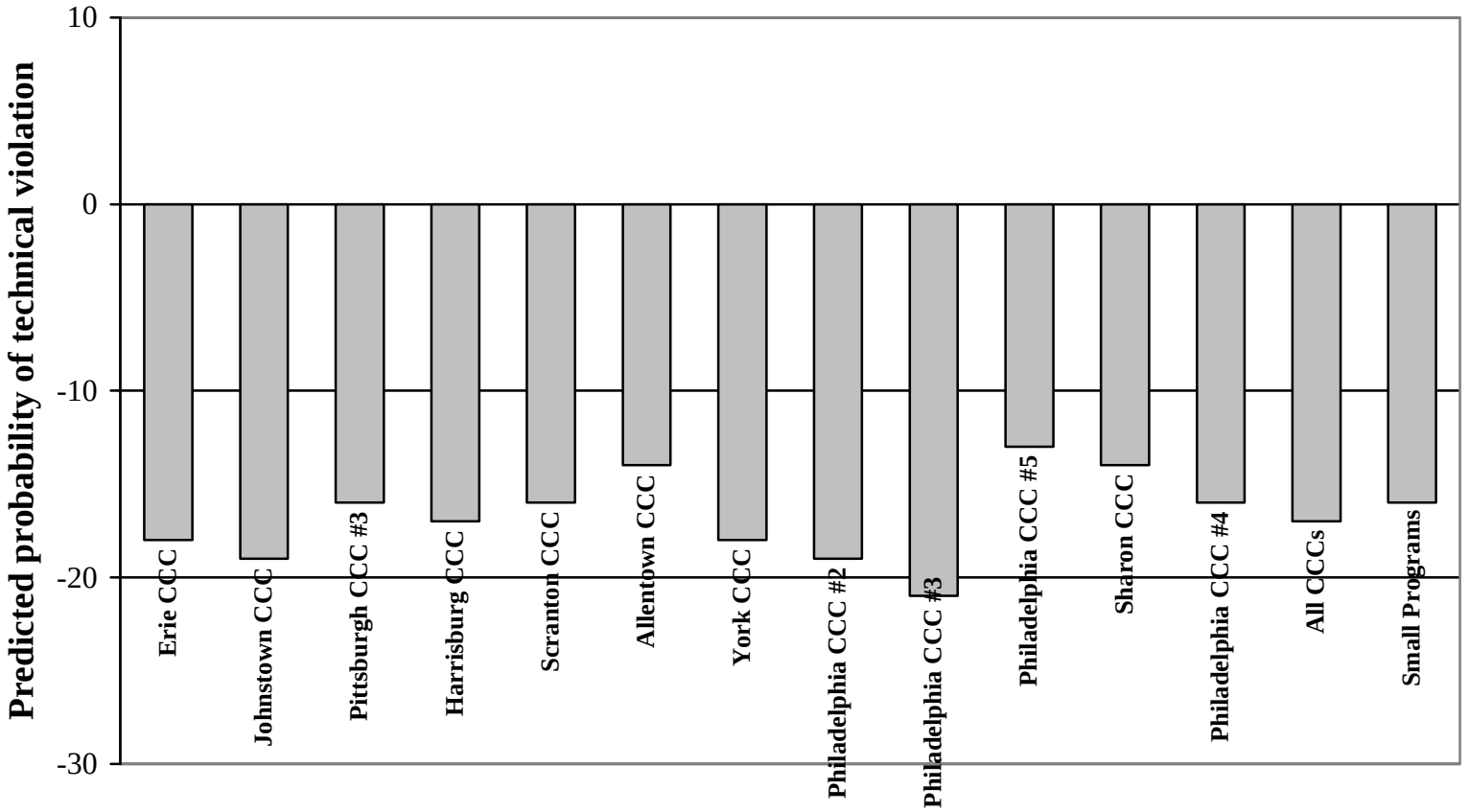


Figure 35. Treatment Effects for the High Risk CCC Sample for Technical Violations (Mean Difference)- Successful Completers

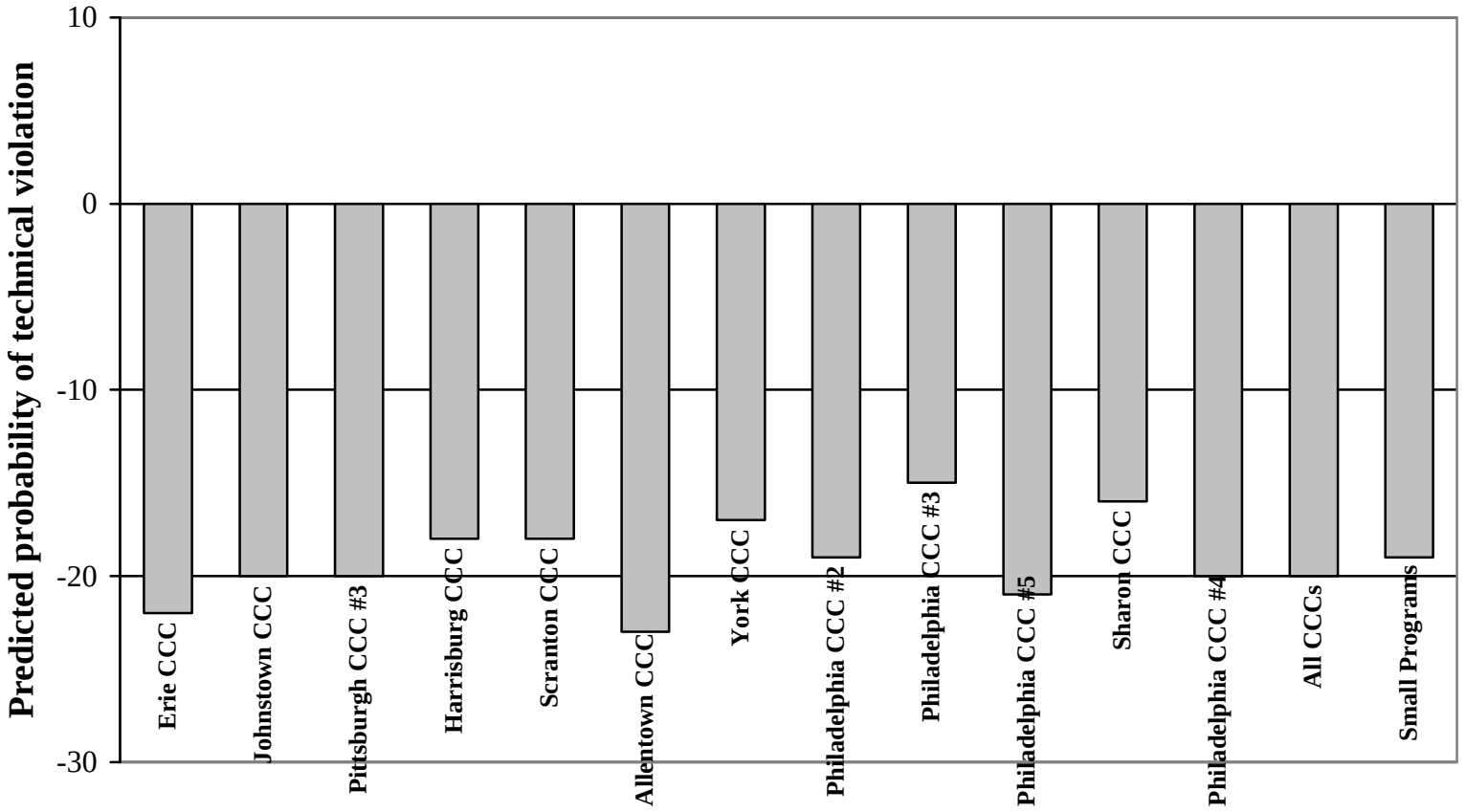


Table 26 presents the predicted probabilities for any arrest by group and disaggregated by risk level for the successful completers and their matched counterparts. Similar to examining the mean differences for the total sample, these findings suggest that the treatment group experienced a higher rate of any arrests than the comparison group; however, these differences were not always significant. Rates highlighted in yellow demonstrate the findings that were significant. Figures 36-39 graphically depict these mean differences.

Table 26. CCC Facility Sample- Predicted Rates of Any Arrest by Group and Risk Level for Successful Completers

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	24	19	17	14	24	19	31	24
Philadelphia CCC #2	20	16	16	15	21	14	27	20
Philadelphia CCC #3	17	11	14	10	25	12	21	16
Philadelphia CCC #4	20	18	18	16	22	20	23	20
Philadelphia CCC #5	23	20	19	16	26	24	31	24
Scranton CCC	22	18	17	12	24	18	27	23
Allentown CCC	22	19	16	14	23	21	34	23
Harrisburg CCC	24	20	17	14	24	20	32	28
York CCC	24	20	20	17	23	18	31	27
Johnstown CCC	26	19	17	11	25	18	32	24
Pittsburgh CCC #3	18	12	11	7	18	10	24	18
Erie CCC	26	20	19	14	24	19	33	24
Sharon CCC	24	21	17	14	23	21	31	26
Small programs	20	16	17	14	22	17	26	20

Figure 36. Treatment Effects for the CCC Sample for Any Arrest (Mean Difference)- Successful Completers

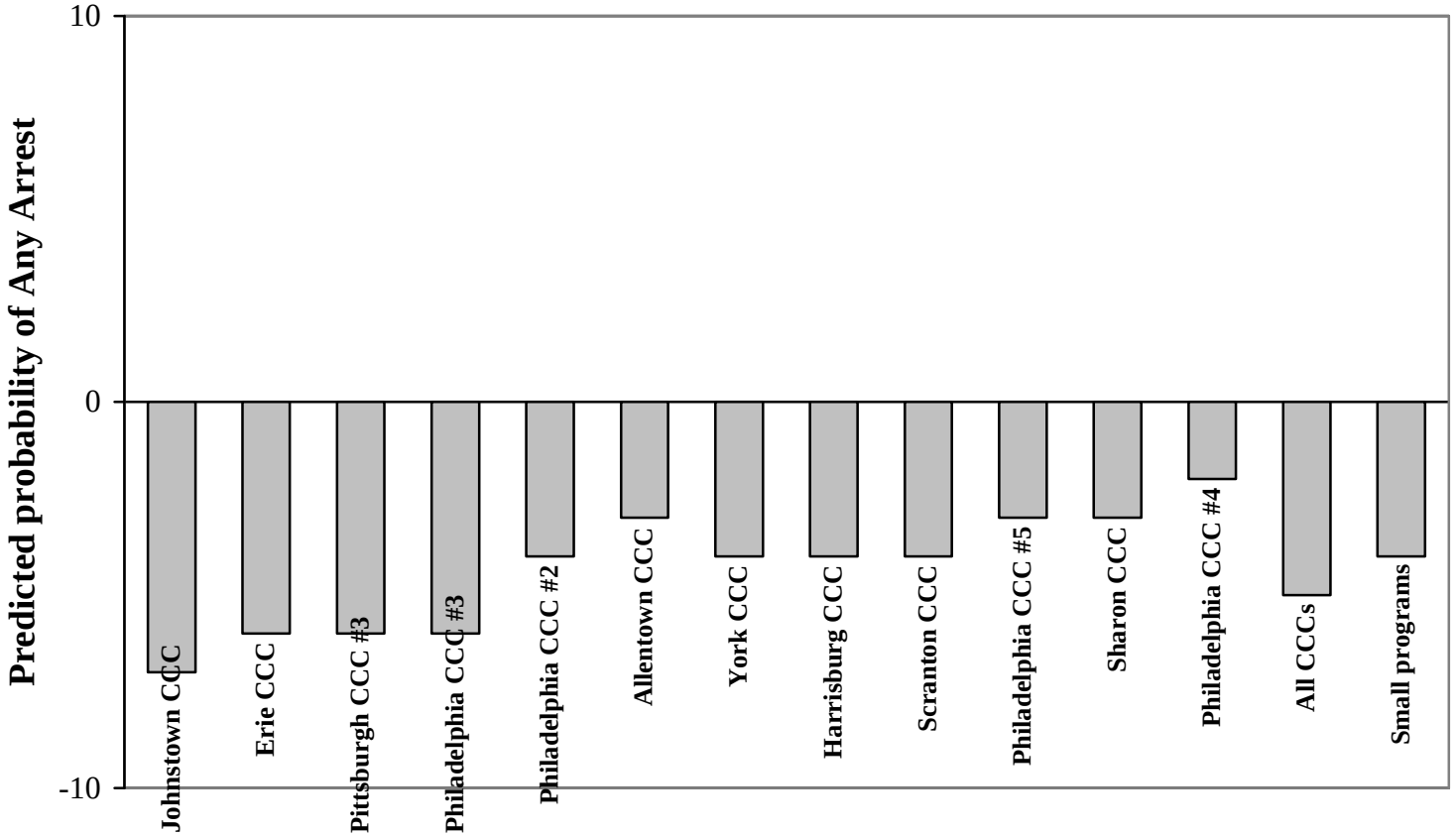


Figure 37. Treatment Effects for the Low Risk CCC Sample for Any Arrest (Mean Difference)- Successful Completers

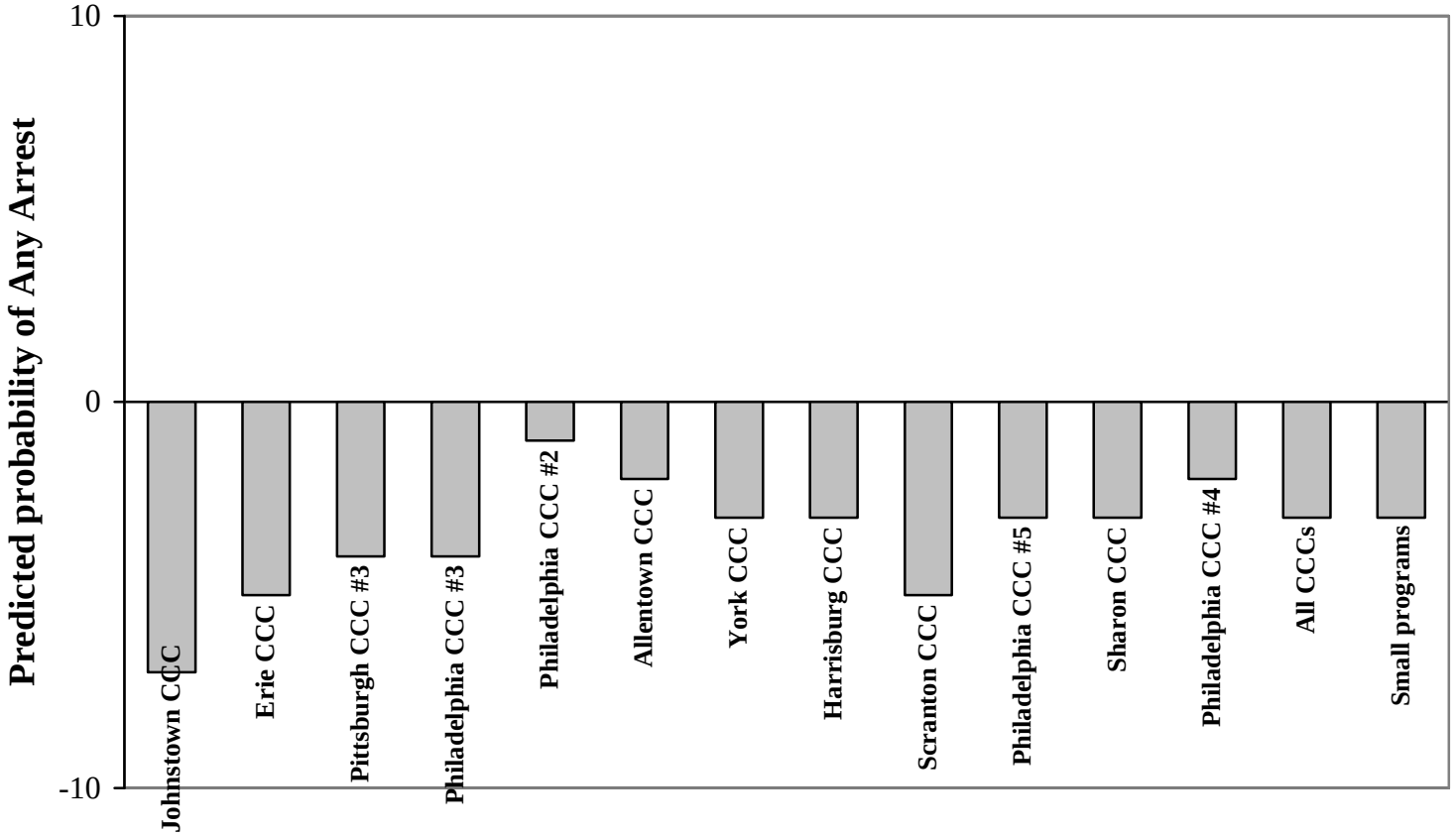


Figure 38. Treatment Effects for the Moderate Risk CCC Sample for Any Arrest (Mean Difference)- Successful Completers

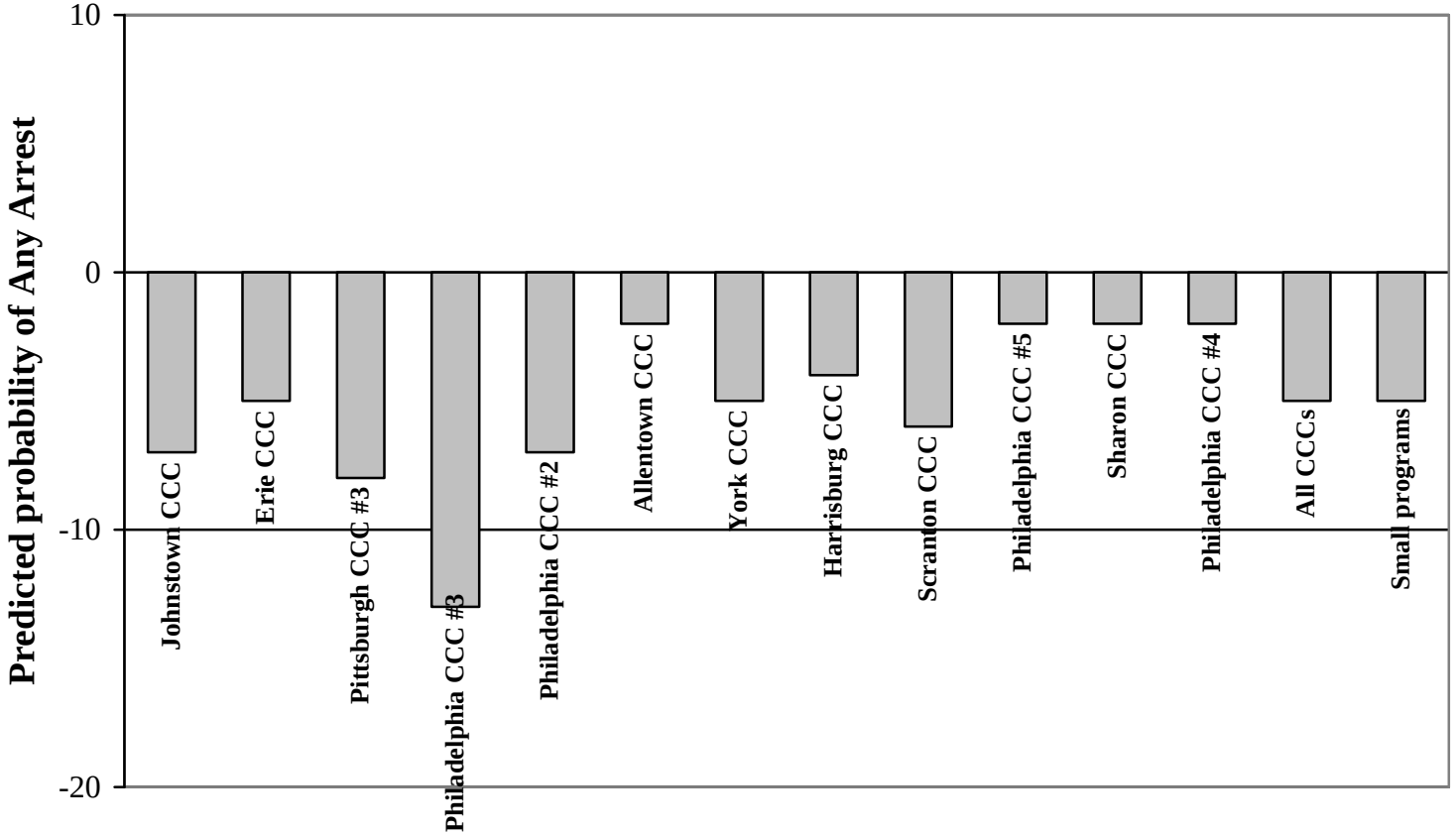


Figure 39. Treatment Effects for the High Risk CCC Sample for Any Arrest (Mean Difference)- Successful Completers

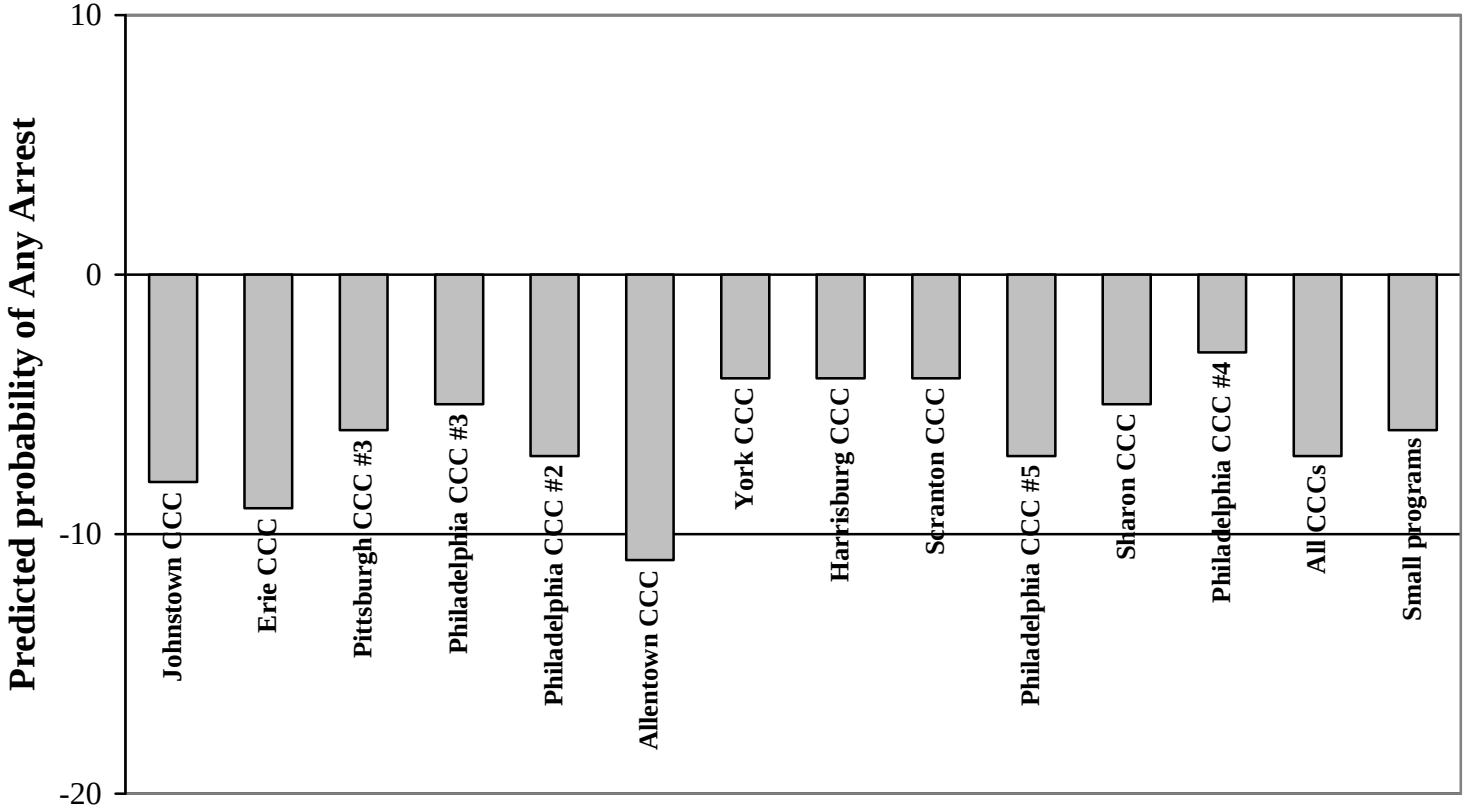


Table 27 provides the results for the predicted probabilities examining the rates of re-incarceration by group and then by risk level. The treatment group consistently had a higher predicted probability of re-incarcerations than the matched comparison group. The mean difference between the treatment and comparison groups was significant throughout the whole analysis. Figures 40-43 graphically depict the significant mean differences for each program.

Table 27. CCC Facility Sample- Predicted Rates of Re-incarceration by Group and Risk Level for Successful Completers

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	43	26	32	18	43	26	55	35
Philadelphia CCC #2	37	23	29	19	41	22	27	20
Philadelphia CCC #3	26	12	21	10	34	13	34	19
Philadelphia CCC #4	28	25	30	20	43	28	50	31
Philadelphia CCC #5	40	25	35	21	43	30	53	33
Scranton CCC	43	26	34	18	42	26	52	33
Allentown CCC	41	26	34	19	42	28	56	34
Harrisburg CCC	44	27	34	19	44	27	55	38
York CCC	42	26	35	21	43	25	53	37
Johnstown CCC	47	28	34	17	46	26	56	35
Pittsburgh CCC #3	31	15	19	9	29	13	43	24
Erie CCC	47	28	35	20	44	27	58	35
Sharon CCC	44	29	33	20	43	28	56	40
Small programs	35	21	29	17	39	23	48	29

Figure 40. Treatment Effects for the CCC Sample for Any Re-Incarceration (Mean Difference)- Successful Completers

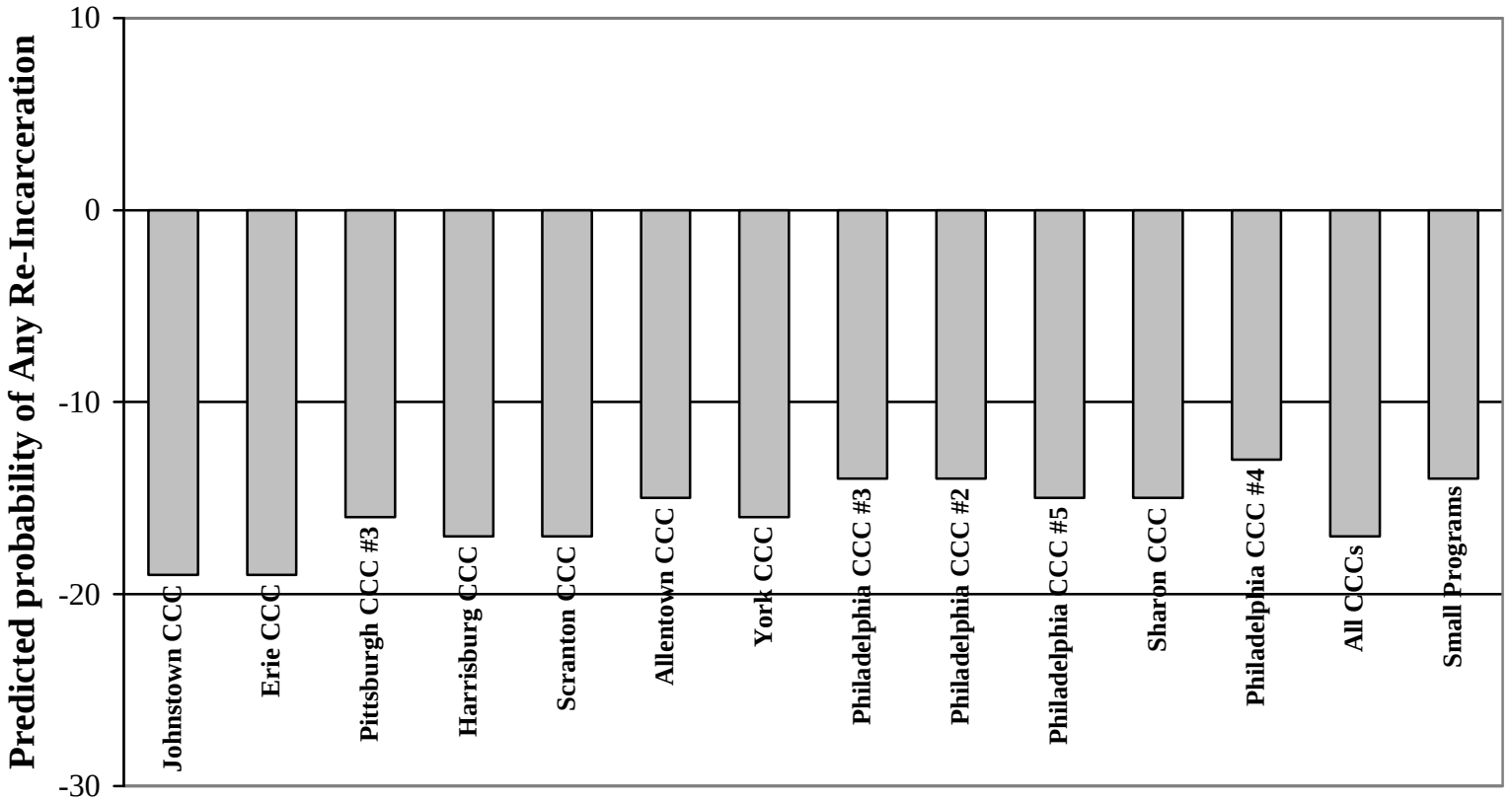


Figure 41. Treatment Effects for the Low Risk CCC Sample for Any Re-Incarceration (Mean Difference)- Successful Completers

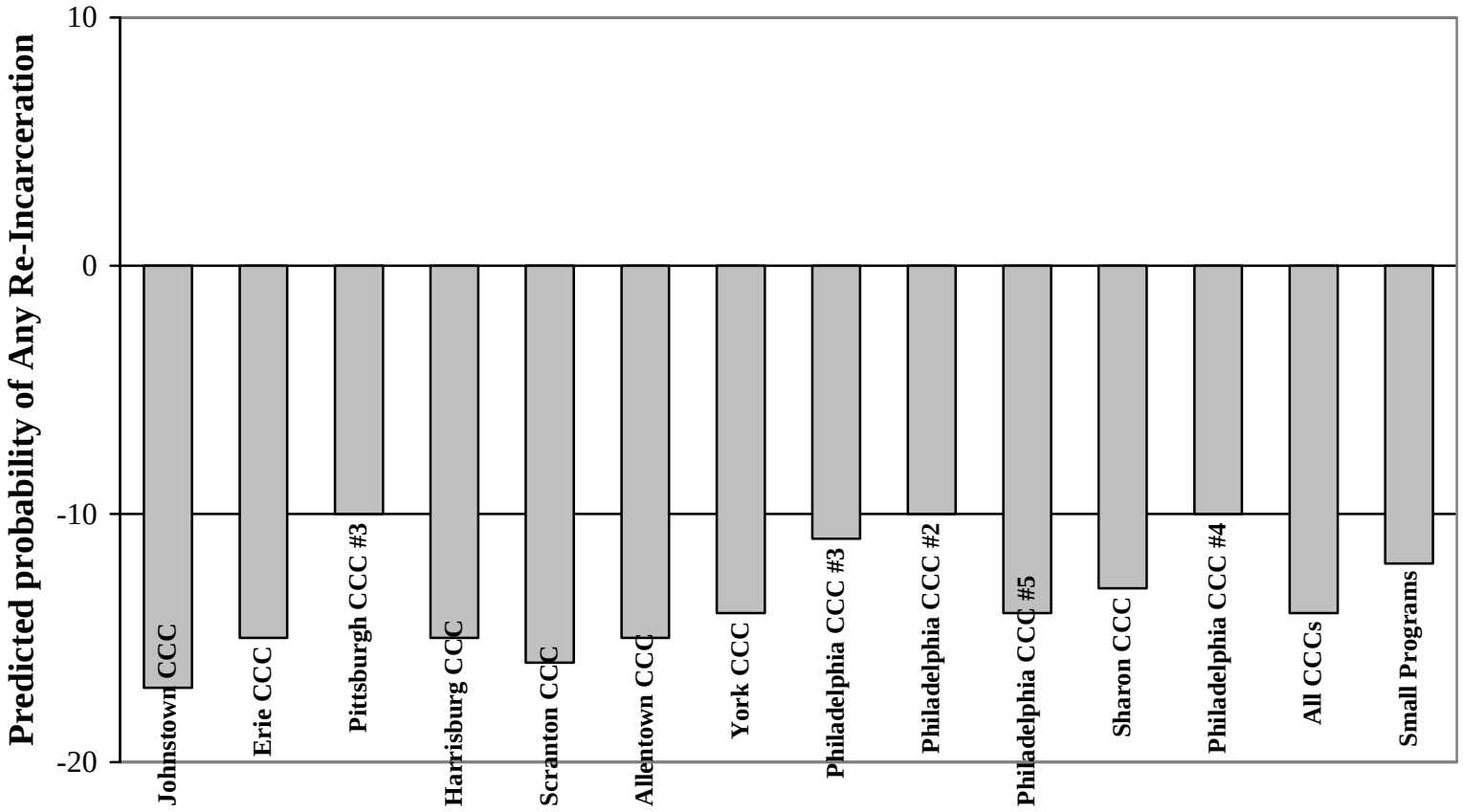


Figure 42. Treatment Effects for the Moderate Risk CCC Sample for Any Re-Incarceration (Mean Difference)- Successful Completers

