

**EVALUATION OF OHIO'S COMMUNITY BASED CORRECTIONAL FACILITIES  
AND HALFWAY HOUSE PROGRAMS**

**FINAL REPORT**

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## **SECTION I—INTRODUCTION**

The Ohio Department of Rehabilitation and Correction (ODRC), Division of Parole and Community Services funds three types of locally operated programs: Community Correction Act Jail and Prison Diversion programs, Halfway Houses (HWH) and Community-Based Correctional Facilities (CBCF). This study focuses on two of those programs: Halfway Houses and Community-Based Correctional Facilities. The HWH offenders examined in this study were (1) offenders paroled or released on post-release control (PRC) from state institutions, (2) parole/PRC violators placed as a sanction and (3) offenders released from a state institution on transitional control. Offenders are placed in a HWH facility by the releasing authority or supervising officer. The study included all offenders served by Community-Based Correctional Facilities. The CBCF programs receive offenders sentenced directly from Ohio's Courts of Common Pleas under probation supervision.

The ODRC posted a Request For Proposals (RFP) that focused on identifying the long-term effects of the HWH and CBCF programs on recidivism. The RFP also required the contractor to provide profiles of those served by the HWH and CBCF programs and descriptions of the services offered by the programs listed in the RFP. Several sub-analyses of the HWH were also requested including analyses by referral type and geographic setting of the HWH facility. With both HWH and CBCF programs the RFP required analyses by each facility to include an offender profile and analyses of outcome data. The study year in question is Fiscal Year 1999 (FY99) and includes all offenders terminated from twenty-two HWH programs and



fourteen CBCF programs. The objectives of this research included:

- Describing the core programming components of the CBCF and HWH programs
- Profiling offenders served by the two types of programs
- Identify differences between successful and unsuccessful program completers
- Determine the programs' efficacy in reducing recidivism

This report presents a description of the HWH and CBCF programs listed in the RFP and an outcome evaluation of each program<sup>1</sup> and each grouping of programs (HWH and CBCF).

This report is presented in four subsequent sections. Section II describes the methodology employed in this project, Section III presents the program descriptions, Section IV presents the outcome analyses, and Section V provides a summary, discussion, and recommendations based on the results of this project. Appendices are attached that provide the questionnaires, surveys, and data collection instruments utilized in this report. The appendices also cover, in detail, methods used to develop a measure of risk, which served an important control measure in multivariate analyses. Finally, the appendices contain all of the individual site analyses organized alphabetically and by program type (CBCF/HWH).

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<sup>1</sup> Where the number of offenders terminated during FY99 supported such analyses.

## SECTION II—METHODOLOGY

To answer the questions listed in the request for proposals, substantial amounts of data were collected through surveys, interviews, and reviews of offender files in addition to the data provided electronically to the University of Cincinnati by the ODRC. Once all data were collected, the data were analyzed using several different techniques. The methods employed for data collection and analyses as well as the study participants are described in this section.

### Participants

This study includes an experimental and comparison group. The experimental group contains offenders released from a state institution, either on parole/PRC or transitional control and placed in a HWH, or offenders sentenced to CBCF. The CBCF participants were terminated from one of fourteen CBCF programs in operation in the state during fiscal year 1999. The total number of CBCF offenders is 3,629. These offenders were compared to a group comprised of parolees/PRC released from Ohio Correctional Institutions during the same fiscal year without placement into a halfway house. The comparison cases (2,797) were drawn from a larger sampling frame (N=6,781) and were matched with the experimental cases on county of conviction and sex. Cases were further matched by crime type if the experimental case was coded as a sex offender.<sup>2</sup>

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<sup>2</sup> The experimental and comparison groups were contained in two separate files. A program was written that recorded the county of conviction and sex of the offender for the first case in the experimental group. The program then queried the comparison group file and found an offender that matched on county of conviction and sex. This matching case was then marked as a comparison case for the offender in the experimental group. If the experimental group offender was a sex offender, the program matched on county of conviction, sex of the offender, and current offense type. The program then went on to the second comparison case and continued iterating until no further matches could be made.

The experimental group also included parolees/PRC referred upon release, parolees/PRC referred due to a parole/PRC violation, and transitional control releases. In an effort to develop comparison groups that were most similar to the experimental groups, three separate matching programs were utilized for each type of referral.

The parolees/PRC releases were matched in a fashion similar to that described for the CBCF comparison group. Selecting comparison cases for the parolees/PRC releases referred to the HWH programs due to a parole/PRC violation involved adding the search criteria such that the comparison case was being released from an institution on parole/PRC following a return to prison due to a parole/PRC violation.

The development of a comparison group for those offenders referred through transitional control involved developing several more search criteria. In addition to matching by sex and county of supervision, the comparison cases for transitional control were matched on several additional criminal history and current offense variables. These included, the total number of prior incarcerations in a state facility, the current type of offense (could not be sex or violent), no history of sex offenses, and could not be serving time due to a violation for post-release control.

Overall, the Halfway House experimental group included 3,737 offenders that were terminated from Halfway Houses during fiscal year 1999. Of these 3,737 offenders, 1,967 were referred as a condition of their parole/PRC, 909 were referred due to parole/PRC violations, and 861 were referred under transitional control. The entire comparison group for the Halfway Houses numbered 3,058 with 1,918 being parole/PRC referral comparisons, 674 being

comparisons for the parole/PRC violators, and 466 being matched to the transitional control cases.<sup>3</sup>

### **Procedures for Data Collection**

Various data collection efforts occurred simultaneously. Data pertaining to the experimental group and the programmatic characteristics were collected during the same time periods at each program site. Data on the comparison group were collected centrally at the administrative offices of the ODRC. In addition, record checks for subsequent criminal behavior were conducted and coded at the administrative offices of the ODRC.

### **Data Collection on Individuals**

Data on demographic characteristics, the current offense, county of conviction, needs identified, services delivered, termination type, and employment status at discharge were extracted from the Community Corrections Information System maintained by the ODRC. Missing data identified in this database were collected from the offender files located at each program site by research associates from the University of Cincinnati. Criminal history data were collected and coded from The Bureau of Criminal Identification and Investigation (BCI&I) record checks conducted by the ODRC.

Data for the comparison group were collected from inmate files, which include pre or post-sentence investigations, classification instruments, and notes while incarcerated. The data files were collected from the archived records at the Department of Rehabilitation and Correction in Columbus, Ohio. Copies of the records were taken back to the University of Cincinnati where

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<sup>3</sup> The comparison cases in each of these three groups were unique and appeared in only one group, however, some of the cases in the CBCF comparison group were used again in the Halfway House comparison group. This fact is inconsequential as all analyses were conducted separately for the CBCFs and Halfway Houses.

data coders coded information from the copied files. As with the experimental group, all criminal history data were compiled from BCI&I record checks conducted by the ODRC.

Recidivism data<sup>4</sup> for both groups were gathered and coded from BCI&I record checks conducted by the ODRC. In addition, outcome data for subsequent incarcerations were gathered from data records maintained by the ODRC. This data pertains only to incarcerations in state penal institutions in Ohio. When defining outcome, an offender was considered arrested if any arrest, appeared on his/her rap sheet after the date of program termination. An offender was defined as a recidivist on the measure of reincarceration if he/she was incarcerated, after being terminated from the program, according to either the BCI&I rap sheet or a search of DOTS.

#### Program Level Data Collection

The program descriptions contained in this report focused on identifying program components and treatment services provided to offenders enrolled in the program. In order to collect accurate information, site visits to each program were conducted from April through June 2002. The site visits consisted of an in-depth interview and survey of the program director. Staff surveys were conducted prior to the site visit and collected during the site visits. Finally, reviews of program materials such as treatment manuals, offender assessments, and other

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<sup>4</sup> Several aspects of the recidivism data should be noted. First, the data collected from the BCI&I rap sheets were difficult to interpret and code. These problems were most prominent with reconviction data leaving many cases as “missing” on this measure. As such, a decision was made not to use reconviction as an outcome measure. Two sources of incarceration data were used in an effort to provide the most complete and accurate data on reincarceration, however, one major problem was encountered. Many CBCF offenders did not have ODRC numbers, consequently, matching them in the DOTS database was difficult as database matches based on name, DOB, and SSN frequently are. Some concern exists that the reincarceration rate for CBCF offenders is underestimated by both sources (BCI&I and DOTS). The measures provided by BCI&I are not as problematic, as there is no reason to believe that this undercounting is non-random. However, this may not be the case when considering the second source (DOTS) of reincarceration data.

supporting materials were conducted. All data collection instruments from the site visits and program descriptions are contained in Appendix A.

### **Measures**

Individual level predictors for both the comparison and experimental group include race, gender, age, marital status, employment status upon arrest, a history of alcohol use, a history of drug use, mental health problems, and prior criminal history. Measures of prior criminal history included prior number of arrests, prior number of incarcerations, and whether the offender had any prior community control violations.

Demographic data includes age, race, sex, and marital status. Age was recorded as the actual age in years, race was coded as white or black<sup>5</sup>, and marital status was coded as married, never married, or divorced/separated/widowed.

Criminal history data were collected on prior arrests and prior incarcerations. Prior arrests and incarcerations<sup>6</sup> were both collected as the actual number of prior arrests or incarcerations. These data, for the purposes of analyses, were collapsed into dichotomous variables, with zero representing no arrest or incarceration and the value of 1 indicating at least one arrest or incarceration.

Data pertaining to the needs of the offender and current offense included employment

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<sup>5</sup> Forty-one offenders, coded as Asian, were excluded from the sample. Approximately 150 offenders in the comparison group coded as Hispanic were recoded as white. This decision was made as ethnicity was not available for the experimental group with any sort of consistency.

<sup>6</sup>Data on prior incarcerations was taken from the DOTS database only. This decision was made because these data were more complete. As with the outcome data from DOTS, there was some concern that the DOTS data underestimates incarceration for CBCF offenders due to the necessity to match on name, DOB, and/or SSN with CBCF offenders since many did not have ODR&C numbers. The scope of this problem, however, is unknown.

status at arrest, education level completed, history of alcohol abuse, history of drug abuse, a history of or current mental health problems, type of current offense, and felony degree. Employment at arrest was coded as (0) for employed and (1) if unemployed. Education level was coded as the actual grade completed and a second measure captured high school completion (coded 0 for H.S. graduate and 1 if the individual had not completed H.S.). A history of drug use, a history of alcohol abuse, and a history of or current mental health needs were all coded as a (1) if the characteristic was present and a (0) if absent. Finally, offense types and felony degree levels were coded. Offense type was coded as a personal, sex, drug, property, or other type of crime. Felony degree level was coded according to the degree (first degree = 1, second degree = 2, and so on). A small number (11) of misdemeanor offenses were recoded as fifth degree felonies.

Finally, data describing offender needs and programming were coded for the experimental group. This data included whether the offender needed academic training, vocational training, employment counseling, assistance with accommodations, counseling for drugs, alcohol, anger, mental health, or sexual behavior, and whether the offender participated in this programming. The termination status of the offender (successful versus unsuccessful) was also collected and coded.

While the number of offenders in the CBCF and HWH groups was large enough to substantiate the inclusion of a considerable number of control variables, this was not the case with program-by-program and sub-group analyses. As such, a risk measure was developed which included a number of theoretically and empirically important variables. This risk measure was then used to develop risk categories, which then served as a control measure in the

multivariate analyses. The factors and weights used in the risk measure are contained in Appendix B.

### **Design and Analyses**

In order to provide the information required in the request for proposals and the most useful information to the ODR&C and participating programs several analyses were conducted. These analyses included a variety of methods.

The first analyses conducted were descriptive in nature and involved site visits to each program participating in this project. These visits allowed for the development of program descriptions that outlined key programming components of each program. The site descriptions are summarized in the next section with full descriptions presented in Appendix C.

Next, several statistical analyses were conducted which help determine key differences between the experimental and comparison groups. A second set of bivariate analyses were conducted based on successful and unsuccessful program termination to identify factors that impact successful program completion. Finally, analyses focused on determining if and when the experimental group performed better than the comparison group, and under which circumstances that was most likely to occur.

Bivariate analyses on demographic characteristics, risk and need factors, risk scores, and outcome were calculated for the HWH and CBCF groups, for the HWH group by geographic setting, and the HWH by referral type (and are discussed in the Section IV of this report). These bivariate analyses were also conducted for each individual program site (and are reported in Appendix C of this report). Finally, multivariate logistic regression models were run for the HWH and CBCF groups, for the HWH group by geographic setting, for the HWH group by referral type, and each CBCF and HWH program site where the number of terminations from the



program during FY99 was greater than or equal to fifty cases.<sup>7</sup>

Logistic regression is a statistical technique which determines the impact of predictor variables on an outcome variable that is discrete and can take on only two values (in this case recidivism versus no recidivism). Logistic regression predicts the likelihood that the event in question (recidivism) takes place. The information provided by logistic regression allows for the calculation of the odds that an event will occur based on the actual data entered into the equation. These odds can be manipulated, mathematically, to provide the probability of an event occurring (see Menard 1998 for a more detailed description).

The multivariate logistic regression models controlled for race, sex, group membership, risk level, and one interaction term between group membership and risk level. This model allows for a comparison of the effects of treatment holding all other factors constant. The model described above also provides information relative to the effects of treatment across levels of risk. This in effect, allows for the determination of whether treatment is more or less effective with different offenders based on risk.

The results from the multivariate logistic regression models were used to calculate predicted probabilities of recidivism based on the data at hand. These probabilities were then used to illustrate the effectiveness (or lack thereof) of the HWH and CBCF in reducing

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<sup>7</sup> Sites where the number of successful terminations was less than 50 were combined, for the purposes of analyses, into a “small programs” group. Incidences where the number of successful terminations was under 50 occurred only with the HWH programs. The HWH programs that were included in the small programs group are Alvis House Price Hall, Alvis House Cope Center, Alvis House Veterans, CCA Women’s Facility, Traynor House, Crossroads Center for Change, Pathfinder’s Men’s and Women’s Facility, Cincinnati VOA SAMI, Cincinnati VOA Sex Offender, Spencer House, Mansfield VOA, Diversified Community Services, Community Assessment Men’s Program, Dayton Salvation Army, Southwestern Ohio Serenity Hall, Goodwill Industries, Oriana House RCC, and Talbert House Pathways. This left eighteen HWH programs for analyses and the “small programs” group.

Given the smaller numbers of females served in the CBCF programs, CBCF programs were analyzed as one program regardless of the sex of the offenders served. Sex of the offender was controlled for in the multivariate regression analyses.

recidivism. These probabilities were also calculated across risk levels and for each individual program.

### SECTION III—PROGRAM DESCRIPTIONS

While there were only fourteen CBCF agencies and 22 HWH agencies listed in the RFP, many agencies operated more than one program. When counting the total number of separate programs, one additional program was added to the CBCF group (a total of 15) and fifteen additional programs were added to the HWH group (for a total of 37).

A total of fifty-two program descriptions are provided in Appendix C and are summarized in this section of the report. Charts 1 and 2 provide information on core programming, program capacity, average length of stay for successful program terminations, the number of cases from each program included in subsequent analyses, and the successful termination rate for each CBCF and HWH.

A summary of the data contained in the site descriptions indicates that the two types of programs differ in terms of average number of years in operation, average capacity, and average length of stay for successful terminations. HWH programs have been in operation for an average of nineteen years whereas the CBCF programs average ten years. The CBCF programs are likely to have a larger capacity (average capacity at CBCF is 114 versus 54 for the HWH programs). CBCF programs are more likely to serve both males and females (60% versus 16%), however, they are less likely to have all female facilities (7% or 1 facility versus 22%). The average length of stay for successful terminations at the CBCF programs is 136 days (N = 2,875). For HWH programs, the average length of stay is 94 days (N = 2,366).

In terms of programming offered, the CBCF and HWH differ substantially. Chart 1 lists the individual programs and the services they identified as being core services offered at each CBCF. As can be seen, there is fairly strong consistency in the core services offered by the

**Chart 1. Programming Services, N, Average Length of Stay, and Program Capacity by CBCF (\*=Successful Terminations Only reported in days)**

Program Name	N	Successful Termination Rate	Average Length of Stay*	Capacity	Serve Males	Serve Females	Substance Abuse	Employment	Education	Cognitive Groups	Financial	Life/Parenting Skills	Anger Management	Mental Health	Sex Offender	Behavior Modification	Spirituality	AA/NA	Domestic Violence	Women's Health
Community Correctional Center (Butler, Clermont, Warren)	260	85	143	100	X		X	X	X				X		X					
Eastern Ohio Correctional Center	197	93	135	100	X	X	X	X	X	X	X	X	X	X	X					
Franklin County CBCF	455	71	153	190	X	X	X	X	X				X							
Licking/Muskingum	143	58	162	57	X		X	X	X	X	X			X						
Lorain/Medina CBCF	148	85	127	56	X		X	X	X	X			X							
Lucas County CBCF	347	81	169	125	X	X	X	X	X	X	X		X	X	X				X	
Mahoning County CBCF	179	80	110	164	X	X	X	X	X	X			X	X	X					
MonDay Community Correctional Institution	377	90	126	160	X	X	X	X	X	X	X		X	X						
Northeastern Ohio Community Alternative Program	216	93	116	116	X	X	X	X	X	X	X		X	X						
River City Community Correctional Center	138	85	120	200	X	X	X	X	X	X	X		X	X		X				
SEPTA Correctional Facility	145	68	177	64	X		X	X	X		X		X	X	X					
Stark Regional Community Correction Center	240	91	117	105	X	X	X	X	X	X	X		X	X	X					
Summit CBCF Men	518	65	129	112	X		X	X	X	X	X		X	X						
Summit CBCF Females	262	77	130	56		X	X	X	X	X	X		X	X						
WORTH Center	260	85	143	94	X	X	X	X	X	X			X							

**Chart 2. Programming Services, N, Average Length of Stay, and Program Capacity by HWH (\*=Successful Terminations Only reported in days)**