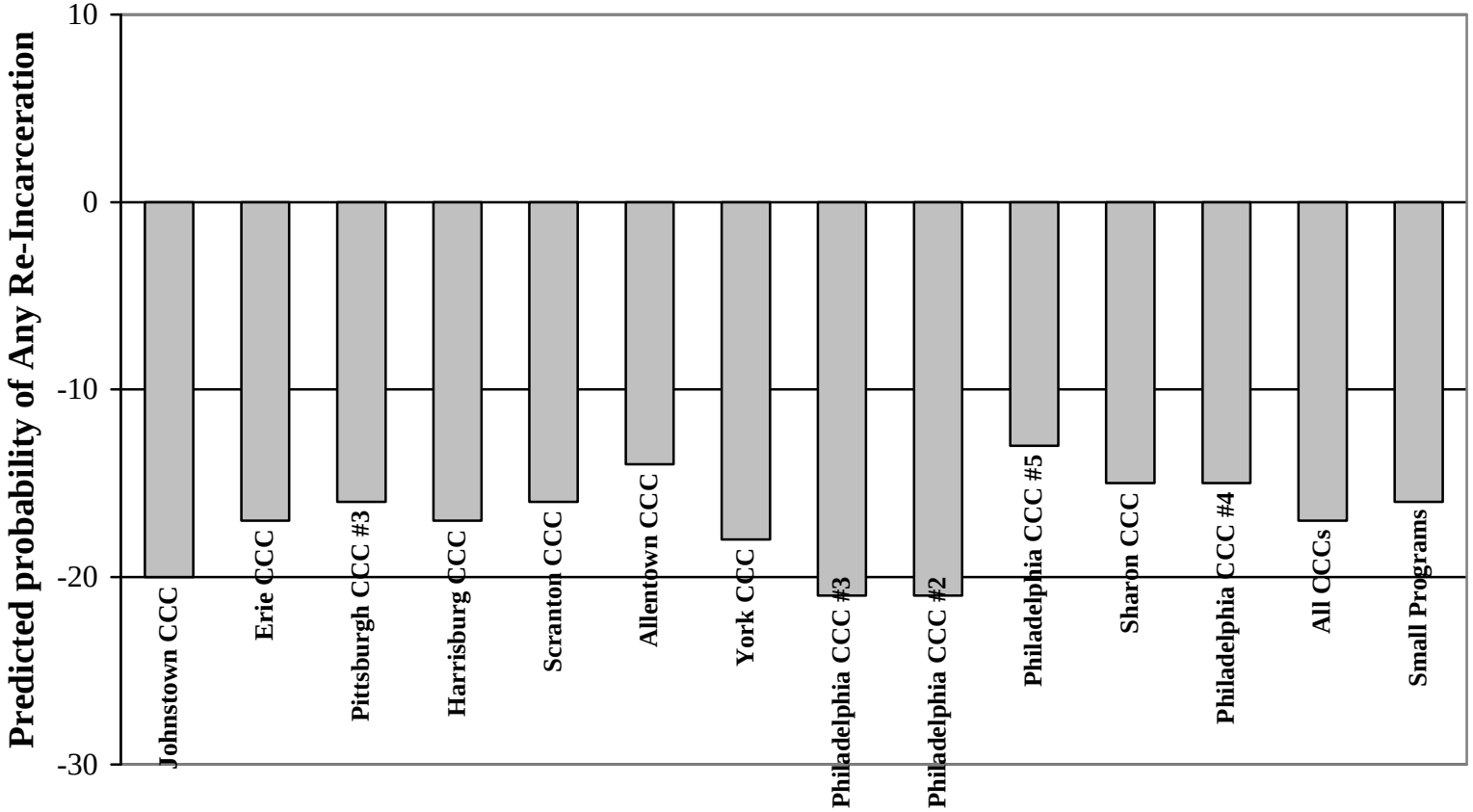


Figure 43. Treatment Effects for the High Risk CCC Sample for Any Re-Incarceration (Mean Difference)- Successful Completers

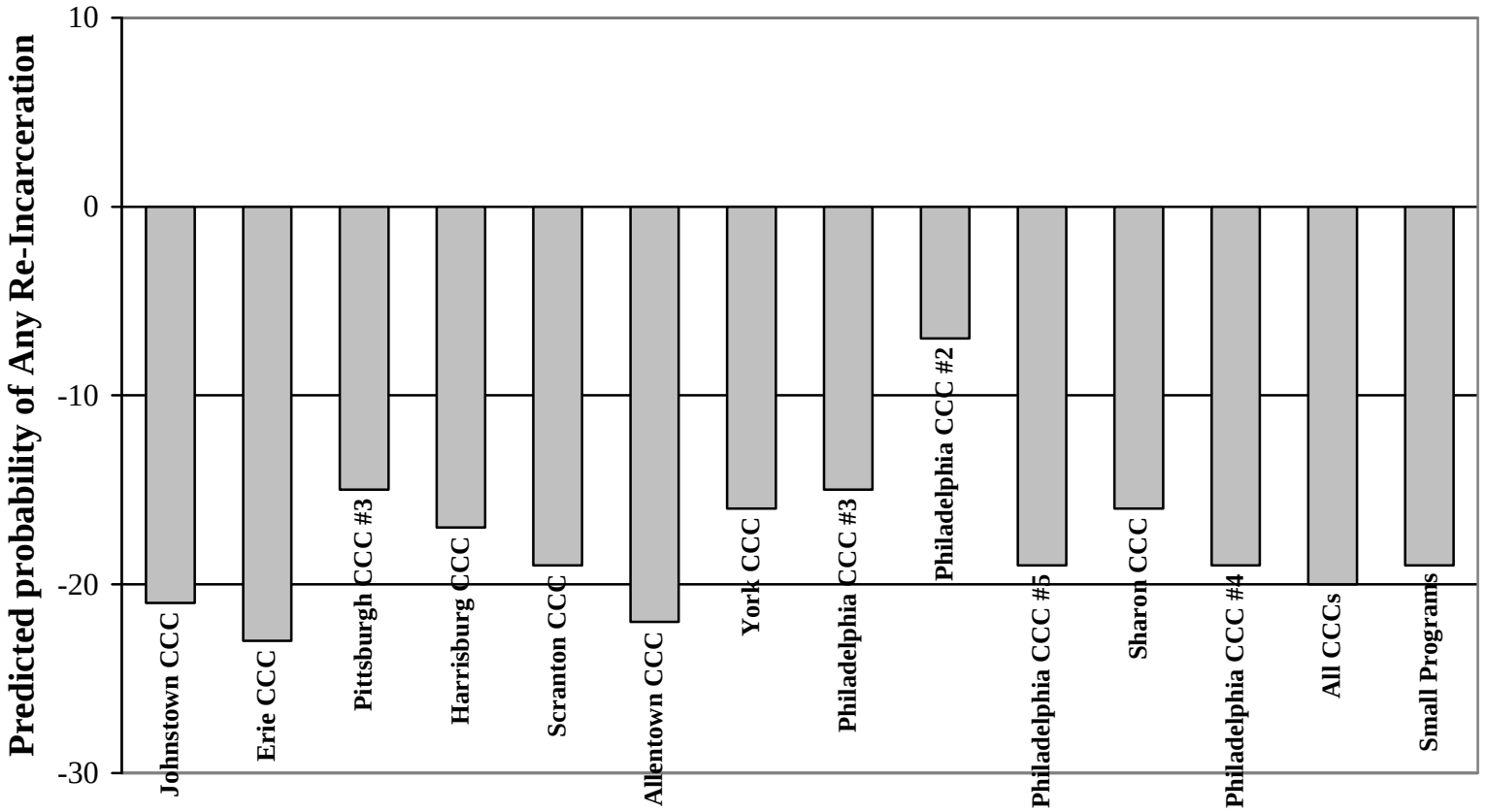


Table 28 provides the results for the predicted probabilities examining the rates of any recidivism by group and then disaggregated by risk level. The treatment group consistently had a higher predicted probability of any recidivism than the matched comparison group. The mean difference between the treatment and comparison groups was significant throughout the whole analysis. Figures 44-47 graphically depict the significant mean differences for each program.

Table 28. CCC Facility Sample- Predicted Rates of Any Recidivism by Group and Risk Level for Successful Completers

			Risk Level					
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCCs	48	31	37	22	49	31	60	41
Philadelphia CCC #2	42	27	34	23	46	25	57	38
Philadelphia CCC #3	32	16	27	13	43	17	41	25
Philadelphia CCC #4	43	29	35	24	49	33	54	35
Philadelphia CCC #5	46	30	40	25	49	36	59	38
Scranton CCC	48	31	39	21	47	31	57	39
Allentown CCC	47	30	38	23	48	34	63	39
Harrisburg CCC	49	32	39	23	50	32	61	44
York CCC	48	31	40	26	49	21	59	43
Johnstown CCC	53	33	39	20	52	31	.62	41
Pittsburgh CCC #3	38	19	24	11	36	16	50	30
Erie CCC	53	33	40	23	50	31	63	41
Sharon CCC	49	34	38	23	48	34	62	45
Small programs	41	25	34	21	45	28	53	34

Figure 44. Treatment Effects for the CCC Sample for Any Recidivism (Mean Difference)- Successful Completers

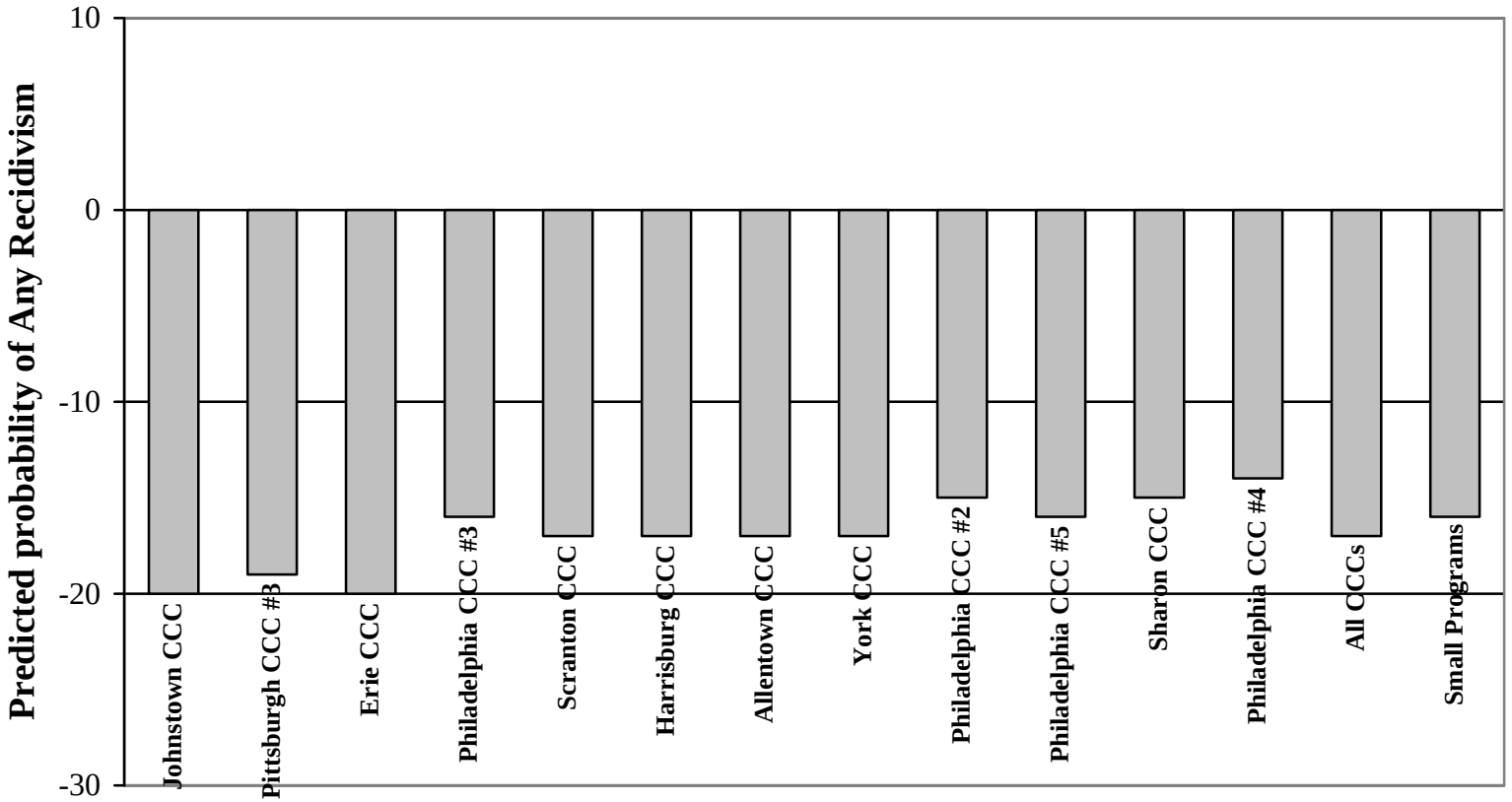


Figure 45. Treatment Effects for the Low Risk CCC Sample for Any Recidivism (Mean Difference)- Successful Completers

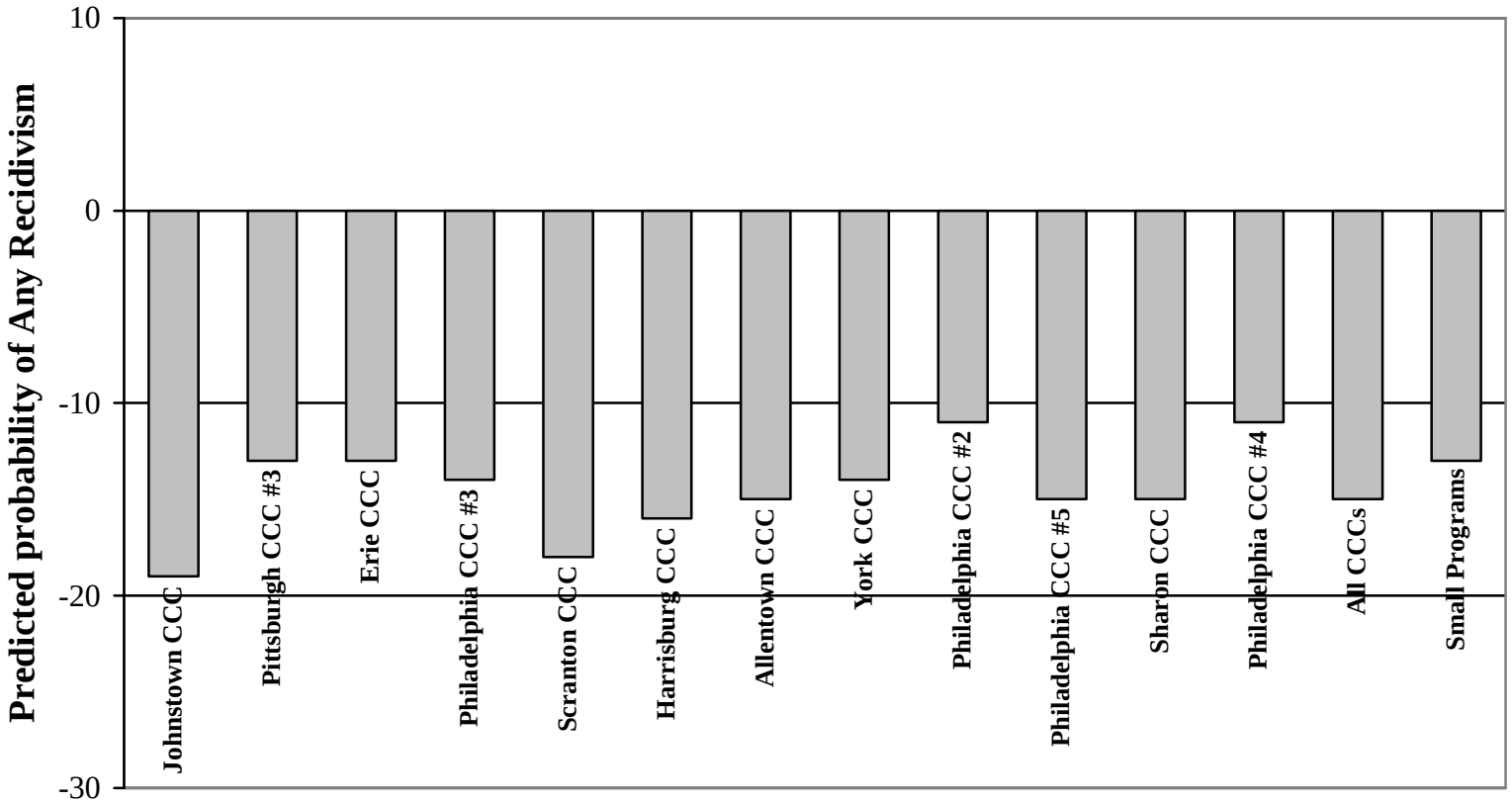


Figure 46. Treatment Effects for the Moderate Risk CCC Sample for Any Recidivism (Mean Difference)- Successful Completers

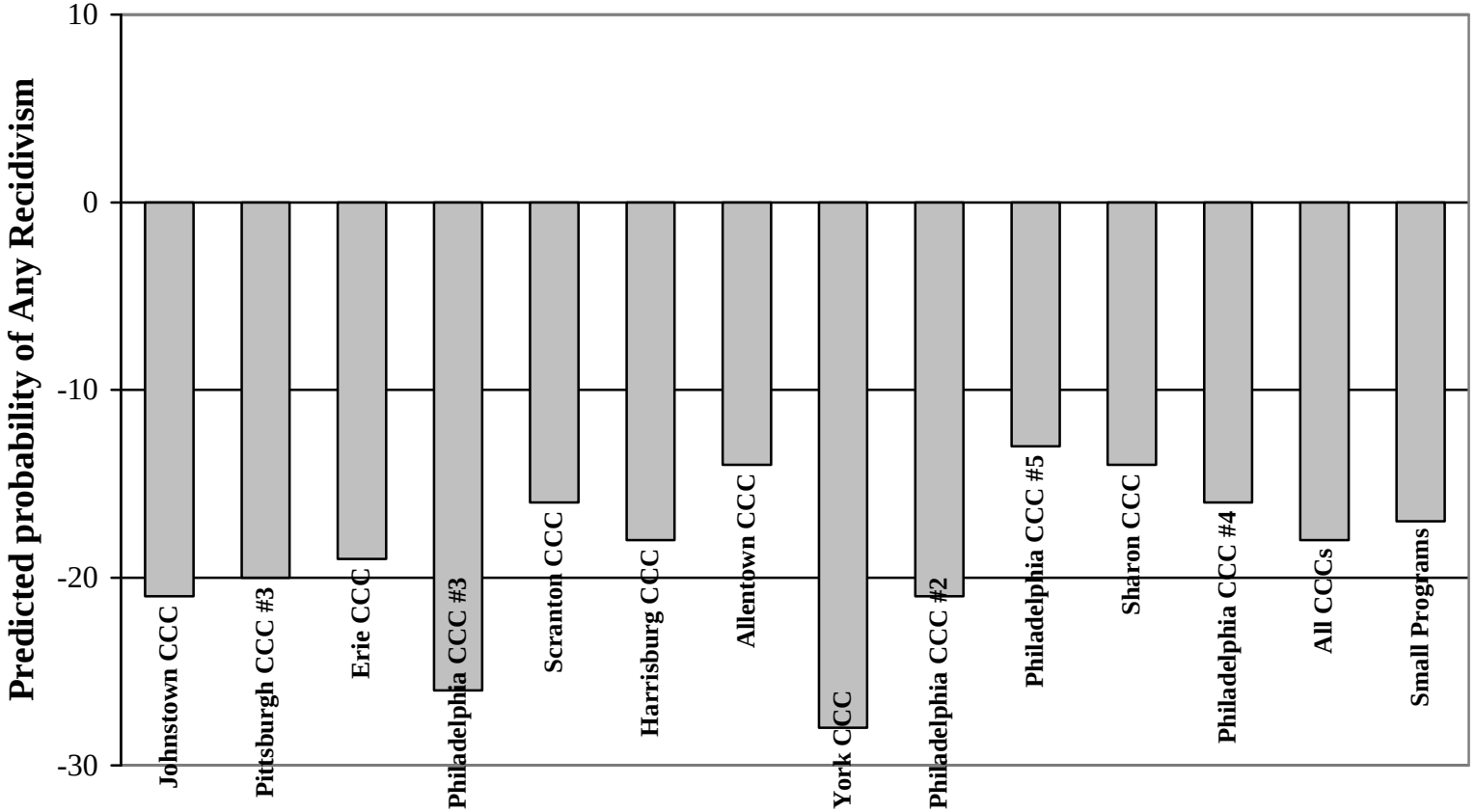
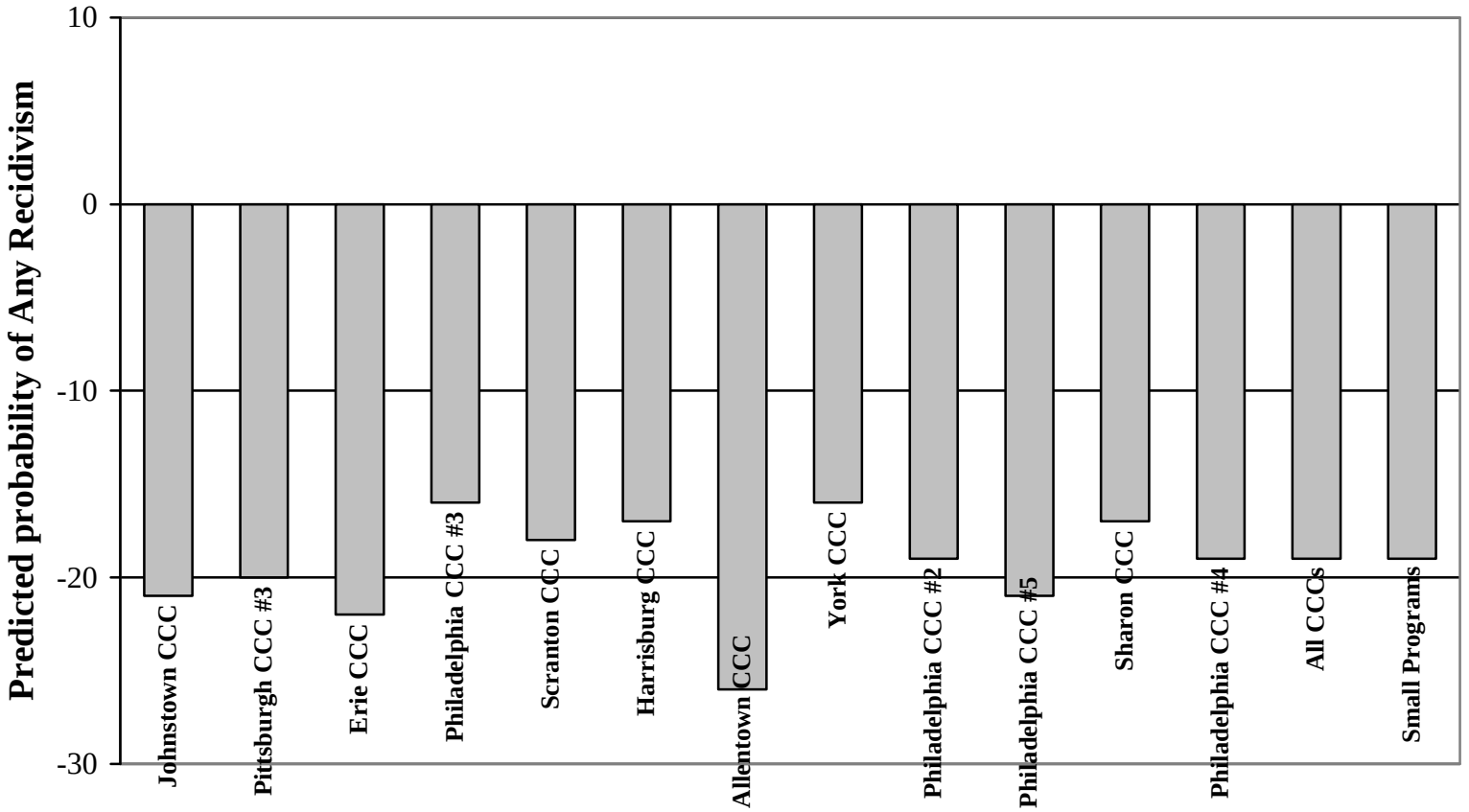


Figure 47. Treatment Effects for the High Risk CCC Sample for Any Recidivism (Mean Difference)- Successful Completers



The next section presents the treatment effects for the CCF sample by program and by risk level. These mean differences were examined for the total sample and successful completer multivariate models presented earlier. Similar to the CCC tables and figures, these predicted probabilities were calculated from the multivariate logistic regression models that controlled for (1) sex, (2) race, (3) age, (4) time in the institution, (5) sex offender, (6) total LSI-R score (7) facility type and (8) group membership. To interpret these findings, the treatment and comparison group columns indicate the predicted probability of that specific recidivism measure occurring after controlling for the above-listed variables. Figures that follow each table depict an illustration of the mean difference values by program. These mean differences are presented overall and disaggregated by risk level. As stated previously, negative values for the mean differences favor the comparison group. With several exceptions, the comparison group was favored for each facility and for each of the recidivism measures. An exception to this would be that not every difference in the predicted probability was significant; however, the majority was significant. Further, there were a few programs where the treatment group had a slightly lower recidivism rate than the comparison group, yet these results were not significant. All significant differences between the groups are highlighted in yellow. In addition, there were a few CCF programs that did have offenders at the low or moderate risk level, these are indicated with "N/A."

Table 29 presents the predicted probabilities for any technical violation between groups for the full CCF sample. Regardless of risk level, the treatment group consistently had a higher probability of technical violations that the comparison group. All mean differences were found to be significant between groups collectively and when

disaggregated by LSI-R risk level. Figures 48 through 51 graphically illustrate these significant mean differences for all CCF programs.

Table 29. CCF Facility Sample- Predicted Rates of Any Technical Violation by Group and Risk Level (Total Sample)

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	55	32	42	22	54	31	64	40
Gaudenzia West Chester	49	30	39	21	47	30	64	43
Minsec Broad Street	59	34	49	23	57	33	66	41
Hannah House	37	18	29	12	37	16	47	28
DRC-Alcohol	50	27	37	15	49	28	60	34
DRC-Group	58	34	35	19	53	32	66	39
DRC-Dual Diagnosis	60	36	46	19	55	29	63	41
Minsec Chester	56	33	43	23	56	32	65	44
Liberty Management	55	33	43	26	55	33	65	41
Self Help Movement	53	33	37	20	56	32	63	44
Eagleville D&A	50	30	40	24	53	31	60	40
Gaudenzia First	55	33	39	25	51	30	61	37
Joseph Coleman-Serenity	68	45	N/A	N/A	N/A	N/A	68	45
Joseph Coleman-Harmony	56	35	43	24	54	34	66	43
Joseph Coleman-Tranquility	55	32	45	25	54	32	65	43
Gaudenzia Philly	59	37	42	25	56	33	65	42
Luzerne	54	32	41	22	55	32	64	39
Kintock-Erie Avenue	59	35	45	25	57	33	66	41
Minsec York Street	57	32	43	24	56	31	67	40
Atkins House	41	19	28	12	36	18	54	26
Transitional Living Center	44	24	30	14	34	17	50	28
Gaudenzia Common Ground	55	34	N/A	N/A	47	25	64	44
ADAPPT- Alcohol	54	30	38	17	55	28	65	43
ADAPPT-Group	53	31	40	21	53	32	62	39
Scranton Cath Soc Services	53	29	45	22	52	29	62	38
Keenan House	47	26	40	21	53	31	57	32
Conewago Place	50	30	38	23	51	29	64	39
Youthbuild/Crispus Attucks	62	32	48	20	63	29	71	43
Conewago Wern- Alcohol	53	30	41	18	53	29	62	42
ConewagoWern-Group	56	32	39	22	57	31	65	40
ConewagoWern-PennCapp	51	31	42	22	53	32	62	43
Gaudenzia Siena -Alcohol	60	35	41	22	58	33	66	40
Gaudenzia Siena- Group	58	34	44	21	56	32	67	42
Gaudenzia Concept-90	46	28	32	22	43	24	52	33
Minsec Scranton	57	34	45	23	55	32	65	42
Gaudenzia Erie	50	28	33	17	46	26	63	35
Penn Pavilion	57	33	43	22	55	32	65	38
Alle-Kiski Pavilion	56	32	42	22	57	31	64	40
Renewal, Inc.	55	33	43	22	55	32	63	42
Gateway Braddock	55	33	45	24	55	30	64	44
Gateway Erie	53	30	42	21	55	31	66	38
Capitol Pavilion & Conewago Harrisburg	57	34	42	23	54	32	64	40
Small Programs	49	28	34	17	47	25	58	36

Figure 48. Treatment Effects for the CCF Sample for Technical Violations (Mean Difference)

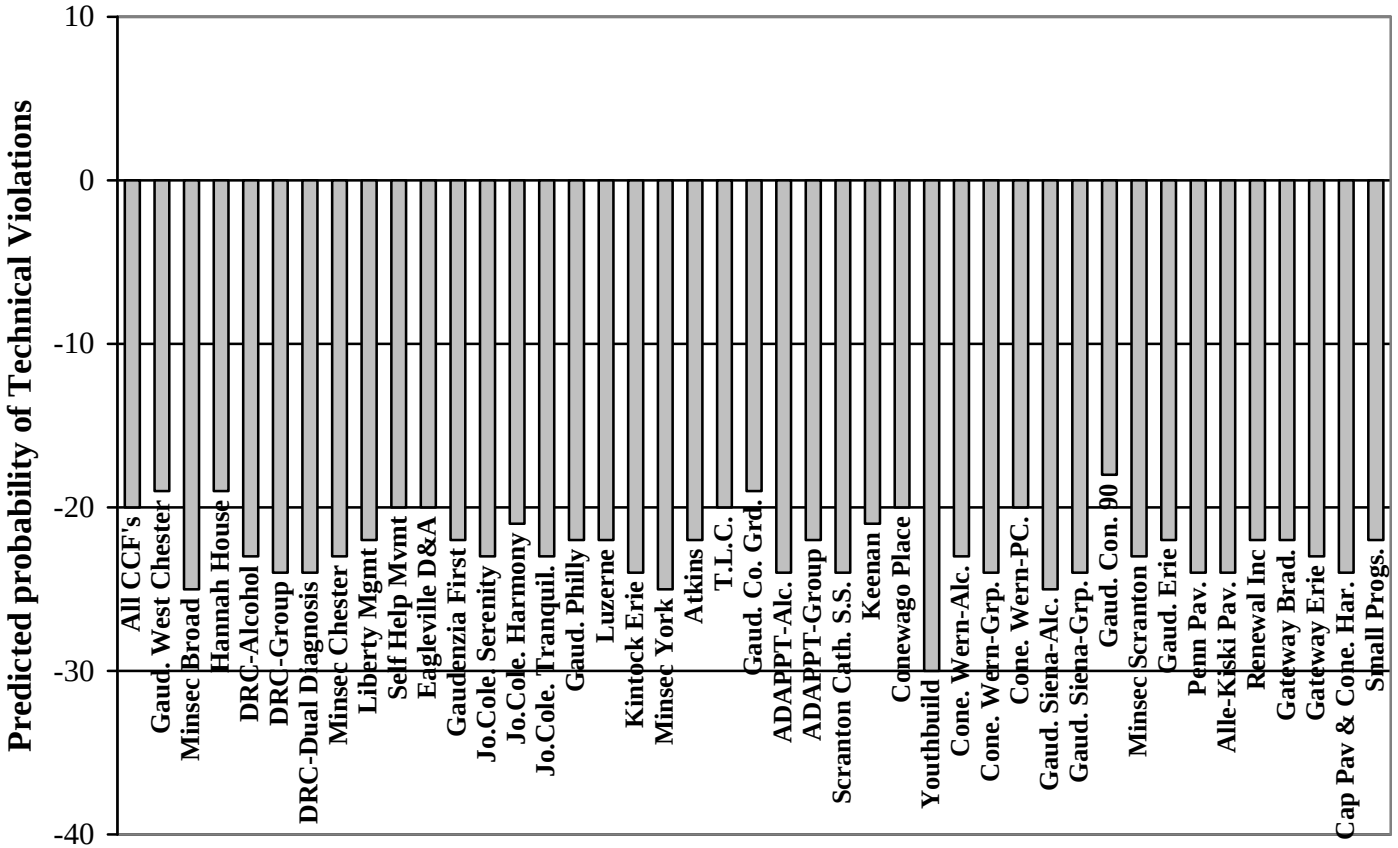


Figure 49. Treatment Effects for the Low Risk CCF Sample for Technical Violations (Mean Difference)