Program Name	N	Successful Termination Rate	Average Length of Stay*	Capacity	Serve Males	Serve Females	Substance Abuse	Employment	Education	Cognitive Groups	Financial	Life/Parenting Skills	Anger Management	Mental Health	Sex Offender	Behavior Modification	Spirituality	AA/NA	Domestic Violence	Women's Health
Alternatives Agency	315	44	97	140	X	X	X													
Alvis House Alum Creek	335	83	53	104	X		X	X	X	X	X									
Alvis House Cope Center				28	X	X	X	X												
Alvis House Dunning Hall	141	84	58	38		X	X	X	X	X	X									
Alvis House Price Hall	--	--	--	24	X		X	X	X	X	X									
Alvis House Veterans	--	--	--	24	X		X	X	X	X	X		X	X	X					
Cincinnati VOA McMahon Hall	165	66	87	70	X		X	X	X		X	X					X	X		
Cincinnati VOA Pogue Center-CD Program	154	49	110	58	X		X	X	X											
Cincinnati VOA Pogue Center-SAMI Program	--	--	--	12	X		X			X				X						
Cincinnati VOA-Pogue Center Sex Offender	--	--	--	25	X		X			X			X		X					
Community Assessment Men's Program	80	73	88	45	X		X							X		X				
Community Assessment Women's Program	--	--	--	24		X	X			X				X						
Community Corrections Association Men's Program	148	84	87		X		X	X	X	X			X	X						
Community Corrections Association Women's Program	--	--	--	20		X	X	X	X	X			X	X						

**Chart 2 (continued). Programming Services, N, Average Length of Stay, and Program Capacity by HWH (\*=Successful Terminations Only reported in days)**

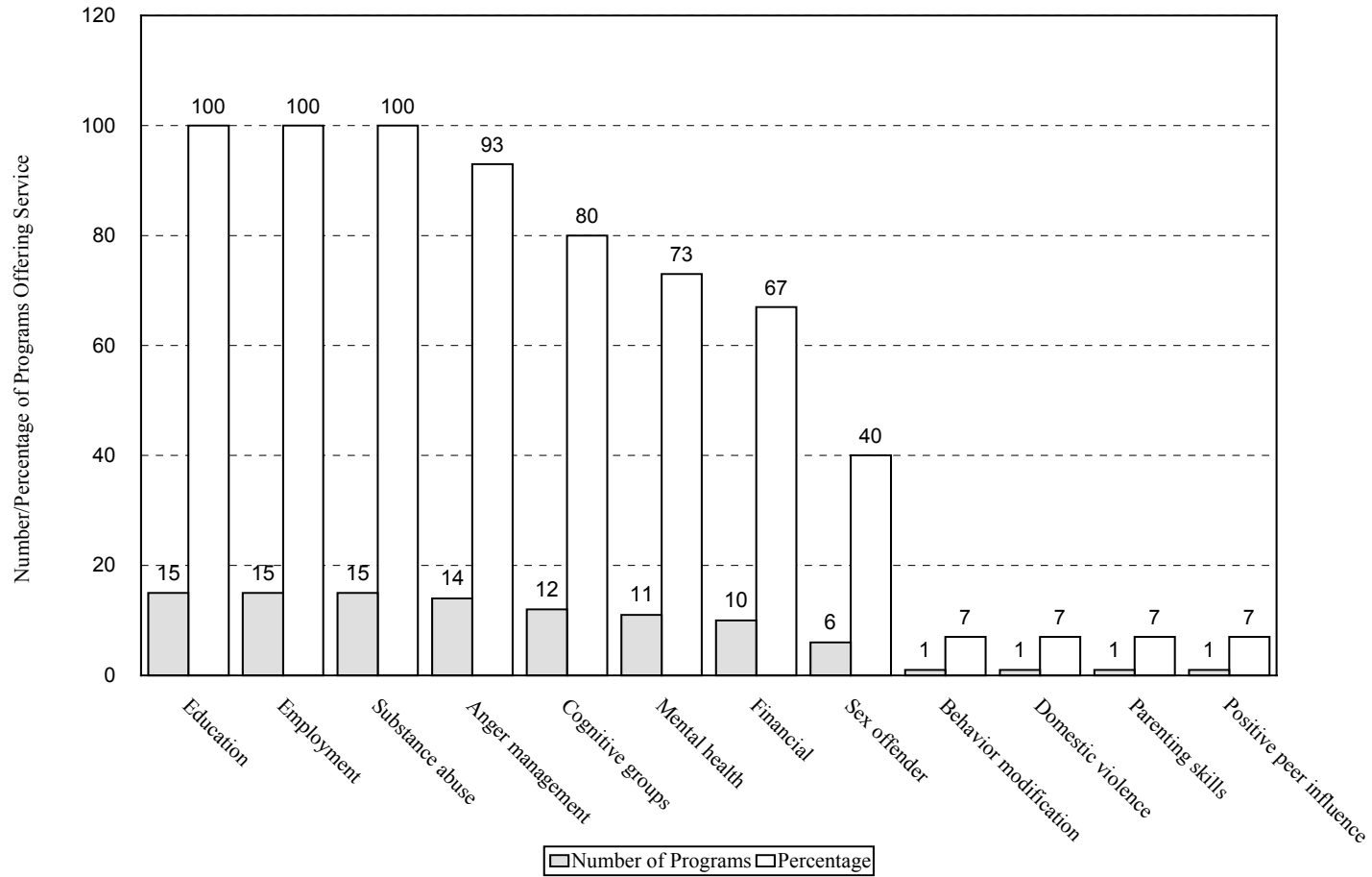
Program Name	N	Successful Termination Rate	Average Length of Stay*	Capacity	Serve Males	Serve Females	Substance Abuse	Employment	Education	Cognitive Groups	Financial	Life/Parenting Skills	Anger Management	Mental Health	Sex Offender	Behavior Modification	Spirituality	AA/NA	Domestic Violence	Women's Health
Community Residential Treatment Services (CompDrug)	208	83	90	105	X		X	X	X		X		X	X						
Community Transition Center	107	54	120	60	X	X	X				X		X							
Community Treatment and Correction Center	135	57	120	50	X		X	X	X	X	X		X							
Crossroads Center for Change	--	--	--	50	X		X	X	X		X								X	
Dayton Salvation Army Booth House	--	--	--	15	X		X	X			X		X							
Diversified Community Services	--	--	--	25	X		X	X	X	X				X						
Fresh Start (#2 and #3)	75	63	109	60	X		X													
Goodwill Residential Services for Women	--	--	--	30		X	X	X	X				X							
Harbor Light Salvation Army	219	68	91	130	X	X	X	X	X	X	X	X					X	X		
Oriana House RCC	--	--	--	60		X	X	X	X	X	X		X	X						X
Oriana House RIP	204	58	107	128	X	X	X	X	X	X			X	X	X					
Oriana House TMRC	121	67	89	130	X	X	X	X	X	X			X	X	X					
Pathfinder House Men's Program	--	--	--	40	X			X	X	X	X									
Pathfinder House Women's Program	--	--	--	19		X		X	X		X									
Southwestern Ohio Serenity Hall	--	--	--	35	X		X	X	X	X	X		X							
Spencer House	--	--	--	16	X	X	X	X	X		X									

**Chart 2 (continued). Programming Services, N, Average Length of Stay, and Program Capacity by HWH (\*=Successful Terminations Only reported in days)**

Program Name	N	Successful Termination Rate	Average Length of Stay*	Capacity	Serve Males	Serve Females	Substance Abuse	Employment	Education	Cognitive Groups	Financial	Life/Parenting Skills	Anger Management	Mental Health	Sex Offender	Behavior Modification	Spirituality	AA/NA	Domestic Violence	Women's Health
Talbert House Beekman	144	69	86	60	X		X	X		X	X									
Talbert House Cornerstone	105	47	103	52	X		X	X			X		X							
Talbert House Pathways	--	--	--		X		X	X	X	X	X									
Talbert House Spring Grove	212	53	102	100		X	X	X					X							
Volunteers of America-Toledo	134	66	109	80	X		X	X	X		X									
Traynor House Inc.	--	--	--	29		X	X	X	X	X	X		X	X						
The Volunteers of America Northeast and North Central Ohio	--	--	--	62	X		X								X					

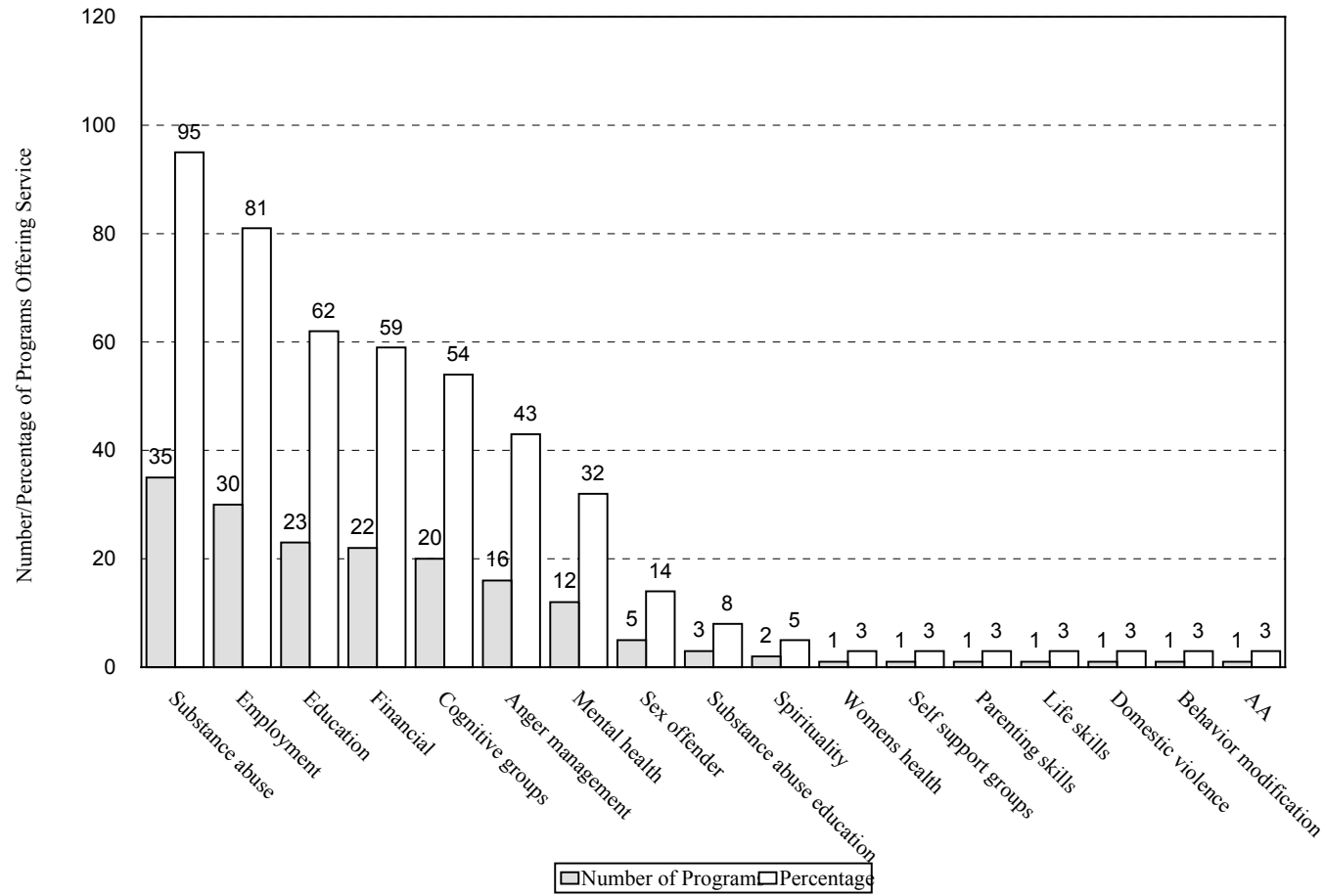
Programs where data were not computed due to small sample sizes are marked with dashes.

**Figure 1. Core Programming and Services Offered by CBCF Programs**





**Figure 2. Core Programming and Services Offered by HWH Programs**



CBCF programs. Chart 2 indicates that, while most HWH programs offer substance abuse programming, there is considerable variation in the types of programs offered by the HWH programs.

Figures 1 and 2 display a tabulation of the types of core programming at each facility where a site visit was conducted. All CBCF programs reported offering education, employment, and substance abuse programming as part of their core services. A high percentage of CBCF programs also report offering cognitive based groups, mental health counseling, and financial counseling. Ninety-five percent of the HWH programs reported offering substance abuse counseling. Eighty-one percent report offering employment services, while sixty-two percent reported offering educational services. Fewer programs reported offering financial management skills, cognitive based groups, anger management, and mental health services. A number of other types of services are offered by less than fifteen percent of the programs and are listed in Figure 2.

## SECTION IV—RESULTS

Both bivariate and multivariate analyses are reviewed in this section.<sup>8</sup> This section is divided into two subsections with the first covering the results pertaining to CBCFs and the second subsection reporting on the results of the HWH analyses. The HWH results are further disaggregated by referral type and geographic setting.

### *CBCF Results*

This section reports the results of the analyses on the CBCF programs. The data are presented in several tables. Tables 1 and 2 compare the experimental and comparison groups on demographic and risk/need characteristics. Table 3 reports programming needs, programming participation, and program termination status for the experimental group. Tables 4 and 5 compare successful and unsuccessful program terminations on demographic and risk/need characteristics for the experimental group only. Tables 6 through 9 report the bivariate outcome results by group membership (experimental versus comparison). Finally, Tables 10 through 13 present the results of the multivariate analyses on outcome for the CBCF group as a whole and for each CBCF program.

### *Demographics, Risk/Need Characteristics, and Programming*

Table 1 contains the descriptive statistics on the demographic characteristics of the experimental and comparison groups. This table indicates that the comparison group is significantly older than the experimental group (29 versus 33). The comparison group cases were also significantly more likely to be Black and male when compared to the experimental

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<sup>8</sup>It should be noted that given the significant differences on demographic, risk, and need variables between the experimental and comparison group, the multivariate analyses are more accurate assessments of the programs' abilities to impact outcome.

group. Finally, the two groups differed significantly in terms of marital status, however, the differences were not substantive and probably due to the large sample size (N=6,426).

**Table 1. Descriptive Statistics for all CBCFs by Group Membership**

Variable	Experimental Group	Comparison Group
	Mean (N)	Mean (N)
Age (Average Age in Years)*	29 (3,629)	33 (2,797)
Race*	% (N)	% (N)
Black	40.2 (1,452)	47.1 (1,315)
White	59.8 (2,163)	52.9 (1,475)
Sex*	% (N)	% (N)
Male	86.1 (3,124)	92.8 (2,596)
Female	13.9 (505)	7.2 (706)
Marital Status*	% (N)	%(N)
Married	14.1 (512)	16.9 (472)
Never Married	67.0 (2,430)	66.2 (1,852)
Divorced/Separated/Widowed	18.9 (687)	16.9 (473)

\*Difference Significant at  $p < .05$

Risk and need factors are described in Table 2. As with demographic characteristics, the two groups differ significantly on all of the factors listed in Table 2 with the exception of the measures of education (average grade completed and high school graduate). Table 2 indicates that the comparison group has a higher average number of prior arrests, prior incarcerations, and percentage that was ever incarcerated. The experimental group was more likely to be employed at arrest, and was more likely to be arrested for property offenses and less serious offenses as measured by felony degree level. The experimental group was more likely to have a history of drug abuse and mental health problems and less likely to have a history of alcohol abuse. While the differences for these variables were significant, the differences for alcohol and drug abuse varied by less than five percent.

Given the significant differences observed between the two groups on many of these variables, a risk score was developed that would control for these differences in one aggregate

**Table 2. Descriptive Statistics for Risk/Need Factors by Group Membership for all CBCFs**

Variable	Experimental Group	Comparison Group
	Mean (N)	Mean (N)
Prior Arrests*	3.97 (3,310)	4.67 (2,661)
	% (N)	% (N)
Prior Arrest (Yes/No)*	98.9 (3,273)	83.8 (2,231)
	Mean (N)	Mean (N)
Prior Incarcerations in State of Ohio*	.36 (3,629)	.90 (2,797)
	% (N)	% (N)
Prior Incarcerations (Yes/No)*	22.5 (816)	45.9 (1,283)
Employment Status at Arrest*	% (N)	% (N)
Employed	45.7(1,658)	31.3 (876)
Unemployed	54.3 (1,971)	68.7 (1,927)
	Mean (N)	Mean (N)
Education Level (Highest Grade Completed)	10.7 (3,629)	10.7 (2,797)
	% (N)	% (N)
H.S. Graduate (Yes/No)	34.5 (1,253)	32.6 (911)
Offense Type*	% (N)	% (N)
Person	13.0 (473)	26.0 (726)
Sex	2.3 (85)	5.9 (166)
Drug	32.9 (1,312)	34.8 (974)
Property	36.2 (1,312)	25.4 (711)
Other	15.6 (565)	7.9 (220)
Degree of Current Offense*	% (N)	% (N)
First	1.4 (49)	8.4 (236)
Second	6.5 (232)	27.4 (765)
Third	13.4 (480)	17.1 (477)
Fourth	39.2 (1,407)	25.6 (717)
Fifth	39.6 (1,423)	21.5 (602)
History of Alcohol Abuse (Yes/No)*	71.5 (2,594)	76.2 (2,130)
History of Drug Abuse (Yes/No)*	82.8 (3,006)	78.7 (2,201)
Mental Health Problems Identified (Yes/No)*	40.3 (1,461)	28.2 (788)
	Mean (N)	Mean (N)
Risk Level*	65.6 (3,629)	66.6 (2,797)
	% (N)	% (N)
Risk Category*	% (N)	% (N)
Low	3.4 (124)	6.1 (171)
Low/Moderate	17.9 (648)	18.6 (521)
Moderate	53.0 (1,923)	42.3 (1,184)
High	25.7 (934)	32.9 (921)

\*Difference Significant at  $p < .05$

measure. A risk scale was developed which incorporated several factors listed in Tables 1 and 2. The complete process used to develop this scale is described in detail in Appendix B. The descriptive statistics for the risk scale and risk categories indicates that the comparison group is slightly at higher risk. This conclusion is based on the mean composite risk score and the slightly higher percentage of offenders in the comparison group that are in the high-risk category.

The risk scale, as utilized in this report, demonstrates the necessity for the programs to consider a host of factors when determining risk-level. No single factor leads to an offender being high-risk, rather it is an accumulation of several risk factors that leads to high-risk status.