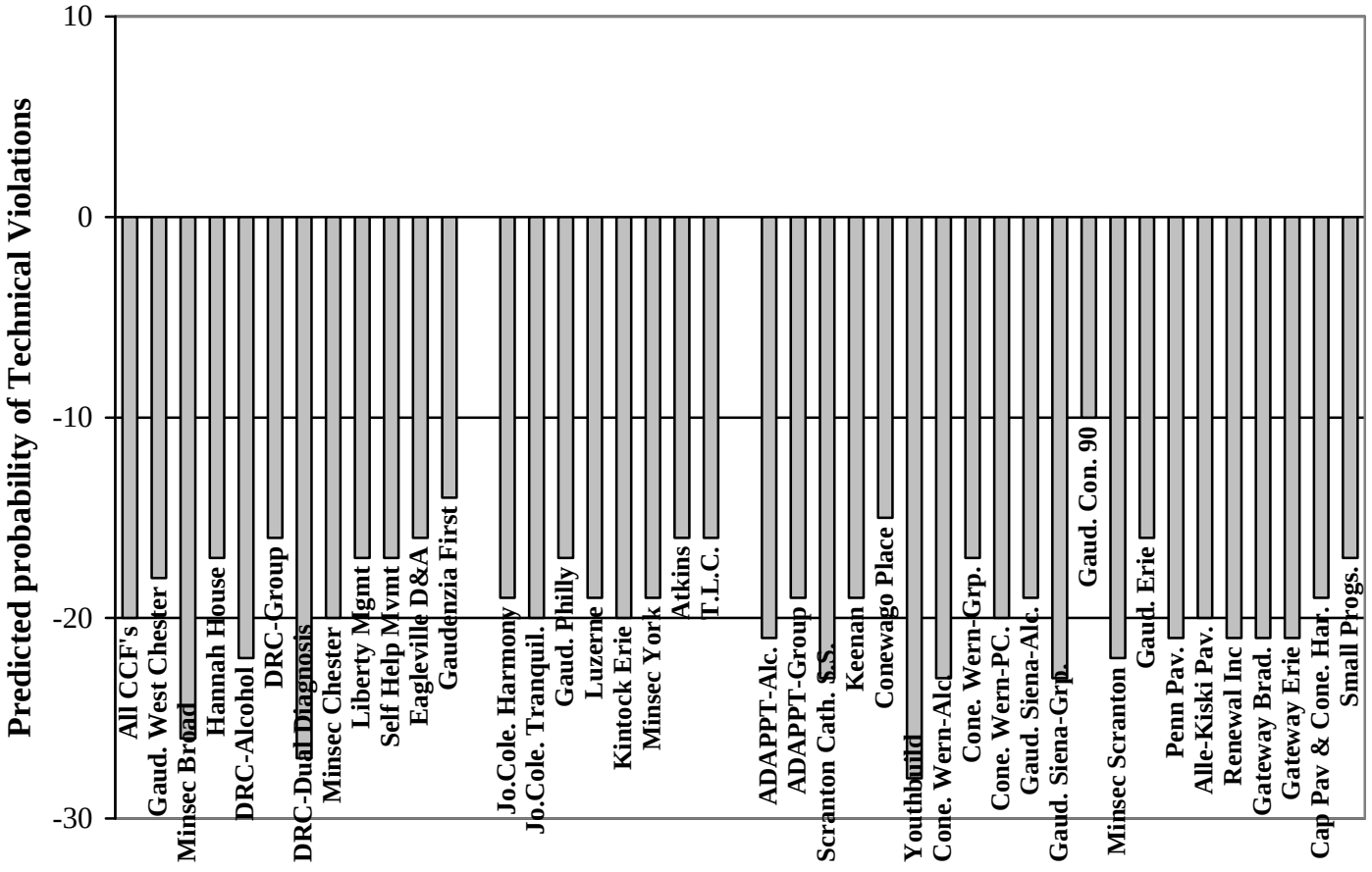


Figure 50. Treatment Effects for the Moderate Risk CCF Sample for Technical Violations (Mean Difference)

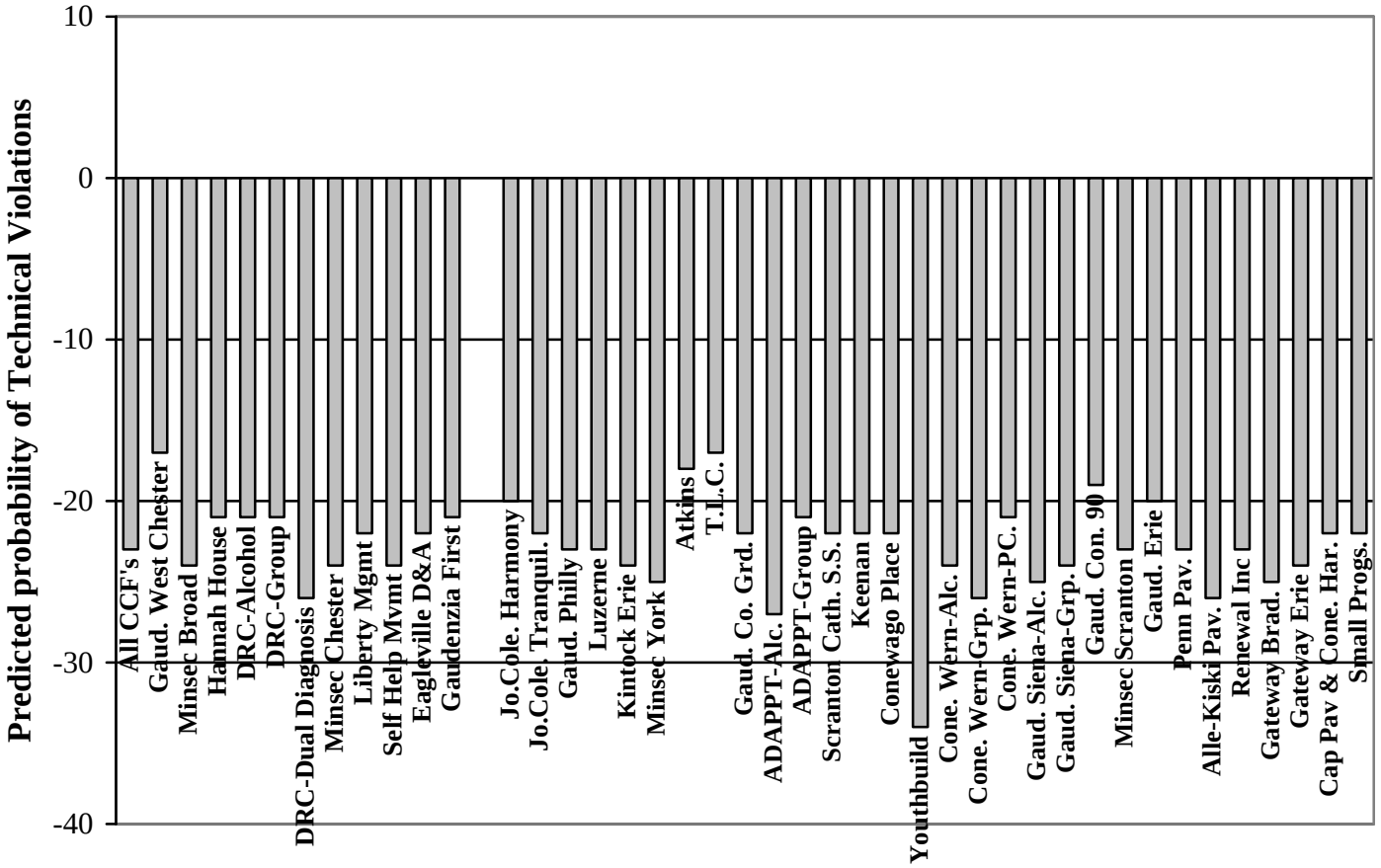


Figure 51. Treatment Effects for the High Risk CCF Sample for Technical Violations (Mean Difference)

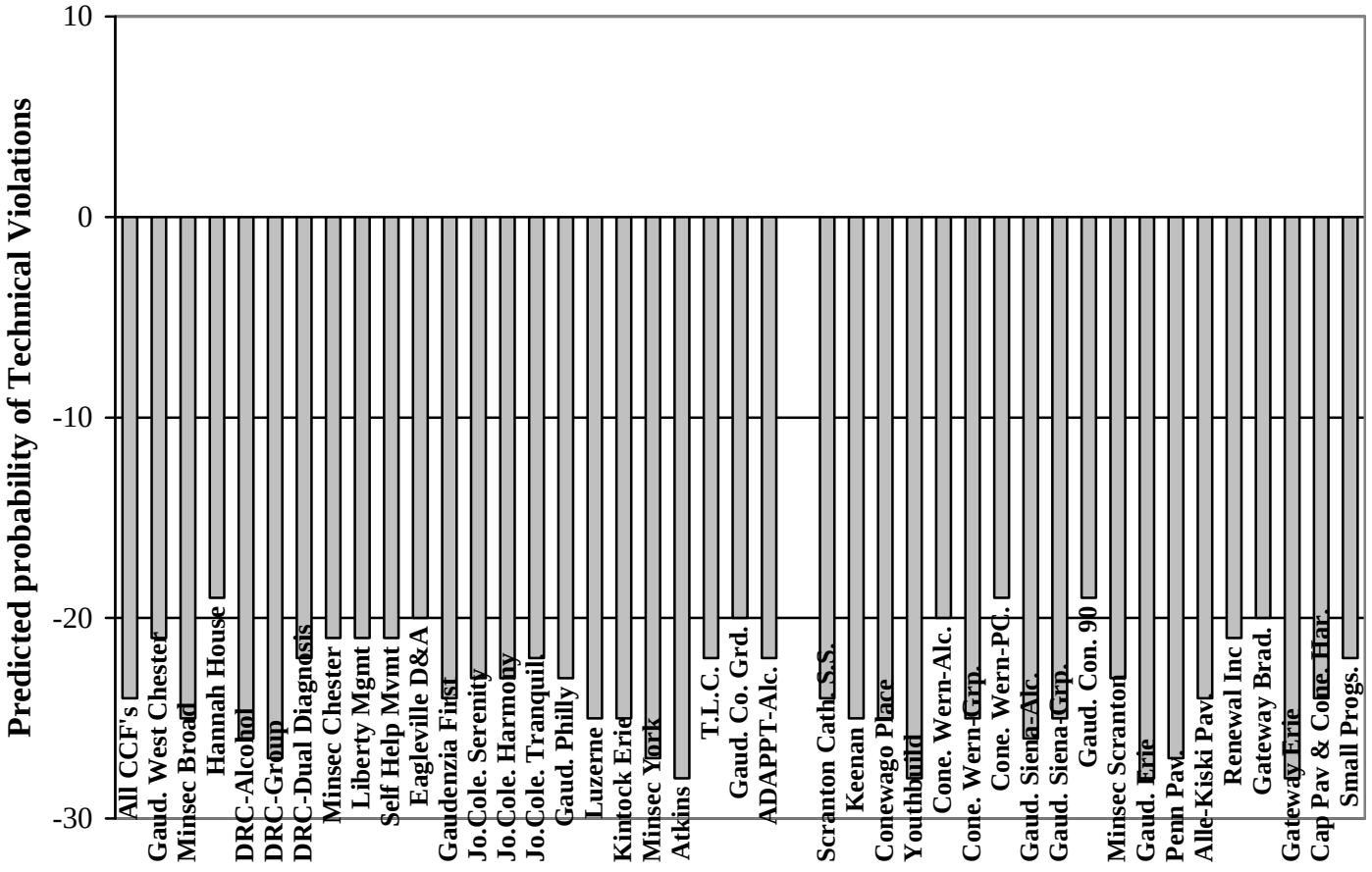


Table 30 presents the treatment effects and mean difference between the treatment and comparison groups for any arrest for the CCF programs. While the treatment group did consistently experience a higher probability for any arrests, these differences were not always significant. Further the comparison group did have a slightly higher recidivism rate than that treatment group when examining the mean differences for the low risk group in the Gaudenzia First and Gaudenzia Concept 90 programs. Neither of these findings were significant. Rates highlighted in yellow represent a significant difference between the treatment and comparison groups. Figures 52-55 graphically display the mean differences for each of the CCF programs on the predicted rates of re-arrest by group membership and disaggregated by risk level.

Table 30. CCF Facility Sample- Predicted Rates of Any Arrests by Group and Risk Level (Total Sample)

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	32	25	23	17	32	24	38	30
Gaudenzia West Chester	27	23	20	17	28	22	36	31
Minsec Broad Street	37	27	31	19	36	27	41	32
Hannah House	22	16	19	12	22	14	27	23
DRC-Alcohol	29	21	20	11	30	23	32	24
DRC-Group	34	26	19	16	31	26	41	29
DRC-Dual Diagnosis	34	27	25	13	30	21	37	32
Minsec Chester	34	26	25	18	34	25	41	35
Liberty Management	34	27	26	23	35	27	42	31
Self Help Movement	30	24	20	16	32	23	37	32
Eagleville D&A	29	24	23	19	31	24	35	29
Gaudenzia First	31	25	18	19	29	24	36	28
Joseph Coleman-Serenity	43	35	N/A	N/A	N/A	N/A	43	35
Joseph Coleman-Harmony	34	28	25	20	33	27	42	34
Joseph Coleman-Tranquility	32	26	27	21	32	25	40	33
Gaudenzia Philly	37	30	24	21	35	27	42	34
Luzerne	31	25	23	18	32	25	36	29
Kintock-Erie Avenue	37	28	36	26	42	31	25	20
Minsec York Street	36	26	24	20	34	25	44	31
Atkins House	23	13	15	9	19	13	33	18
Transitional Living Center	23	18	17	10	16	13	27	21
Gaudenzia Common Ground	31	25	N/A	N/A	28	19	34	30
ADAPPT- Alcohol	32	23	23	13	33	21	38	33
ADAPPT-Group	31	24	23	17	31	24	38	29
Scranton Catholic Social Services	30	21	26	16	29	22	37	27
Keenan House	27	20	23	17	30	23	31	22
Conewago Place	28	22	20	18	30	22	36	26
Youthbuild/Crispus Attucks	43	24	28	13	44	22	51	32
Conewago Wernersville-Alcohol	30	23	23	14	31	23	35	31
Conewago Wernersville-Group	34	24	21	17	35	23	40	29
Conewago Wernersville-PennCapp	30	24	24	17	31	25	37	33
Gaudenzia Siena House-Alcohol	35	26	23	16	34	25	40	29
Gaudenzia Siena House- Group	34	25	25	15	32	24	41	30
Gaudenzia Concept-90	25	23	17	19	23	19	30	27
Minsec Scranton	32	24	23	16	31	23	38	30
Gaudenzia Erie	28	20	18	13	24	20	36	24
Penn Pavilion	32	23	23	16	31	23	37	26
Alle-Kiski Pavilion	31	22	22	16	32	22	35	27
Renewal, Inc.	31	24	23	16	32	24	36	31
Gateway Braddock	31	25	25	19	31	22	36	34
Gateway Erie	30	21	22	15	30	22	39	25
Capitol Pavilion & Conewago Harrisburg	34	26	23	19	33	25	39	30
Small Programs	29	22	19	14	28	20	34	27

Figure 52. Treatment Effects for the CCF Sample for Any Arrests (Mean Difference)

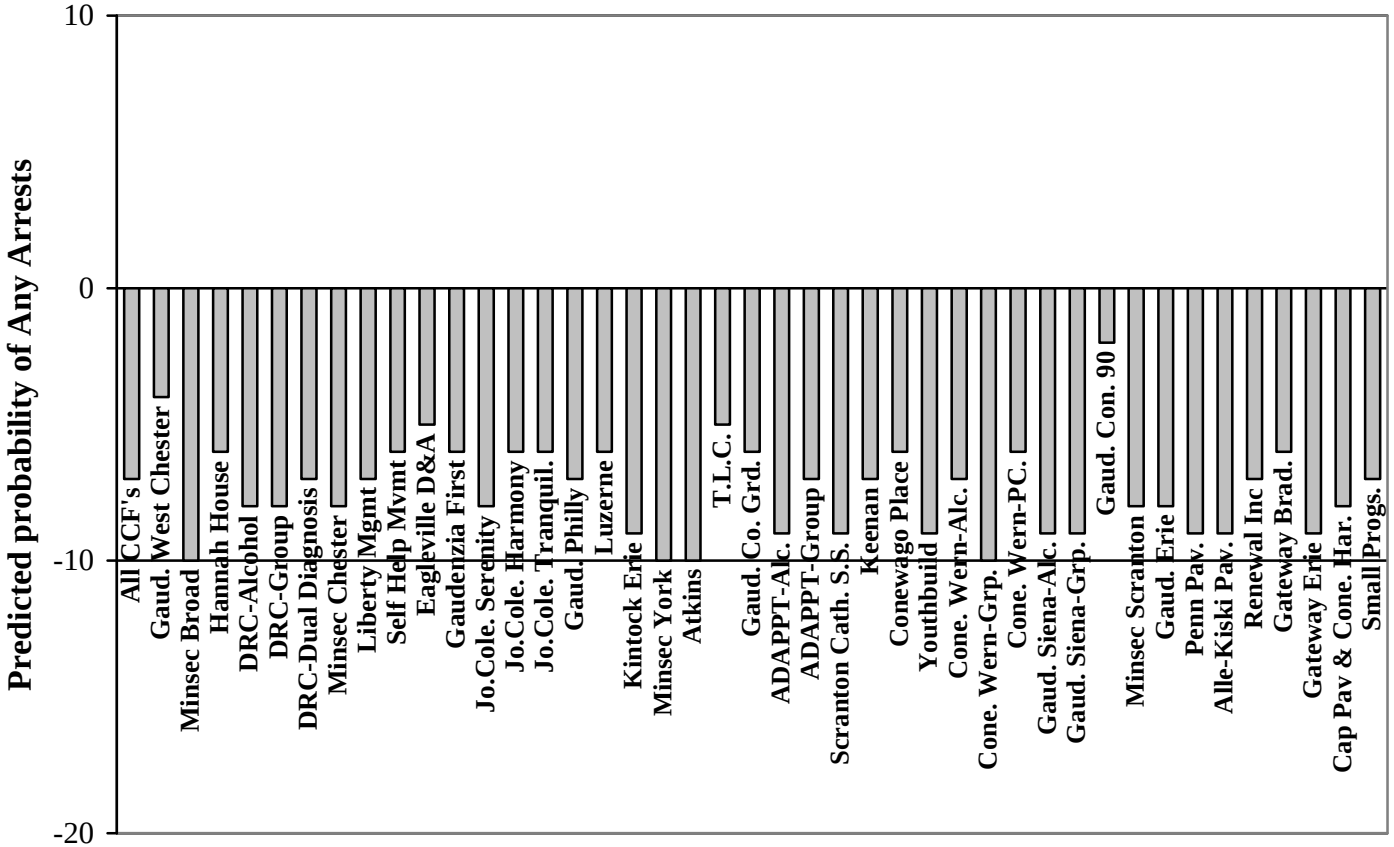


Figure 53. Treatment Effects for the Low Risk CCF Sample for Any Arrests (Mean Difference)

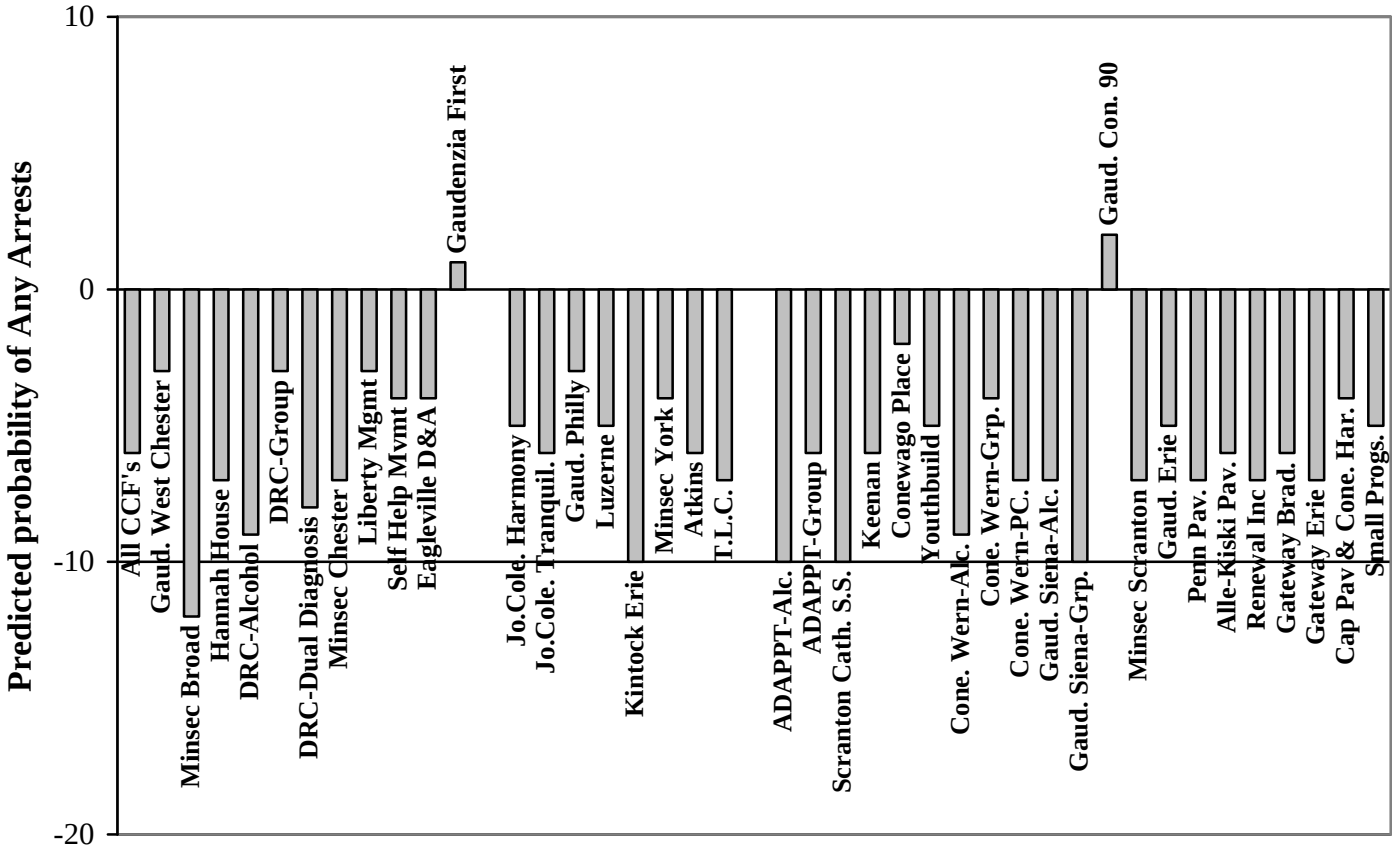


Figure 54. Treatment Effects for the Moderate Risk CCF Sample for Any Arrests (Mean Difference)

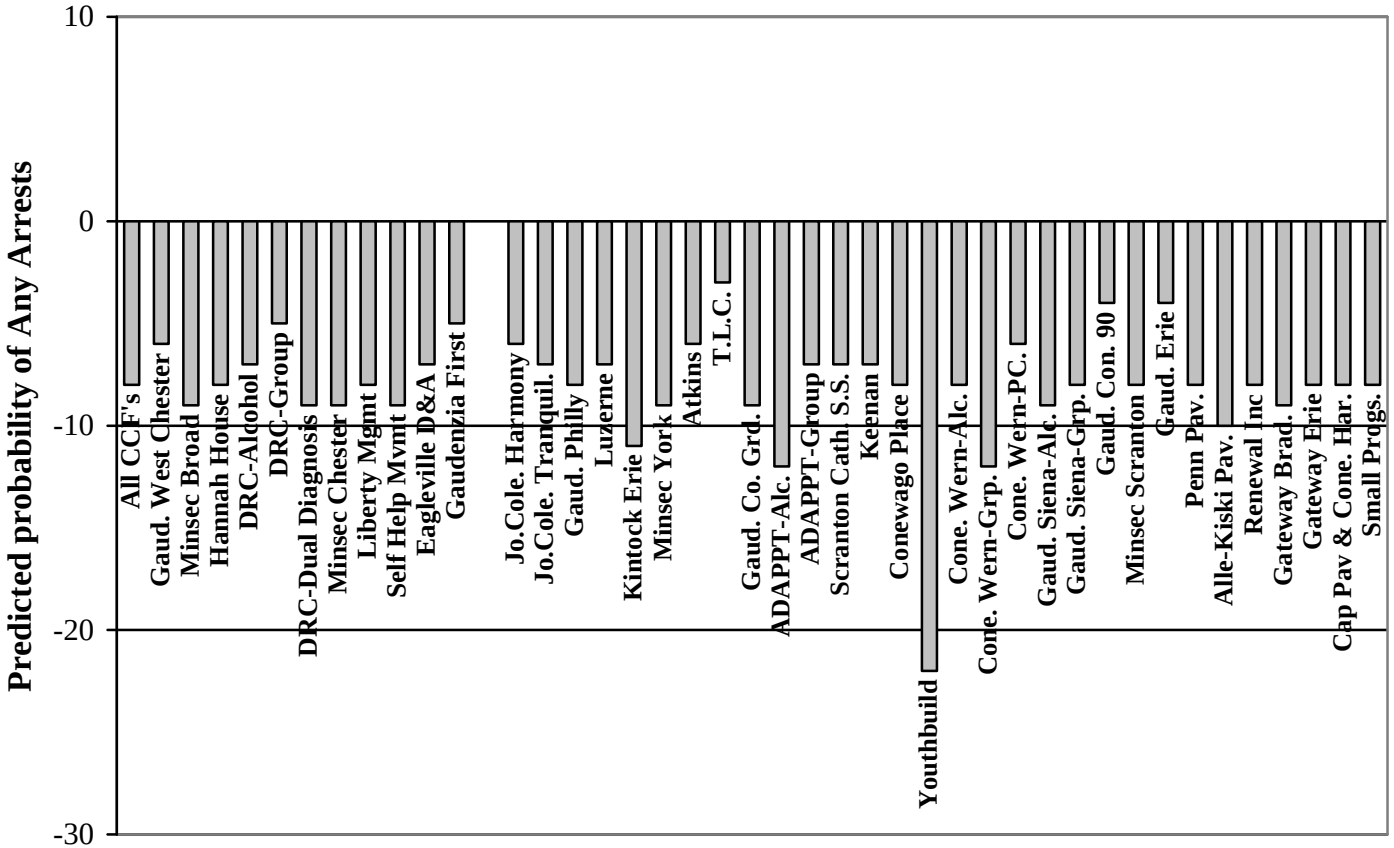


Figure 55. Treatment Effects for the High Risk CCF Sample for Any Arrests (Mean Difference)

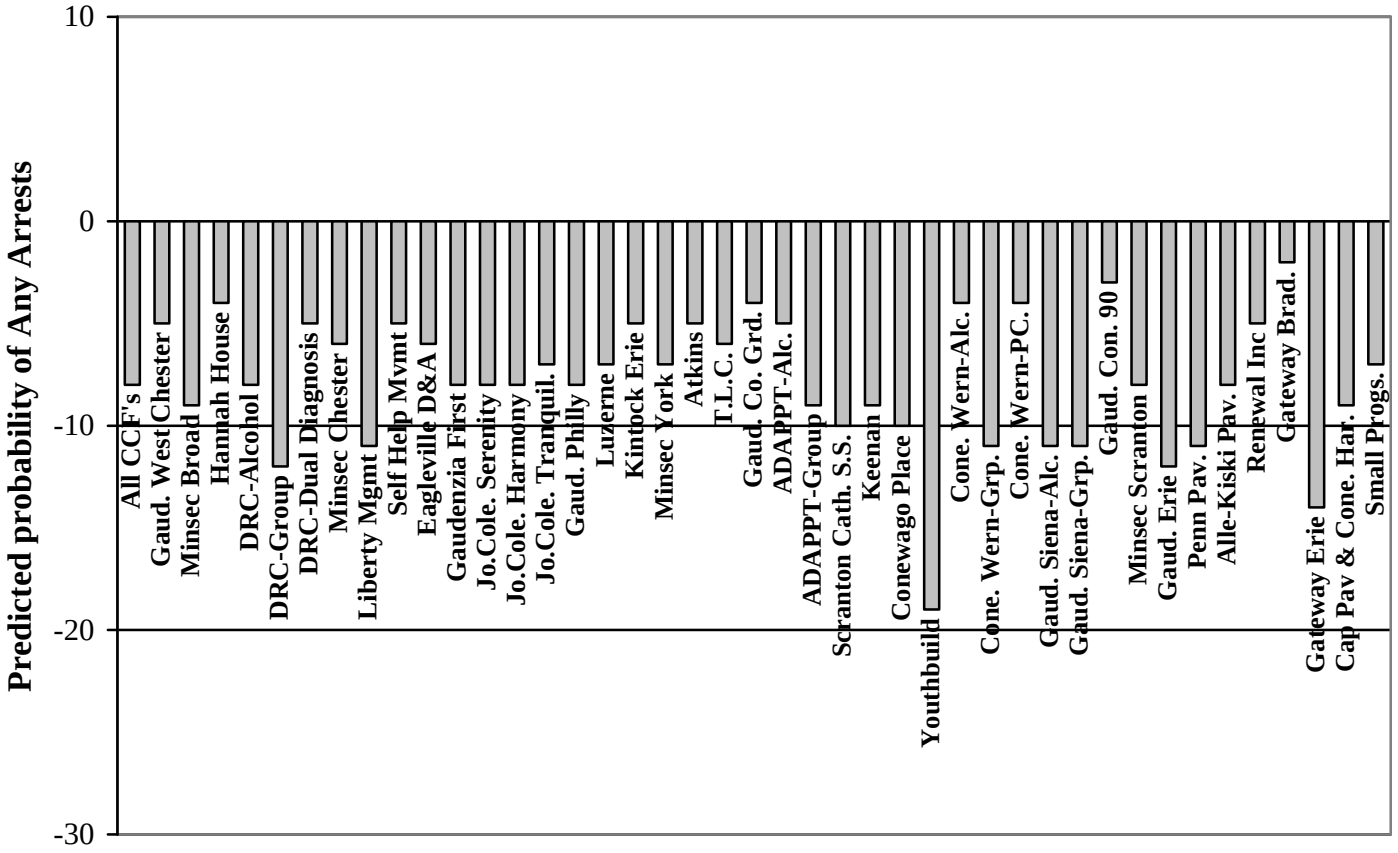


Table 31 provides the results for the predicted probabilities examining the rates of re-incarceration by group and then by risk level for each of the CCF facilities. These findings are very similar to those presented previously for the CCC programs. Overall, the treatment group consistently had a significantly higher predicted probability of re-incarcerations than the matched comparison group. Figures 56-59 graphically depict the significant mean differences for each program.

Table 31. CCF Facility Sample- Predicted Rates of Any Incarcerations by Group and Risk Level (Total Sample)

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	56	32	42	22	56	32	65	41
Gaudenzia West Chester	50	31	39	22	51	30	65	44
Minsec Broad Street	60	35	49	23	58	34	67	42
Hannah House	37	18	29	12	28	17	48	29
DRC-Alcohol	51	28	38	15	50	29	61	35
DRC-Group	59	35	36	20	54	33	67	40
DRC-Dual Diagnosis	61	37	46	19	56	29	64	42
Minsec Chester	57	34	44	23	57	32	44	27
Liberty Management	56	34	58	34	66	43	37	20
Self Help Movement	54	33	37	20	57	32	65	43
Eagleville D&A	51	31	41	24	54	32	61	41
Gaudenzia First	56	34	39	25	52	31	62	37
Joseph Coleman-Serenity	69	46	N/A	N/A	N/A	N/A	69	46
Joseph Coleman-Harmony	57	36	43	24	55	34	67	44
Joseph Coleman-Tranquility	55	33	46	25	55	32	66	44
Gaudenzia Philly	60	37	42	25	57	34	66	43
Luzerne	55	32	56	32	65	40	46	25
Kintock-Erie Avenue	60	36	46	25	58	33	67	42
Minsec York Street	58	33	43	24	57	31	68	41
Atkins House	42	19	29	12	37	19	55	26
Transitional Living Center	45	24	30	14	35	18	51	28
Gaudenzia Common Ground	57	35	N/A	N/A	48	25	66	45
ADAPPT- Alcohol	55	31	39	17	56	28	66	44
ADAPPT-Group	54	32	41	21	54	32	63	40
Scranton Catholic Social Services	54	30	46	22	53	30	64	39
Keenan House	48	27	41	21	54	31	58	33
Conewago Place	51	30	39	23	52	30	66	40
Youthbuild/Crispus Attucks	64	33	49	20	64	30	73	44
Conewago Wernersville-Alcohol	54	31	42	18	54	30	63	43
Conewago Wernersville-Group	57	33	40	22	58	31	66	41
Conewago Wernersville-PennCapp	52	32	43	22	54	33	63	44
Gaudenzia Siena House-Alcohol	61	36	42	22	59	34	67	41
Gaudenzia Siena House- Group	59	34	45	21	57	33	68	43
Gaudenzia Concept-90	47	28	32	22	44	25	53	33
Minsec Scranton	58	35	46	23	56	32	66	44
Gaudenzia Erie	51	28	33	17	46	27	65	36
Penn Pavilion	58	33	44	22	56	32	66	39
Alle-Kiski Pavilion	57	33	43	23	58	32	65	40
Renewal, Inc.	56	33	44	22	56	32	64	43
Gateway Braddock	56	33	46	25	56	31	65	46
Gateway Erie	54	30	42	21	56	32	67	39
Capitol Pavilion & Conewago Harrisburg	58	35	43	24	55	33	66	41
Small Programs	50	29	35	18	48	26	59	37

Figure 56. Treatment Effects for the CCF Sample for Any Incarcerations (Mean Difference)

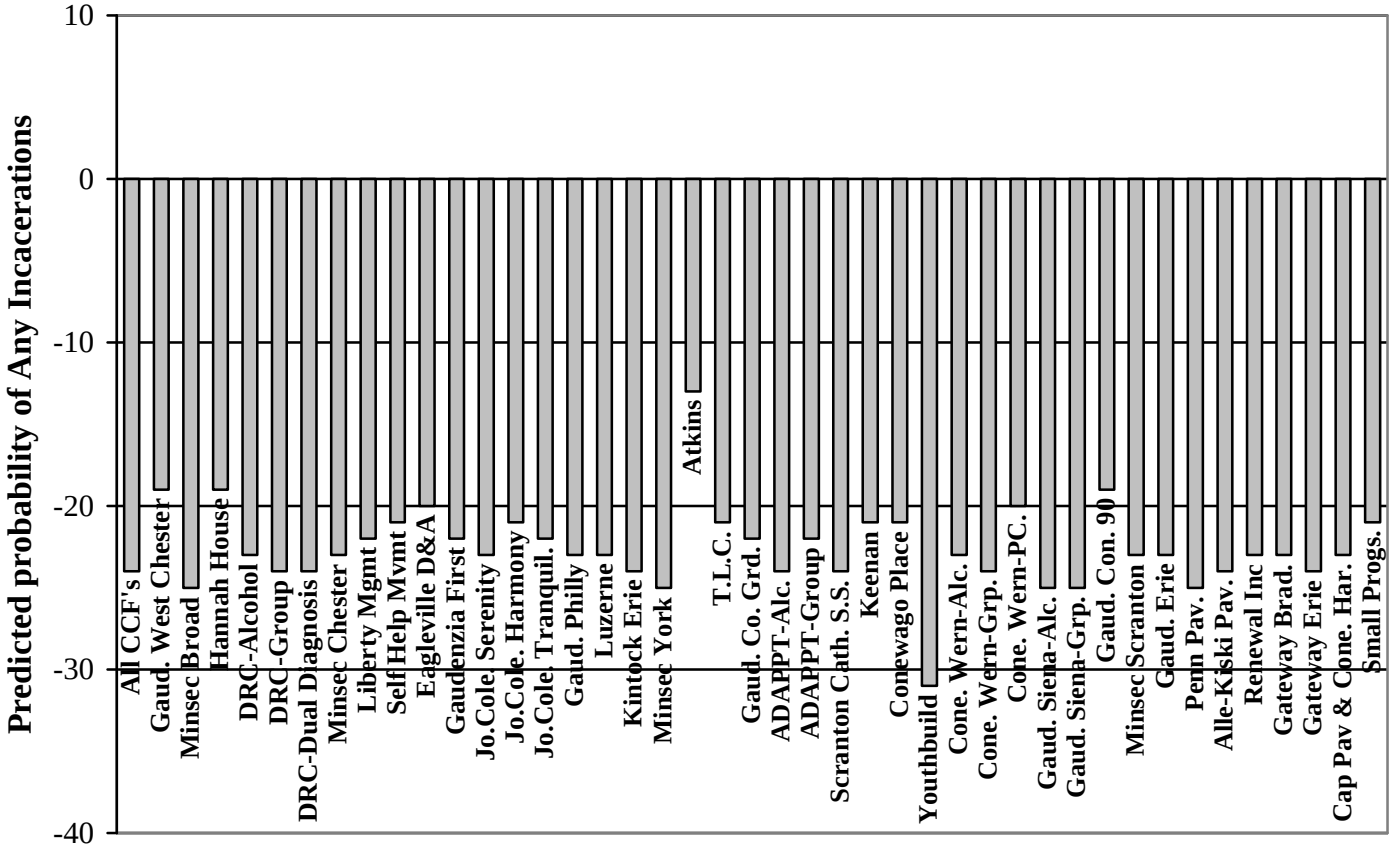


Figure 57. Treatment Effects for the Low Risk CCF Sample for Any Incarcerations (Mean Difference)

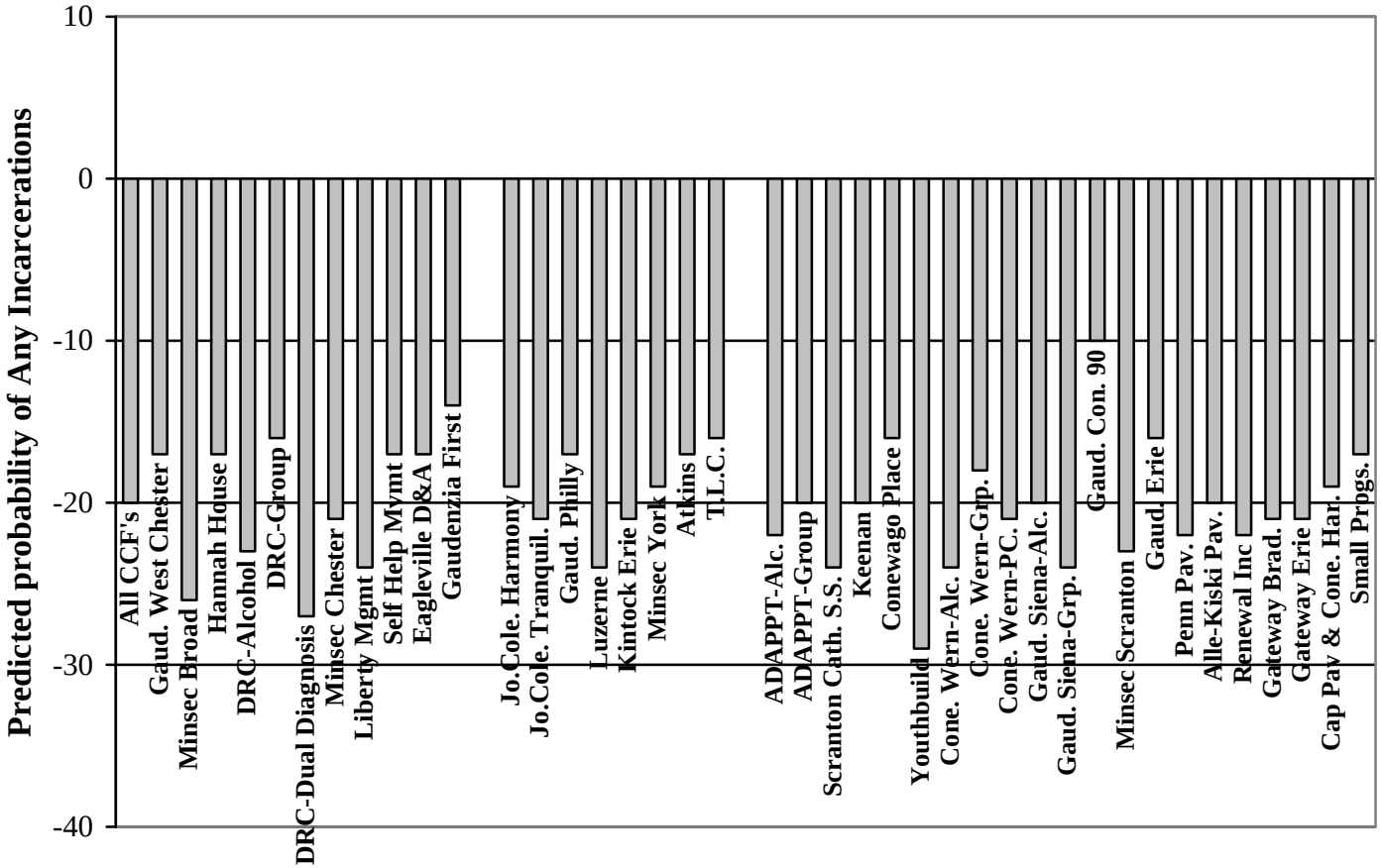


Figure 58. Treatment Effects for the Moderate Risk CCF Sample for Any Incarcerations (Mean Difference)

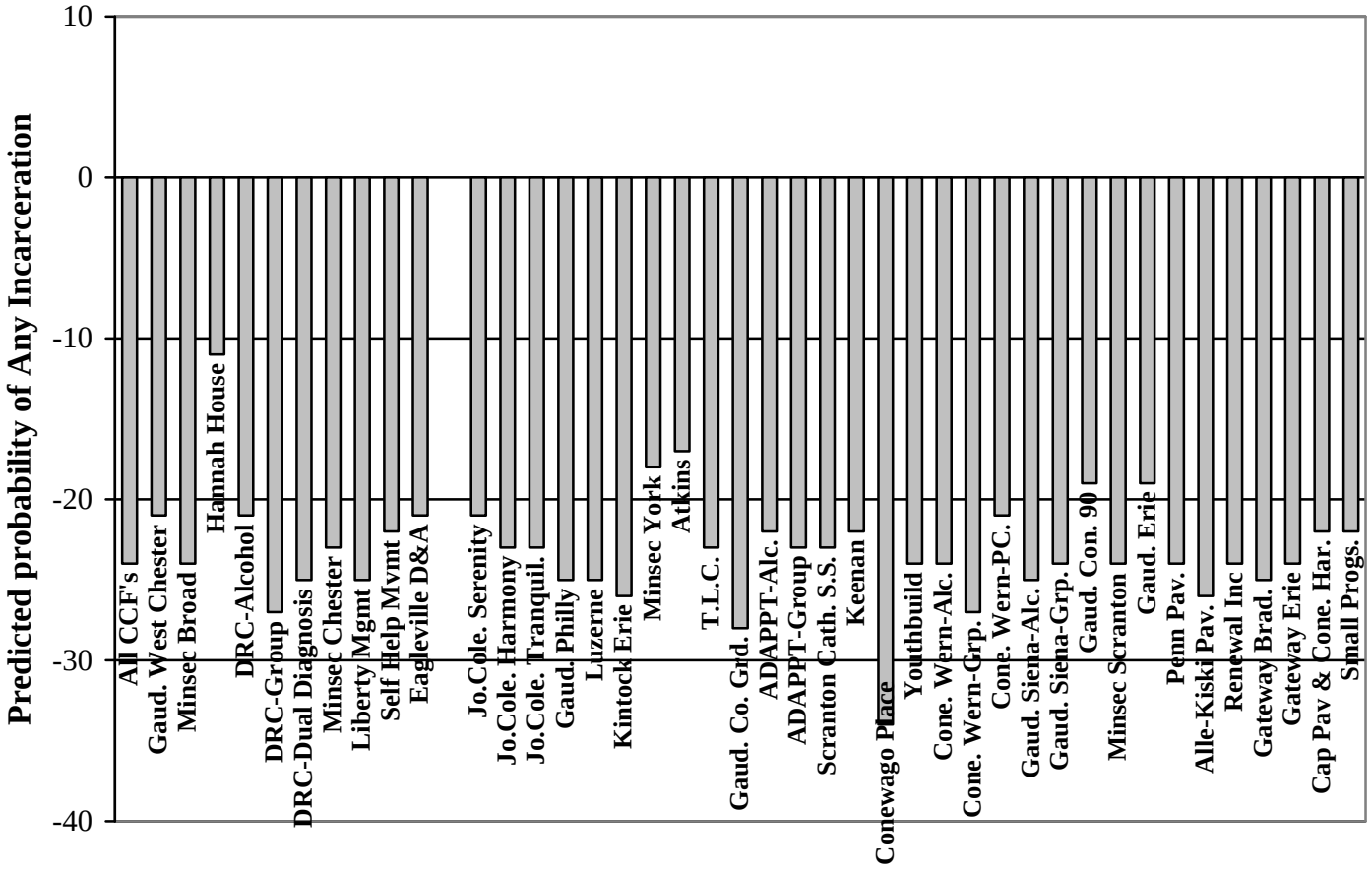


Figure 59. Treatment Effects for the High Risk CCF Sample for Any Incarceration (Mean Difference)

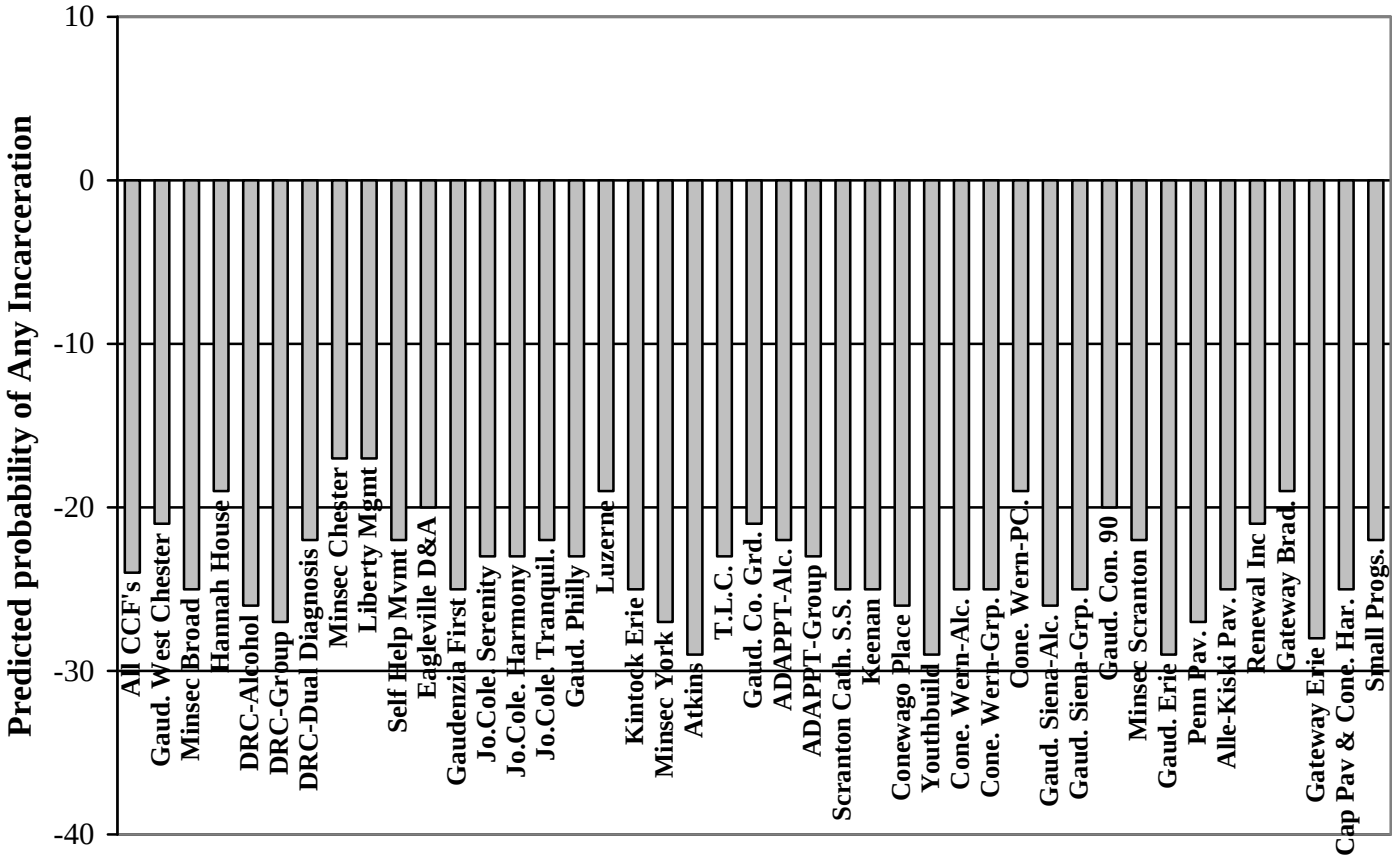


Table 32 presents the predicted probability rates of any new recidivism for all CCF programs based on the multivariate logistic regression models previously presented. This was done for the entire CCF facility sample group and then was disaggregated by risk level. Similar to the predicted probabilities on technical violations and re-incarcerations, the mean differences between the treatment and comparison groups are statistically significant when examining the total CCF sample and when evaluating the mean differences in any recidivism by LSI-R risk level. These significant mean differences are presented in Figures 60-63.

Table 32. CCF Facility Sample- Predicted Rates of Any Recidivism by Group and Risk Level (Total Sample)

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	62	39	48	27	62	38	71	48
Gaudenzia West Chester	56	36	45	26	57	36	71	51
Minsec Broad Street	66	41	56	28	64	40	73	49
Hannah House	45	23	37	17	46	21	56	36
DRC-Alcohol	57	34	44	19	60	35	67	41
DRC-Group	65	41	41	24	61	40	73	46
DRC-Dual Diagnosis	66	43	52	23	62	35	69	49
Minsec Chester	63	40	50	28	64	39	72	53
Liberty Management	62	40	50	33	64	40	72	50
Self Help Movement	60	39	43	25	63	38	70	52
Eagleville D&A	57	37	46	29	60	38	67	47
Gaudenzia First	62	40	44	30	58	37	68	45
Joseph Coleman-Serenity	75	54	N/A	N/A	N/A	N/A	75	54
Joseph Coleman-Harmony	63	42	50	30	61	41	73	52
Joseph Coleman-Tranquility	62	39	52	30	62	38	72	51
Gaudenzia Philly	67	45	49	31	64	41	73	51
Luzerne	61	39	47	28	62	39	70	46
Kintock-Erie Avenue	67	43	52	31	65	40	73	49
Minsec York Street	64	39	49	30	63	38	74	48
Atkins House	49	24	35	15	45	23	64	32
Transitional Living Center	52	30	37	18	42	22	59	35
Gaudenzia Common Ground	63	41	N/A	N/A	55	31	71	51
ADAPPT- Alcohol	61	36	46	21	63	34	72	52
ADAPPT-Group	60	38	48	26	61	39	70	47
Scranton Catholic Social Services	61	36	53	27	60	36	70	45
Keenan House	55	32	47	25	60	37	64	39
Conewago Place	57	36	44	28	59	36	71	46
Youthbuild/Crispus Attucks	71	38	56	24	72	36	79	51
Conewago Wernersville-Alcohol	60	36	47	22	61	36	69	50
Conewago Wernersville-Group	63	39	46	27	65	37	72	47
Conewago Wernersville-PennCapp	59	38	49	27	61	39	69	51
Gaudenzia Siena House-Alcohol	67	42	48	26	65	40	73	48
Gaudenzia Siena House- Group	65	41	51	25	64	39	74	50
Gaudenzia Concept-90	54	35	38	28	51	30	61	41
Minsec Scranton	64	41	52	28	62	38	72	50
Gaudenzia Erie	57	34	40	21	53	32	70	42
Penn Pavilion	64	39	50	26	62	38	71	45
Alle-Kiski Pavilion	63	38	49	27	64	37	70	46
Renewal, Inc.	61	39	49	26	62	38	70	49
Gateway Braddock	62	39	52	30	62	36	70	53
Gateway Erie	60	35	48	25	62	37	72	44
Capitol Pavilion & Conewago Harrisburg	64	41	49	29	62	39	71	48
Small Programs	57	35	41	22	55	32	66	44

Figure 60. Treatment Effects for the CCF Sample for Any Recidivism (Mean Difference)

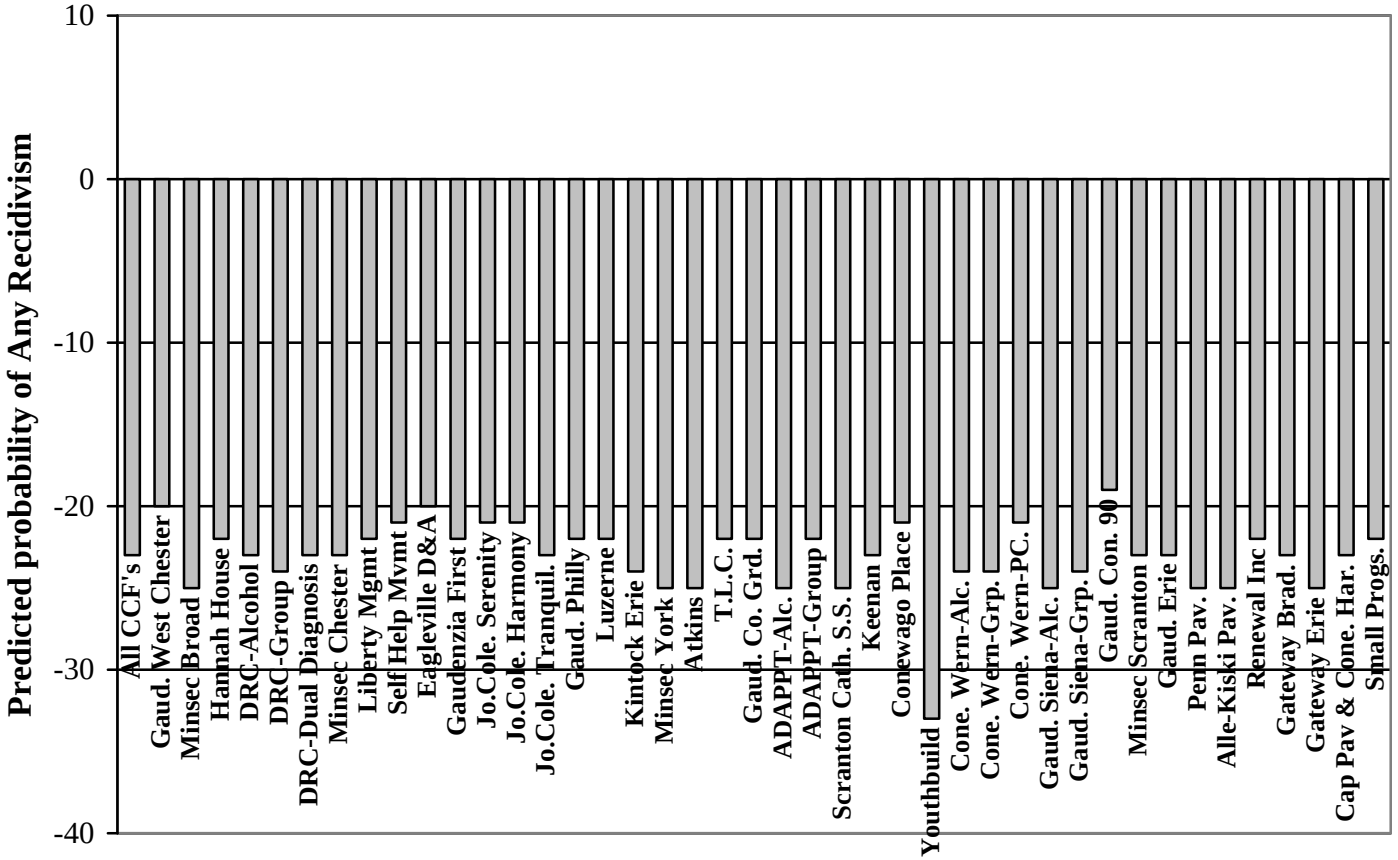


Figure 61. Treatment Effects for the Low Risk CCF Sample for Any Recidivism (Mean Difference)

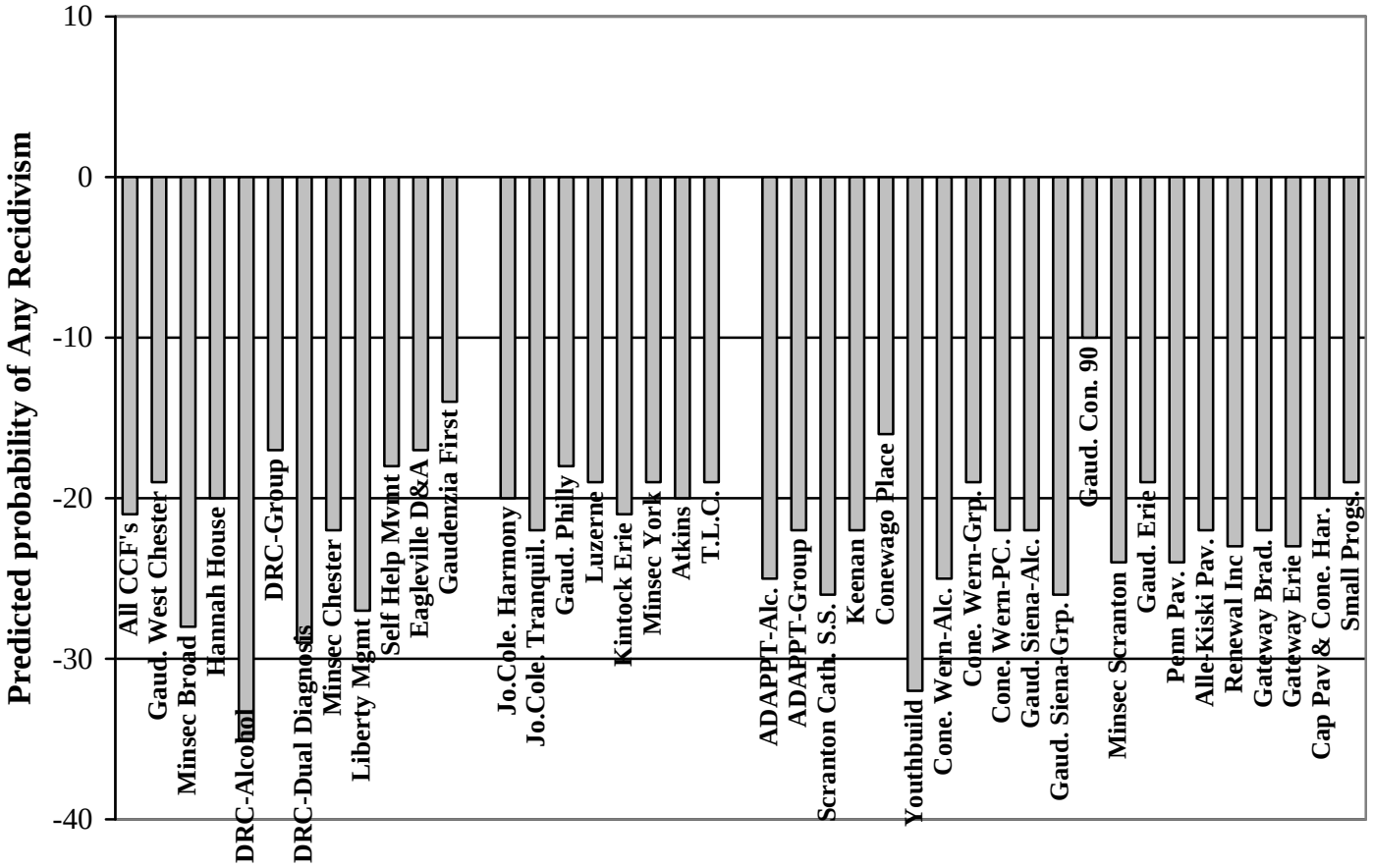


Figure 62. Treatment Effects for the Moderate Risk CCF Sample for Any Recidivism (Mean Difference)

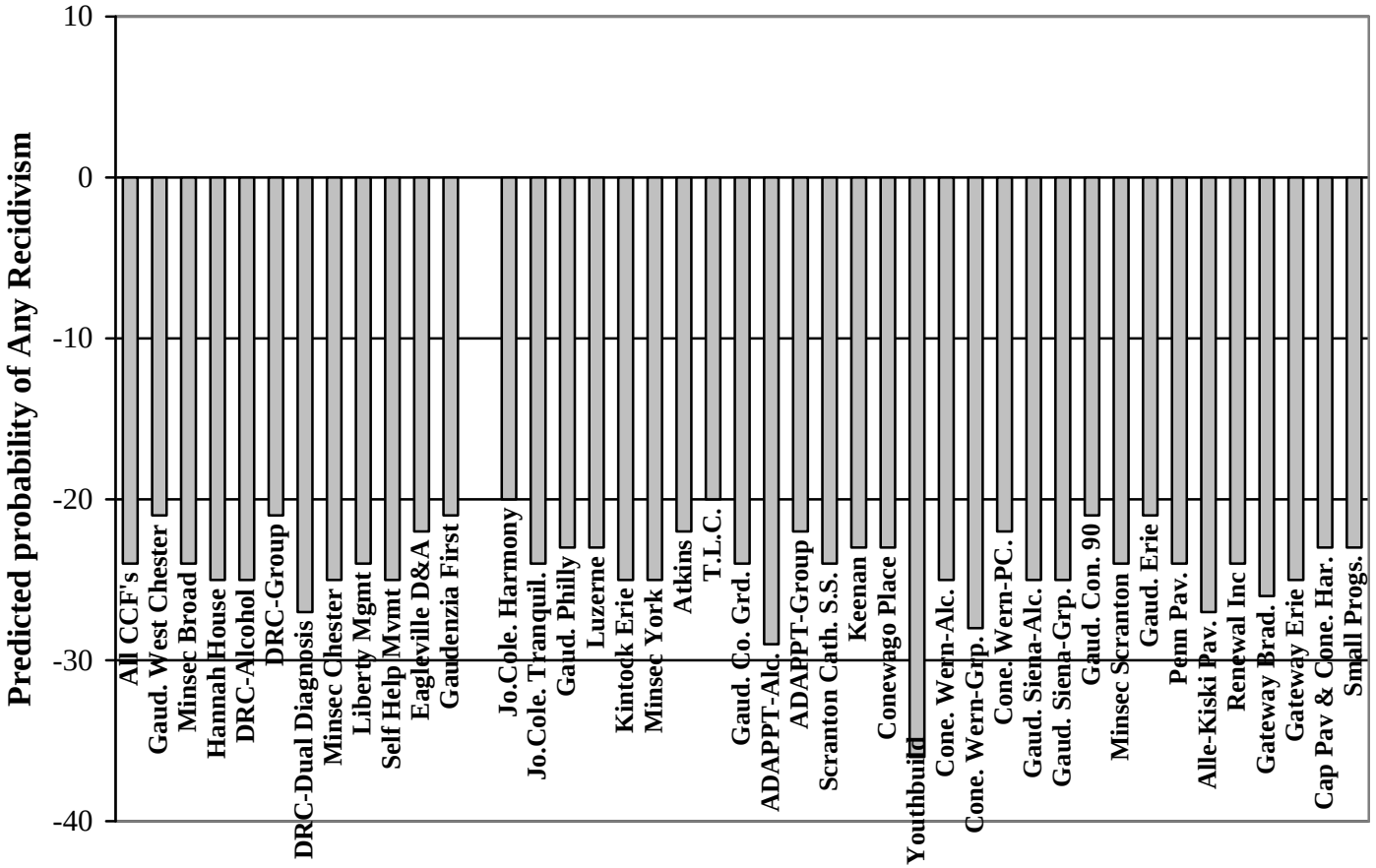
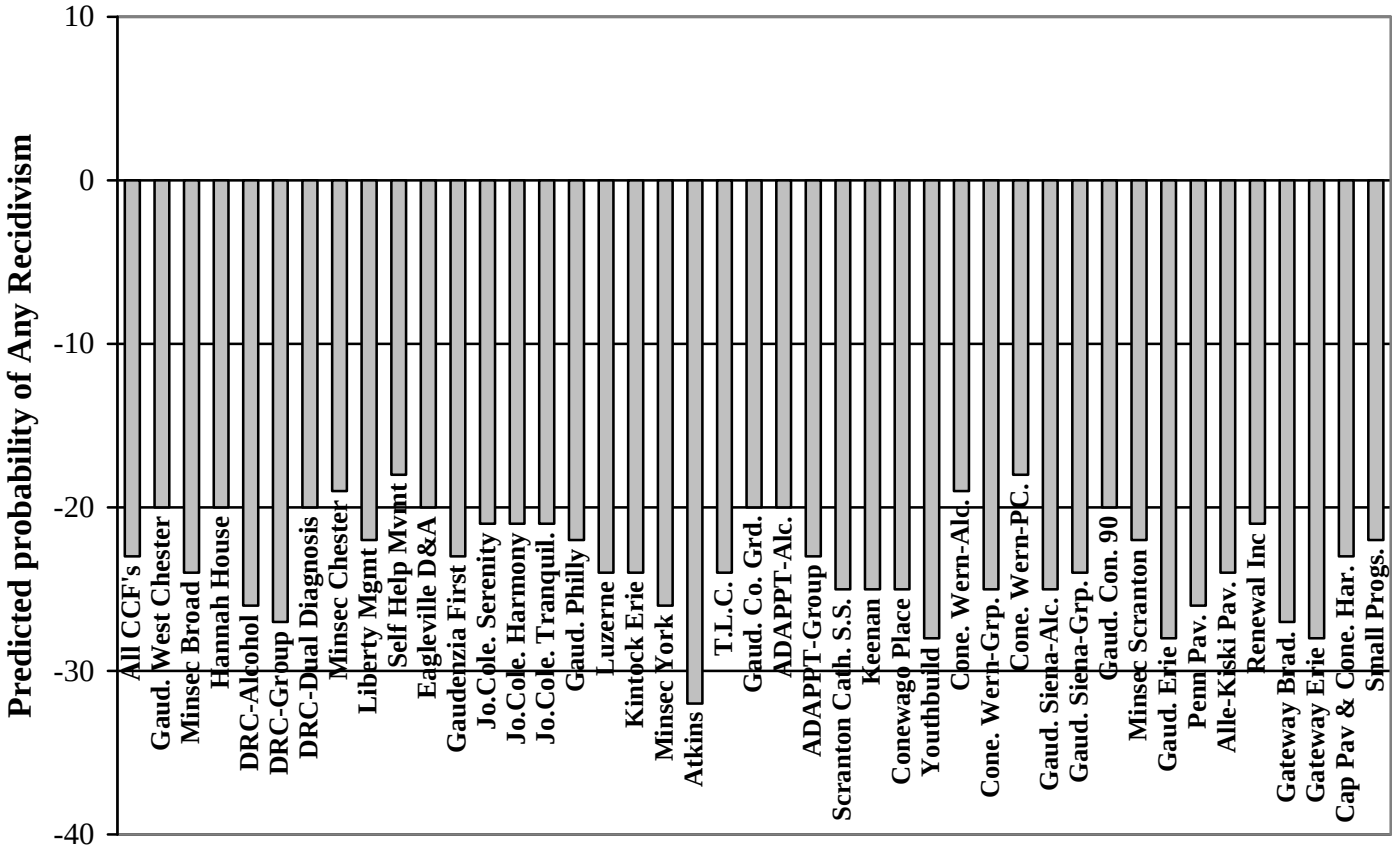


Figure 63. Treatment Effects for the High Risk CCF Sample for Any Recidivism (Mean Difference)



Similar to the analyses for the CCC programs, logistic regression models also presented findings for the successful completer group. The following section examines these predicted probabilities and their respective mean differences based on the logistic regression models for each of the four dichotomous outcome measures. The measures controlled for in the multivariate models included: sex, race, age, time in the institution, facility type, total LSI-R score, sex offender status and group membership. Highlighted sections in the upcoming tables suggest that there is a significant difference between the rates of failure for a particular outcome measure when comparing the predicted probabilities between groups. Similar to the analyses conducted previously, these findings will be disaggregated by risk level.