#### *Programming Needs and Participation and Program Termination Status*

The percentage of offenders entering CBCF with specific needs and the percentage of offenders that participated in programming for those specific needs is reported in Table 3. As can be seen in Table 3, sixty-five percent of the offenders had a need for academic training, however, seventy percent of the admissions to CBCFs participated in academic training. A similar trend is noted with assistance with accommodations, substance abuse counseling, alcohol abuse counseling, and anger management. That is, a greater percentage of offenders participated in programming than were assessed as having a need in that area.<sup>9</sup> Conversely, with vocational training, employment assistance, and sexual behavior counseling, a smaller percentage of

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<sup>9</sup> This finding, that more offenders receive services in a particular area than demonstrate need, could occur for one of two reasons. First, this trend could be a result of programs that provide the same services to all offenders regardless of offender needs which results in over-serving of offenders and trends as identified in these analyses. The second potential explanation is that the database from which the data on offender needs and programming were drawn is not continually updated throughout an offender's stay in a program. If an offender enters a program and is assessed as not needing substance abuse counseling, but later turns out to need this service and engages it, it is possible that this offender would be indicated as not needing substance abuse counseling but as having received the service since the data on needs at intake is not updated later.

offenders participated in programming than were identified as having a need in those areas. Mental health counseling appeared to be delivered only to those offenders that were assessed as having that specific need. Finally, Table 3 reports the percentage of offenders that successfully completed programming. Overall, seventy-nine percent of the offenders terminated during the study period were successful terminations.

**Table 3. Programming Information for all CBCFs**

Variable	All CBCF Participants
	% (N)
Academic Training Needed	64.6 (2,334)
Percent Participated In	70.6 (2,518)
Vocational Training Needed	60.6 (2,186)
Percent Participated In	53.3 (1,893)
Employment Assistance Needed	89.0 (3,211)
Percent Participated In	72.0 (2,550)
Assistance with Accommodations Needed	50.3 (1,806)
Percent Participated In	78.8 (2,766)
Substance Abuse Counseling Needed	86.6 (3,125)
Percent Participated In	89.8 (3,213)
Alcohol Abuse Counseling Needed	79.7 (2,853)
Percent Participated In	88.4 (3,156)
Mental Health Counseling Needed	39.5 (1,418)
Percent Participated In	39.7 (1,411)
Anger Management Counseling Needed	69.1 (2,442)
Percent Participated In	72.2 (2,548)
Sexual Behavior Counseling Needed	6.1 (217)
Percent Participated In	3.0 (108)
Termination Status	% (N)
Successful	79.3 (2,879)
Unsuccessful	20.7 (750)

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\*Difference Significant at  $p < .05$

Comparing Successful and Unsuccessful Terminations

Tables 4 and 5 report the descriptive statistics for demographic characteristics and risk/need factors across termination type. Table 4 indicates that those offenders successfully terminated from the program were more likely to be White and more likely to be divorced, separated, or widowed than those offenders unsuccessfully terminated from the program who were more likely to be Black and never married. The offender’s sex and age were not significantly related to termination status.

**Table 4. Descriptive Statistics By Termination Status for all CBCFs**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Age (Average Age in Years)	29.5 (2,879)	29.0 (847)
Race*	% (N)	% (N)
Black	38.6 (1,108)	47.1 (396)
White	61.4 (1,763)	52.9 (445)
Sex	% (N)	% (N)
Male	86.2 (2,481)	86.8 (735)
Female	13.8 (398)	13.2 (112)
Marital Status*	% (N)	% (N)
Married	14.3 (412)	14.5 (123)
Never Married	65.3 (1,880)	71.4 (605)
Divorced/Separated/Widowed	20.4 (587)	14.0 (119)

\*Difference Significant at  $p < .05$

Table 5 indicates that, in spite of statistically significant relationships, very few risk factors by themselves assist in predicting successful program completion. However, being unemployed at arrest and having a mental health problem appear to produce substantive differences in successful and unsuccessful program completion rates. The risk level, which incorporates all of the individual factors listed in Table 5 (and three additional criminal history measures, see Appendix B), indicates that successful program terminations were slightly lower risk overall. When looking at the risk category, it is observed that thirty-two percent of the



**Table 5. Descriptive Statistics for Risk/Need Factors by Termination Status for all CBCFs**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Prior Arrests*	3.9 (2,616)	4.5 (789)
	% (N)	% (N)
Prior Arrest (Yes/No)*	99.2 (2,595)	95.9 (757)
	Mean (N)	Mean (N)
Prior Incarcerations in State of Ohio*	.34 (2,879)	.41 (847)
	% (N)	% (N)
Prior Incarcerations (Yes/No)	22.1 (636)	23.6 (200)
Employment Status at Arrest*	% (N)	% (N)
Employed	48.4 (1,393)	35.5 (301)
Unemployed	51.6 (1,486)	64.5 (546)
	Mean (N)	Mean (N)
Education Level (Highest Grade Completed)	10.7 (2,879)	10.6 (847)
	% (N)	% (N)
H.S. Graduate (Yes/No)	35.5 (1,021)	32.1 (272)
Offense Type*	% (N)	% (N)
Person	12.9(372)	15.5 (131)
Sex	2.6 (74)	1.8 (15)
Drug	33.4 (963)	31.1 (263)
Property	35.2 (1,012)	38.7 (328)
Other	15.9 (458)	13.0 (110)
Degree of Current Offense*	% (N)	% (N)
First	1.4 (41)	1.9 (16)
Second	6.4 (183)	9.3 (78)
Third	13.6 (388)	12.6 (106)
Fourth	39.9 (1,135)	34.6 (292)
Fifth	38.6 (1,098)	41.6 (351)
History of Alcohol Abuse (Yes/No)	71.7 (2,064)	70.0 (593)
History of Drug Abuse (Yes/No)	82.6 (2,377)	83.1 (704)
Mental Health Problems Identified (Yes/No)*	38.2 (1,100)	45.3 (384)
	Mean (N)	Mean (N)
Risk Level*	64.6 (2,879)	67.8 (847)
	% (N)	% (N)
Risk Category*	% (N)	% (N)
Low	3.8 (110)	2.8 (24)
Low/Moderate	19.2 (554)	14.8 (125)
Moderate	53.5 (1,539)	50.5 (428)
High	23.5 (676)	31.9 (270)

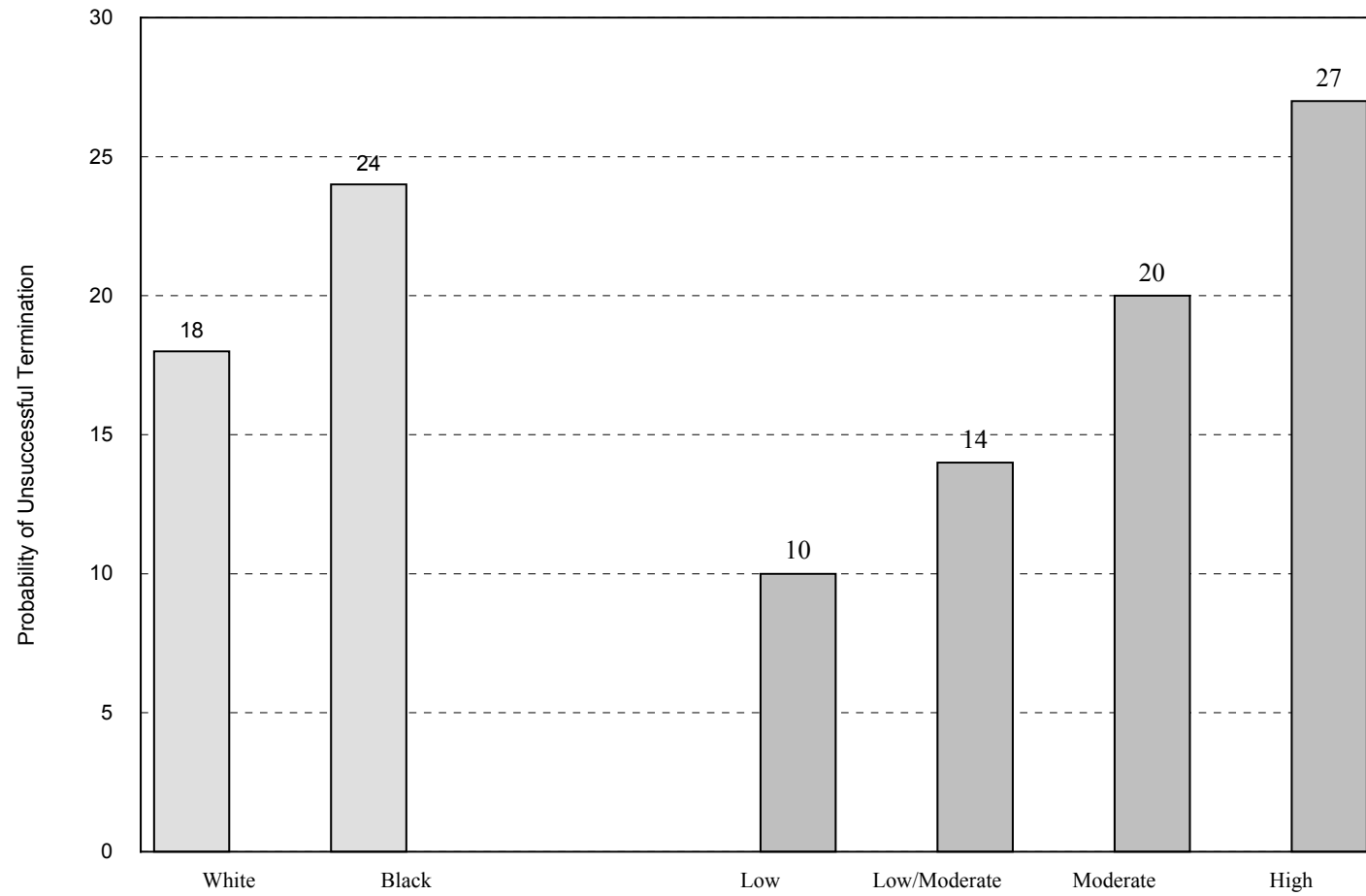
\*Difference Significant at  $p < .05$

unsuccessful program terminations were high-risk whereas roughly twenty-four percent of the successful terminations are high-risk.

To better understand the predictors of unsuccessful termination, two multivariate models were estimated predicting unsuccessful terminations. The first model included race, sex and risk category, which demonstrated that with CBCF offenders, risk category and race were significant predictors of unsuccessful termination. Figure 3 demonstrates the impacts of these two variables. Note that while race affects the probabilities of recidivism by 6 percentage points, the offenders risk level accounts for 17 percentage points from 10 percent for the low-risk to 27 percent for the high-risk.

The second model estimated utilized all of the individual factors that comprised the risk score rather than the composite risk score itself. That model revealed seven significant predictors of unsuccessful termination. The only predictor that affected the probabilities of unsuccessful termination by more than 10 percentage points was having a prior conviction for a sex offense (16 percentage point increase in the probability of unsuccessful termination). Other significant factors included employment status (unemployed 8 percentage point increase in probability of unsuccessful termination), age (17-22 year olds 7 percentage points more likely to be unsuccessful terminated than 37+ year olds), and those with mental health needs (having a psychological problem increases the probability by 7 percentage points). Both race (being Black) and having a conviction for a violent offense increase the likelihood of unsuccessful termination by 6 percentage points, and finally, having a prior violation while on community control was associated with a slight increase (3 percentage points).

**Figure 3. Impact of Significant Predictors on the Probability of Unsuccessful Termination From CBCF**



Bivariate Outcome Analyses

Tables 6 through 9 contain the outcome data that compares the experimental to the comparison group overall and by risk level. Table 6 presents the data on re-arrest during the two-year follow up period. Table 6 indicates that overall, the experimental group was more likely to be rearrested (52% versus 46%; significant at the .05 level). When looking at the re-arrest rates by risk level, note that the difference in percentage rearrested decreases when moving from low risk to high risk. This trend is not surprising and is repeated in other data analyzed in this report.

**Table 6. Any Arrest By Group Membership and Risk Level for all CBCFs**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	52.2 (1,417)*	35.6 (31)*	38.4 (191)*	51.6 (754)*	66.1 (441)
Comparison	45.7 (1,224)*	15.1 (23)*	28.3 (136)*	44.6 (508)*	61.5 (557)

\*Difference Significant at  $p < .05$

Data on reincarceration are contained in Tables 7 through 9 and look at reincarceration for a technical violation, reincarceration for a new crime, and any reincarceration during the two-year follow-up period.

Table 7 indicates that overall, the experimental group is less likely to be returned to prison for a technical violation.<sup>10</sup> This effect is rather small and is not statistically significant. When considering the reincarceration rates by risk category only the high-risk group

<sup>10</sup> It should be noted that problems in identifying technical violators in the CBCF comparison group arose as in most cases, subsequent incarcerations appeared as incarcerations for a new crime. This concern, however, is somewhat mitigated by using both the ODRC database and the BCI&I record checks in determining the reason for reincarceration.

demonstrates a significant reduction in reincarceration rates. Note in Table 7 that with the low and low/moderate groups, the experimental group performs worse than the comparison group.

**Table 7. Reincarceration for a Technical Violation By Group Membership and Risk Level for all CBCFs**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	22.5 (649)	9.1 (10)	14.6 (81)	23.3 (359)	29.4 (199)*
Comparison	24.3 (680)	5.3 (9)	12.7 (66)	24.6 (291)	34.1 (314)*

\*Difference Significant at p . .05

Table 8 contains the data on reincarceration for a new criminal offense. The data indicate slight differences favoring the experimental group with low/moderate, moderate, and high-risk offenders, however, only the treatment effect noted with high-risk offenders is significant. This difference (2.8 percentage points) is rather small even with the high-risk group.

**Table 8. Reincarceration for a New Offense By Group Membership and Risk Level for all CBCFs**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	14.3 (411)	5.5 (6)	8.8 (49)	14.0 (216)	20.7 (140)*
Comparison	15.7 (439)	2.9 (5)	9.2 (48)	14.4 (170)	23.5 (216)*

\*Difference Significant at p < .05

Finally, Table 9 provides the cross-tabulations of group membership for any reincarceration. Overall, the experimental group is significantly less likely to return to prison for any reason (37% versus 40%). An analysis of recidivism rates by risk category indicates that the programs are ineffective with low and low/moderate offenders and that, while in a direction that

**Table 9. Any New Reincarceration By Group Membership and Risk Level for all CBCFs**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	36.8 (1,060)*	14.5 (16)	23.5 (130)	37.4 (575)	50.1 (339)*
Comparison	40.0 (1,119)*	8.2 (14)	21.9 (114)	38.9 (461)	57.5 (530)*

\*Difference Significant at p < .05

favors the treatment group, the effects seen with moderate risk offenders are negligible. High-risk offenders in the experimental group, however, demonstrate a substantial reduction in recidivism rates when compared to the comparison group.

One question that arises through all of these analyses is whether the differences in demographics and risk/need factors impact the effects of the programming delivered to the treatment group. That is, does the relationship between group membership and outcome change once all other individual factors and characteristics are held constant. To answer this question, a series of multivariate logistic regression models were constructed and estimated. The results of these analyses are reported below.

#### *Multivariate Outcome Data*

Two separate outcome measures were evaluated using multivariate logistic regression analyses<sup>11</sup>: any subsequent arrest and any reincarceration. The models included four independent variables and one interaction term. The independent variables were group membership, risk category, race, and sex (if necessary). The interaction term constructed was between group membership and risk category. An interaction term allows us to determine if the program has differing effects across groups of risk while controlling for group membership and other important independent factors. This model determines 1) if group membership has a significant impact on recidivism when all other factors (risk, race, sex) are equal and 2) once all other factors are equal, does treatment work better for high-risk or low-risk offenders. The results of these analyses can be manipulated mathematically to provide predicted probabilities of a particular event occurring (see Norusis, 1994 and Pedhazur, 1997). In these models, the particular event is recidivism defined as either any re-arrest or any reincarceration. These

predicted probabilities are derived from the data provided by the sample in the analyses. Table 10 provides a comparison of the predicted rates of recidivism using arrest. These data are presented for all CBCFs and by each program. The results are calculated first by group membership and then by group membership and risk level. Instances where the experimental group had a lower recidivism rate are bolded and highlighted.

As indicated in Table 10, overall the CBCF programs fail to demonstrate a treatment effect when utilizing re-arrest as the outcome measure. The CBCF programs considered together also fail to demonstrate reductions in the rates of re-arrest across any risk group. Given the differences in programming and treatment philosophies, analyses by program were conducted.

Only two programs demonstrate a reduction in recidivism when measured by any re-arrest and when looking at each individual CBCF irrespective of risk. In addition, the reductions

**Table 10. CBCF Predicted Rates of Any Arrest by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	52	45	26	13	33	23	44	37	59	53
SEPTA	42	34	35	13	38	22	42	33	48	47
Franklin County	51	41	15	13	28	24	49	38	71	56
EOCC	42	42	29	10	36	24	46	44	<b>53</b>	<b>67</b>
Licking/Muskingum	44	40	45	19	45	29	44	39	<b>43</b>	<b>51</b>
Lucas County	45	35	20	18	30	24	45	34	62	47
Monday	61	44	39	17	48	29	59	45	69	60
SRCCC	<b>46</b>	<b>53</b>	29	19	36	33	<b>47</b>	<b>52</b>	<b>58</b>	<b>69</b>
Butler	57	55	43	14	49	31	57	54	<b>66</b>	<b>74</b>
Lorain/Medina	50	36	<b>11</b>	<b>12</b>	25	22	48	38	72	57
River City	66	47	42	27	52	35	65	45	79	56
Summit County	<b>55</b>	<b>59</b>	<b>14</b>	<b>20</b>	<b>31</b>	<b>36</b>	56	56	78	75
Mahoning County	62	49	47	15	55	34	63	60	<b>70</b>	<b>81</b>
NEOCAP	57	47	48	11	54	24	58	43	<b>62</b>	<b>65</b>
WORTH	40	36	32	13	34	24	40	33	<b>46</b>	<b>47</b>

<sup>11</sup> See the methods section for a description of Logistic Regression.

in those sites are small between a seven-percentage and four-percentage point reduction.

Looking at the Low and Low/Moderate panels of Table 10 note that only two programs have effects with low risk offenders and one program demonstrates effects with Low/Moderate risk offenders. Again, these effects are relatively small. Similarly, only one program demonstrates any treatment effect with the moderate group when using re-arrest as the outcome measure.

Interestingly, when looking at the high-risk offenders, half of the CBCF programs demonstrate a treatment effect. These effects range from negligible (1 percentage point difference) to moderate (8 percentage points) to substantial (11 and 14 percentage point differences). Also, when looking at the sites where the comparison group outperformed the experimental group across all groups of risk, the margin with which the comparison cases did better decreases as the risk level increases. These findings are not surprising given the risk principle, which has been well documented in previous research on correctional interventions (see Andrews, Bonta, and Hoge, 1990; Andrews, Zinger, Hoge, Bonta, Gendreau, and Cullen 1990; Lipsey and Wilson, 1998; and Bonta, Wallace-Capretta, and Mooney, 2000).