Table 33 provides the results for the predicted probabilities examining the rates of technical violations by group and then by risk level for successful completers. The treatment group consistently had a significantly higher predicted probability of technical violations than the matched comparison group. The only exceptions to this were the Joseph Coleman – Serenity and Gaudenzia Common Ground programs due to not having offenders in the low or moderate risk levels. These were indicated with "N/A." Figures 64-67 graphically depict the significant mean differences for each CCF program.

Table 33. CCF Facility Sample- Predicted Rates of Any Technical Violation by Group and Risk Level (Successful Completers)

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	50	31	38	22	50	31	59	39
Gaudenzia West Chester	45	30	35	21	45	29	59	42
Minsec Broad Street	53	33	43	23	52	33	60	39
Hannah House	31	16	26	12	32	15	39	25
DRC-Alcohol	42	29	30	13	38	27	54	38
DRC-Group	50	32	32	19	48	32	59	38
DRC-Dual Diagnosis	52	34	41	20	50	29	55	41
Minsec Chester	51	32	39	23	51	31	60	43
Liberty Management	49	32	40	26	51	32	60	41
Self Help Movement	48	33	32	21	52	32	58	45
Eagleville D&A	45	29	36	23	48	30	55	40
Gaudenzia First	50	30	37	17	51	32	57	33
Joseph Coleman-Serenity	61	44	N/A	N/A	N/A	N/A	61	44
Joseph Coleman-Harmony	51	34	39	24	50	33	62	43
Joseph Coleman-Tranquility	50	32	41	25	50	31	60	42
Gaudenzia Philly	54	35	38	25	51	32	62	41
Luzerne	47	31	37	23	49	33	57	38
Kintock-Erie Avenue	53	34	41	25	52	33	60	40
Minsec York Street	51	32	38	24	51	30	63	40
Atkins House	37	19	22	11	29	19	48	24
Transitional Living Center	39	23	26	13	30	17	44	26
Gaudenzia Common Ground	51	34	N/A	N/A	42	24	60	43
ADAPPT- Alcohol	48	29	32	15	47	27	61	42
ADAPPT-Group	48	31	36	21	48	31	57	38
Scranton Catholic Social Services	48	29	41	22	48	29	56	36
Keenan House	42	26	35	21	47	30	51	30
Conewago Place	45	29	35	23	47	29	59	39
Youthbuild/Crispus Attucks	57	32	43	20	58	29	66	43
Conewago Wernersville- Alcohol	47	28	36	19	48	29	59	42
Conewago Wernersville-Group	51	31	36	23	53	30	59	38
Conewago Wernersville-PennCapp	47	28	38	22	48	31	57	42
Gaudenzia Siena House-Alcohol	55	31	39	22	53	33	61	40
Gaudenzia Siena House- Group	52	32	41	22	51	32	62	41
Gaudenzia Concept-90	41	28	28	21	39	24	47	33
Minsec Scranton	52	34	42	23	50	32	61	42
Gaudenzia Erie	44	27	29	17	41	27	57	35
Penn Pavilion	52	31	39	22	50	31	60	36
Alle-Kiski Pavilion	50	31	39	23	52	30	59	39
Renewal, Inc.	50	32	40	22	50	32	58	41
Gateway Braddock	51	32	41	25	51	30	60	43
Gateway Erie	48	29	38	21	50	32	61	37
Capitol Pavilion & Conewago Harrisburg	51	33	38	23	49	31	59	39
Small Programs	44	27	31	17	43	25	52	34

Figure 64. Treatment Effects for the CCF Sample for Technical Violations (Mean Difference)- Successful Completers

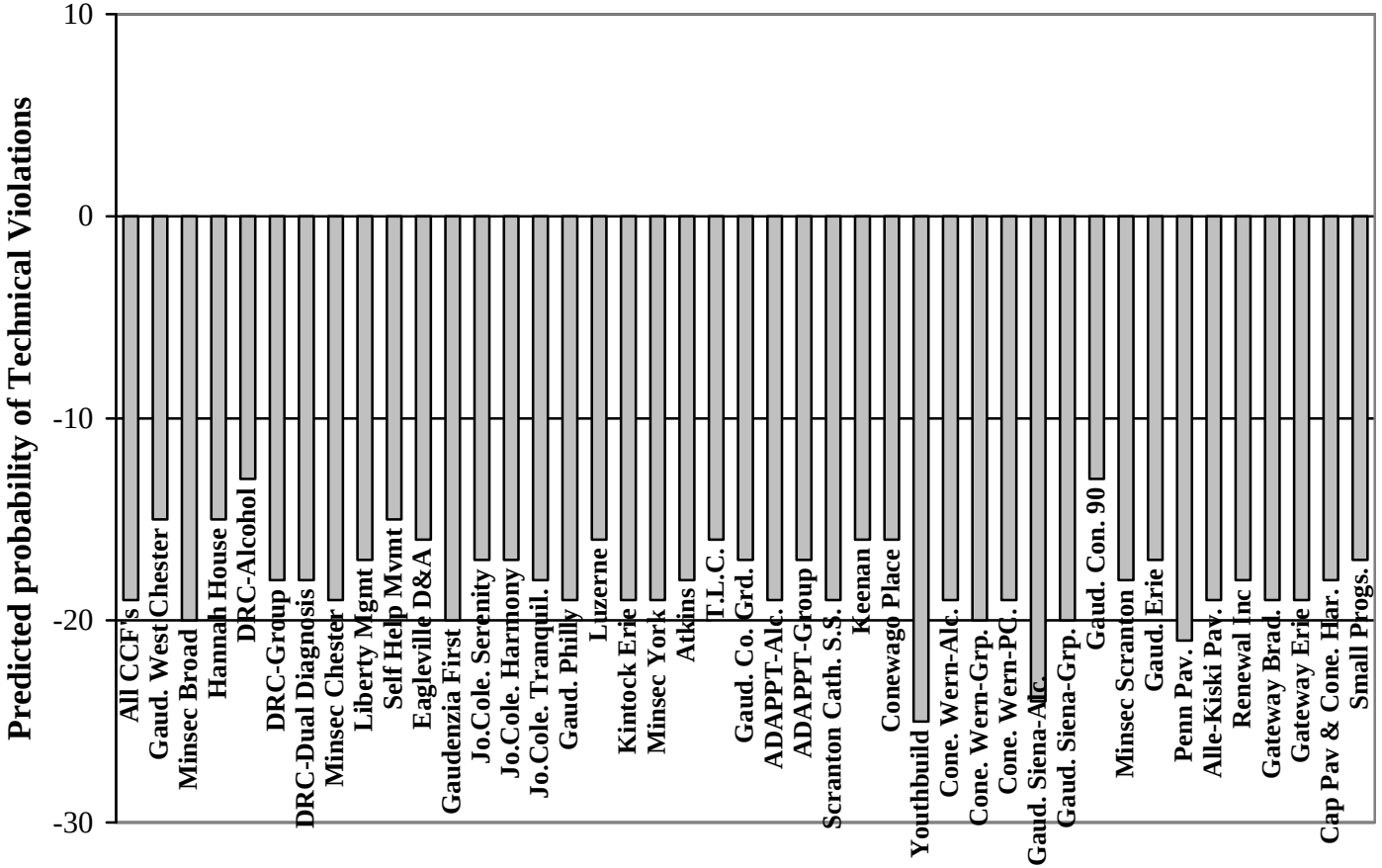


Figure 65. Treatment Effects for the Low Risk CCF Sample for Technical Violations (Mean Difference)- Successful Completers

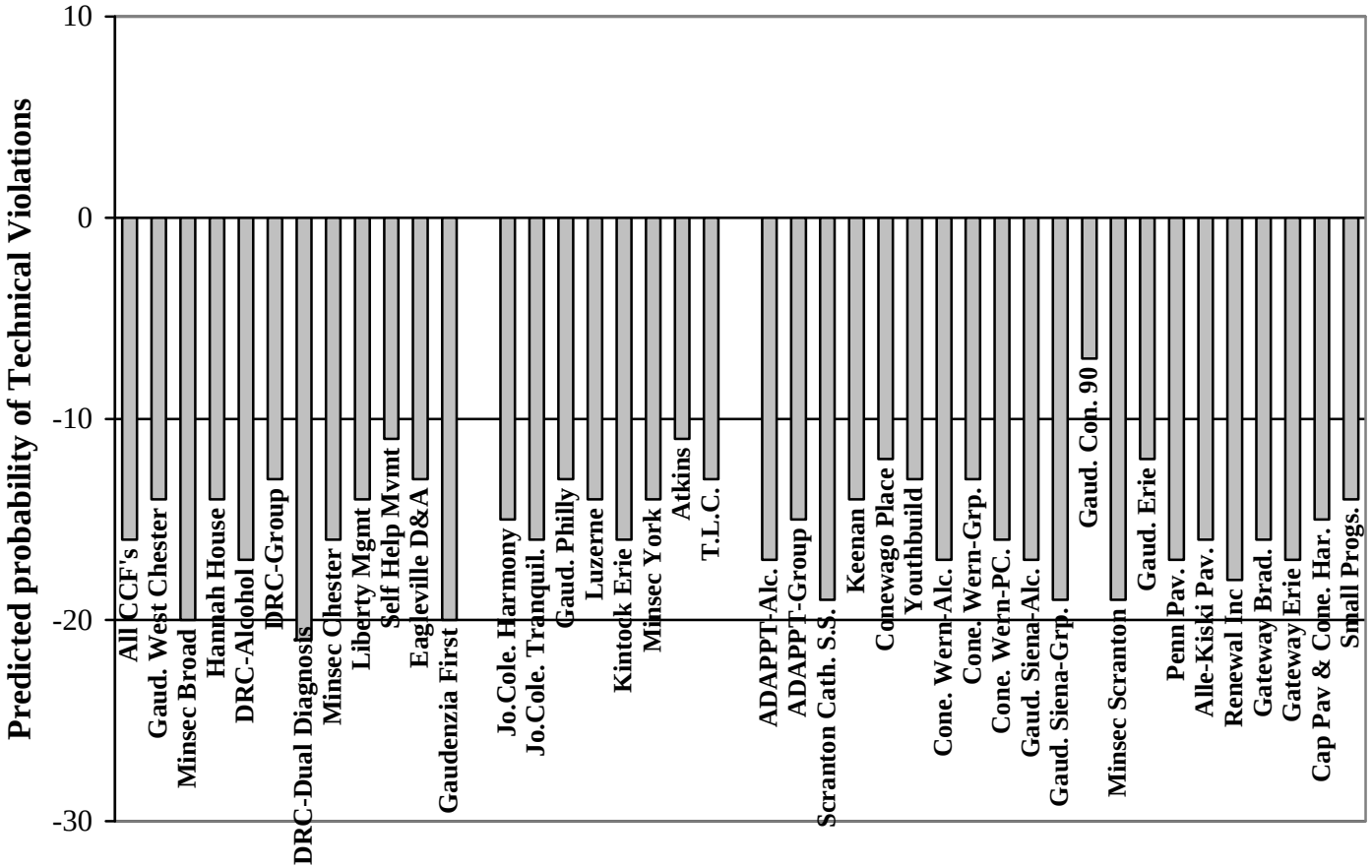


Figure 66. Treatment Effects for the Moderate Risk CCF Sample for Technical Violations (Mean Difference)- Successful Completers

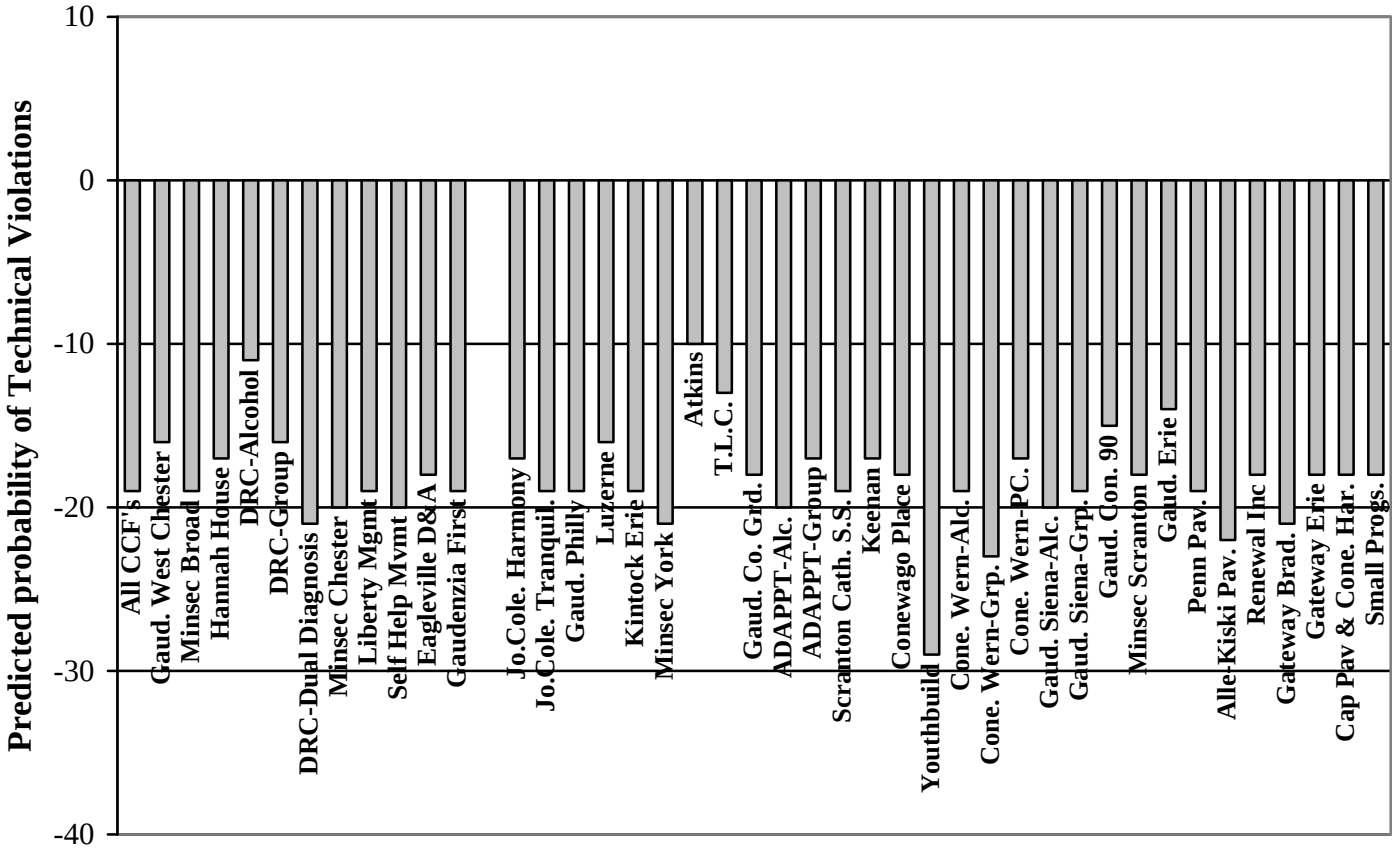


Figure 67. Treatment Effects for the High Risk CCF Sample for Technical Violations (Mean Difference)- Successful Completers

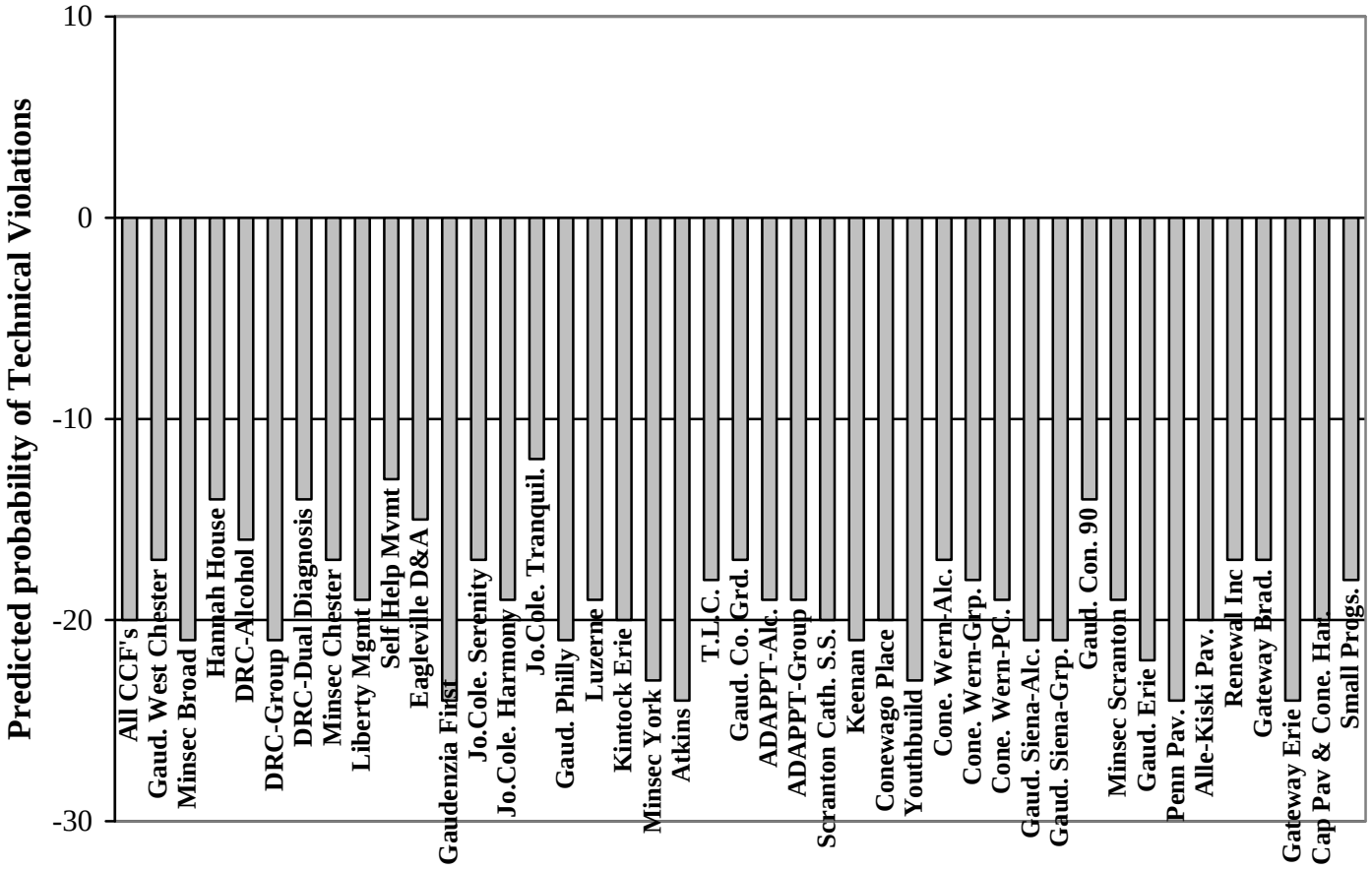


Table 34 presents the treatment effects and mean difference between the treatment and comparison groups for any arrest in the successful completer sample. While the treatment group did generally experience a higher probability for any arrests, these differences were not always significant. Further the comparison group did have a slightly higher recidivism rate than that treatment group when examining the mean differences for the low risk group in the Gaudenzia Concept 90 program. When examining the moderate risk group, the comparison group was arrested at a higher rate than the treatment group in the DRC Alcohol program. In the high risk group, higher rates of recidivism were noted in the comparison group when examining the Gaudenzia Concept 90 and Minsec Broad Street programs. None of these findings were significant when the comparison group had a slightly higher predicted rate of recidivism than the treatment group. Rates highlighted in yellow represent a significant difference between the treatment and comparison groups. Figures 68-71 graphically display the mean differences for each of the CCF programs on the predicted rates of re-arrest by group membership and disaggregated by risk level for the successful completers.

Table 34. CCF Facility Sample- Predicted Rates of Any Arrests by Group and Risk Level (Successful Completers)

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	30	24	22	18	30	24	36	30
Gaudenzia West Chester	26	23	19	17	26	22	34	32
Minsec Broad Street	34	27	28	19	33	27	28	31
Hannah House	20	14	18	12	20	13	24	21
DRC-Alcohol	26	24	19	10	23	25	33	31
DRC-Group	30	26	18	16	28	26	37	29
DRC-Dual Diagnosis	30	26	23	14	28	20	32	32
Minsec Chester	32	26	24	19	32	25	38	35
Liberty Management	31	27	25	23	33	27	39	32
Self Help Movement	28	25	18	16	31	23	35	33
Eagleville D&A	27	23	21	19	29	23	32	30
Gaudenzia First	29	22	17	10	31	26	33	24
Joseph Coleman-Serenity	39	34	N/A	N/A	N/A	N/A	39	34
Joseph Coleman-Harmony	33	28	23	20	31	27	41	34
Joseph Coleman-Tranquility	31	26	25	20	31	25	38	33
Gaudenzia Philly	35	28	22	21	32	26	42	33
Luzerne	28	25	22	18	30	26	31	28
Kintock-Erie Avenue	34	27	26	21	34	27	39	31
Minsec York Street	33	25	23	20	33	24	43	32
Atkins House	23	14	12	10	16	14	31	18
Transitional Living Center	22	18	16	10	16	13	26	21
Gaudenzia Common Ground	30	25	N/A	N/A	26	19	33	30
ADAPPT- Alcohol	29	22	18	11	29	21	37	31
ADAPPT-Group	29	24	21	17	28	24	35	29
Scranton Catholic Social Services	29	21	25	17	28	22	34	26
Keenan House	25	20	20	16	28	23	30	21
Conewago Place	26	22	19	18	28	22	35	28
Youthbuild/Crispus Attucks	41	24	27	14	42	23	49	32
Conewago Wernersville- Alcohol	28	22	21	14	28	22	37	35
Conewago Wernersville-Group	31	23	20	18	33	23	36	28
Conewago Wernersville-PennCapp	28	24	22	17	29	25	35	33
Gaudenzia Siena House-Alcohol	33	26	23	16	32	25	37	29
Gaudenzia Siena House- Group	32	25	24	16	31	24	39	32
Gaudenzia Concept-90	23	23	16	19	21	19	27	29
Minsec Scranton	31	25	23	17	29	24	38	31
Gaudenzia Erie	25	20	17	14	22	21	33	24
Penn Pavilion	30	22	21	16	30	23	36	24
Alle-Kiski Pavilion	29	22	21	17	30	22	34	27
Renewal, Inc.	29	24	21	16	30	24	34	31
Gateway Braddock	30	25	24	20	30	22	36	34
Gateway Erie	29	21	21	16	29	23	39	25
Capitol Pavilion & Conewago Harrisburg	32	26	22	19	31	25	37	30
Small Programs	27	21	18	14	26	20	32	27

Figure 68. Treatment Effects for the CCF Sample for Any Arrests (Mean Difference)-Successful Completers

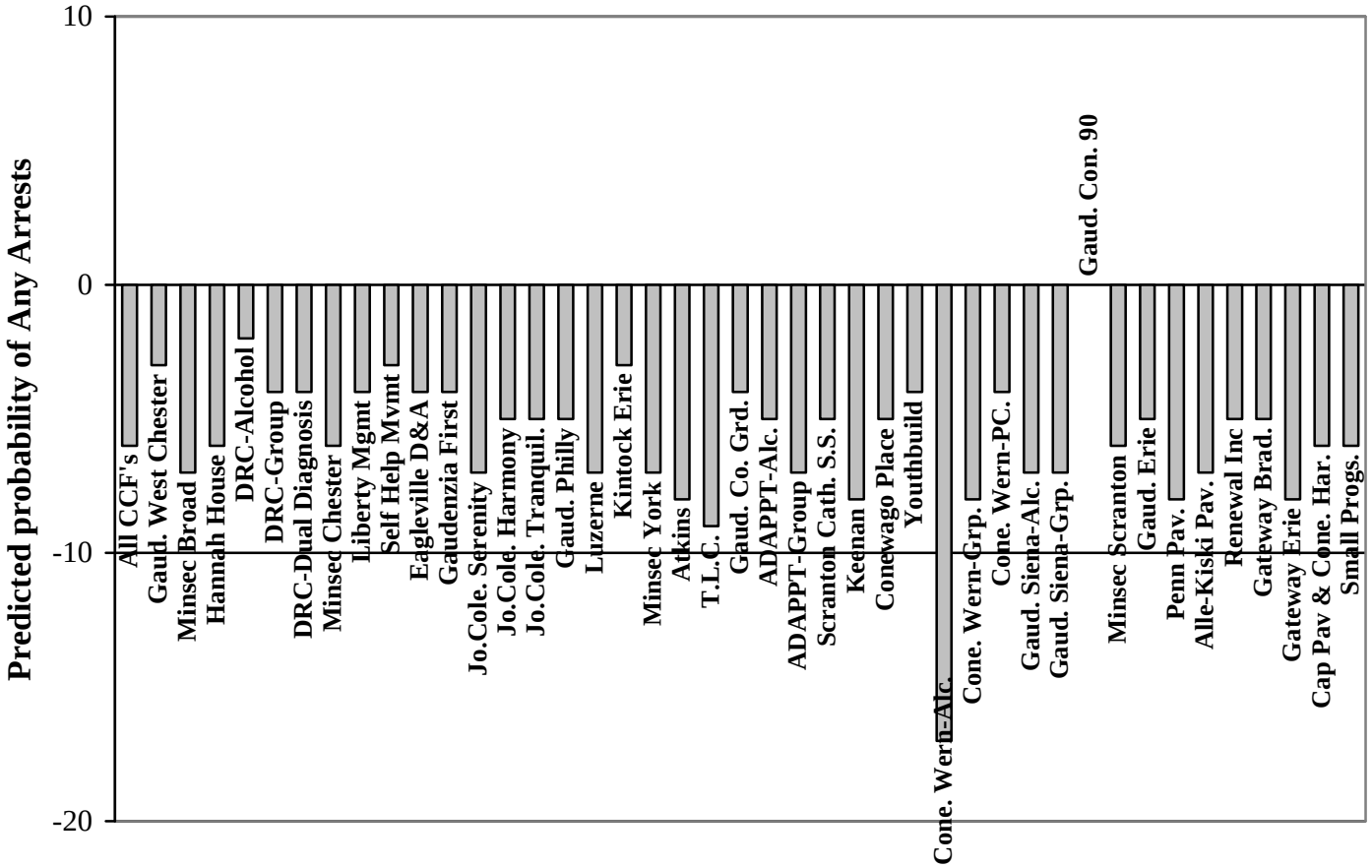


Figure 69. Treatment Effects for the Low Risk CCF Sample for Any Arrests (Mean Difference)- Successful Completers

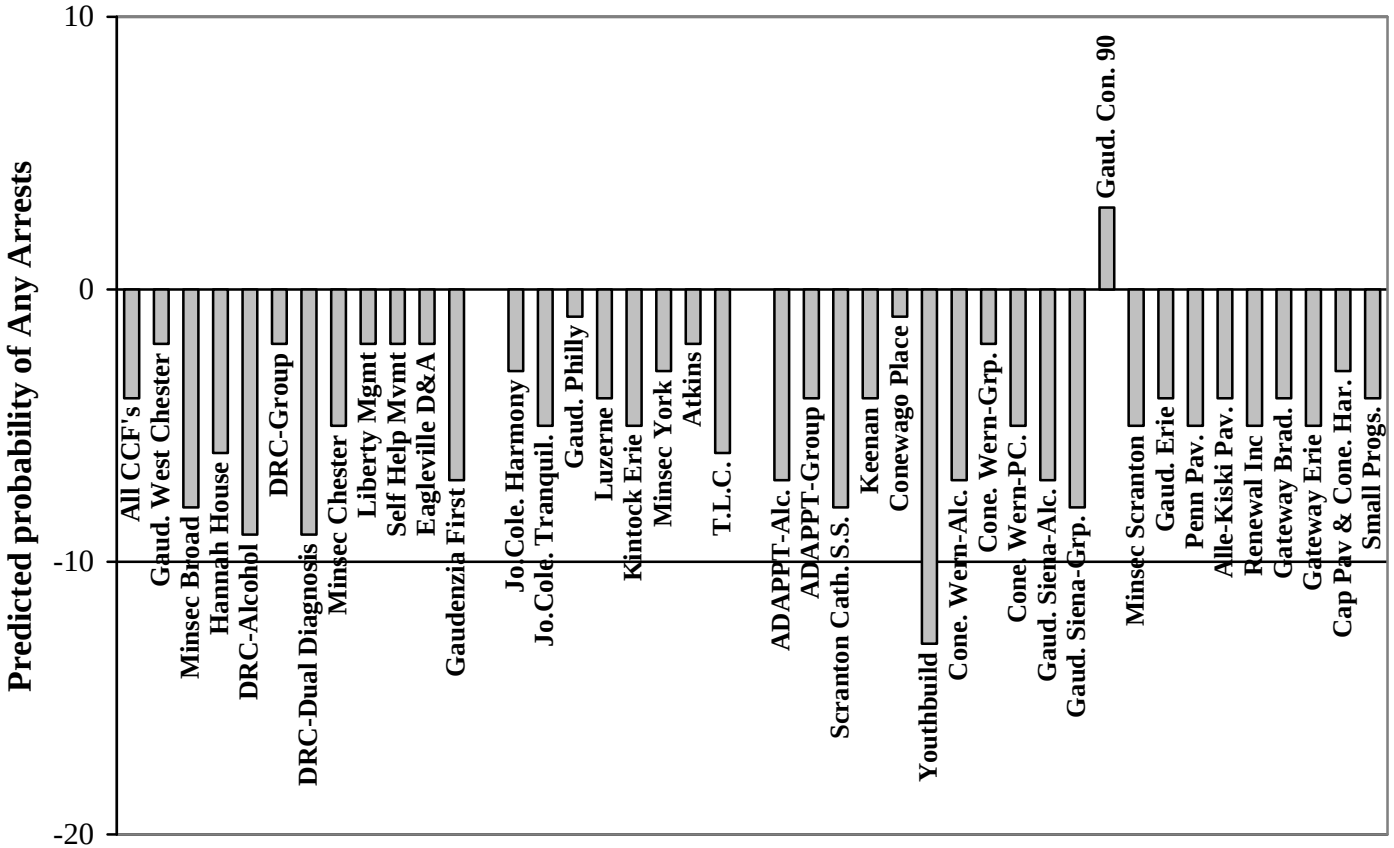


Figure 70. Treatment Effects for the Moderate Risk CCF Sample for Any Arrests (Mean Difference)- Successful Completers

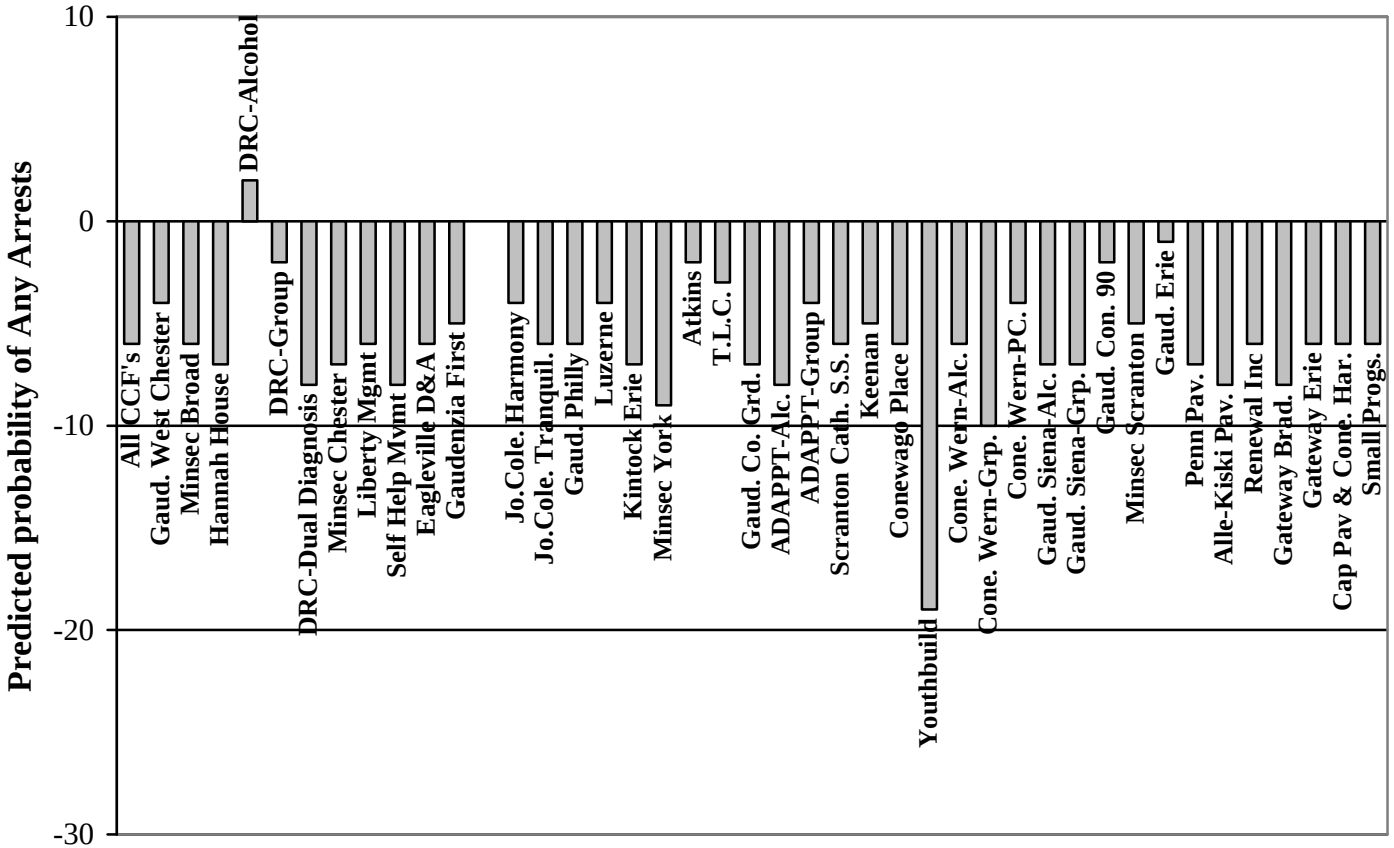


Figure 71. Treatment Effects for the High Risk CCF Sample for Any Arrests (Mean Difference)- Successful Completers

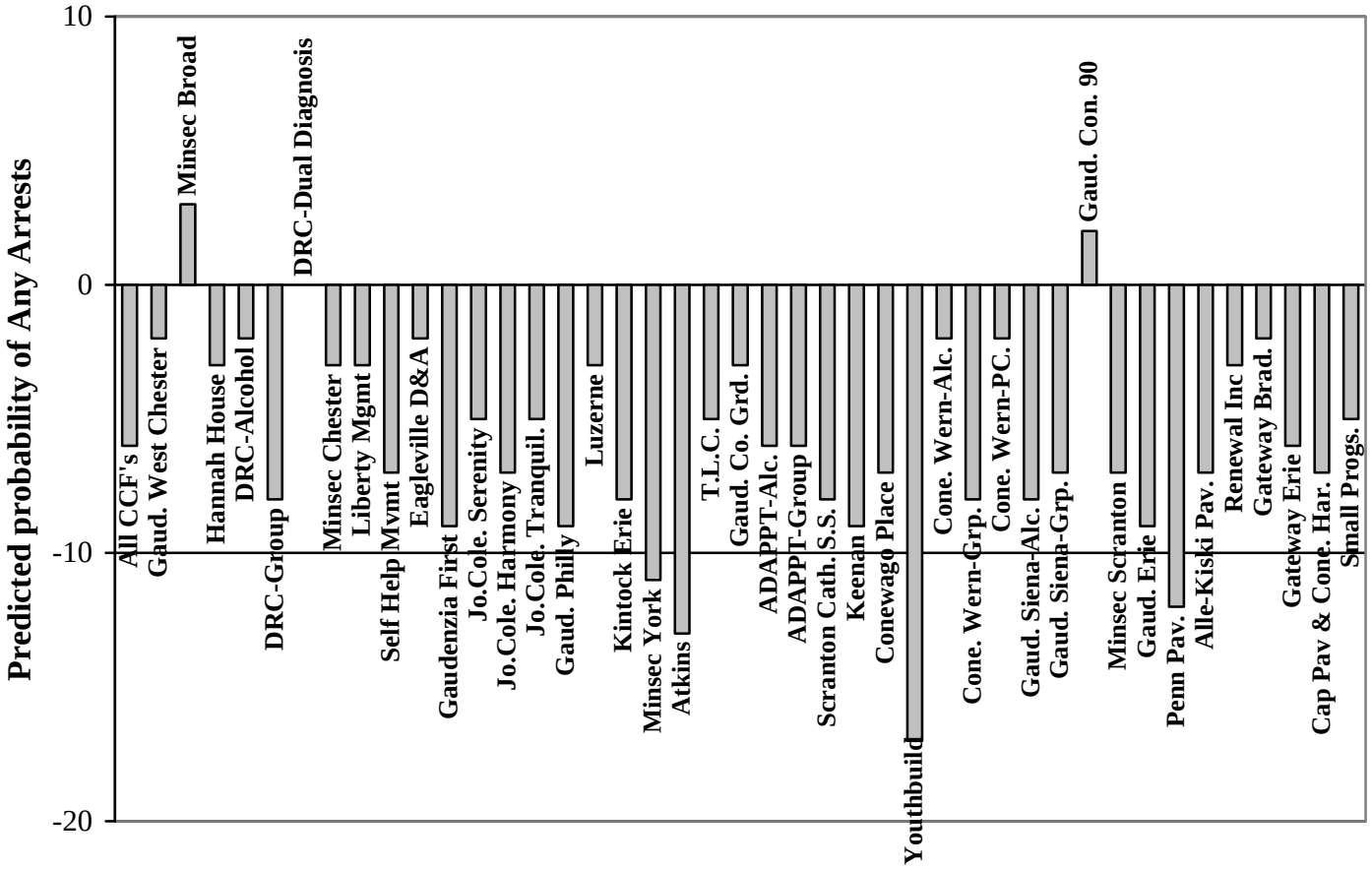


Table 35 provides the results for the predicted probabilities examining the rates of re-incarceration by successful completer groups and then disaggregated by risk level for each of the CCF facilities. Overall, the treatment group consistently had a significantly higher predicted probability of re-incarcerations than the matched comparison group. When examined by risk level, the range of mean differences was 8% to 29%. Figures 72-75 graphically depict the significant mean differences for each program.

Table 35. CCF Facility Sample- Predicted Rates of Any Incarceration by Group and Risk Level (Successful Completers)

	Risk Level							
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	50	32	38	23	50	32	60	40
Gaudenzia West Chester	46	30	35	22	46	30	60	43
Minsec Broad Street	54	34	43	24	52	33	61	40
Hannah House	32	17	26	12	33	15	39	26
DRC-Alcohol	42	29	30	13	38	28	55	39
DRC-Group	51	33	32	20	49	32	60	39
DRC-Dual Diagnosis	53	35	41	20	50	29	56	41
Minsec Chester	51	33	39	23	52	32	61	44
Liberty Management	50	33	40	27	52	33	60	42
Self Help Movement	59	34	33	21	52	32	59	46
Eagleville D&A	45	30	36	24	48	30	55	41
Gaudenzia First	50	30	37	18	52	33	58	33
Joseph Coleman-Serenity	62	45	N/A	N/A	N/A	N/A	62	45
Joseph Coleman-Harmony	51	35	38	24	50	34	62	44
Joseph Coleman-Tranquility	51	33	41	25	50	32	61	43
Gaudenzia Philly	54	36	38	25	52	33	62	42
Luzerne	48	32	37	23	50	33	58	38
Kintock-Erie Avenue	54	35	41	25	53	33	61	41
Minsec York Street	52	32	38	25	51	31	64	41
Atkins House	38	20	23	12	29	20	49	25
Transitional Living Center	40	23	26	14	31	17	45	27
Gaudenzia Common Ground	52	34	N/A	N/A	43	25	61	44
ADAPPT- Alcohol	49	30	32	16	48	28	62	43
ADAPPT-Group	48	31	36	21	49	32	58	39
Scranton Catholic Social Services	49	29	42	23	48	30	57	37
Keenan House	43	27	35	21	48	31	52	30
Conewago Place	46	30	35	23	47	30	60	40
Youthbuild/Crispus Attucks	58	33	44	21	59	30	67	44
Conewago Wernersville- Alcohol	47	29	36	19	49	29	60	43
Conewago Wernersville-Group	51	32	36	23	53	31	60	39
Conewago Wernersville-PennCapp	47	31	38	22	49	32	58	43
Gaudenzia Siena House-Alcohol	56	36	40	23	54	34	62	41
Gaudenzia Siena House- Group	52	33	41	20	52	33	63	42
Gaudenzia Concept-90	41	28	28	20	40	25	48	34
Minsec Scranton	53	35	42	23	51	33	62	43
Gaudenzia Erie	44	27	29	17	41	28	58	36
Penn Pavilion	53	32	39	22	51	32	61	37
Alle-Kiski Pavilion	51	32	39	23	52	31	60	40
Renewal, Inc.	50	33	40	22	51	32	59	42
Gateway Braddock	51	33	41	25	51	31	60	44
Gateway Erie	49	30	38	21	51	32	62	38
Capitol Pavilion & Conewago Harrisburg	51	33	38	24	50	32	60	40
Small Programs	45	28	31	18	44	26	53	35

Figure 72. Treatment Effects for the CCF Sample for Any Incarcerations (Mean Difference) - Successful Completers

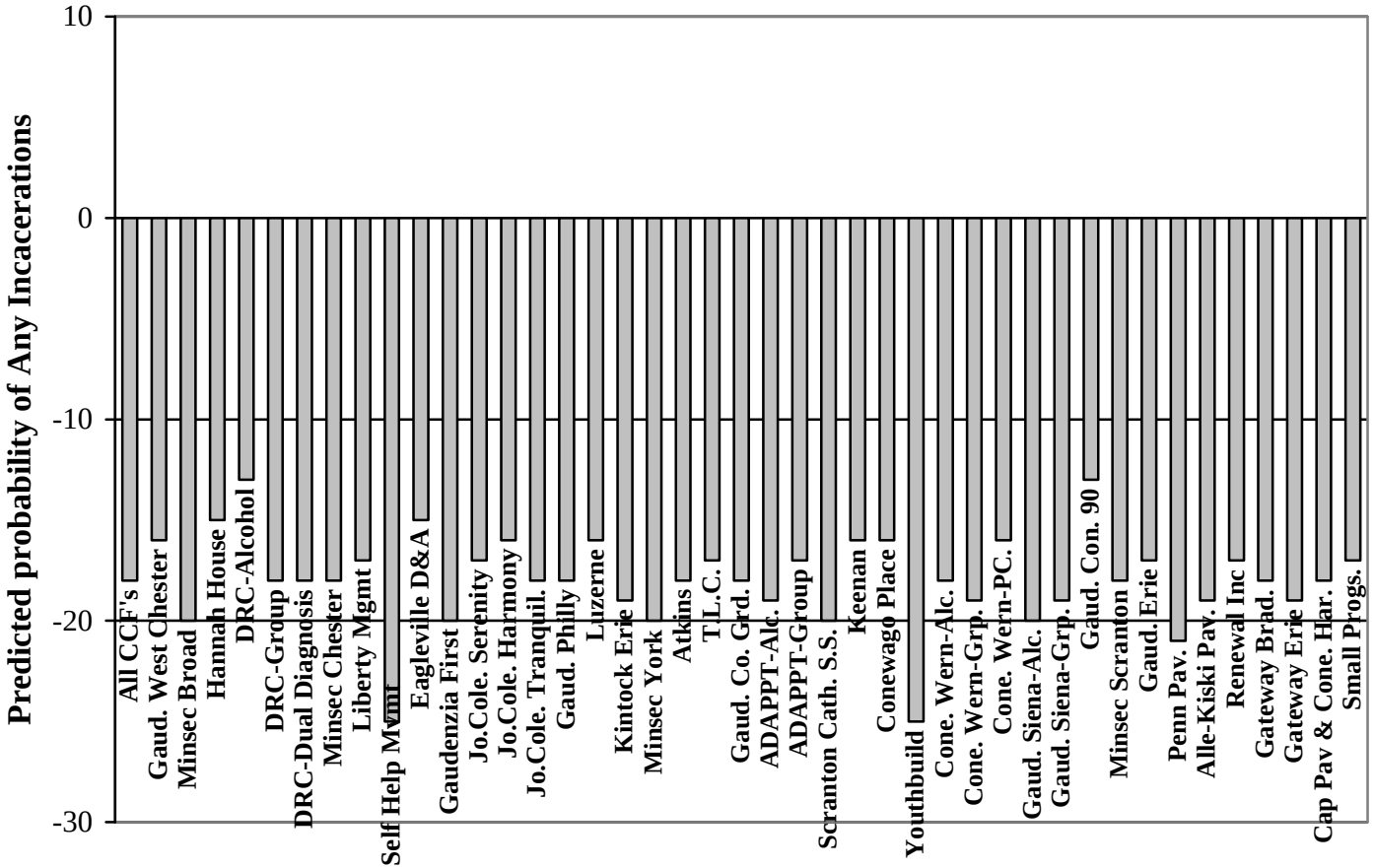


Figure 73. Treatment Effects for the Low Risk CCF Sample for Any Incarcerations (Mean Difference) - Successful Completers

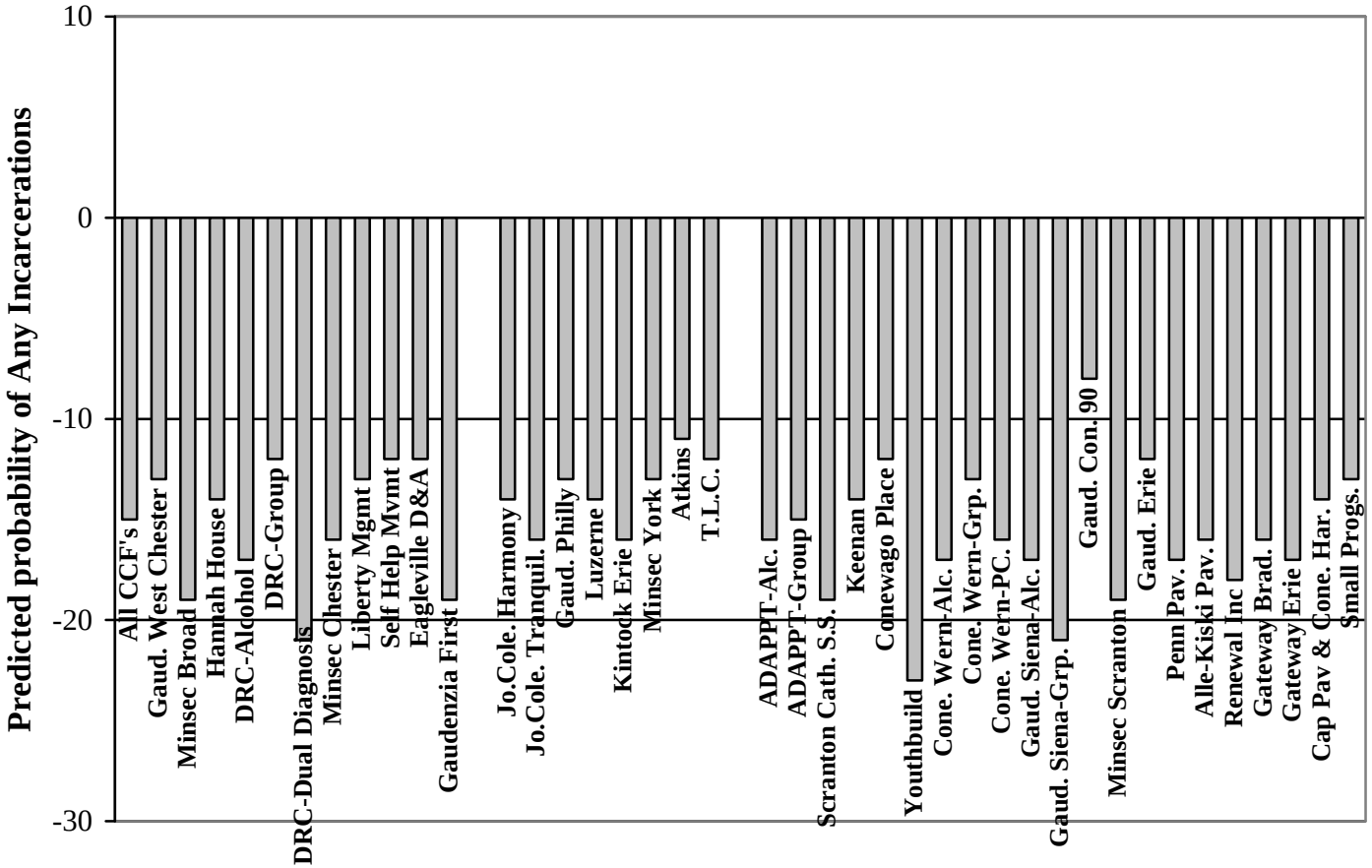


Figure 74. Treatment Effects for the Moderate Risk CCF Sample for Any Incarcerations (Mean Difference) - Successful Completers

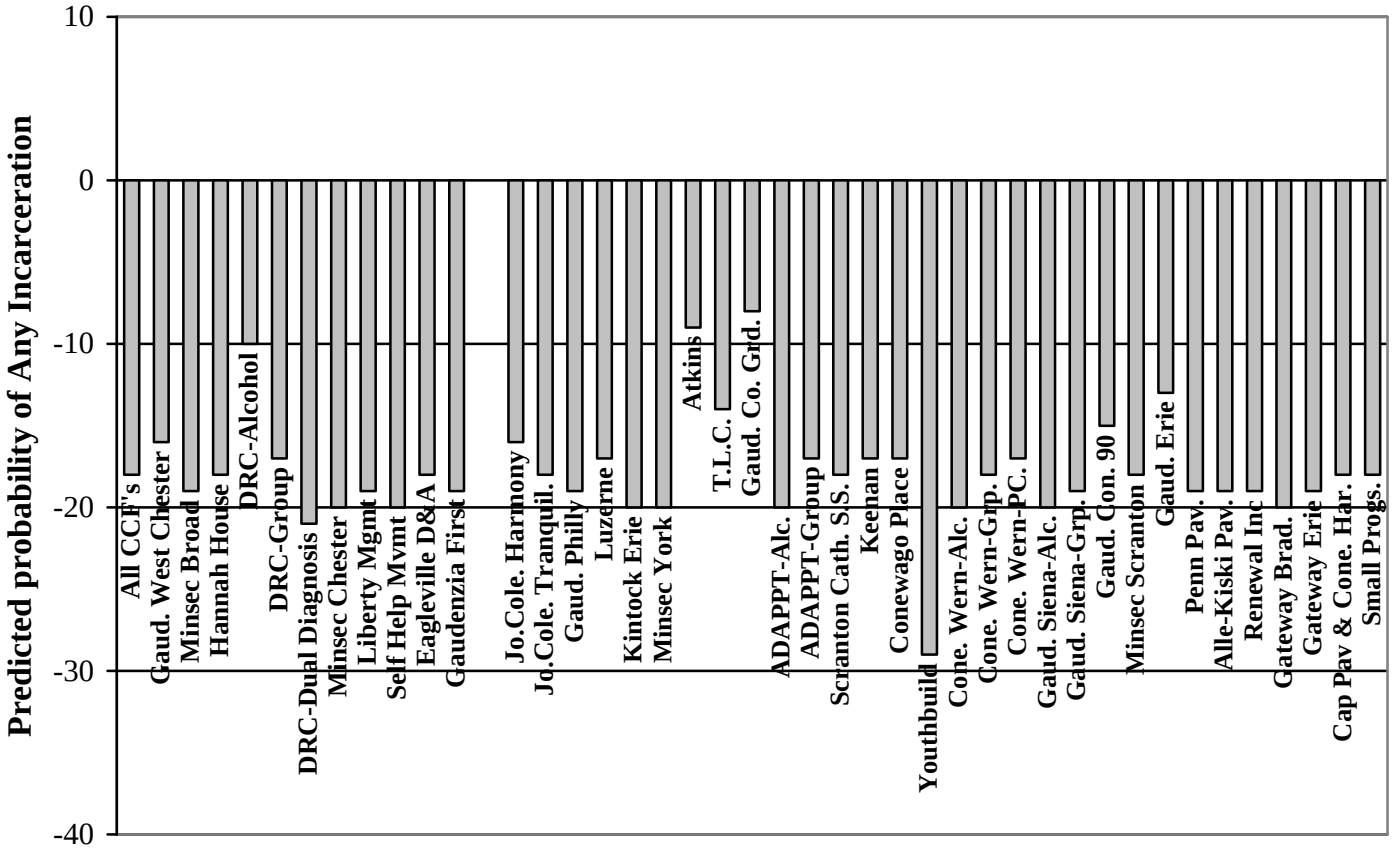


Figure 75. Treatment Effects for the High Risk CCF Sample for Any Incarceration (Mean Difference) - Successful Completers

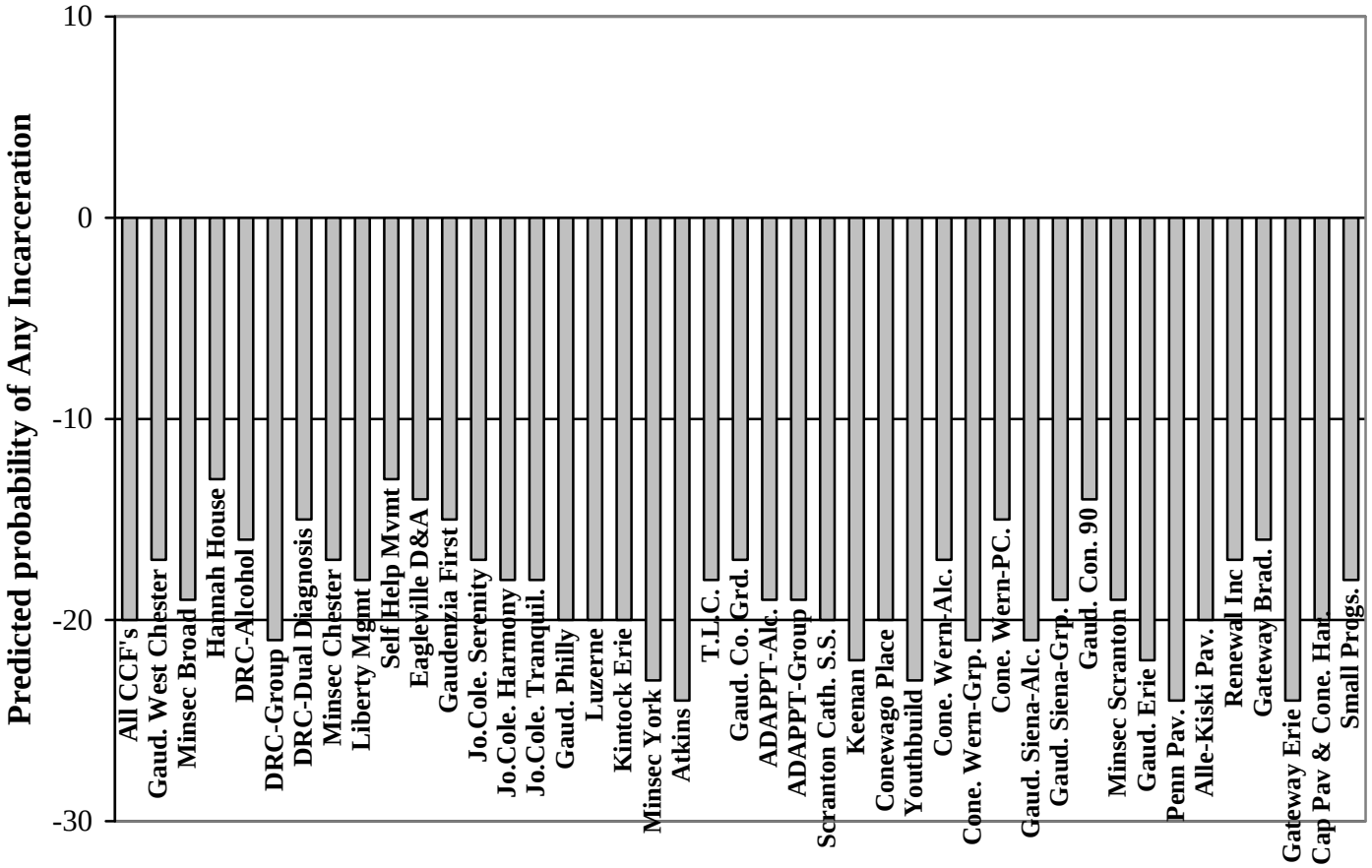


Table 36 provides the results for the predicted probabilities examining the rates of any recidivism by group and then disaggregated by risk level. The treatment group consistently had a higher predicted probability of any recidivism than the matched comparison group. The mean difference between the treatment and comparison groups was significant throughout the whole analysis. The range of mean differences by risk level was 12% to 40%. Figures 76-79 graphically depict the significant mean differences for each program and by risk level.