The risk principle simply states that those interventions of greater intensity (both in terms of dosage and duration) should be reserved for higher-risk offenders. This is the case as high-risk offenders have a number of criminogenic needs to be addressed by such an intervention. Or phrased differently, high-risk offenders have enough “risk” that it can be reduced by correctional interventions. Conversely, low-risk offenders should not be placed in correctional programs that are moderate to high intensity. Low-risk offenders, as is implied by their label, have low-levels of criminogenic needs. Therefore, placing low-risk offenders in programs that address a number of criminogenic needs becomes a waste of resources at best since low-risk offenders are not



likely to benefit from these services. At worst, placing low-risk offenders in higher intensity correctional programs increases the risk and recidivism rates of low-risk offenders. This pattern has been demonstrated in a number of previous studies and appears to be present in this research as well.

As is the case with any study, the findings of one model can be further supported or refuted based on the prediction of a different outcome measure. In this study we decided to conduct the same analyses using any reincarceration in a state facility as one alternate outcome measure. The advantage of using this measure is 1) it overcomes some of the potential concerns that arise due to differences in the processing of technical violations and new crimes between the comparison and experimental group (CBCF versus Parole/PRC supervision) and 2) records pertaining to incarceration in state institutions are accurate and reliable compared to other measures.

**Table 11. CBCF Predicted Rates of Any Reincarceration by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	37	40	15	11	24	22	37	38	52	58
SEPTA	30	46	9	15	17	27	32	45	52	64
Franklin County	33	43	7	8	15	20	30	39	50	63
EOCC	23	33	9	2	15	9	27	33	38	72
Licking/Muskingum	42	41	24	9	33	21	41	39	52	62
Lucas County	37	40	16	9	24	21	36	39	53	61
Monday	37	27	15	9	23	16	33	27	46	41
SRCCC	39	48	17	15	25	28	41	47	58	66
Butler	39	46	25	14	31	27	40	44	50	62
Lorain/Medina	41	36	6	2	18	7	39	32	64	69
River City	55	26	35	14	42	19	53	25	67	33
Summit County	37	46	15	15	25	26	37	42	50	60
Mahoning County	43	43	41	12	42	28	43	52	44	76
NEOCAP	33	39	13	11	23	22	35	35	50	53
WORTH	38	41	16	18	24	31	38	39	54	52

The results of these analyses are contained in Tables 11 and 12. Table 11 presents a side-by-side comparison of the recidivism rates for the experimental and comparison group both overall and by risk level. Table 12 provides a listing of the *differences* in recidivism rates for CBCF programs overall and by site.

Table 11 lists the predicted recidivism rates for all CBCF programs and by site. These recidivism rates are further disaggregated by risk level. Note that when considering this outcome measure, overall the CBCF programs have a slight impact on recidivism (3%). Also note that most (10 out of 14) of the individual facilities demonstrate treatment effects. Finally, note that when moving across the categories of risk, the number of programs that demonstrate appreciable reductions in recidivism increases. It is apparent from the data presented in Table 11 that the CBCF programs are more effective in reducing recidivism with moderate to high-risk offenders than with low or low/moderate-risk offenders. The magnitude of these reductions is reported in Table 12 below. The programs are ordered in terms of their overall effectiveness as measured

**Table 12. CBCF Difference in Rates of Any Reincarceration between Experimental and Comparison Groups by Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term \***

	Risk Level				
	All	Low	Low/Moderate	Moderate	High
River City	-29	-21	-23	-28	-34
Monday	-10	-6	-7	-6	-5
Lorain/Medina	-5	-4	-11	-7	5
Licking/Muskingum	-1	-15	-12	-2	10
Mahoning County	0	-29	-14	9	32
<b>All Facilities</b>	<b>3</b>	<b>-4</b>	<b>-2</b>	<b>1</b>	<b>6</b>
Lucas County	3	-7	-3	3	8
WORTH	3	2	7	1	-2
NEOCAP	6	-2	-1	0	3
Butler	7	-11	-4	4	12
SRCCC	9	-2	3	6	8
Summit County	9	0	1	5	10
Franklin County	10	1	5	9	13
EOCC	10	-7	-6	6	34
SEPTA	16	6	10	13	12

\* Negative numbers indicate a difference favoring the comparison group.

by the difference in recidivism rates between the experimental and comparison groups.

Table 12 indicates that 4 of the 14 CBCF programs have higher recidivism rates than their respective comparison groups. One program has no effect, and nine demonstrate a treatment effect overall. These treatment effects range from 3 to 16-percentage points. Of interest, and consistent with the risk principle, the number of programs demonstrating a treatment effect increase as one moves across the categories of risk. Only three programs demonstrate treatment effects with low-risk offenders. Five programs demonstrate treatment effects with low/moderate offenders. The treatment effects for the low and low/moderate-risk groups is inconsistent and moderate at best.

When considering moderate risk offenders, the number of programs demonstrating a treatment effect increases to nine. The moderate risk group is the first group where CBCFs overall demonstrate a treatment effect. Predicted recidivism rates with high-risk offenders indicate that eleven programs demonstrate treatment effects. With the latter two risk groups, the treatment effects are moderate and above.

Overall then, a trend is noted that CBCF programs, as a group and individually, have stronger treatment effects with moderate and high-risk offenders. This trend is seen in individual programs that overall demonstrate no effect, increase recidivism, or show a treatment effect. That is, in some of the programs that increase recidivism for the treatment group overall, a treatment effect is still seen with the high-risk offenders. The treatment effects for the programs irrespective of risk and by risk category are displayed in Figures 4 through 8. Note the trend in each figure. With each increase in risk, the number of programs that demonstrate a treatment

effect increases. Similarly, with each increase in risk, the size of the treatment effects also increases.

Figure 4. Treatment Effects for All CBCF Offenders (negative numbers favor the comparison group)

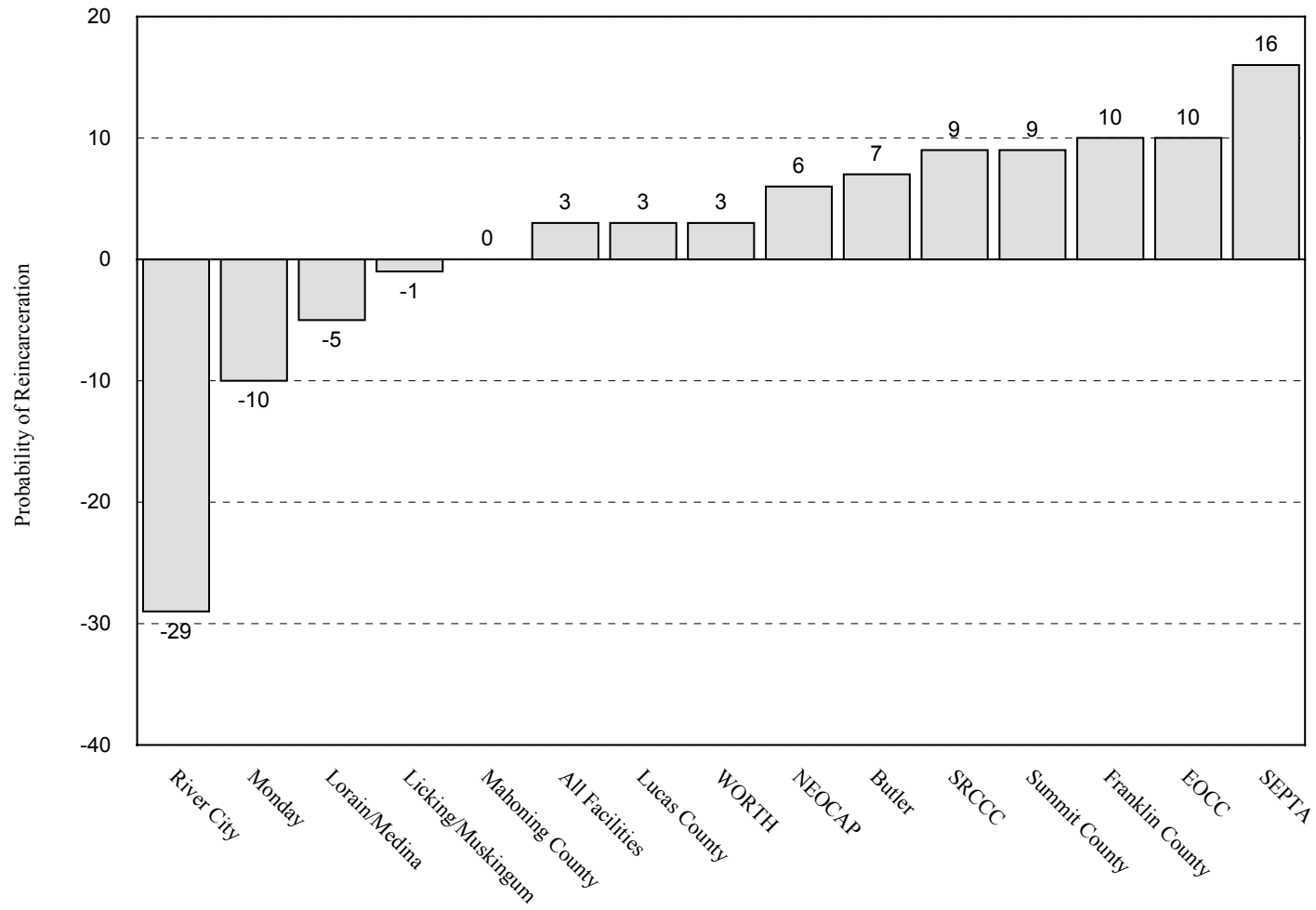


Figure 5. Treatment Effects for Low-Risk CBCF Offenders (negative numbers favor the comparison group)

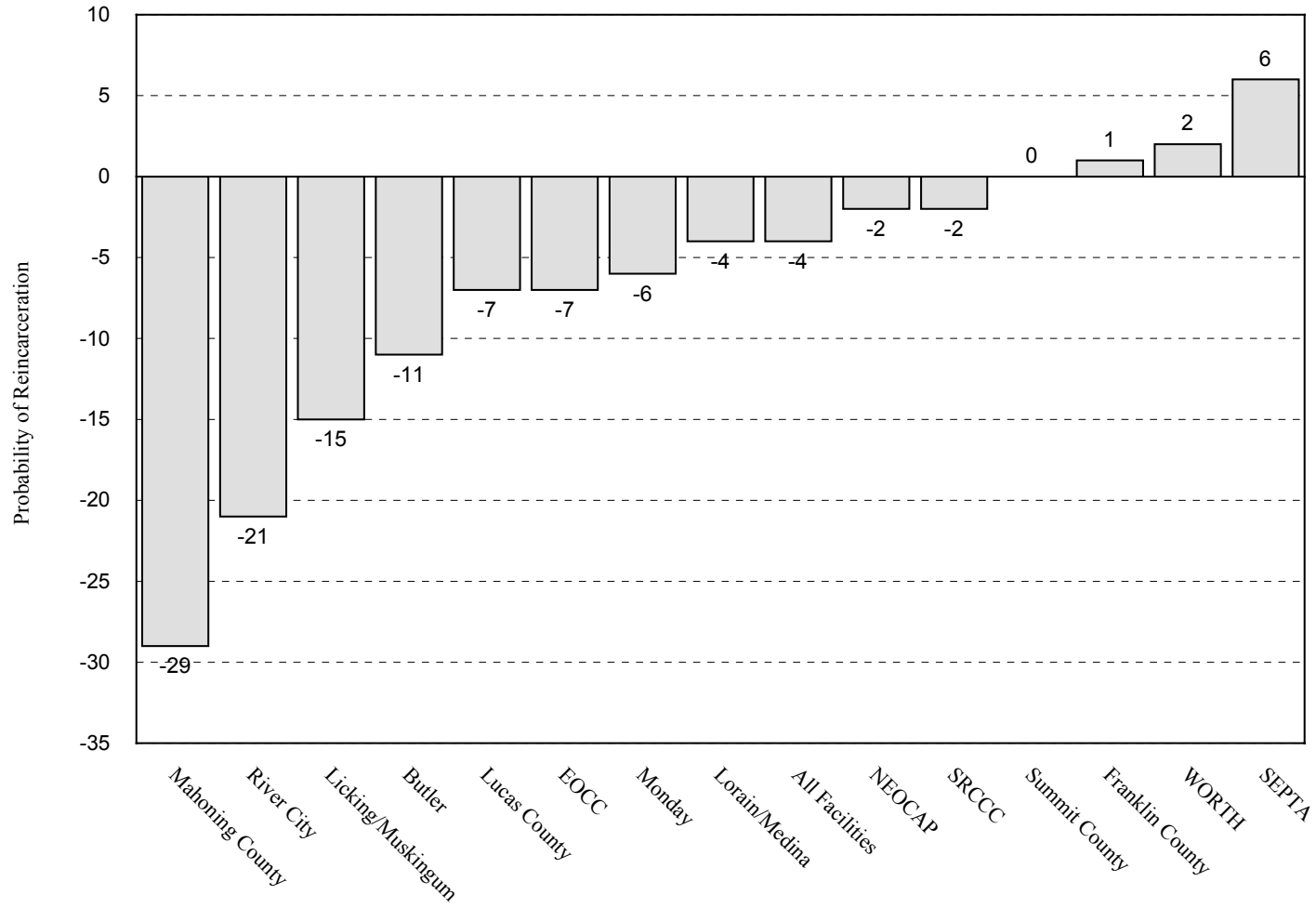


Figure 6. Treatment Effects for Low/Moderate-Risk CBCF Offenders (negative numbers favor the comparison group)

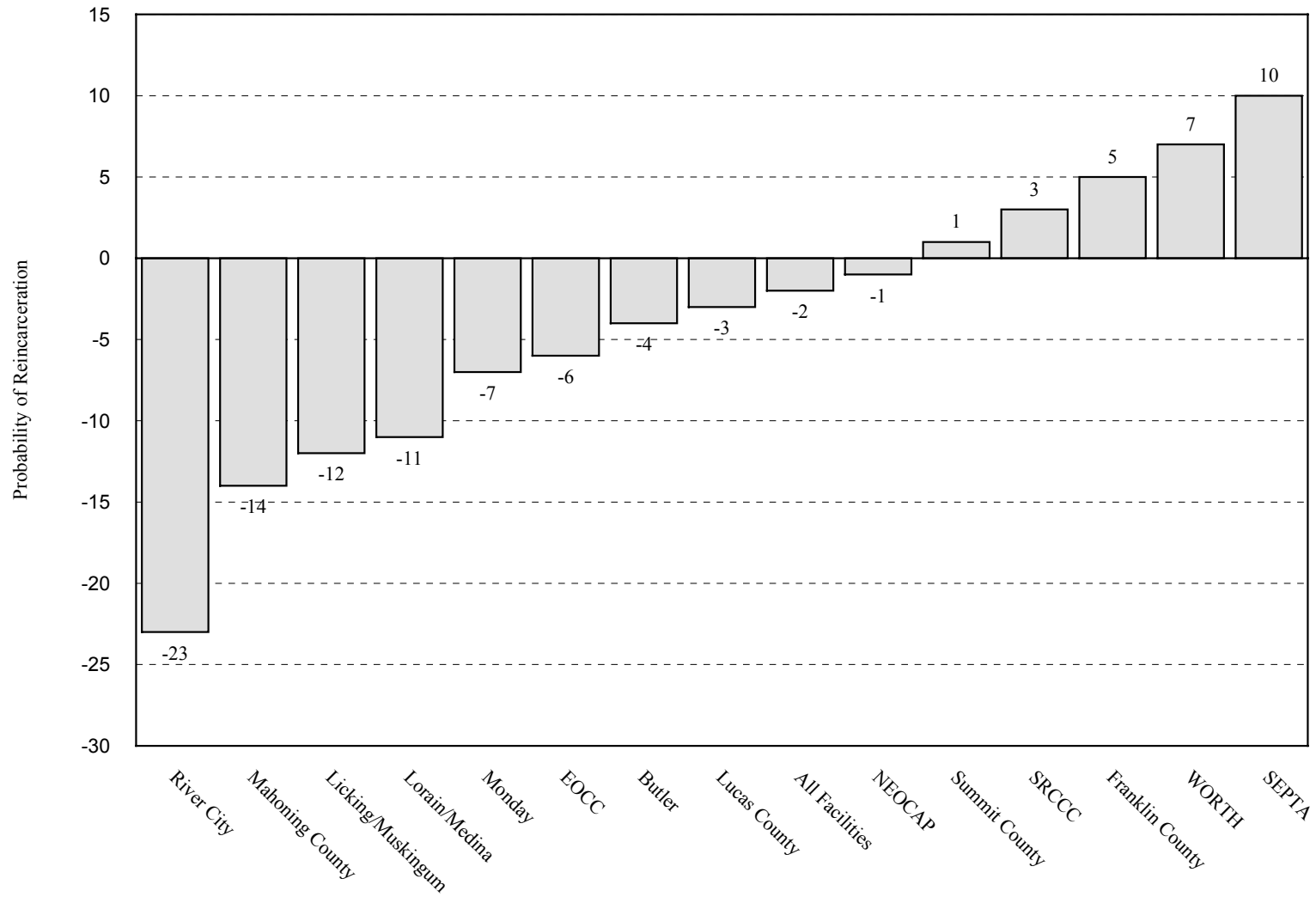


Figure 7. Treatment Effects for Moderate-Risk CBCF Offenders (negative numbers favor the comparison group)

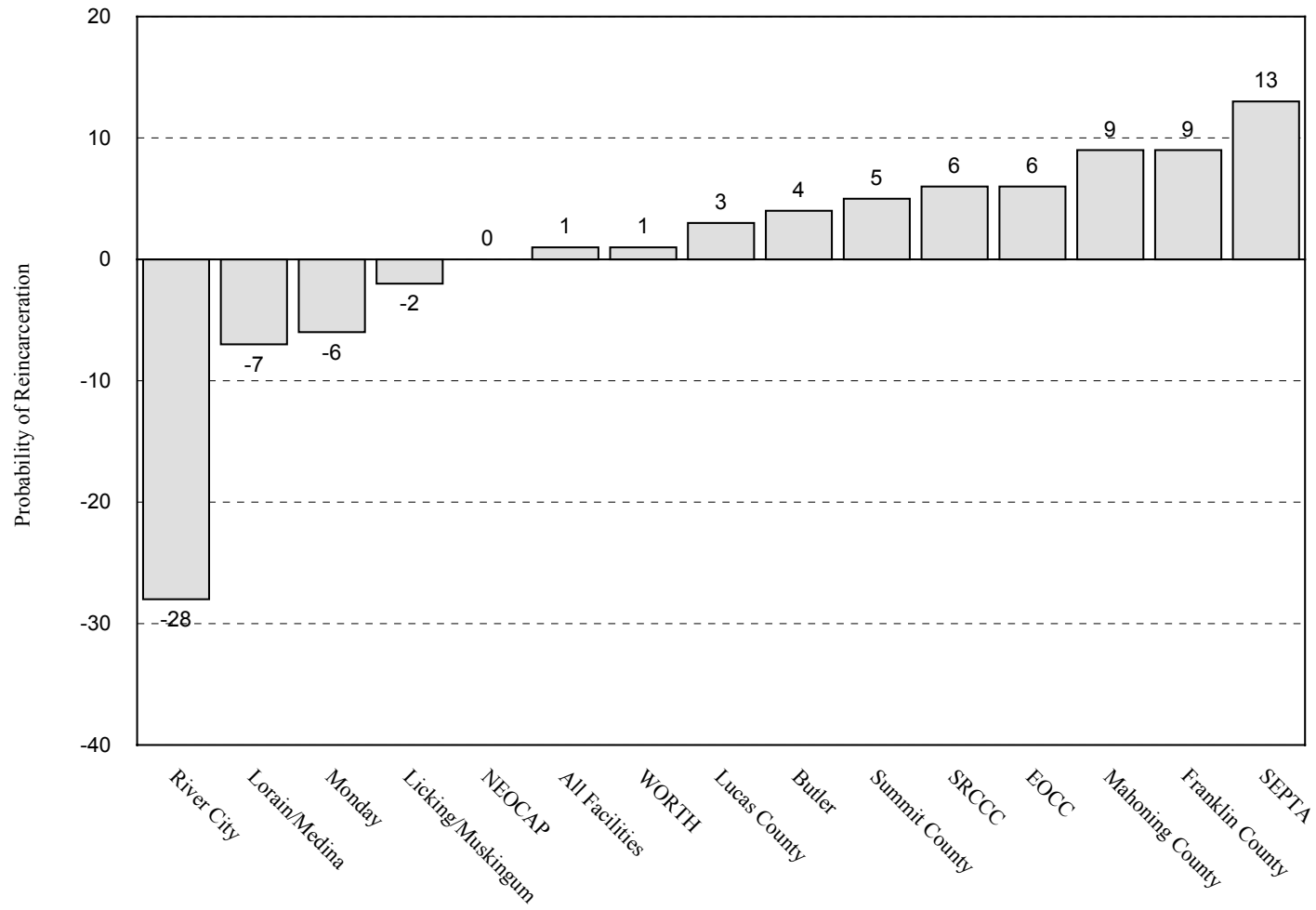
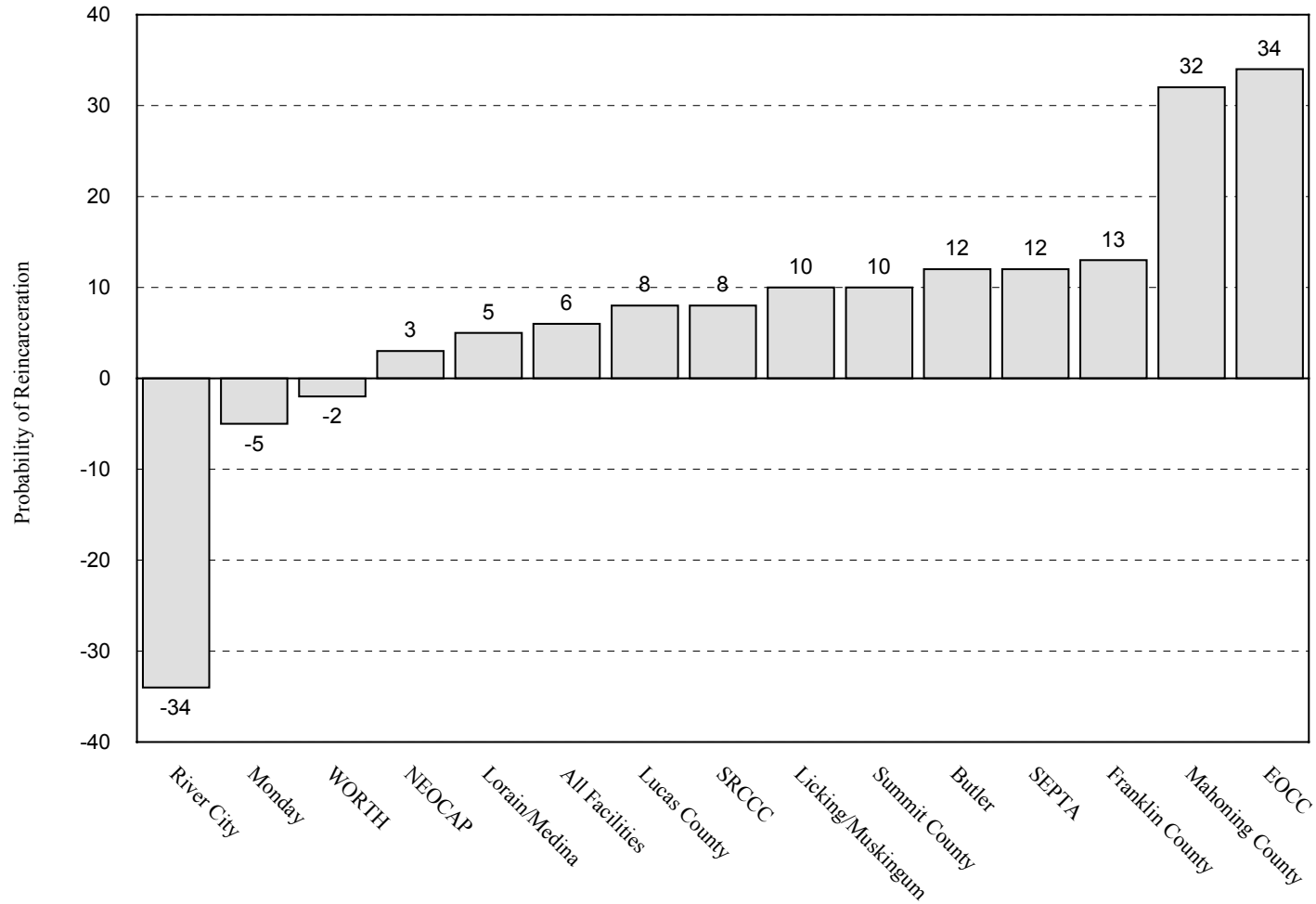




Figure 8. Treatment Effects for High-Risk CBCF Offenders (negative numbers favor the comparison group)



## Halfway Houses

This section of the report contains the results on the analyses of HWH programs. The results are presented for the HWH programs overall followed by a site-by-site comparison of treatment effectiveness. These results are then followed by analyses of HWH programs by geographic setting (urban, metro, and rural) and then by referral type (parole/PRC, parole/PRC violator, and transitional control).

### Halfway Houses Overall

The descriptive statistics on demographic characteristics for the HWH group are contained in Table 13. Data reported in this table indicate that the comparison group was significantly older than the experimental group (37 versus 34 years old), contained a smaller proportion of females (8% versus 11%), and had a greater percentage of offenders that were classified as married (18% versus 11%). The two groups were equal in terms of racial composition.

**Table 13. Descriptive Statistics for all Halfway Houses by Group Membership**

Variable	Experimental Group	Comparison Group
	Mean (N)	Mean (N)
Age (Average Age in Years)*	34 (3,737)	37 (3,058)
Race	% (N)	% (N)
Black	61.4 (2,282)	60.2 (1,836)
White	38.6 (1,434)	39.8 (1,214)
Sex*	% (N)	% (N)
Male	89.3 (3,336)	92.4 (2,825)
Female	10.7 (401)	7.6 (233)
Marital Status*	% (N)	% (N)
Married	11.2 (417)	18.2 (558)
Never Married	70.9 (2,650)	64.1 (1,960)
Divorced/Separated/Widowed	17.9 (670)	17.1 (540)

\*Difference Significant at  $p < .05$

Table 14 provides descriptive statistics and tests for significance on the risk/need factors of between the experimental and comparison group. As reported in Table 14, the two groups do not differ significantly in terms of average number of prior arrests, however, a significant difference is noted when prior arrest is measured as a dichotomous variable. Significant differences pertaining to prior criminal history are also observed in the number of prior incarcerations and prior incarcerations when measured by a dichotomous variable. Both of these differences indicate that the experimental group is slightly higher risk when only considering criminal history. Data relating to the current offense indicated that the experimental group was more likely to be under supervision for a property offense and less likely to be under supervision for a sex offense or a drug offense. These differences, while statistically significant, were not substantial. Similarly, small differences in the felony degree of the current offense were observed and were statistically significant.

No significant differences are noted in measures of educational attainment with both groups having a mean education level of 10.7 and thirty-two percent of each group having a high school degree. Analyses of other need factors indicated that the comparison group was more likely to have a history of alcohol problems, a history of drug problems, and mental health problems.

These differences taken together led to a slightly higher overall risk score for the comparison group, although, again the difference in the risk level is not substantive (less than 3 points). An inspection of the risk categories indicates that the comparison group contained a smaller percentage of low/moderate-risk offenders and a higher percentage of high-risk offenders when compared with the experimental group. The remaining two groups of risk-categories (low and moderate) were fairly equal.

**Table 14. Descriptive Statistics for Risk/Need Factors by Group Membership for all Halfway Houses**

Variable	Experimental Group	Comparison Group
	Mean (N)	Mean (N)
Prior Arrests	6.79 (3,424)	6.83 (2,919)
	% (N)	% (N)
Prior Arrest (Yes/No)*	99.6 (3,411)	90.7 (2,648)
	Mean (N)	Mean (N)
Prior Incarcerations in State of Ohio*	.87 (3,787)	.67 (3,058)
	% (N)	% (N)
Prior Incarcerations (Yes/No)*	47.3 (1,766)	34.0 (1,040)
Employment Status at Arrest*	% (N)	% (N)
Employed	44.6 (1,665)	31.5 (964)
Unemployed	55.4 (2,072)	68.5 (2,094)
	Mean (N)	Mean (N)
Education Level (Highest Grade Completed)	10.7 (3,737)	10.7 (3,058)
	% (N)	% (N)
H.S. Graduate (Yes/No)	35.2 (1,316)	34.2 (1,047)
Offense Type*	% (N)	% (N)
Person	26.8 (1,002)	25.1 (767)
Sex	.9 (32)	4.5 (138)
Drug	29.6 (1,106)	34.2 (1,045)
Property	36.3 (1,356)	30.4 (930)
Other	6.4 (240)	5.8 (178)
Degree of Current Offense*	% (N)	% (N)
First	12.8 (434)	9.2 (281)
Second	26.3 (892)	30.4 (930)
Third	23.6 (801)	18.0 (549)
Fourth	21.6 (733)	20.8 (635)
Fifth	15.8 (537)	21.7 (663)
History of Alcohol Abuse (Yes/No)*	56.8 (2,121)	71.7 (2,194)
History of Drug Abuse (Yes/No)*	71.5 (2,671)	80.0 (2,445)
Mental Health Problems Identified (Yes/No)*	21.8 (814)	25.3 (773)
	Mean (N)	Mean (N)
Risk Level*	61.9 (3,737)	64.6 (3,058)
	% (N)	% (N)
Risk Category*	% (N)	% (N)
Low	6.6 (246)	6.2 (190)
Low/Moderate	26.1 (977)	20.9 (640)
Moderate	46.2 (1,727)	45.9 (1,405)
High	21.1 (787)	26.9 (823)

\*Difference Significant at  $p < .05$

**Table 15. Programming Information for all Halfway Houses**

Variable	Experimental Group
	% (N)
Academic Training Needed	28.1 (1,023)
Percent Participated In	14.3 (510)
Vocational Training Needed	23.7 (858)
Percent Participated In	7.6 (271)
Employment Assistance Needed	78.7 (2,875)
Percent Participated In	75.5 (2,713)
Assistance with Accommodations Needed	51.3 (1,860)
Percent Participated In	65.7 (2,261)
Substance Abuse Counseling Needed	77.0 (2,822)
Percent Participated In	88.1 (3,172)
Alcohol Abuse Counseling Needed	65.7 (2,399)
Percent Participated In	83.8 (3,011)
Mental Health Counseling Needed	19.8 (722)
Percent Participated In	15.4 (561)
Anger Management Counseling Needed	27.7 (995)
Percent Participated In	33.7 (1,202)
Sexual Behavior Counseling Needed	4.1 (147)
Percent Participated In	1.6 (56)
Termination Status	% (N)
Successful	63.9 (2,389)
Unsuccessful	36.1 (1,348)
Referral Reason	% (N)
Parole/PRC	52.6 (1967)
Parole/PRC Violator	24.3 (909)
Transitional Control	23.0 (861)

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\*Difference Significant at  $p < .05$

### *Programming Needs and Participation and Program Termination Status*

Programming information and termination status for the HWH treatment group is contained in Table 15. This information indicates that of all the admissions to HWH only 28 percent were indicated as being in need of academic training. About one-half of all admissions received services in this area. A similar trend is noted with vocational training where twenty-

four percent were identified as having a need and only eight percent received services in this area. The last three areas where the percentage of offenders identified as having needs where services were not delivered were for employment assistance, mental health services, and sexual behavior counseling.

With several of the need areas listed in Table 15, more offenders received services than were identified as being in need of those services.<sup>12</sup> This trend is most pronounced with alcohol and substance abuse services where discrepancy between those in need of services and those that received services is nineteen and eleven percentage points respectively. Smaller differences are seen for services focusing on assistance with accommodations and anger management. As indicated earlier, when providing services to offenders not in need of those services, the best case scenario is that an agency simply wastes its resources. In the worst case, an agency can increase the risk level and recidivism of offenders by subjecting them to unneeded services and sanctions (however, see footnote 11).

Table 15 also reports the descriptive statistics for program termination status. Sixty-four percent of the offenders that were terminated from the halfway house programs were successful releases with thirty-six percent being unsuccessfully terminated. Finally, data on referral type is indicates that fifty-three percent of the sample was referred to the HWH as a condition of parole/PRC, twenty-four percent due to a parole/PRC violation, and twenty-three percent as part of transitional control.

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<sup>12</sup> As stated previously, this finding, that more offenders receive services in a particular area than demonstrate need, could occur for one of two reasons (see footnote #5 for explanation).

Comparing Successful and Unsuccessful Terminations

Table 16 compares the descriptive statistics on the demographic characteristics of successful and unsuccessful program terminations. While three of the four factors listed in Table 16 differ significantly between the two groups (age, sex, and marital status), only two differ substantively. The two variables that differ substantively are sex and marital status with unsuccessfully terminated from the program more likely to be male and single.

Table 17 contains the descriptive statistics on risk/need factors and risk score by termination status. The two groups of program participants differ significantly on all but three factors: prior arrests measured as a dichotomous variable, highest education level completed, and history of drug abuse. As was the case with the CBCF analyses, very few factors appear to be strongly related to unsuccessful termination from the HWH programs. It does appear, however, that in many instances, the risk and need factors appear to be present in greater percentages for those that were unsuccessfully terminated from the programs. These differences, when taken together lead to a higher average risk score for the unsuccessful terminations. This is also

**Table 16. Descriptive Statistics By Termination Status for all Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Age (Average Age in Years)*	34 (2,389)	33 (1348)
Race	% (N)	% (N)
Black	60.6 (1,443)	62.9 (839)
White	39.4 (937)	37.1 (497)
Sex*	% (N)	% (N)
Male	86.9 (2,077)	93.4 (1259)
Female	13.1 (312)	6.6 (89)
Marital Status*	% (N)	% (N)
Married	11.9 (285)	9.8 (132)
Never Married	68.9 (1,647)	74.4 (1003)
Divorced/Separated/Widowed	19.1 (457)	15.8 (213)

\*Difference Significant at  $p < .05$

reflected in the analyses of risk categories where high-risk offenders comprise twenty-seven percent of the unsuccessful termination group and only seventeen percent of the successful terminations.

To better determine the impact of these factors two multivariate logistic regression models were estimated predicting unsuccessful termination from programming. The first model contained the risk categories, race, and sex as the predictor variables. Both sex and risk category were significant predictors of unsuccessful program completion. Figure 9 demonstrates the increases in the likelihood that an individual was unsuccessfully terminated based on risk category and sex. As is demonstrated in Figure 9, the probability of unsuccessful termination for males is 38 percent compared to 28 percent for females. A review of the probabilities of unsuccessful termination by risk category indicates that high-risk offenders are almost twice as likely (45 percent) as low-risk offenders (24 percent) to be terminated unsuccessfully.