Table 36. CCF Facility Sample- Predicted Rates of Any Recidivism by Group and Risk Level (Successful Completers)

			Risk Level					
	All		Low		Moderate		High	
Program	T	C	T	C	T	C	T	C
All CCFs	56	38	44	27	57	38	66	47
Gaudenzia West Chester	52	36	41	27	53	35	66	50
Minsec Broad Street	60	41	50	29	59	40	67	47
Hannah House	39	22	33	16	40	20	47	33
DRC-Alcohol	49	36	38	17	45	36	62	47
DRC-Group	57	40	37	24	55	39	66	46
DRC-Dual Diagnosis	59	41	46	24	57	35	62	49
Minsec Chester	58	39	46	29	59	38	67	51
Liberty Management	56	40	46	33	59	40	67	50
Self Help Movement	55	40	38	26	59	38	65	53
Eagleville D&A	51	35	42	29	55	36	61	47
Gaudenzia First	56	36	42	20	58	40	64	38
Joseph Coleman-Serenity	68	52	N/A	N/A	N/A	N/A	68	52
Joseph Coleman-Harmony	58	41	44	30	57	41	69	51
Joseph Coleman-Tranquility	57	39	48	31	57	38	67	50
Gaudenzia Philly	61	43	44	31	59	40	69	50
Luzerne	54	38	43	28	56	40	63	45
Kintock-Erie Avenue	60	41	48	31	60	40	67	48
Minsec York Street	58	39	44	30	58	37	71	48
Atkins House	46	25	28	15	36	25	58	31
Transitional Living Center	47	30	33	18	37	22	53	34
Gaudenzia Common Ground	59	41	N/A	N/A	51	31	67	50
ADAPPT- Alcohol	56	36	38	19	55	33	69	49
ADAPPT-Group	55	37	43	26	55	38	64	46
Scranton Catholic Social Services	56	35	49	27	55	36	64	44
Keenan House	49	32	41	26	55	37	59	36
Conewago Place	52	36	41	29	54	36	66	46
Youthbuild/Crispus Attucks	66	38	52	25	67	26	75	51
Conewago Wernersville- Alcohol	54	35	41	23	55	35	67	51
Conewago Wernersville-Group	58	38	42	28	60	37	66	46
Conewago Wernersville-PennCapp	54	38	45	27	56	39	64	51
Gaudenzia Siena House-Alcohol	62	42	46	27	61	40	68	47
Gaudenzia Siena House- Group	59	39	48	26	59	39	69	50
Gaudenzia Concept-90	48	35	34	27	46	30	55	42
Minsec Scranton	60	41	49	28	58	39	68	50
Gaudenzia Erie	50	33	36	21	47	34	65	42
Penn Pavilion	59	38	45	27	58	38	67	42
Alle-Kiski Pavilion	57	37	45	28	59	37	65	46
Renewal, Inc.	56	38	45	27	57	38	64	48
Gateway Braddock	57	39	48	30	57	36	66	52
Gateway Erie	55	35	44	26	57	38	69	44
Capitol Pavilion & Conewago Harrisburg	58	40	44	29	57	38	66	47
Small Programs	51	34	37	22	51	32	60	42

Figure 76. Treatment Effects for the CCF Sample for Any Recidivism (Mean Difference) – Successful Completers

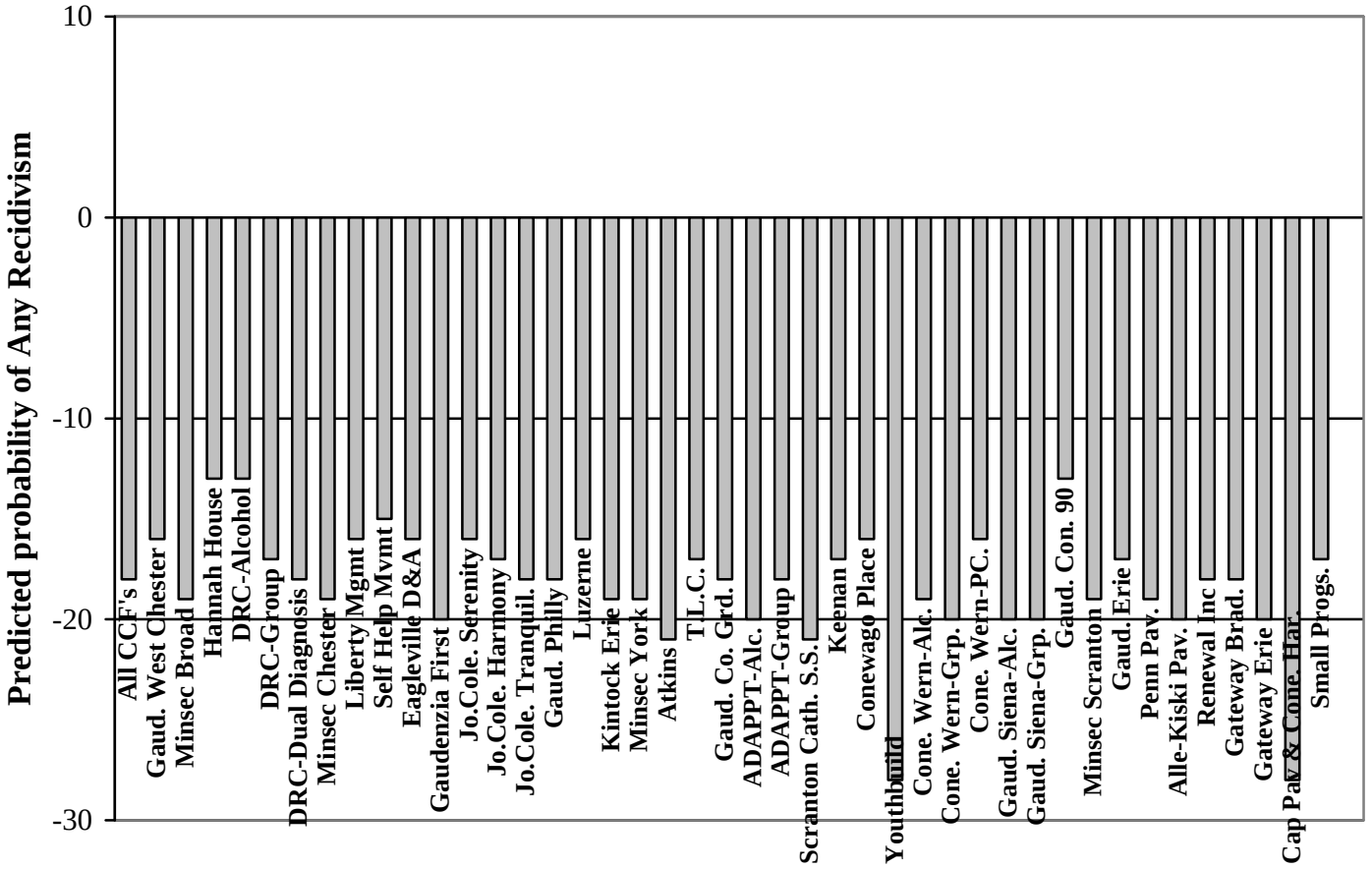


Figure 77. Treatment Effects for the Low Risk CCF Sample for Any Recidivism (Mean Difference)– Successful Completers

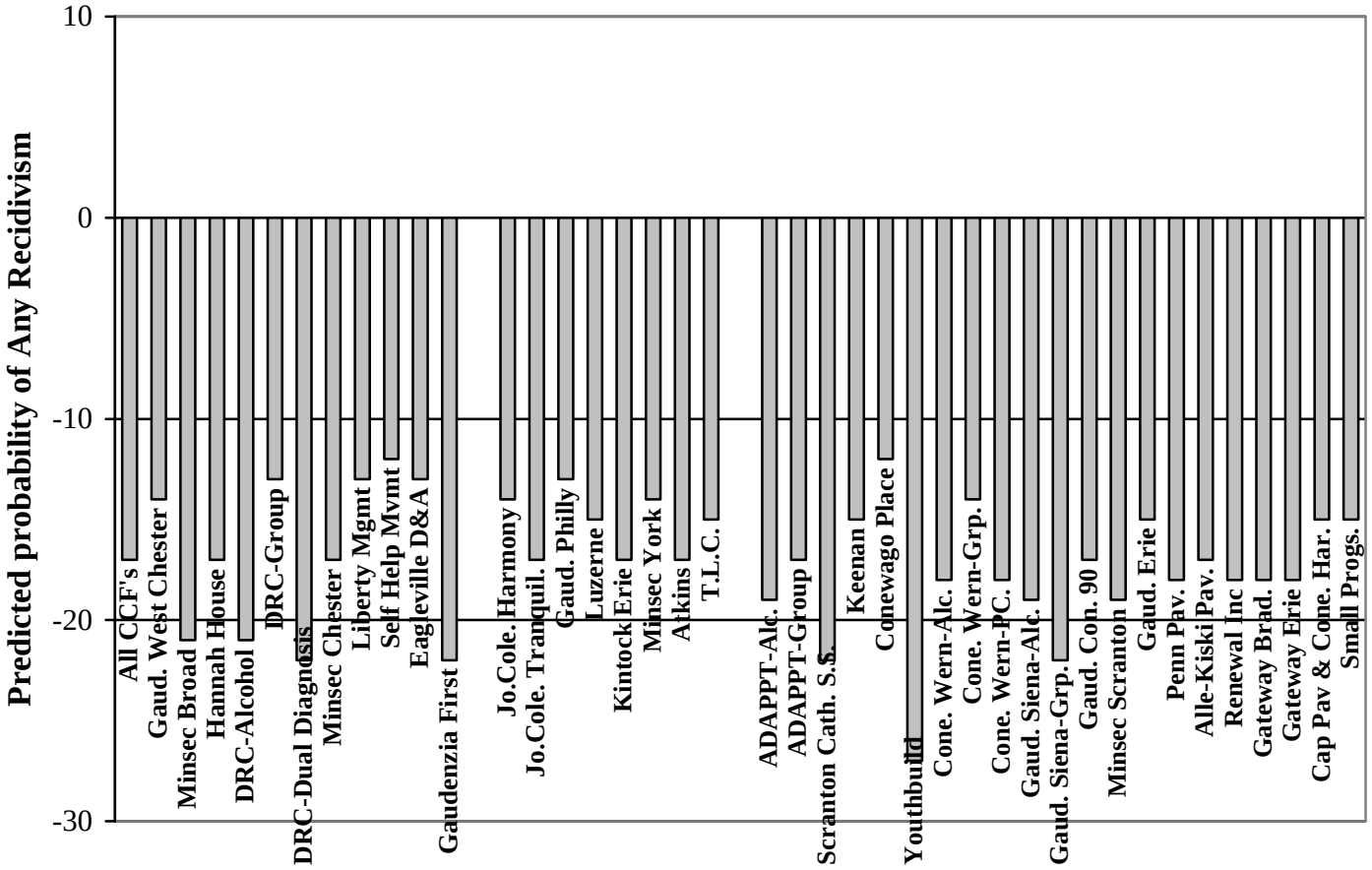


Figure 78. Treatment Effects for the Moderate Risk CCF Sample for Any Recidivism (Mean Difference) – Successful Completers

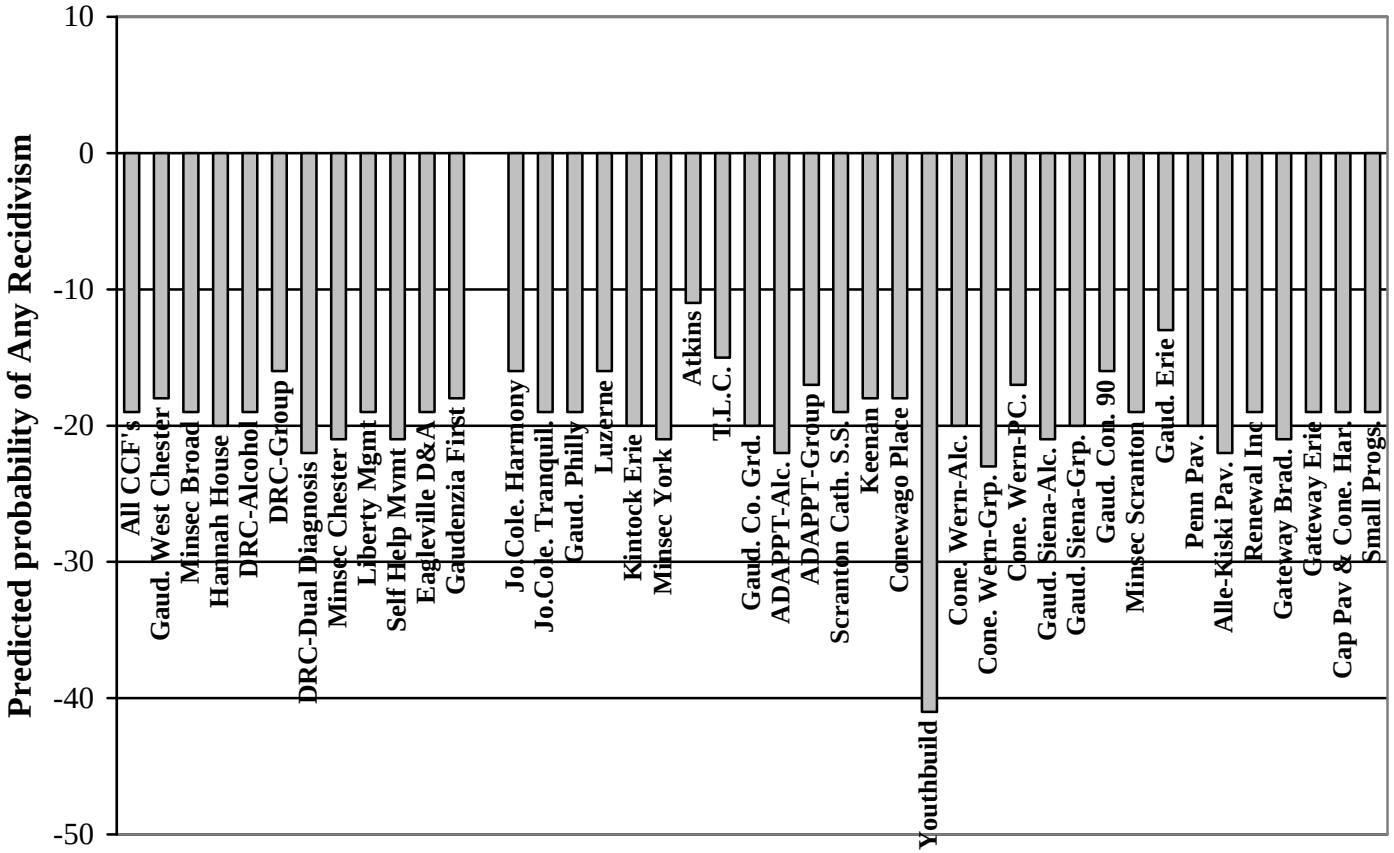
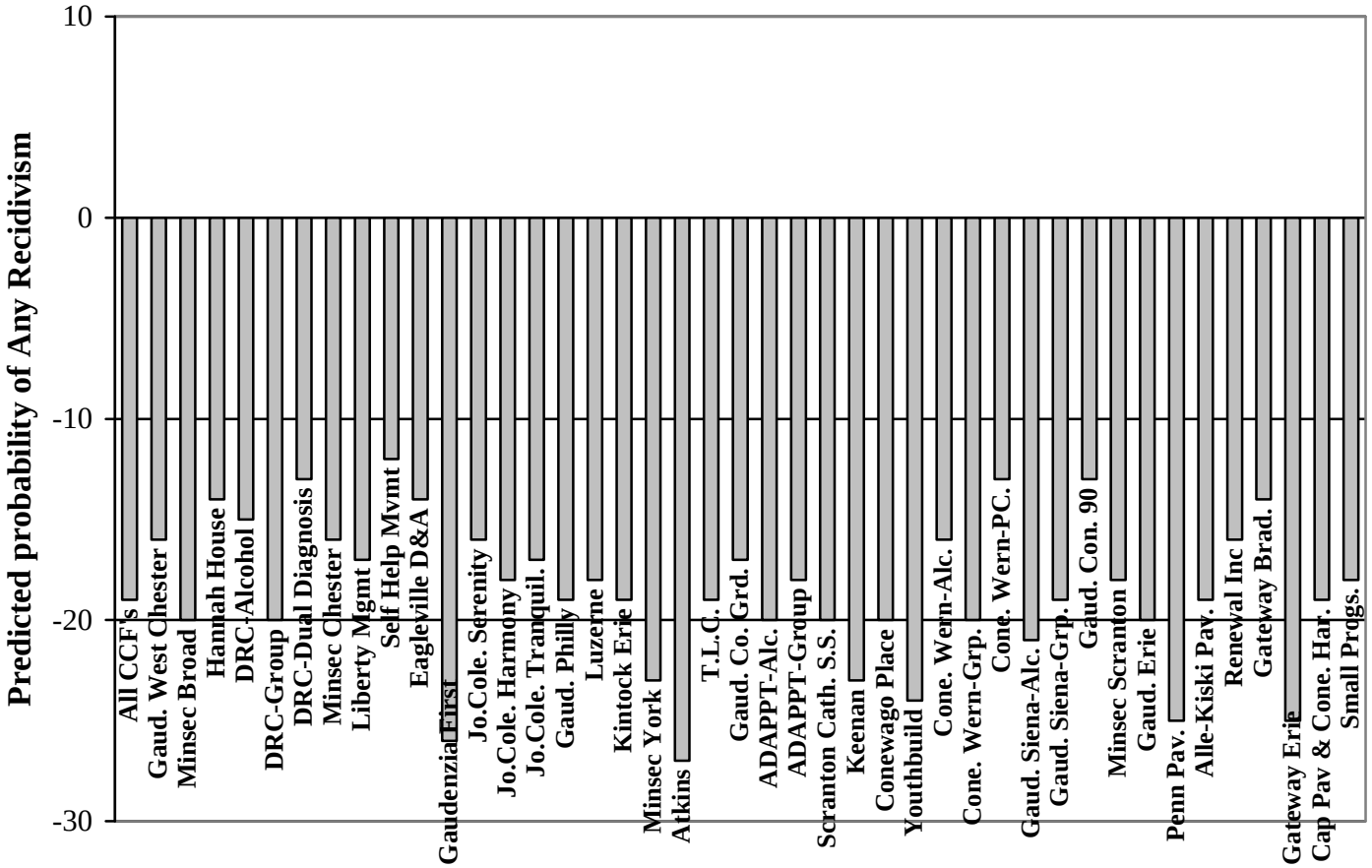


Figure 79. Treatment Effects for the High Risk CCF Sample for Any Recidivism (Mean Difference)- Successful Completers



To summarize the multivariate logistic regression models, the treatment group was generally found to be a significant predictor of recidivism. With a few programs, the predicted probability of recidivism was slightly higher for the comparison group, but none of these findings were significant. Many of the models found that young, non-white males were significantly associated with the outcome measures. Placement into a CCF was significantly related to any technical violation, any arrest, any re-incarceration and any recidivism when compared to the participants placed in the CCC programs. Finally, higher total LSI-R scores were found to be significant predictors for all four outcome dichotomous measures, even with the specified models that were conducted by total sample or the successful completer sample.

Section IV will present the findings related to characteristics of the programs that participated in the site visits as well as provide findings of the measures related to core correctional practice for the facilities that were conducting groups during the schedule site visits.

SECTION IV: EVALUATION OF PROGRAMS BY CONTENT, CAPACITY AND CORE CORRECTIONAL PRACTICES

As stated within the methodology section, this portion of the study will present the findings related to the how programs scored with respect to content and capacity as well as core correctional practices. In addition, this section will provide the treatment effects for all programs except Riverside CCC.[25]

[25] Individual level outcome data was not available for Riverside CCC. However, program level data for Riverside CCC is included in the program content and capacity subsection. These findings are available in the Appendix.

Statewide program characteristics

There were a total of 54 programs that participated in this phase of the study[26]. This subsection is intended to provide detailed information regarding the content and capacity of the CCC and CCF programs operating across Pennsylvania. In order to provide some objective measures to scoring out the programs and then reporting an overall statewide finding, data gathered on the program summary data collection form were used to examine statewide program characteristics. By using the items found on the Evidence-Based Correctional Practice Checklist (CPC), each of the contributing items was scored on program content and capacity. The following discussion provides a brief review of these two domains on the CPC.

Specifically, a program's capacity measure is comprised of three smaller sections. First, there is a section that includes variables related to the program director's educational and professional qualifications and their level of involvement in program development, service delivery and staff supervision. Similar to the first section, a second section for capacity examines measures of staff characteristics including educational and professional experience, service delivery and assessment, and attitudes supportive of the program's objectives and goals. Third, a final subsection of capacity identifies the quality assurance measures that are actively being addressed by the programs. These include internal and external quality assurance measures such as methods to maintain client satisfaction, auditing of files, offender reassessment, formal program evaluation, and monitoring of external service providers.

Content is a program-specific measure that determines whether or not a program is appropriately and effectively providing structured services that are evidence-based,

[26] Please note, Conewago Outbound and Capitol Pavilion were combined.

meaning that offender assessment and intervention characteristics effectively target areas that promote reductions in recidivism. Specific to the content of a program is offender assessment and the use of a validated instrument that examines the risk factors and criminogenic needs of offenders in order to develop a case plan that targets areas of highest risk for the program participant. Once each program scores were calculated, a statewide program integrity score was calculated by determining the overall percentage for both of the content and capacity areas out of a total of 80 points. Finally, using a modified four point rating system (1= Highly effective 65+%, 2= Effective 55-64%, 3= Needs improvement 46-54% and 4= Ineffective 0-45%), the overall rating for statewide program effectiveness was assigned.[27]

Statewide program capacity

Table 37 presents the three subsections for program capacity and the overall percentage and overall rating for that subsection for all participating programs. The total possible points for the program director qualification, leadership and development section are 14, for staff qualifications and characteristics that are supportive of evidence-based practices, the total possible points are 11 and for quality assurance the total possible points are 8. With respect to the first subsection regarding program leadership, an average statewide score of 9 was earned by the participating CCC and CCF programs. The range of the program leadership scores was from 5 points to 12 points. Regarding program leadership, several areas of weakness were noted: (1) program director involvement in service delivery, case management and group facilitation, (2) conducting

[27] These modified cutoffs used to provide a statewide integrity score and rating are developed from the Correctional Program Checklist (CPC).

a literature review and maintaining some basis of the literature covering effective interventions and (3) piloting programs before going program-wide. Staff qualifications and characteristics earned an average score of 5 and the range was between 2 points to 8 points. When examining staff qualifications and characteristics, several areas for improvement were identified: (1) staff education level and areas of study, (2) regular assessment of service delivery and lack of clinical supervision and (3) staff receiving ongoing training.

The last subsection in capacity is quality assurance. As depicted in Table 37, this is a weak area for the CCC and CCF programs in Pennsylvania as the average score for the state was a 1. The range of scores in quality assurance was 0 to 5. While there was minimal evidence of external quality assurance and clients satisfaction measures were being practiced in some programs, overall, there is little monitoring of internal service delivery, some programs were conducting reassessment at the time of discharge, but the instruments varied across the state and some were not validated risk and needs assessment tools as they were bio-psychosocial questionnaires, self-report surveys or interview guides completed by the staff and the offender. Prior to the current research, individual programs were not being formally evaluated by an external researcher that the program contracted with. In particular, a majority of these programs at the time of the site visit had not been collecting recidivism data or conducting file reviews and there was little evidence that programs were involved in hiring an external program evaluator to assess the program effectiveness and to provide recommendations.[28]

[28] This process of external program evaluation being conducted by individual sites was limited during the process of this study.

Areas of strength within program leadership included: (1) program director experience, (2) program director involvement in selecting staff, (3) program director supervision of staff, (4) program valued by the criminal justice community and the local community and citizens and (5) stability in funding. Areas of strength for staff include: (1) staff experience being in a relevant field and (2) having ethical guidelines in place for staff that regulate behavior. Given these areas of strengths and weaknesses, the statewide program capacity rating of 4 suggests a need for improvement in these three domains as the overall capacity rating was ineffective.

Table 37. Statewide Program Capacity Score and Rating for all PADOC programs (N=54)

Capacity Areas	Total Score	Total Percentage	Overall Rating
Program Director Qualifications and Service Delivery	9	64%	2
Staff Qualifications and Service Delivery	5	45%	4
Quality Assurance	1	13%	4
Overall Capacity	15	45%	4

Statewide program content

Table 38 presents the two subsections for program content and the overall percentage and overall rating for each subsection. The total possible points for the programs which followed a structured and targeted evidence-based treatment section are 32. For the subsection that evaluated offender assessment and case planning, the total possible points are 15. As demonstrated in Table 38, the areas of statewide program content for the Pennsylvania CCC and CCF programs are scored as ineffective based on this rating system. Specifically, both offender assessment and treatment characteristics were rated in the ineffective category. Offender assessment scores ranged from 1 to 14

and the scores from the treatment characteristics subsection ranged from 5 to 21. Regarding the offender assessment subsection, the following areas need to be addressed: (1) conducting a valid and normed risk and needs assessment instrument on your targeted population, (2) identify problems associated with responsivity for offenders and build strategies into a case management plan for offenders, (3) target high risk offenders and do not mix risk levels. One of the observed issues consistently noted by the research team was during the file review process. Rarely was the PADOC LSI-R information on an offender included in the file and if there was any LSI-R data, it was typically just the total score. As such, case managers were unaware as to which domains were highest risk for an offender. Therefore, when this information is not made available, case planning that targets an offender's criminogenic needs based on a validated risk assessment is very challenging to competently complete. When evaluating the targeted evidence-based programming subsection there were several areas that were consistently needing improvement: (1) separating groups by risk, (2) monitoring offender locations, (3) matching the treatment and the offender or addressing specific and general responsivity, (4) modeling skills and prosocial behavior for offenders, (5) training on new skills through role-playing opportunities and graduated practice, (6) having appropriate size groups, (7) using appropriate rewards and (8) having a 4:1 ratio of rewards to punishers. A consistent strength observed in these data was that all programs reported following a systematic discharge plan for clients and had a system for offender input into the program.

Table 38. Statewide Program Content Score and Rating (N=54)

Content Areas	Total Score	Total Percentage	Overall Rating
Targeted Evidence Based Programming	14	44%	4
Validated Risk and Needs Assessment with	5	33%	4

Case Planning Objective Overall Content	19	40%	4

Overall Statewide Program Score and Rating

With a final total of 34 out of 80 possible points, the overall percentage is 43%. This percentage would be classified as an ineffective rating. The following discussion will present the findings related to the group observation data, which specifically involved identifying measures of core correctional practice.

Table 39 provides the individual percentage scores for each category, the overall percentage and the rating for each of the individual programs. There were 50 programs that ranked as ineffective or needing improvement. Specifically, of the 54 programs, 37 (68.5%) were rated as ineffective and there were 13 (24.1%) rated as needs improvement. Four (7.4%) of the remaining programs were rated as effective. The figures that follow Table 39 provide a graphic illustration of how the CCC and CCF programs compare with respect to each of the five sections and overall.

From the figures, the percentage for the CCC programs and the CCF programs were averaged. For program capacity, Figure 80 illustrates that the CCF programs performed slightly better with respect to program leadership, as both would be ranked as needs improvement in this area. When examining staff characteristics, the average percentage for the CCC programs would be approximately 42% whereas the CCF programs were higher at nearly 50%. Based on the ratings scale, this would suggest that the CCC programs would be ranked at needs improvement and the CCF program would be classified as ineffective for staff characteristics. Regarding quality assurance, both CCC and CCF facilities would be ranked as ineffective. Figure 81 graphically depicts the

program content section of the CPC. For offender assessment, both the CCC and CCF programs were ranked ineffective based on the average percentage for their specific programs. The treatment characteristics section was slightly higher for the CCC facilities but both program types would be classified as ineffective. Overall, based on the total score the CCC and CCF programs would be ranked as ineffective when examining the two types of facilities by average total score.

Table 39. Program Scores for Capacity, Content and Overall

	Prog. Leadership	Staff Char.	Quality Assurance	Treatment Char.	Risk Assessment	Total	Rating
PHILADELPHIA CCC #2	42.86	18.18	.00	34.29	12.50	26.19	Ineffective
PHILADELPHIA CCC #3	57.14	45.45	11.11	42.86	12.50	36.90	Ineffective
PHILADELPHIA CCC #4	64.29	45.45	.00	40.00	12.50	35.71	Ineffective
PHILADELPHIA CCC #5	50.00	54.55	11.11	34.29	6.25	32.14	Ineffective
GAUDENZIA WEST CHESTER	50.00	36.36	33.33	34.29	50.00	40.48	Ineffective
MINSEC BROAD STREET	50.00	27.27	.00	37.14	12.50	29.76	Ineffective
HANNAH HOUSE	71.43	45.45	.00	28.57	68.75	42.86	Ineffective
DRC (Alcohol)	57.14	54.55	44.44	37.14	50.00	46.43	Needs improvement
DRC (Group home)	57.14	54.55	22.22	45.71	68.75	51.19	Needs improvement
DRC (Dual Diagnosis)	57.14	45.45	33.33	42.86	87.50	53.57	Needs improvement
MINSEC CHESTER	57.14	27.27	.00	31.43	12.50	28.57	Ineffective
LIBERTY MANAGEMENT	50.00	54.55	.00	37.14	68.75	44.05	Ineffective
SELF HELP MOVEMENT	64.29	45.45	.00	31.43	31.25	35.71	Ineffective
EAGLEVILLE D&A	71.43	36.36	11.11	28.57	31.25	35.71	Ineffective
GAUDENZIA FIRST	57.14	63.64	22.22	34.29	31.25	40.48	Ineffective
JOSEPH COLEMAN- SERENITY	64.29	63.64	22.22	48.57	12.50	44.05	Ineffective
JOSEPH COLEMAN- HARMONY	64.29	63.64	.00	37.14	12.50	36.90	Ineffective
JOSEPH COLEMAN- TRANQ.	71.43	63.64	.00	48.57	50.00	50.00	Needs improvement
GAUDENZIA PHILLY HOUSE	50.00	36.36	11.11	34.29	12.50	30.95	Ineffective
LUZERNE	57.14	54.55	.00	37.14	31.25	38.10	Ineffective
KINTOCK-ERIE AVENUE	78.57	45.45	55.56	37.14	68.75	53.57	Needs improvement
MINSEC YORK STREET	50.00	18.18	.00	31.43	31.25	29.76	Ineffective
SCRANTON CCC	64.29	27.27	22.22	37.14	12.50	34.52	Ineffective

ALLENTOWN CCC	78.57	54.55	11.11	60.00	50.00	55.95	Effective
HARRISBURG CCC	57.14	36.36	.00	42.86	12.50	34.52	Ineffective
YORK CCC	42.86	45.45	11.11	37.14	31.25	35.71	Ineffective
JOHNSTOWN CCC	78.57	45.45	.00	51.43	12.50	42.86	Ineffective
ATKINS HOUSE	57.14	45.45	22.22	31.43	12.50	33.33	Ineffective
TRANSITIONAL LIVING CTR	71.43	45.45	44.44	60.00	50.00	57.14	Effective
GAUDENZIA-COMMON GRD.	78.57	72.73	33.33	42.86	50.00	53.57	Needs improvement
ADAPPT- ALCOHOL	64.29	63.64	11.11	34.29	12.50	36.90	Ineffective
ADAPPT- GROUP HOME	57.14	45.45	.00	42.86	50.00	42.86	Ineffective
SCRANTON CATHOLIC	64.29	18.18	.00	14.29	12.50	21.43	Ineffective
KEENAN HOUSE/TT	85.71	54.55	33.33	45.71	31.25	50.00	Needs improvement
CONEWAGO PLACE	50.00	54.55	22.22	45.71	31.25	42.86	Ineffective
YOUTHBUILD	42.86	27.27	.00	31.43	12.50	26.19	Ineffective
CONEWAGO WERN. ALCOHOL	42.86	72.73	22.22	40.00	31.25	41.67	Ineffective
CONEWAGO WERN. GROUP	57.14	45.45	.00	28.57	12.50	30.95	Ineffective
CONEWAGO WERN. PENNCAPP	50.00	72.73	11.11	40.00	12.50	39.29	Ineffective
GAUDENZIA SIENA ALCOHOL	71.43	63.64	.00	28.57	50.00	42.86	Ineffective
GAUDENZIA SIENA GROUP	78.57	45.45	11.11	45.71	50.00	47.62	Needs improvement
GAUDENZIA-CONCEPT 90	57.14	45.45	33.33	42.86	68.75	48.81	Needs improvement
MINSEC OF SCRANTON	71.43	45.45	.00	37.14	31.25	41.67	Ineffective
PITTSBURGH CCC #3	35.71	27.27	.00	31.43	31.25	29.76	Ineffective
ERIE CCC	78.57	54.55	44.44	40.00	12.50	41.67	Ineffective
SHARON CCC	71.43	45.45	22.22	40.00	62.50	46.43	Needs improvement
GAUDENZIA-ERIE	64.29	72.73	33.33	51.43	68.75	57.14	Effective
PENN PAVILION	78.57	54.55	.00	42.86	31.25	46.43	Needs improvement
ALLE-KISKI PAVILION	78.57	54.55	.00	28.57	87.50	50.00	Needs improvement

RENEWAL, INC.	85.71	54.55	.00	51.43	68.75	60.71	Effective
RIVERSIDE CCC	58.57	45.45	11.11	51.43	12.50	39.52	Ineffective
GATEWAY-BRADDOCK	64.29	45.45	22.22	22.86	31.25	34.52	Ineffective
GATEWAY-ERIE	85.71	63.64	22.22	57.14	12.50	51.19	Needs improvement
CAP. PAV. & CONE. HARRIS	57.14	45.45	.00	40.00	12.50	34.52	Ineffective