To disentangle the effects of each of the risk factors, a second multivariate logistic regression model was estimated using each of the risk factors individually rather than the risk category. From this model, nine factors were significant. These factors are age, sex, psychological problem indicated, employment status at arrest, number of prior incarcerations, current offense type, current offense degree, prior community control violations, and having a prior conviction for a sex offense. Only three of these factors led to increases in the likelihood of unsuccessful termination that were equal to or greater than ten percentage points. These factors were sex (being male increases the probability by 16 percentage points), age (17-22 year olds have an 11 percentage point increase in the probability of unsuccessful termination compared to 37+ year olds), and having a history of a sex offense (having a history of a sex offense increases

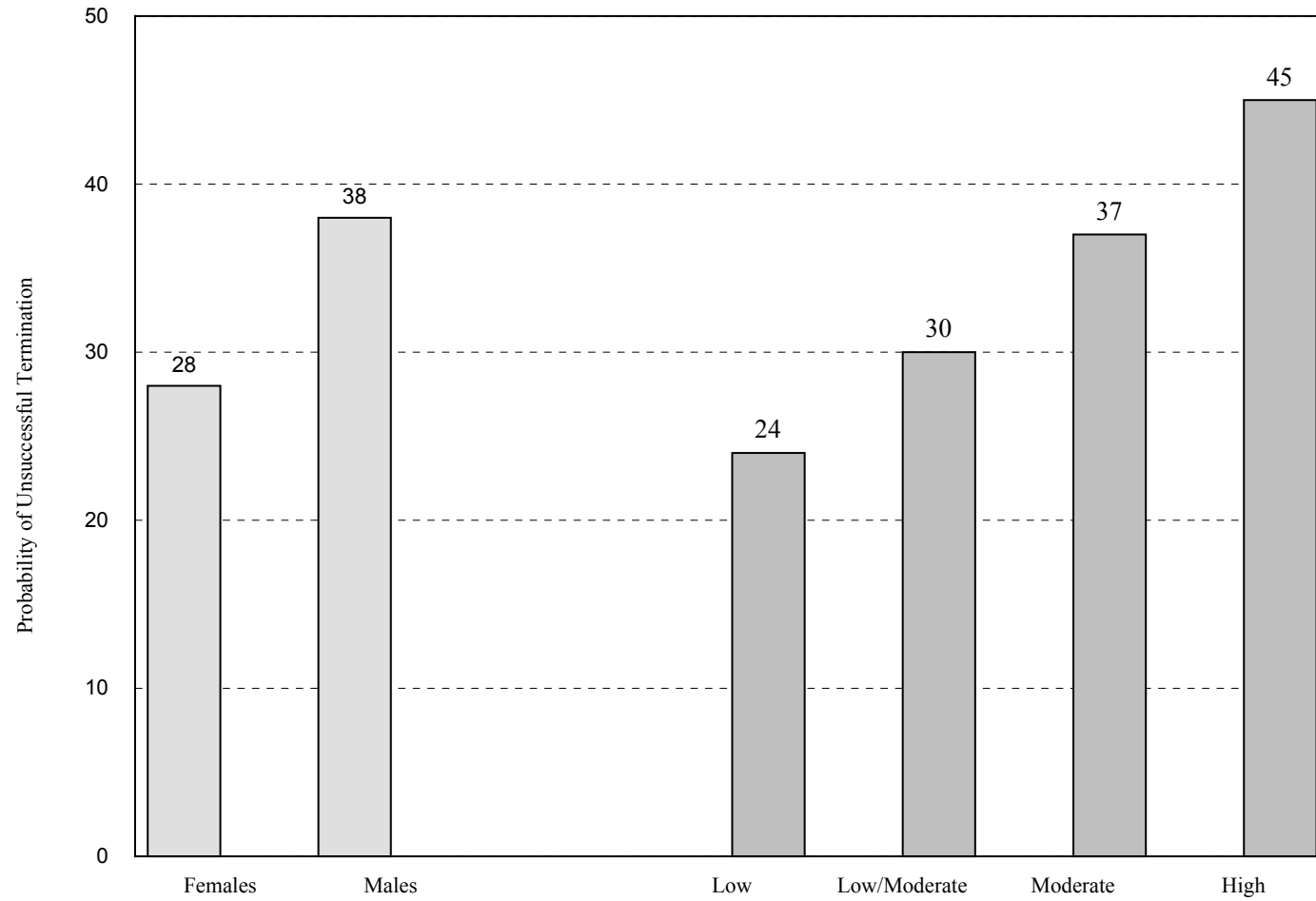


**Table 17. Descriptive Statistics for Risk/Need Factors by Termination Status for all Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Prior Arrests*	6.4 (2,202)	7.48 (1,222)
	% (N)	% (N)
Prior Arrest (Yes/No)	99.7 (2,195)	99.5 (1,216)
	Mean (N)	Mean (N)
Prior Incarcerations in State of Ohio*	.79 (2,389)	.98 (1,348)
	% (N)	% (N)
Prior Incarcerations (Yes/No)*	45.6 (1,089)	50.2 (677)
Employment Status at Arrest*	% (N)	% (N)
Employed	46.8 (1,119)	40.5 (546)
Unemployed	53.2 (1,270)	59.5 (802)
	Mean (N)	Mean (N)
Education Level (Highest Grade Completed)	10.8 (2,389)	10.7 (1,348)
	% (N)	% (N)
H.S. Graduate (Yes/No)*	36.8 (880)	32.3 (436)
Offense Type*	% (N)	% (N)
Person	25.3 (603)	29.6 (399)
Sex	.5 (13)	1.4 (19)
Drug	33.2 (793)	23.2 (313)
Property	34.7 (828)	39.2 (528)
Other	6.3 (151)	6.6 (89)
Degree of Current Offense*	% (N)	% (N)
First	14.1 (310)	10.3 (124)
Second	27.1 (595)	24.7 (297)
Third	24.3 (533)	22.3 (268)
Fourth	19.9 (437)	24.6 (296)
Fifth	14.5 (319)	18.1 (218)
History of Alcohol Abuse (Yes/No)*	55.3 (1,322)	59.3 (799)
History of Drug Abuse (Yes/No)*	71.1 (1,698)	72.2 (973)
Mental Health Problems Identified (Yes/No)*	19.6 (469)	25.6 (345)
	Mean (N)	Mean (N)
Risk Level*	60.2 (2,389)	64.8 (1,348)
Risk Category*	% (N)	% (N)
Low	7.9 (188)	4.3 (58)
Low/Moderate	28.0 (669)	22.8 (508)
Moderate	46.5 (1,112)	45.6 (615)
High	17.6 (420)	27.2 (367)

\*Difference Significant at  $p < .05$

**Figure 9. Impact of Significant Predictors on the Probability of Unsuccessful Termination From HWH**



the probability of unsuccessful termination by 14 percentage points). The other factors increased risk by a margin of 3 to 7 percentage points (current offense degree increased the probability of unsuccessful termination by 7 percentage points, mental health needs and employment status increased the probability of unsuccessful termination by 6 percentage points, current offense category by 5, prior incarceration by 4, and prior violations of community supervision by 3 percentage points).

*Bivariate Outcome Analyses*

The results from the bivariate analyses on HWH programs are contained in Tables 18 through 21. These tables demonstrate the effects of the programs overall regardless of offender risk level and then by each category of risk specifically.

Table 18 presents the data pertaining to any re-arrest as the measure of recidivism. The column labeled “All” indicates that there is a slight difference in the percentage of offenders that were re-arrested for any reason that favors the experimental group. This difference, however, is not significant. Turning to the low risk offenders, a non-significant difference is seen between the two groups that favors the comparison group, indicating that with low-risk offenders, the HWH programs increase the recidivism rates when compared to the comparison group. A similar, but significant trend is noted with low/moderate risk offenders. With the moderate-risk offender group, an equal percentage of offenders recidivated in both groups with the high-risk offenders being the only group that demonstrated any treatment effect.

**Table 18. Any Re-Arrest By Group Membership and Risk Level for all Halfway Houses**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	47.2 (1,048)	23.9 (37)	39.3 (234)*	48.8 (514)	63.5 (263)*
Comparison	48.9 (1,431)	17.2 (28)	32.0 (192)*	48.8 (660)	67.9 (551)*

\*Difference Significant at p < .05

The next three tables contain the results of analyses using reincarceration as the outcome measure. When using reincarceration to define outcome it was defined in one of three ways: reincarceration for a technical violation, reincarceration for a new offense, and reincarceration for any reason. When reviewing the analyses pertaining to reincarceration for a technical offense on all offenders, a four percent treatment effect is noted. Also, no treatment effect is observed for low and low/moderate risk offenders and, the comparison group outperforms the treatment group with these two categories of offenders. With moderate-risk offenders a sizeable and significant treatment effect is demonstrated. Finally with high-risk offenders a non-significant and negligible treatment effect is noted.

**Table 19. Reincarceration for a Technical Violation By Group Membership and Risk Level for all Halfway Houses**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	17.6 (421)*	10.1 (19)	15.4 (103)	17.7 (197)*	24.3 (102)
Comparison	21.4 (653)*	7.4 (14)	13.9 (89)	24.6 (345)*	24.9 (205)

\*Difference Significant at  $p < .05$

The next outcome presented is reincarceration for a new offense. With this outcome measure a significant and slight treatment effect is noted when looking at all offenders regardless of risk level. Again, as with other outcome measures, low-risk offenders perform worse than the comparison group. With low/moderate, moderate, and high-risk offenders a treatment effect is noted, however this difference is significant only with the high-risk group.

**Table 20. Reincarceration for a New Offense By Group Membership and Risk Level for all Halfway Houses**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	14.0 (334)*	9.0 (17)*	9.9 (66)	13.8 (153)	23.3 (98)*
Comparison	17.1 (523)*	3.7 (7)*	10.9 (70)	15.4 (217)	27.8 (229)*

\*Difference Significant at  $p < .05$

The last bivariate outcome measure is any reincarceration. This measure again demonstrates the same trend. An overall treatment effect is noted with this measure and the effect is significant. When focusing on only the low and low/moderate risk offenders, differences in recidivism favor the comparison group. When focusing on the moderate and high-risk offenders, differences favor the experimental group. These differences are significant.

**Table 21. Any New Reincarceration By Group Membership and Risk Level for all Halfway Houses**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	31.6 (755)*	19.1 (36)*	25.3 (169)	31.5 (350)*	47.6 (200)*
Comparison	38.5 (1,176)*	11.1 (21)*	24.8 (159)	40.0 (562)*	52.7 (434)*

\*Difference Significant at  $p < .05$

In summary then, the bivariate analyses indicate, more consistently than with the CBCF programs, that HWH programs under review demonstrate small treatment effects overall. While some of these are significant, none reaches or is above ten percent. When looking at the low and low/moderate risk offenders, with few and isolated exceptions, the comparison group outperforms the treatment group. The opposite trend is noted for the moderate and high-risk offenders. With the higher-risk offenders significant treatment effects are noted across most of the outcome variables. To ascertain the impacts of differences in individual characteristics of the offenders on the outcome measures, multivariate logistic regression analyses were conducted using any arrest and any reincarceration as the dependent variables. These analyses are contained in the following paragraphs.

Multivariate Outcome Analyses

Table 22 contains the predicted probability of arrest for any reason for both the treatment and comparison group. These data are presented such that the adjusted rates of recidivism for

the program are presented first followed by the adjusted rates of recidivism for each risk category. Instances where the outcome data demonstrates a treatment effect are in bold and highlighted text.

In the first row of Table 22, the results for all HWH programs are reported. In the first results column of this row, it can be seen that HWH programs demonstrate a small two percent treatment effect. In reviewing the effects of the individual programs on all types of offenders, about half of the programs (9 out of 19 or 47%) demonstrate a treatment effect. These effects are fairly small. When considering each panel of Table 22 by risk, the programs are most effective and more often effective with high risk offenders. Only three programs demonstrate a treatment effect with low risk offenders, four programs demonstrate effects with low/moderate risk offenders, six programs show treatment effects with moderate risk offenders, and eleven programs show treatment effect with high risk offenders.

As another measure of program effectiveness, we estimated logistic regression models predicting the probability of any reincarceration. These results are presented in Table 23 and follow the same format as that of Table 22. Table 23 indicates that when considered irrespective of risk, the HWH programs reduce the probability of reincarceration for any reason. This treatment effect is on the order of six percent. When breaking the effects out by risk level, a pattern similar to that observed in Table 22 is noted. That is the programs are more effective and more often effective with moderate and high-risk offenders. Eight programs demonstrate treatment effects with low-risk offenders, eleven programs with low/moderate-risk offenders, and fourteen programs demonstrate effects with moderate and high-risk offenders.

Table 24 lists the actual difference in recidivism rates between the treatment and comparison group. In this table, negative numbers indicate a difference that favors the

comparison group. This table is ordered by the magnitude of the treatment effect for all offenders served by the program regardless of risk level. Note that the average effect for all facilities and all offenders is a six-percentage point reduction. For low risk offenders, the average treatment effect is an increase in recidivism of five-percentage points. For low/moderate risk offenders, a one-percentage point reduction is noted. Moderate and high-risk offender groups demonstrate the largest treatment effects at six and nine-percentage point reductions respectively.

Figures 10 through 14 demonstrate the treatment effects for all the programs by offender risk level. Note that as the risk level increases, the number of programs demonstrating an effect increases as does the average treatment effect. This trend was also observed with CBCF programs as well.

The tables and figures on the following pages illustrate that the effects of the HWH programs increases as one moves across the categories of risk. While many programs demonstrate a treatment effect overall (see the first column of Table 24 and Figure 10), the programs' effectiveness increases as the risk level of the offenders' increases. This trend is especially clear when comparing Figures 11 and 14.

### **Halfway Houses by Geographic setting**

The RFP issued by the state required that analyses for HWH programs be conducted by geographic setting. The ODRC provided a listing of the HWH programs and their geographic designation of urban, metropolitan, or rural. The listing of programs and their geographic designation is contained in Appendix E of this report. The results are presented for urban HWH programs first followed by metropolitan and rural HWH program results.

**Table 22. Halfway House Predicted Rates of Any Arrest by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	<b>47</b>	<b>49</b>	28	17	37	32	49	49	<b>63</b>	<b>67</b>
Alvis House Dunning Hall	35	32	09	07	21	16	40	38	62	55
Alvis House Alum Creek	<b>46</b>	<b>50</b>	17	16	30	30	<b>48</b>	<b>50</b>	<b>65</b>	<b>71</b>
Canton Community Treatment Center	<b>53</b>	<b>56</b>	<b>27</b>	<b>35</b>	<b>41</b>	<b>46</b>	57	57	72	68
Fresh Start	70	53	--	--	75	33	70	51	<b>64</b>	<b>69</b>
Harbor Light Salvation Army	<b>45</b>	<b>46</b>	24	10	36	23	49	43	<b>63</b>	<b>66</b>
Community Corrections Association	<b>41</b>	<b>50</b>	19	18	<b>30</b>	<b>36</b>	<b>43</b>	<b>58</b>	<b>58</b>	<b>80</b>
Comp Drug	<b>42</b>	<b>44</b>	18	10	31	24	<b>45</b>	<b>46</b>	<b>58</b>	<b>70</b>
Cincinnati VOA McMahon Hall	<b>50</b>	<b>53</b>	30	25	44	38	<b>54</b>	<b>56</b>	<b>67</b>	<b>70</b>
Cincinnati VOA Chemical Dependency Program	46	45	30	16	38	26	51	45	<b>63</b>	<b>65</b>
Toledo VOA	<b>36</b>	<b>39</b>	23	15	31	25	40	40	<b>48</b>	<b>56</b>
Community Assessment Program (Men's)	60	49	--	--	<b>39</b>	<b>41</b>	59	48	75	59
Alternative Agency	65	56	53	27	60	41	67	55	73	70
Community Transitions	36	33	25	7	31	17	36	35	<b>45</b>	<b>61</b>
Oriana House TMRC	58	58	42	33	52	47	63	60	<b>71</b>	<b>72</b>
Oriana House RIP	60	58	35	17	48	41	65	62	<b>78</b>	<b>80</b>
Talbert House Beekman	<b>35</b>	<b>51</b>	<b>26</b>	<b>28</b>	<b>31</b>	<b>40</b>	<b>40</b>	<b>53</b>	<b>48</b>	<b>63</b>
Talbert House Spring Grove	53	50	28	28	46	36	55	50	70	63
Talbert House Cornerstone	60	49	<b>30</b>	<b>33</b>	49	41	70	48	83	57
Small Programs	<b>40</b>	<b>45</b>	24	11	32	24	<b>42</b>	<b>45</b>	<b>52</b>	<b>68</b>



**Table 23. Halfway House Predicted Rates of Any Reincarceration by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	32	38	19	14	24	25	33	39	45	54
Alvis House Dunning Hall	17	22	03	04	7	9	19	21	38	41
Alvis House Alum Creek	28	40	16	15	22	26	28	40	35	56
Canton Community Treatment Center	46	54	31	34	39	44	49	55	58	65
Fresh Start	54	30	44	8	52	16	54	28	59	41
Harbor Light Salvation Army	18	39	11	16	15	25	19	38	24	49
Community Corrections Association	32	43	16	14	24	30	33	51	46	73
Comp Drug	29	40	14	9	21	21	31	41	41	65
Cincinnati VOA McMahon Hall	45	34	32	11	39	20	48	35	56	54
Cincinnati VOA Chemical Dependency Program	23	30	11	14	16	19	25	30	27	42
Toledo VOA	30	42	16	05	25	15	34	42	43	73
Community Assessment Program (Men's)	40	43	--	--	13	24	34	42	65	59
Alternative Agency	53	37	32	11	43	20	55	35	67	52
Community Transitions	39	34	33	12	36	22	38	37	43	55
Oriana House TMRC	31	47	17	26	25	36	35	48	47	60
Oriana House RIP	45	47	24	20	35	34	48	49	62	65
Talbert House Beekman	15	32	04	12	11	20	20	21	26	48
Talbert House Spring Grove	32	39	15	19	23	27	34	38	48	50
Talbert House Cornerstone	45	35	34	23	40	30	49	35	55	41
Small Programs	27	39	9	7	12	13	17	22	23	36

**Table 24. Difference in Rates of Any Reincarceration between Experimental and Comparison Groups by Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term \***

	Risk Level				
	All	Low	Low/Moderate	Moderate	High
Fresh Start	-24	-36	-36	-26	-18
Alternative Agency	-16	-21	-23	-20	-15
Cincinnati VOA McMahon Hall	-11	-21	-19	-13	-2
Talbert House Cornerstone	-10	-11	-10	-14	-14
Community Transitions	-5	-21	-14	-1	<b>12</b>
Oriana House RIP	<b>2</b>	-4	-1	<b>1</b>	<b>3</b>
Community Assessment Program (Men's)	<b>3</b>		<b>11</b>	<b>8</b>	-6
Alvis House Dunning Hall	<b>5</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>
<i>All Facilities</i>	<b>6</b>	<b>-5</b>	<b>1</b>	<b>6</b>	<b>9</b>
Cincinnati VOA Chemical Dependency Program	<b>7</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>15</b>
Talbert House Spring Grove	<b>7</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>2</b>
Canton Community Treatment Center	<b>8</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>7</b>
Community Corrections Association	<b>11</b>	-2	<b>6</b>	<b>18</b>	<b>27</b>
Comp Drug	<b>11</b>	-5	0	<b>10</b>	<b>24</b>
Alvis House Alum Creek	<b>12</b>	-1	<b>4</b>	<b>12</b>	<b>21</b>
Toledo VOA	<b>12</b>	-11	-10	<b>8</b>	<b>30</b>
Small Programs	<b>12</b>	-2	<b>1</b>	<b>5</b>	<b>13</b>
Oriana House TMRC	<b>16</b>	<b>9</b>	<b>11</b>	<b>13</b>	<b>13</b>
Talbert House Beekman	<b>17</b>	<b>8</b>	<b>9</b>	<b>1</b>	<b>22</b>
Harbor Light Salvation Army	<b>21</b>	<b>5</b>	<b>10</b>	<b>19</b>	<b>25</b>

\* Negative numbers indicate a difference favoring the comparison group.

**Figure 10. Treatment Effects for All HWH Offenders (negative numbers favor the comparison group)**

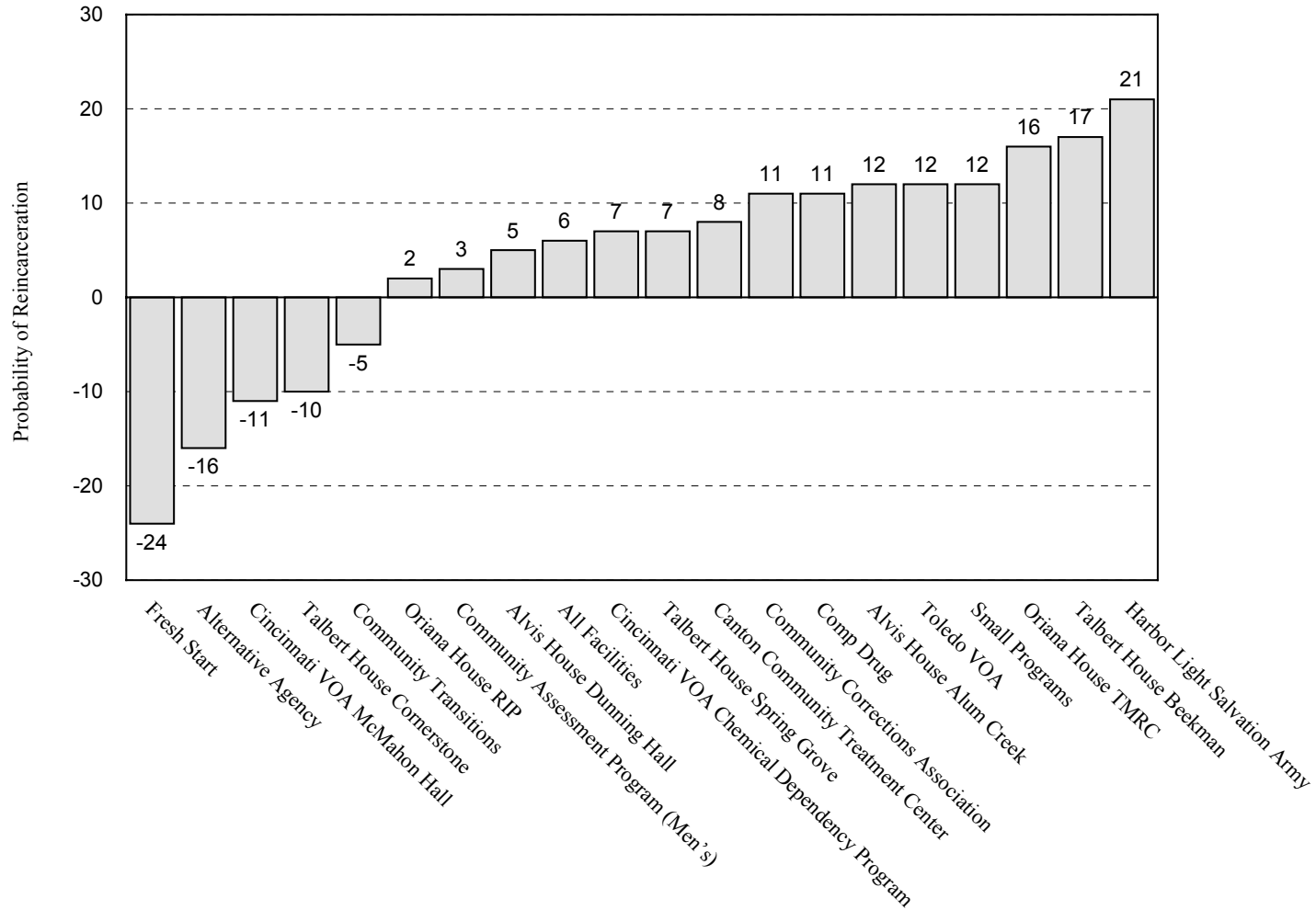


Figure 11. Treatment Effects for Low-Risk HWH Offenders (negative numbers favor the comparison group)

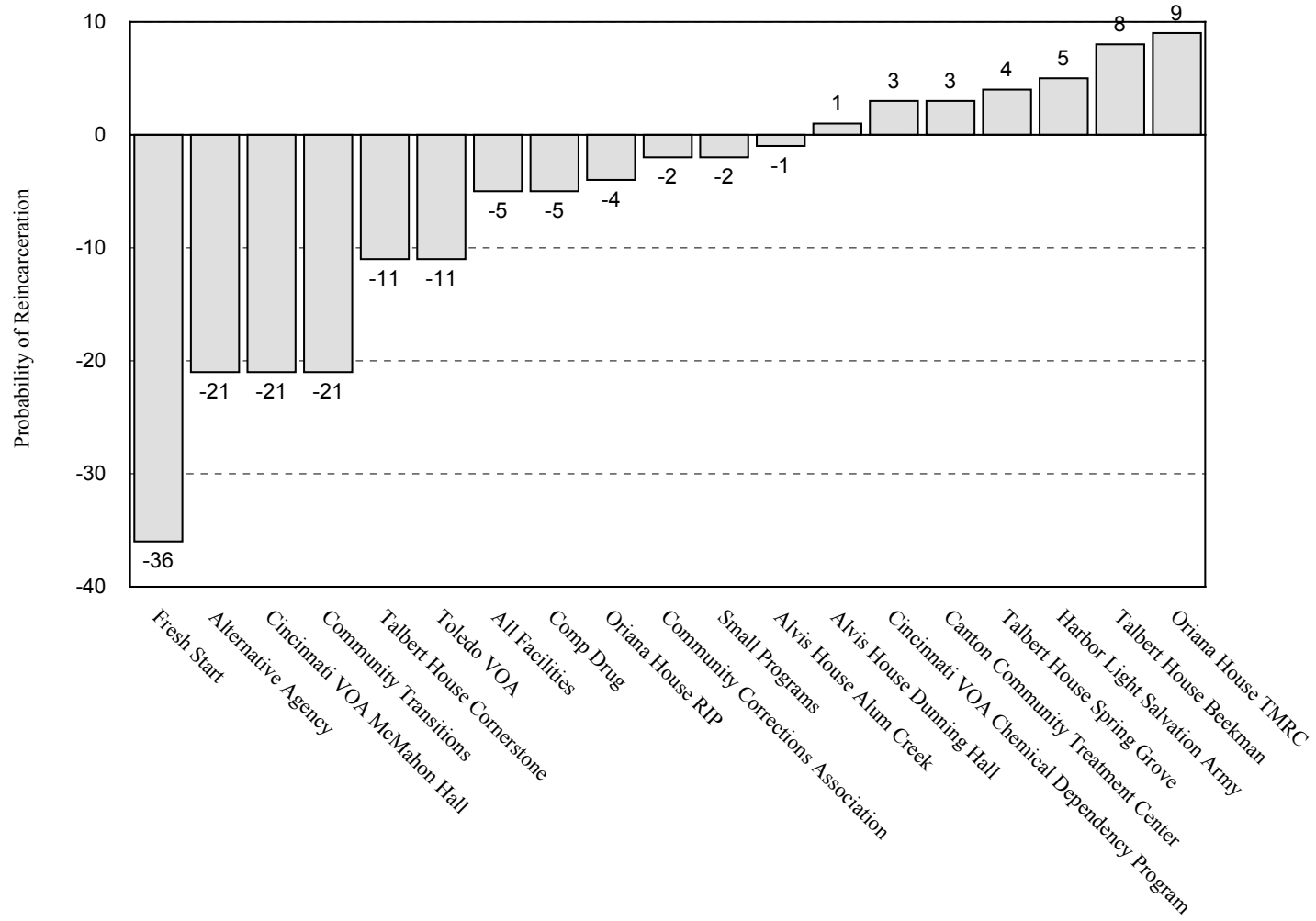


Figure 12. Treatment Effects for Low/Moderate-Risk HWH Offenders (negative numbers favor the comparison group)

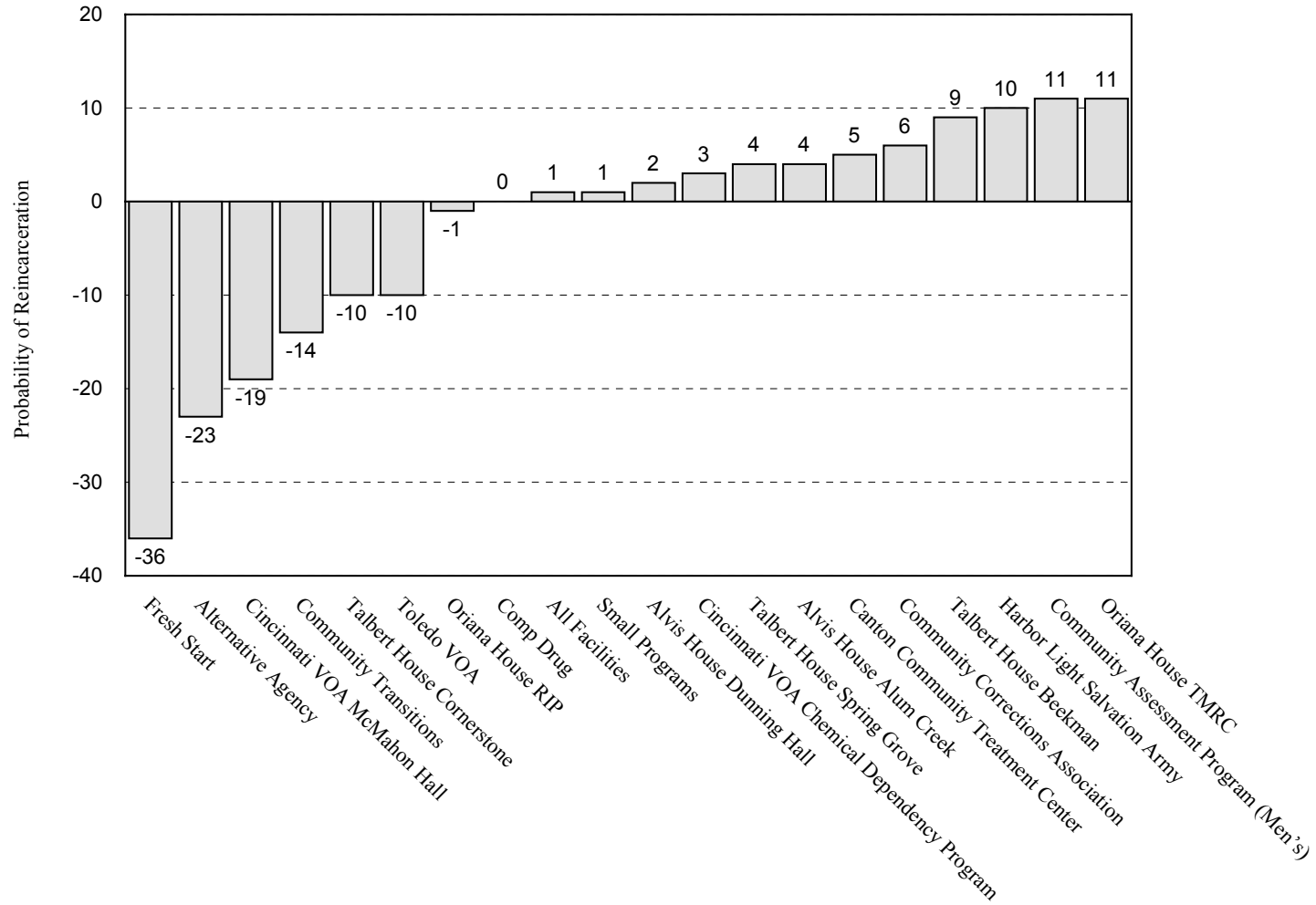
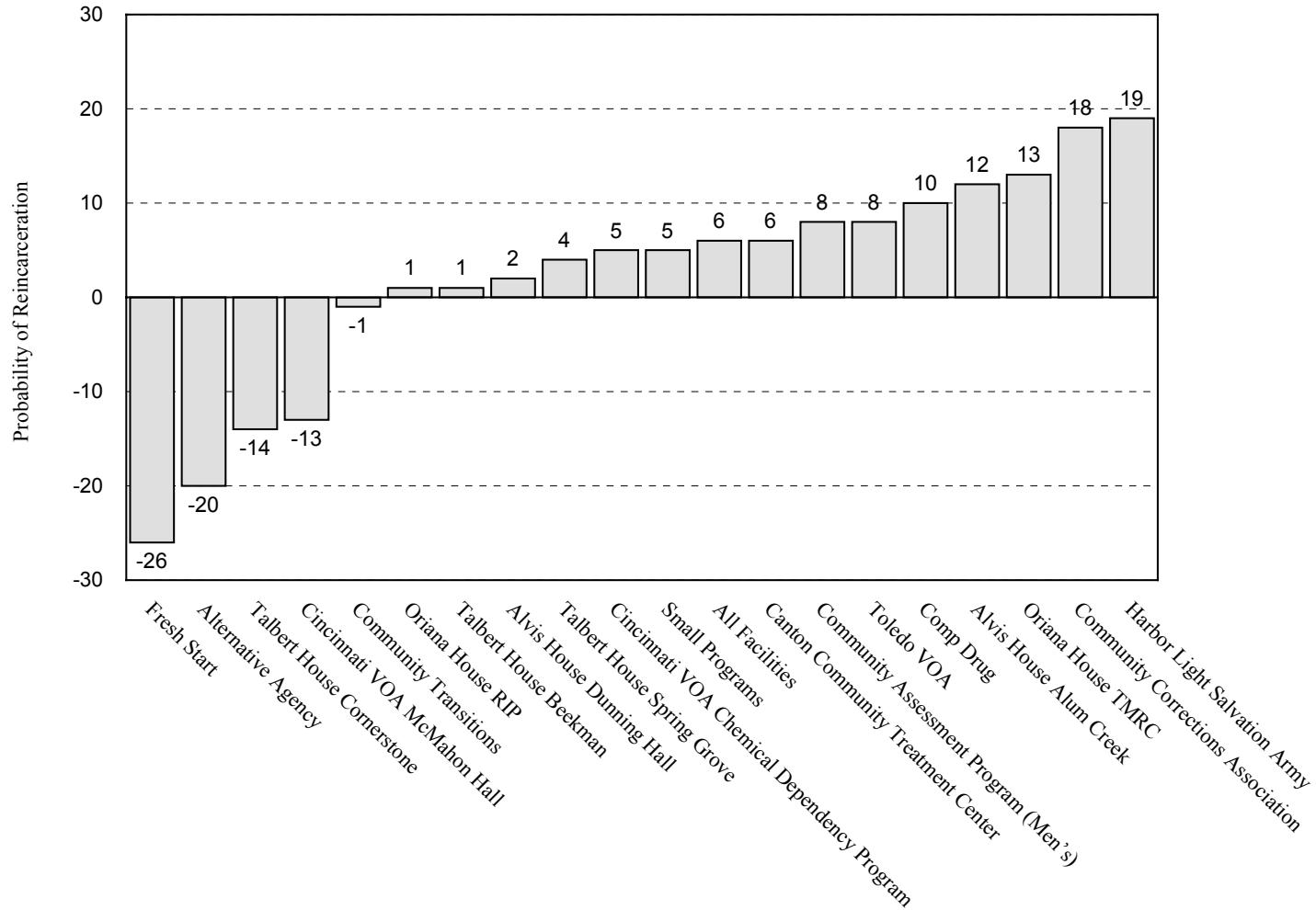
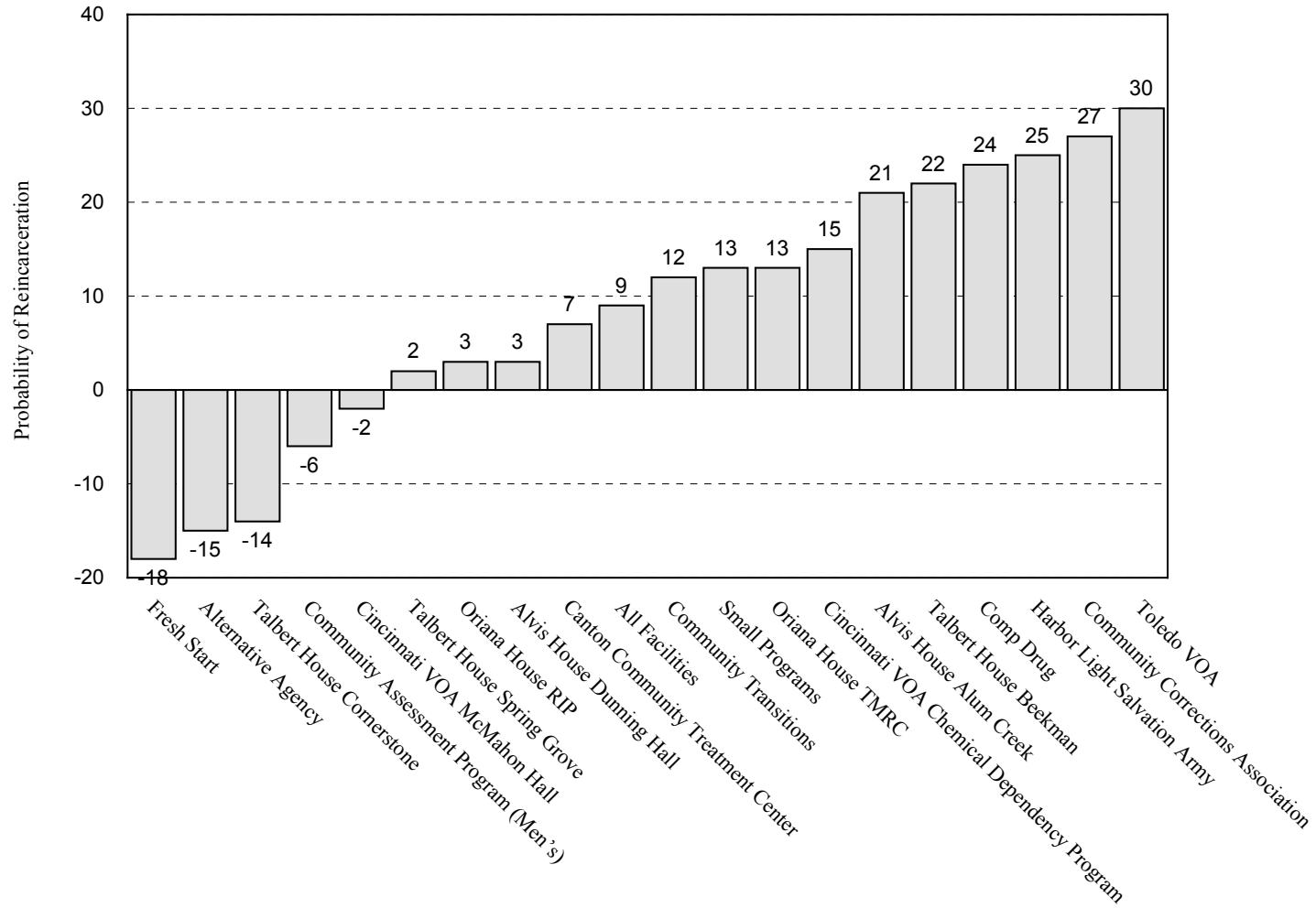


Figure 13. Treatment Effects for Moderate-Risk HWH Offenders (negative numbers favor the comparison group)



**Figure 14. Treatment Effects for High-Risk HWH Offenders (negative numbers favor the comparison group)**



Urban Halfway House Programs

A total of twenty-four HWH programs were categorized as urban halfway houses.<sup>13</sup> The samples from these facilities comprised a total of 2, 763 offenders of which sixty-five percent successfully completed the HWH program whereas thirty-five percent did not (see Table 25). Data pertaining to the demographic characteristics of offenders in urban HWH programs by termination status are contained in Table 26.