Figure 80. Comparing Program Capacity Between CCC and CCF Programs

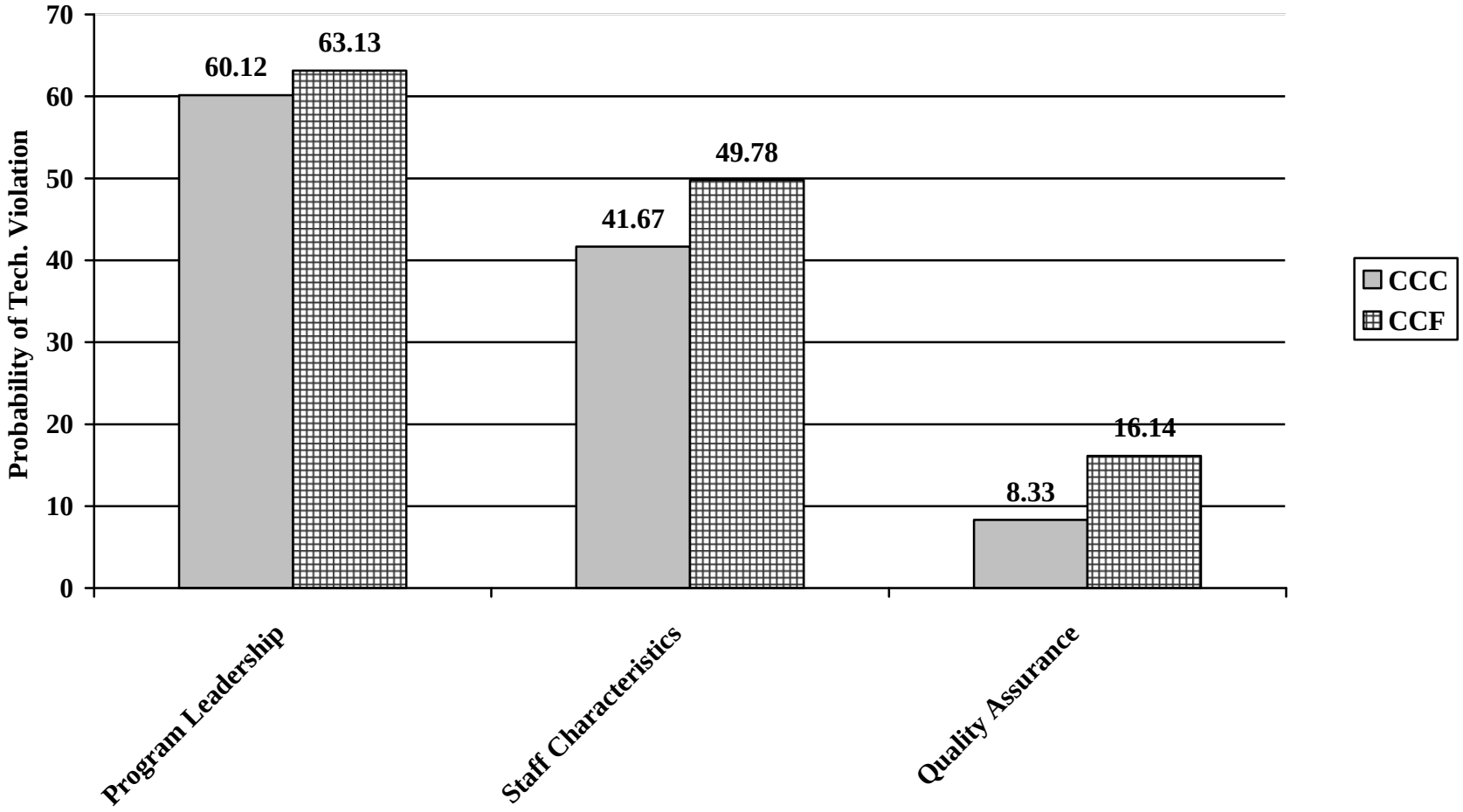
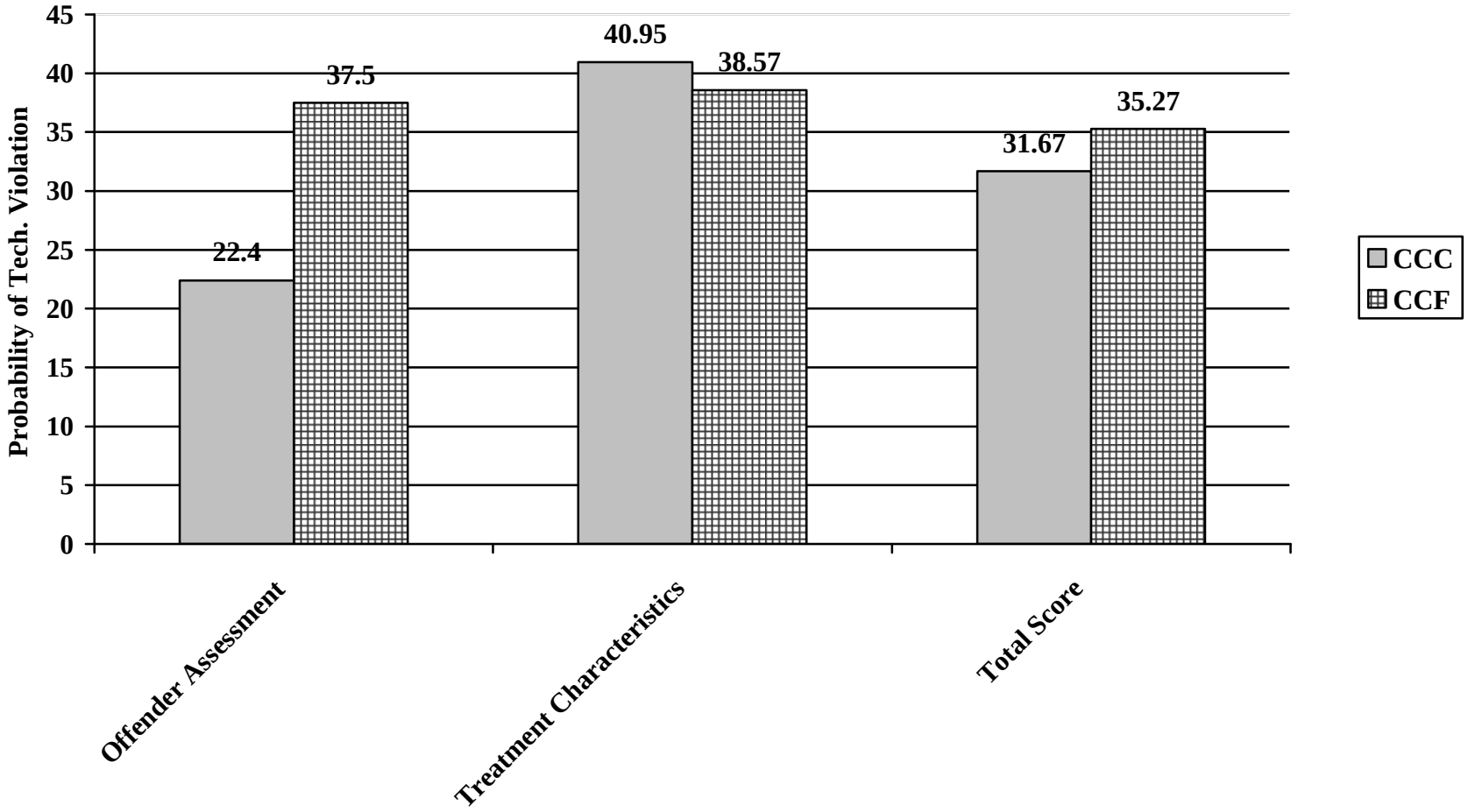


Figure 81. Comparing Program Content and Total Score Between CCC and CCF Programs



Core Correctional Practice

As posited by Andrews and Bonta (2003), core correctional practice is a term that captures all of the behavior strategies that comprise the ideal characteristics of case managers, group facilitators and those who work directly with offending populations. There are nine elements of core correctional practice. These include: (1) effective modeling (also called anti-criminal modeling), (2) effective reinforcement, (3) effective disapproval, (4) problem solving techniques, (5) structured learning for skill building, (6) effective use of authority (7) advocacy and cognitive self change (8) relationship practices and skills and (9) structuring skills. Meta-analytical studies have demonstrated that significant correlations with the effect size for these nine elements of core correctional practice have been as large as .39 (Andrews & Bonta, 2003, p. 311). Specifically, a positive effect size indicates that the program characteristics are associated with reductions in recidivism. Simply put, elements of core correctional practice provide the foundation for positive interactions between staff and offenders and create an environment where prosocial modeling and behavior is encouraged, practiced and rewarded. Further, when inappropriate behavior is being displayed, staff that are skilled in core correctional practice are able to use their authority in a non-threatening manner to provide structure and appropriate disapproval while creating an opportunity for the offender to problem solve and to find and practice alternatives to their behavior. A brief discussion of each element of core correctional practices is included with the findings for each.

There were 78 group observations completed in this study. However, there were only 35 programs that were operating groups on the day of the scheduled site visit. Of

these 35 programs, there were only 3 CCC programs that were operating groups. The remaining CCC programs reported that there were no groups currently operating at the time of the visit. In addition, several of the program directors did advise that there were groups being developed. As such, these CCC programs may have groups that have been developed and running for approximately two years since the writing of this report. All of the remaining groups were observed within contract facilities. Table 40 presents the number of groups observed and identifies the facilities in which the observations occurred.

Table 40. Programs and Group Observations Conducted

Program	# Groups observed	%
Gaudenzia DRC--Inpatient	2	2.6
Gaudenzia DRC--Partial Hosp	1	1.3
Gaudenzia DRC--CCF	2	2.6
Gaudenzia First Program	2	2.6
Gaudenzia West Chester	1	1.3
Eagleville Hospital	3	3.8
Joseph Coleman Ctr--Tranquility	2	2.6
Joseph Coleman Ctr--Serenity	2	2.6
Joseph Coleman Ctr--Harmony	1	1.3
Kintock--Erie Ave	3	3.8
Liberty Mgmt	1	1.3
Luzerne	3	3.8
Self Help Movement	5	6.4
Adappt--DNA	1	1.3
Atkins House	2	2.6
Conewago/capitol pavilion/outbound	2	2.6
Conewago Place	6	7.7
PennCapp Conewago/Wernersville DOA	3	3.8
PennCapp Conewago/Wernersville CCC	2	2.6
PennCapp Conewago/Wernersville Bldg 30	2	2.6
Gaudenzia Commonground	1	1.3
Gaudenzia Concept 90	2	2.6
Gaudenzia Siena House HWH	1	1.3
Keenan House	5	6.4
Minsec of Scranton	2	2.6
Transitional Living Center	1	1.3
Alle-Kiski Pavillion	1	1.3
Gateway Braddock	2	2.6
Gateway Erie	2	2.6
Gaudenzia Erie	4	5.1
Penn Pavilion	2	2.6
Renewal, Inc	4	5.1
Philadelphia CCC #3	1	1.3
Allentown CCC	1	1.3
Sharon CCC	3	3.8
Total	**78**	**100.0**

The following discussion will present the findings related to how these programs scored on the nine elements of core correctional practice. The total for each program will be presented for each of the nine elements followed by a mean for each of these elements of core correctional practice.

Table 41 provides the scores for each program on all nine elements of core correctional practice. Starting with the element of effective modeling, higher scores are associated with more characteristics of effective modeling. Effective modeling characteristics involve a clear demonstration of a coping model, where reinforcement and rewards for displaying prosocial behavior is more common than negative feedback. The average for all 78 group observations was less than 1 for evidence of effective modeling and the highest score possible is 4.

Similar to the anti-criminal modeling described above, higher scores are associated with more characteristics of effective reinforcement. Effective reinforcement characteristics include immediate reinforcement of prosocial behavior displayed by an offender and provide feedback as to why that behavior was appropriate. There is generally more emphasis shown in this form of support and there is dialogue between the staff member and the offender as to how this behavior will continue to be beneficial for the offender. Scores on effective reinforcement ranged from 0 to 3 and the highest score possible is 4. The average for all 78 group observations was less than 1 for evidence of effective reinforcement.

Effective disapproval characteristics are similar to effective reinforcement. In particular, staff are to express immediate disapproval of inappropriate behaviors and provide a clear explanation as to why disapproval was given. However, staff can also

choose to provide any form of positive reinforcement. Appropriate prosocial modeling should follow the effective disapproval and there is to be some dialogue between the staff member and the offender as to how this inappropriate behavior may increase the consequences for the offender. Once prosocial behavior is being demonstrated, the staff member should provide effective reinforcement. Scores on effective disapproval ranged from 0 to 4 and the highest score possible is 4. The average for all 78 group observations was less than 1 for evidence of effective disapproval.

Problem solving suggests that the staff should be making a concerted effort in addressing behavior, identifying precursors to behavior and implementing positive and negative consequences appropriately that will promote maintenance of prosocial behavior and extinction of procriminal behaviors and attitudes. Problem solving explores a range of options and evaluates all of these options. Further, problem solving entails devising a plan to meet the objectives in learning and practicing new skills and then evaluating the plan. Scores on problem solving techniques ranged from 0 to 6 and the highest score possible is 6. The average for all 78 group observations was less than 1 for evidence of problem solving.

Structured learning for skill building involves explaining the skill, modeling the skill, role playing, graduated rehearsal of the skills in more difficult situations and recommendations for improving a skill. Scores on structured learning for skill building ranged from 0 to 5 and the highest score possible is 5. The average for all 78 group observations was less than 1 for evidence of structured learning.

Effective use of authority describes staff behavior being direct and specific, maintaining a calm voice, where feedback is directed at offender behavior and choices

are provided within a framework of understanding potential consequences for behavior. In addition, staff are firm and encouraging and do provide praise for offenders' prosocial behavior. Scores for effective use of authority ranged from 0 to 10 and the highest score possible is 10. The average for all 78 group observations was 3.78 for effective use of authority.

Advocacy and cognitive self change implies that staff are consistently promoting offenders to communicate in a prosocial manner where risky behavior and problems are discussed and then alternatives to less risky thinking are generated and encouraged. Scores for advocacy and cognitive self change ranged from 0 to 5 and 5 is the highest score possible. The average for all 78 group observations was .97 for advocacy and cognitive self change.

Characteristics of relationship practices and skills include: staff are to be observed being respectful in their communication and tone to offenders, they are to be genuine and respectful in their interactions and they need to be flexible and optimistic. Scores for relationship practices and skills ranged from 0-4. Four is the highest score possible for this element. The average for all 78 group observations was 2.67 for relationship practices and skills.

Structuring skills is a single item on the data collection form. In particular, it examines if the structuring of skills is based on solutions and is conducted in an organized and structured manner. Since there is only one item for this element, the score can only range from 0-1. The average for all 78 group observations was .46 for structuring skills.

Motivational interviewing is the last element of core correctional practice presented in the table. The technique of motivational interviewing is a characteristic that should be observed with staff and is arguably tied to the elements of core correctional practice. In particular, staff should avoid continued conflict. Further, staff are to promote self efficacy. Scores for motivational interviewing ranged from 0 to 2 and the highest score possible is 2. The average for all 78 group observations was 1.08 for motivational interviewing.

Collectively, the programs averaged nearly a 13 for correctional practices as seen in Table 41 Further the distribution of scores ranged from 0 to 30. The highest score possible is a 45. As such, the PADOC facilities that participated in the group observation had approximately 29% of the characteristics related to core correctional practice.

Table 41. Core Correctional Practices by Program

	Scores										
Program	Modeling	Reinforcement	Disapproval	Problem Solving	Structured learning	Authority	Advocacy	Relationship Skills	Structuring Skills	Motivational Interviewing	**Total**
Gaud.- Inpt.	0	1	2	0	3	7	1	4	1	2	21
Gaud– Pt. hosp	0	0	2	0	0	5	0	4	0	2	13
Gaud-CCF	4	3	3	0	5	0	0	4	1	2	22
Gaud First	3	1	2	4	0	10	5	4	1	0	30
Gaud. W. Ch.	1	0	1	0	0	2	0	2	0	0	6
Eagle. Hospital	3	0	2	6	1	7	4	4	1	2	30
J.Cole-Tranq.	0	0	1	0	0	2	0	0	1	0	4
J. Cole- Ser.	0	0	0	0	0	0	0	0	0	0	0
J. Cole- Harm.	0	0	0	0	0	0	0	0	0	0	0
Kintock--Erie	0	0	0	0	0	0	0	0	0	0	0
Liberty Mgmt	0	0	0	0	0	0	0	0	0	0	0
Luzerne	0	0	0	0	0	2	0	0	0	0	2
Self Help Mt.	3	0	3	0	0	0	0	4	1	2	13
Adappt--DNA	0	0	0	0	0	0	0	4	1	2	7
Atkins House	0	0	2	0	0	0	0	0	1	2	5
Cone. /Cap Pav	0	0	2	1	0	8	2	4	0	0	17
Cone. Place	0	0	2	0	0	5	1	4	1	2	15
Cone/Wn. Alc	3	1	1	0	0	8	1	3	1	2	20
Cone/Wn CCC	0	2	4	0	0	9	0	4	1	2	22
Cone/Wn 30	0	0	0	0	0	0	0	0	0	0	0
Gaud.Cm. Gd.	3	0	0	3	2	5	3	4	1	2	23
Gaud Conc. 90	0	1	0	4	2	0	4	4	1	2	18
Gaud. Siena	1	0	0	0	0	3	0	4	1	2	11

Keenan House	3	0	3	0	0	4	0	3	1	1	15
Mins. Scranton	2	3	2	0	0	9	0	4	1	2	23
Trans Liv. Ctr.	0	0	0	4	1	7	0	4	0	2	18
Alle-Kiski Pav	0	0	2	3	0	4	3	0	0	1	13
Gate Braddock	0	1	1	0	0	0	0	1	0	0	3
Gateway Erie	0	3	1	2	5	9	2	4	1	2	29
Gaudenzia Erie	0	0	0	0	0	0	0	0	0	0	0
Penn Pavilion	1	0	0	0	0	4	1	4	0	2	12
Renewal, Inc	0	3	0	0	5	9	0	4	1	2	24
Phil. CCC #3	0	0	2	0	1	8	0	3	1	2	17
Allen. CCC	2	1	1	0	1	7	1	4	1	2	20
Sharon CCC	2	1	1	0	1	0	1	4	1	2	13
Mean	.72 SD(1.16)	.81 SD(1.18)	.88 SD(1.14)	.73 SD(1.61)	.71 SD(1.41)	3.78 SD(3.64)	.97 SD(1.35)	2.67 SD(1.81)	.46 SD(.502)	1.08 SD(.937)	12.8 SD(8.82)

SECTION V: SUMMARY OF THE FINDINGS AND THE STUDY'S LIMITATIONS

Within this section of the report, a summary of the major findings from this study will be reviewed and the limitations of the study will be addressed. The final section of the report will discuss possible recommendations for the PADOC and their individual CCC and CCF programs.

First, the treatment group within study were comprised of non-white males that were approximately 36 years old at release. The majority of the treatment group had alcohol, drug and indicators of assaultive behavior. Based on the LSI-R total score, the majority of offenders were moderate risk, however, over one third of the sample was high risk.

Second, the treatment group, rather consistently, were found to have experienced recidivism at a much higher rate than the comparison group. Both in the bivariate and multivariate analyses the treatment group were found to be significantly experiencing all measures of recidivism.

Third, within the programs, there was a mix of risk levels based on total LSI-R scores and cutoffs. Most of the programs did not separate offenders by risk level and were not conducting their own validated and normed acturial risk assessment on their targeted population. In addition, most offenders were found to have indicators of drug and alcohol use, yet, the majority of offenders were directed to a group home, not a residential substance abuse program or to an alcohol or drug program. Based on scoring of the programs and the overall ineffective rating, the PADOC CCC and CCF facilities need improvement in all areas of program content and capacity, perhaps with the exception of program leadership. With respect to core correctional practices, staff

within the facilities conducting programs are relatively weak in the majority of the elements tied to core correctional practices. Further, participants within the CCC programs were less likely to recidivate than their CCF counterparts.

Finally, upon review of the phi coefficients for all programs where a site visit was conducted and individual level data were available, the value and direction of the treatment effect demonstrates that the programs were not successful in reducing recidivism for any technical violation, any re-incarceration and any recidivism. However, it is important to recognize that while the multivariate analyses that presented the probabilities for any arrest demonstrated a mean difference that favored the comparison group, the bivariate correlations for total number of arrest did reflect a positive treatment effect for several programs.

Overall, based on these data, the treatment group, especially parolees within the CCF programs did not demonstrate a significantly lower recidivism rate than the comparison group. The CCC programs, which conducted fewer treatment programs, were found to have lower recidivism rates than the CCF programs. While both program types were mixing risk levels and few conducted any risk assessment instruments, there were differences with respect to the services. Since many of the CCC programs were requiring that offenders find and maintain verifiable employment, there were potentially fewer interactions with offenders from various risk groups. The CCF programs generally had very set schedules and most of the offenders were not required to work since they were completing treatment groups. Most of these groups contained mixed risk levels and there were more interaction between offenders of various risk levels which may have contributed to the higher recidivism rates for the treatment group. An important

distinction to make is that treatment by itself is not reason for these observed recidivism rates, rather, it is the delivery of the treatment that has promoted these negative treatment effects. As such, the fidelity in the delivery of the treatment models and the adherence to the risk principle in both not mixing risk levels and targeting criminogenic needs should be addressed within each facility.

Limitations

While the comparison and treatment group were matched identically on sex, race, sex offense, LSI-R risk level and committing county, there were significant differences with the treatment group based on marital status, education level and employment status and indicators of alcohol. As such, there may be some differences between the two groups that could have potentially impacted the findings.

Generalizability may be a concern for this study with regard to CCC programs. In particular, there were two programs from Pittsburgh that were not represented in the study. Further, there were no individual level data for Riverside CCC, although this facility did participate in a site visit. Moreover, there was great variation in sample size across the CCC and CCF programs. As such, while the overall sample size may be rather large which may lend itself to the representativeness of the offenders from the PADOC, there were programs in the final sample that had very few cases.

Given that the programs were scored out on the elements found within the CPC, it should be noted that CPC evaluations were not being conducted for this study. However, this instrument provided a dichotomous item by item scoring guide that permitted scoring of the programs in the areas of content and capacity. Further, the data collection forms

contained similar, if not the exact items. In addition, while the programs did not need to gather the recidivism data for this study, there were no measures of program success that focused on changing offender behavior (e.g. reassessment data).

Finally, the group observation form, which provided data on core correctional practices, is one of the data collection forms that is used for the CPAI-2000. Permission to use this form was granted for purposes of this research. Yet, for those who are trained on the CPAI-2000, typically there is much more time spent in observing staff and offender interactions. In addition, there is a formal training process that is conducted for individuals that are permitted to evaluate programs using the CPAI-2000. While research team members were trained on the group observation form by an individual trained on the CPAI-2000, research team members were not trained on the full CPAI-2000 and did not spend the amount of time in facilities typically given for CPAI-2000 evaluations. As such, it is necessary to point out that this may be a limitation with these data.

SECTION VI: RECOMMENDATIONS

There are multiple recommendations for the PADOC to consider in implementing change both system-wide and specifically to individual program if found to be appropriate. Within the context of this study's limitations and based on these findings, the following recommendations are suggested for the PADOC CCC and CCF programs:

- These findings suggest that for the most part, the CCC and CCF programs in Pennsylvania have not been effective in reducing recidivism, and that the overall quality of the programs is not consistent with evidence based practice. Therefore, it is strongly recommended that PADOC revamp its entire system of residential community correctional facilities. Suggested improvements include higher standards for programs, better sharing of assessment information, strong quality assurance processes, and development and adherence to evidence base practices and interventions. The following provides more detailed recommendations:

- The LSI-R data needs to be provided on all offenders to the CCC and CCF programs. If possible, data on all items and domains, not just total LSI-R scores should be made available to all programs. In addition, training for all programs on the LSI-R should be considered. This may assist the case management team and other staff at the facilities with the interpretation of the LSI-R and would provide strategies for effective case managing and addressing limited resources. With respect to policy implementation, the PADOC should consider not only distributing all scores, both total and domains, to all programs, but staff in the facilities, parole and the programs (both PADOC and contract) should be required to complete a case management training that uses the LSI-R to identify areas of high risk and need as well as the protective factors. Further, programs should be required to develop multi-modal treatment plans that reflect the high criminogenic need areas. All reassessment scores should also be provided to the facilities, parole, as well as the programs. The PADOC should consider a timeline for re-assessment or the purpose of re-assessment outside of a mandated timeline. Placement into programming, dosage of treatment and case management planning should be done with the most recent LSI-R score.

- Facilities, parole and programs need to be trained on the principles of effective intervention and especially on the risk principle. In particular, programs need to understand the importance of not mixing risk levels. Training on mixing of the risk levels should reflect meta-analytic research that has empirically demonstrated how the mixing of risk levels has increased the recidivism rates of the lower risk offender. In addition, programs should be trained on how treatment dosage relates to the risk level of the offender. It is suggested that for high risk offenders, the range of treatment be 3 to 9 months in duration.

- Since many of the CCC programs indicated that the implementation of groups was forthcoming, evaluation of these sites should be considered. However, none of the programs visited reported any piloting of programs prior to implementation, As such, all programs need to consider the piloting of programs and then a subsequent evaluation of the program's effectiveness before additional groups are started within a facility. With respect to policy, piloting of programs, especially those involving new curricula, should require a review of the research related to the development of a new treatment group and the PADOC should approve, in advance, the piloting of any new treatment curriculum prior to its implementation. Facilitators and staff must complete a thorough training of the newly developed treatment model in order to deliver the curriculum with integrity.

- Programs need to receive training on core correctional practices. Specifically, many of the programs that were conducting groups, experienced difficulty in prosocial modeling, effective reinforcement and disapproval, problem solving,

structured learning and skill building. It is suggested that core correctional practices training for all facility, parole and program staff must occur prior to unsupervised interactions with offenders.

- All participating programs should consider enhancing their quality assurance measures, both internal and external. Further, programs should continue to focus on the treatment targets for their population that address criminogenic needs and the specific responsivity issues of their offender population.

- The PADOC should consider developing a set of clear standards for all CCC and CCFs that can be readily defined into program objectives. Each CCC and CCF should describe, in writing program policy, how these objectives are going to be met. A clear and definite timeline should be set for all participating groups as to when these program objectives and strategies are to be written, trained upon and then integrated into the programs. Further, a timeline for internal and external evaluation based on these measures should be considered. Some objectives that should be considered may include: (1) distribution of all LSI-R data to programs from the PADOC, (2) training on the LSI-R for interpretation, case management and re-assessment, (3) exchange of LSI-R data between the CCC and CCFs with the PADOC that includes dates of assessments, (4) training on core correctional practices and (5) distribution and review of the relevant research on evidence-based practices among all staff in CCC and CCF programs.

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Appendix

Treatment Effects

Table A7 presents the phi coefficients for any technical violation and the any recidivism variables. Negative values favor the comparison group. For any recidivism, the treatment group is only favored for Philadelphia CCC #4. For any technical violations, Minsec York Street and Pittsburgh CCC #3 indicate that there is no difference between the treatment and comparison groups.

Table A7. Phi Coefficients and Weights for Programs- Any Technical Violation and Any New

Program	Weight	Any Recidivism	Any Tech
PHILADELPHIA CCC #2	41.00	-.306	-.306
PHILADELPHIA CCC #3	31.00	-.104	-.104
PHILADELPHIA CCC #4	53.00	.036	-.109
PHILADELPHIA CCC #5	63.00	-.248	-.189
GAUDENZIA WEST CHESTER	51.00	-.298	-.266
MINSEC BROAD STREET	169.00	-.130	-.132
HANNAH HOUSE	63.00	-.286	-.301
DRC (Alcohol)	17.00	-.200	-.200
DRC (Group home)	169.00	-.128	-.175
DRC (Dual Diagnosis)	47.00	-.240	-.242
MINSEC CHESTER	265.00	-.045	-.123
LIBERTY MANAGEMENT	215.00	-.175	-.239
SELF HELP MOVEMENT	85.00	-.142	-.074
EAGLEVILLE D&A	131.00	-.434	-.330
GAUDENZIA FIRST	25.00	-.429	-.289
JOSEPH COLEMAN- SERENITY	5.00	-.577	-.577
JOSEPH COLEMAN- HARMONY	317.00	-.093	-.075
JOSEPH COLEMAN TRANQUILITY	139.00	-.344	-.268
GAUDENZIA PHILLY HOUSE	63.00	-.061	-.031
LUZERNE	141.00	-.292	-.321
KINTOCK-ERIE AVENUE	491.00	-.138	-.134
MINSEC YORK STREET	117.00	-.033	.000
SCRANTON CCC	93.00	-.403	-.348

ALLENTOWN CCC	147.00	-.188	-.164
HARRISBURG CCC	255.00	-.196	-.191
YORK CCC	63.00	-.248	-.193
JOHNSTOWN CCC	159.00	-.161	-.162
ATKINS HOUSE	21.00	-.251	-.385
TRANSITIONAL LIVING CTR	37.00	-.168	-.115
GAUDENZIA-COMMON GROUND	29.00	-.445	-.564
ADAPPT- ALCOHOL	79.00	-.578	-.466
ADAPPT- GROUP HOME	455.00	-.243	-.225
SCRANTON CATHOLIC	91.00	-.277	-.236
KEENAN HOUSE/TT	159.00	-.387	-.390
CONEWAGO PLACE	219.00	-.244	-.273
YOUTHBUILD/CRISPUS ATTUCKS	15.00	-.236	-.124
CONEWAGO WERN. ALCOHOL	55.00	-.592	-.508
CONEWAGO WERN. GROUP	217.00	-.364	-.289
CONEWAGO WERN. PENNCAPP	161.00	-.538	-.537
GAUDENZIA SIENA ALCOHOL	131.00	-.330	-.329
GAUDENZIA SIENA GROUP	239.00	-.224	-.273
GAUDENZIA-CONCEPT 90	23.00	-.309	-.316
MINSEC OF SCRANTON	253.00	-.259	-.297
PITTSBURGH CCC #3	33.00	-.134	.000
ERIE CCC	195.00	-.144	-.115
SHARON CCC	87.00	-.067	-.047
GAUDENZIA-ERIE	127.00	-.293	-.295
PENN PAVILION	227.00	-.235	-.219
ALLE-KISKI PAVILION	293.00	-.291	-.265
RENEWAL, INC.	493.00	-.195	-.234
GATEWAY-BRADDOCK	91.00	-.257	-.253
GATEWAY-ERIE	135.00	-.452	-.488
CAPITOL PAVILION & CONEWAGO HARRISBURG	307.00	-.181	-.155

Table A8 presents the phi coefficients for re-incarceration for each program and presents the Pearson correlation coefficients for number of arrests. Specifically, when examining the re-incarceration outcome measure, all but three values were negative which favors the comparison group. In particular, Philadelphia CCC #3, Minsec York Street and Pittsburgh CCC #3 had phi coefficient values of .000 which suggests that there

was no difference between the treatment and comparison groups for these three programs. To interpret the Pearson correlation coefficients, negative values favor the comparison group and positive values favor the treatment group.

Table A8. Phi Coefficients and Weights for Programs- Any Re-incarceration and Pearson correlation coefficients- Number of arrests

Program	Weight	Re-Incarceration	Number of arrests
PHILADELPHIA CCC #2	41.00	-.306	.014
PHILADELPHIA CCC #3	31.00	.000	-.174
PHILADELPHIA CCC #4	53.00	-.109	.135
PHILADELPHIA CCC #5	63.00	-.189	.125
GAUDENZIA WEST CHESTER	51.00	-.266	.117
MINSEC BROAD STREET	169.00	-.132	.112
HANNAH HOUSE	63.00	-.301	.119
DRC (Alcohol)	17.00	-.200	.250
DRC (Group home)	169.00	-.175	.052
DRC (Dual Diagnosis)	47.00	-.281	.119
MINSEC CHESTER	265.00	-.107	.023
LIBERTY MANAGEMENT	215.00	-.239	-.130
SELF HELP MOVEMENT	85.00	-.074	.069
EAGLEVILLE D&A	131.00	-.329	-.198
GAUDENZIA FIRST	25.00	-.358	.022
JOSEPH COLEMAN- SERENITY	5.00	-.577	.381
JOSEPH COLEMAN- HARMONY	317.00	-.088	-.084
JOSEPH COLEMAN TRANQUILITY	139.00	-.268	-.181
GAUDENZIA PHILLY HOUSE	63.00	-.091	.073
LUZERNE	141.00	-.334	-.046
KINTOCK-ERIE AVENUE	491.00	-.122	-.045
MINSEC YORK STREET	117.00	.000	.002
SCRANTON CCC	93.00	-.348	-.095
ALLENTOWN CCC	147.00	-.177	.030
HARRISBURG CCC	255.00	-.189	.034
YORK CCC	63.00	-.223	.011
JOHNSTOWN CCC	159.00	-.136	.109
ATKINS HOUSE	21.00	-.385	-.141
TRANSITIONAL LIVING CTR	37.00	-.115	.083
GAUDENZIA-COMMON GROUND	29.00	-.564	.062
ADAPPT- ALCOHOL	79.00	-.518	-.124

ADAPPT- GROUP HOME	455.00	-.223	-.048
SCRANTON CATHOLIC	91.00	-.236	-.110
KEENAN HOUSE/TT	159.00	-.390	-.160
CONEWAGO PLACE	219.00	-.299	-.016
YOUTHBUILD/CRISPUS ATTUCKS	15.00	-.124	-.346
CONEWAGO WERN. ALCOHOL	55.00	-.569	-.292
CONEWAGO WERN. GROUP	217.00	-.297	-.044
CONEWAGO WERN. PENNCAPP	161.00	-.561	-.109
GAUDENZIA SIENA ALCOHOL	131.00	-.343	-.142
GAUDENZIA SIENA GROUP	239.00	-.264	.057
GAUDENZIA-CONCEPT 90	23.00	-.316	.014
MINSEC OF SCRANTON	253.00	-.305	.061
PITTSBURGH CCC #3	33.00	.000	-.035
ERIE CCC	195.00	-.104	-.036
SHARON CCC	87.00	-.046	.005
GAUDENZIA-ERIE	127.00	-.309	.011
PENN PAVILION	227.00	-.227	-.166
ALLE-KISKI PAVILION	293.00	-.271	-.177
RENEWAL, INC.	493.00	-.226	.098
GATEWAY-BRADDOCK	91.00	-.264	-.081
GATEWAY-ERIE	135.00	-.502	-.119
CAPITOL PAVILION & CONEWAGO HARRISBURG	307.00	-.155	.021