**Table 25. Programming Information for Urban Halfway Houses**

Variable	Urban Halfway Houses
Termination Status	% (N)
Successful	64.9 (1,727)
Unsuccessful	35.1 (936)

Data for the urban HWH programs are similar to the trends seen for overall programs.

While some of the variables in Table 26 significantly differ between successful and unsuccessful

**Table 26. Descriptive Statistics By Termination Status for Urban Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Age (Average Age in Years)*	34 (1,727)	33 (936)
Race	% (N)	% (N)
Black	63.2 (1,087)	64.8 (61)
White	36.8 (633)	35.2 (326)
Sex*	% (N)	% (N)
Male	86.3 (1,490)	92.0 (861)
Female	13.7 (237)	8.0 (75)
Marital Status*	% (N)	% (N)
Married	12.3 (213)	9.9 (93)
Never Married	71.0 (1,226)	75.7 (709)
Divorced/Separated/Widowed	16.7 (288)	14.3 (134)

\*Difference Significant at  $p < .05$

<sup>13</sup> The urban HWH programs included Fresh Start, Community Transitions, St. Michael's, Alternative Agency Inc, Goodwill, Alvis House, Traynor House, Comp Drug, Diversified Community Services, Cincinnati VOA, and Talbert House.



program terminations, the differences are not all that substantive. Nonetheless, the data indicate that unsuccessful terminations are more likely to be younger, male, and single when compared with those offenders that successfully complete a program. Again, these noted differences are very slight.

Table 27 contains the descriptive statistics for the risk/need factors and scores by termination status. Overall, the unsuccessful terminations from urban HWH programs are somewhat higher risk than the successful terminations. This trend was demonstrated when looking at all HWH programs together and the same finding with urban HWH programs is not surprising.

Next, bivariate analyses of outcome measures were conducted depending on geographic setting. The bivariate analyses for the urban HWH programs are contained in Tables 28 through 31. The outcome measures analyzed are any new arrest, reincarceration for a technical violation, reincarceration for a new offense, and any new reincarceration. The results from the analysis of the first outcome measure, any new arrest, are presented in Table 28.

As indicated in Table 28, overall there is a slight difference in the percentage of recidivists between the two groups which favors the treatment group, however, this difference is not significant. With this group of HWH programs, the comparison group outperforms the treatment group with low, low/moderate, and moderate risk offenders, although the only significant difference is seen with low/moderate risk offenders. With the high risk offenders, percentages of those arrested for any reason favors the treatment group.

**Table 27. Descriptive Statistics for Risk/Need Factors by Termination Status for Urban Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Prior Arrests*	6.6 (1,579)	7.7 (848)
	% (N)	% (N)
Prior Arrest (Yes/No)	99.7 (1,574)	99.3 (842)
	Mean (N)	Mean (N)
Prior Incarcerations in State of Ohio*	.81 (1,727)	1.00 (936)
	% (N)	% (N)
Prior Incarcerations (Yes/No)*	45.1 (779)	49.9 (467)
Employment Status at Arrest*	% (N)	% (N)
Employed	46.7 (807)	39.3 (368)
Unemployed	53.3 (920)	60.7 (568)
	Mean (N)	Mean (N)
Education Level (Highest Grade Completed)	10.7 (1,727)	10.5 (936)
	% (N)	% (N)
H.S. Graduate (Yes/No)*	35.9 (620)	30.1 (282)
Offense Type*	% (N)	% (N)
Person	23.5 (406)	29.6 (277)
Sex	.3 (6)	.5 (5)
Drug	36.3 (627)	25.3 (237)
Property	33.6 (580)	38.9 (364)
Other	6.3 (108)	5.7 (53)
Degree of Current Offense*	% (N)	% (N)
First	13.9 (218)	10.6 (88)
Second	25.2 (395)	23.7 (197)
Third	24.5 (385)	23.4 (194)
Fourth	20.5 (321)	24.6 (204)
Fifth	15.9 (250)	17.7 (147)
History of Alcohol Abuse (Yes/No)*	53.9 (930)	58.2 (545)
History of Drug Abuse (Yes/No)	69.6 (1,202)	69.7 (652)
Mental Health Problems Identified (Yes/No)*	18.0 (310)	22.4 (210)
	Mean (N)	Mean (N)
Risk Level*	60.5 (1,727)	64.8 (936)
	% (N)	% (N)
Risk Category	% (N)	% (N)
Low	7.7 (133)	4.4 (41)
Low/Moderate	27.2 (470)	22.9 (214)
Moderate	47.3 (817)	42.3 (452)
High	17.8 (307)	27.6 (258)

\*Difference Significant at  $p < .05$

**Table 28. Any Re-Arrest By Group Membership and Risk Level for Urban Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	47.5 (757)	21.9 (23)	40.2 (166)*	48.2 (372)	64.5 (196)
Comparison	48.2 (1,040)	17.7 (20)	30.4 (129)*	47.9 (472)	66.2 (419)

\*Difference Significant at  $p < .05$

Table 29 contains the results for reincarceration on a technical violation. The treatment group is significantly less likely to be incarcerated for a technical violation. This trend is seen overall and with moderate risk offenders. With the other risk categories of offenders (low, low/moderate, and high) the treatment group is more likely to be incarcerated for a technical violation.

**Table 29. Reincarceration for a Technical Violation By Group Membership and Risk Level for Urban Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	16.2 (280)*	9.8 (13)	14.3 (67)	15.1 (123)*	25.1 (77)
Comparison	19.8 (444)*	7.4 (10)	12.6 (57)	23.1 (236)*	22.1 (141)

\*Difference Significant at  $p < .05$

Table 30 reports the results of the analysis focusing on reincarceration for a new criminal offense. As is indicated, the rates of reincarceration favor the treatment group overall, and with moderate and high-risk offenders. Percentages favoring the comparison group are noted with low and low/moderate risk offenders. It should, however, be noted that none of the observed differences obtained statistical significance.

**Table 30. Reincarceration for a New Offense By Group Membership and Risk Level for Urban Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	17.2 (297)	8.3 (11)	12.6 (59)	16.5 (135)	30.0 (92)
Comparison	19.4 (436)	3.7 (5)	10.8 (49)	17.3 (176)	32.2 (206)

Finally, Table 31 reports the data on the relationship between group membership and reincarceration for any reason. In Table 31, three relationships are indicated as attaining statistical significance. The differences for all offenders together regardless of risk level favors the treatment group as does the results for moderate risk offenders (so too do the results for the high-risk group, but this difference is not significant). Two risk-groups indicate better results for the comparison group: the low and low/moderate groups although only the low-risk group demonstrates a statistically significant difference.

**Table 31. Any New Reincarceration By Group Membership and Risk Level for Urban Halfway Houses**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	30.3 (524)*	18.0 (24)*	24.5 (115)	28.9 (236)*	48.5 (149)
Comparison	36.4 (317)*	9.6 (13)*	22.6 (102)	37.5 (383)*	49.9 (319)

\*Difference Significant at  $p < .05$

### Metro Halfway House Programs

There were a total of nine metro halfway house programs in these analyses.<sup>14</sup> As with other groupings of the HWH programs, about sixty-five percent of the terminations from metro HWH programs were successful releases while approximately thirty-five percent were for unsuccessful terminations (see Table 32). The following tables review the demographic and risk/need data by termination status and provide the results of the bivariate outcome analyses.

**Table 32. Programming Information for Metro Halfway Houses**

Variable	Metro Halfway Houses
Termination Status	% (N)
Successful	63.2 (569)
Unsuccessful	36.8 (331)

<sup>14</sup> The metropolitan HWH programs included SOS Hall, Toledo VOA, Mahoning County RTC, Dayton Salvation Army, Canton Community Treatment, and Oriana House.

Table 33 contains the descriptive statistics on demographic characteristics by termination status. Three of the four factors differ significantly by termination status. With age, the gap between successful and unsuccessful terminations increases to two years when considering only

**Table 33. Descriptive Statistics By Termination Status for Metro Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Age (Average Age in Years)*	35 (569)	33 (331)
Race	% (N)	% (N)
Black	56.5 (321)	60.5 (199)
White	43.5 (247)	39.5 (130)
Sex*	% (N)	% (N)
Male	92.3 (525)	97.0 (321)
Female	7.7 (44)	3.0 (10)
Marital Status*	% (N)	% (N)
Married	10.7 (61)	8.2 (27)
Never Married	65.0 (370)	72.8 (241)
Divorced/Separated/Widowed	24.3 (138)	19.0 (63)

\*Difference Significant at  $p < .05$

the metro HWH programs. Differences in sex and marital status are very similar to those noted in other groupings of HWH offenders.

Table 34 provides the results of the analyses focusing on the relationship between risk/need factors and termination status. The data has shown that many factors differ significantly, however, these differences are not very substantive or meaningful. With this grouping of HWH offenders though, there appears to be a stronger relationship between psychological problem indicated and termination status. There also appears to be a slightly stronger relationship between being a property offender and termination status. Overall, the cumulative effects of these small differences on each individual factor leads to a significantly higher risk score and significantly different distribution of offenders across the risk categories.

**Table 34. Descriptive Statistics for Risk/Need Factors by Termination Status for Metro Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Prior Arrests*	6.0 (541)	7.5 (305)
	% (N)	% (N)
Prior Arrest (Yes/No)	99.8 (540)	100.0 (305)
	Mean (N)	Mean (N)
Prior Incarcerations in State of Ohio*	.81 (569)	.98 (331)
	% (N)	% (N)
Prior Incarcerations (Yes/No)*	47.8 (272)	51.1 (169)
Employment Status at Arrest*	% (N)	% (N)
Employed	50.6 (288)	46.8 (155)
Unemployed	49.4 (281)	53.2 (176)
	Mean (N)	Mean (N)
Education Level (Highest Grade Completed)	10.9 (569)	10.8 (331)
	% (N)	% (N)
H.S. Graduate (Yes/No)	39.0 (222)	36.6 (121)
Offense Type*	% (N)	% (N)
Person	29.9 (170)	28.7 (95)
Sex	.9 (5)	2.1 (7)
Drug	26.1 (148)	19.3 (64)
Property	36.6 (208)	42.9 (142)
Other	6.5 (37)	6.9 (23)
Degree of Current Offense*	% (N)	% (N)
First	14.7 (79)	9.7 (29)
Second	32.1 (173)	27.4 (82)
Third	23.4 (126)	18.7 (56)
Fourth	18.9 (102)	25.4 (76)
Fifth	10.9 (59)	18.7 (56)
History of Alcohol Abuse (Yes/No)	57.1 (325)	55.6 (184)
History of Drug Abuse (Yes/No)	74.5 (424)	77.0 (255)
Mental Health Problems Identified (Yes/No)*	24.1 (137)	31.1 (103)
	Mean (N)	Mean (N)
Risk Level*	59.7 (569)	64.7 (331)
	% (N)	% (N)
Risk Category*	% (N)	% (N)
Low	8.6 (49)	4.2 (14)
Low/Moderate	29.9 (170)	22.7 (75)
Moderate	43.6 (500)	48.0 (159)
High	17.9 (102)	25.1 (83)

\*Difference Significant at  $p < .05$

Table 35 illustrates that overall, a non-significant, higher percentage of offenders in the comparison group were re-arrested. When looking across the categories of risk, only the high-risk category reveals a significant difference that favors the treatment group.

**Table 35. Any Re-Arrest By Group Membership and Risk Level for Metro Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	48.7 (263)	31.1 (14)	41.0 (64)	51.7 (124)	61.6 (61)*
Comparison	52.0 (334)	17.1 (7)	39.7 (56)	52.6 (170)	73.7 (101)*

\*Difference Significant at  $p < .05$

**Table 36. Reincarceration for a Technical Violation By Group Membership and Risk Level for Metro Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	20.9 (119)	12.2 (6)	17.7 (29)	24.6 (61)	22.5 (23)
Comparison	25.6 (174)	6.5 (3)	19.1 (29)	28.2 (96)	32.6 (46)

\*Difference Significant at  $p < .05$

Tables 36 through 38 report the results of the analyses using reincarceration as the outcome measure for the metro HWH programs. The only significant differences are seen in Table 38 where the overall percentage of offenders incarcerated for any reason is lower for the treatment group. This overall difference is accounted for by the statistically significant and large difference noted for high-risk offenders. For the high-risk category, the treatment group outperforms the comparison group by over fourteen percentage points.

**Table 37. Reincarceration for a New Offense By Group Membership and Risk Level for Metro Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	18.6 (106)	12.2 (6)	14.1 (24)	18.1 (45)	30.4 (31)
Comparison	21.8 (148)	8.7 (4)	14.5 (22)	21.4 (73)	34.8 (49)

\*Difference Significant at  $p < .05$

**Table 38. Any New Reincarceration By Group Membership and Risk Level for Metro Halfway Houses**

	All % (N)	Risk Level			
		Low % (N)	Low/Moderate % (N)	Moderate % (N)	High % (N)
Experimental	36.0 (205)*	24.5 (12)	27.6 (47)	39.5 (98)	47.1 (48)*
Comparison	44.3 (301)*	15.2 (7)	32.2 (49)	46.3 (158)	61.7 (87)*

\*Difference Significant at  $p < .05$

### Rural Halfway House Programs

Five of the HWH programs reviewed in this study were categorized as rural halfway house programs.<sup>15</sup> As can be seen from Table 39, the rural HWH programs have a much higher unsuccessful termination rate (47%). This rate is over ten percentage points higher than the termination rate for HWH programs in urban and metro locations and overall.

**Table 39. Programming Information for Rural Halfway Houses**

Variable	Rural Halfway Houses
Termination Status	% (N)
Successful	53.4 (93)
Unsuccessful	46.6 (81)

Interestingly, all four demographic variables contained in Table 40 differ significantly by termination status. Unsuccessful terminations were on average three years younger than successful terminations, were more likely black, male, and single.

<sup>15</sup> The rural HWH programs included Pathfinder House, Spencer House, Mansfield VOA, and Crossroads Center for Change.



**Table 40. Descriptive Statistics By Termination Status for Rural Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Age (Average Age in Years)*	36 (93)	33 (81)
Race*	% (N)	% (N)
Black	38.0 (35)	48.8 (39)
White	62.0 (57)	51.3 (41)
Sex*	% (N)	% (N)
Male	66.7 (62)	95.1 (77)
Female	33.3 (31)	4.9 (4)
Marital Status*	% (N)	% (N)
Married	11.8 (11)	14.8 (12)
Never Married	54.8 (51)	65.4 (53)
Divorced/Separated/Widowed	33.3 (31)	19.8 (16)

\*Difference Significant at  $p < .05$

Looking at the risk and need factors by termination status, it can be seen that unsuccessful terminations were significantly and substantially more likely to have mental health needs and a history of alcohol abuse. The differences in these two variables are substantial with mental health needs being associated with forty percent of the unsuccessful terminations and only twenty-four percent of the successful terminations. Unsuccessful terminations had a history of alcohol abuse eighty-seven percent of the time whereas this factor was only present in seventy-two percent of the successful terminations. The average risk score for unsuccessful terminations is higher (65) than that of successful terminations (58). This leads to a trend in risk category distributions similar to those seen in other groupings of HWH offenders where a higher percentage of unsuccessful terminations are categorized as high-risk and a lower percentage is categorized as low/moderate or moderate-risk.

**Table 41. Descriptive Statistics for Risk/Need Factors by Termination Status for Rural Halfway Houses**

Variable	Successful Terminations	Unsuccessful Terminations
	Mean (N)	Mean (N)
Prior Arrests	5.3 (82)	4.4 (69)
	% (N)	% (N)
Prior Arrest (Yes/No)	98.8 (81)	100.0 (69)
	Mean (N)	Mean (N)
Prior Incarcerations in State of Ohio*	.63 (93)	.88 (81)
	% (N)	% (N)
Prior Incarcerations (Yes/No)*	40.9 (38)	50.6 (41)
Employment Status at Arrest	% (N)	% (N)
Employed	25.8 (24)	28.4 (23)
Unemployed	74.2 (69)	71.6 (58)
	Mean (N)	Mean (N)
Education Level (Highest Grade Completed)*	10.8 (93)	11.3 (81)
	% (N)	% (N)
H.S. Graduate (Yes/No)	40.9 (38)	40.7 (33)
Offense Type*	% (N)	% (N)
Person	29.0 (27)	33.3 (27)
Sex	2.2 (2)	8.6 (7)
Drug	19.4 (18)	14.8 (12)
Property	43.0 (40)	27.2 (22)
Other	6.5 (6)	16.0 (13)
Degree of Current Offense*	% (N)	% (N)
First	15.1 (13)	9.5 (7)
Second	31.4 (27)	24.3 (18)
Third	25.6 (22)	24.3 (18)
Fourth	16.3 (14)	21.6 (16)
Fifth	11.6 (10)	20.3 (15)
History of Alcohol Abuse (Yes/No)*	72.0 (67)	86.4 (70)
History of Drug Abuse (Yes/No)	77.4 (72)	81.5 (66)
Mental Health Problems Identified (Yes/No)*	23.7 (22)	39.5 (32)
	Mean (N)	Mean (N)
Risk Level*	57.9 (93)	65.4 (81)
Risk Category*	% (N)	% (N)
Low	6.5 (6)	3.7 (3)
Low/Moderate	31.2 (29)	23.5 (19)
Moderate	50.5 (47)	40.7 (33)
High	11.8 (11)	32.1 (26)

\*Difference Significant at  $p < .05$

The results of the outcome analyses are contained in Tables 42 through 45. The first table, Table 42, indicates that overall, the treatment group did considerably better than the comparison group when using any arrest as the outcome measure. An eleven-percentage point difference is noted between the two groups. The largest difference is noted with the high-risk offenders where there is a nineteen-percentage point difference in recidivism between the treatment and comparison groups. The difference noted in the high-risk category apparently accounts for the overall effectiveness noted in the rural HWH programs.

**Table 42. Any Re-Arrest By Group Membership and Risk Level for Rural Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	33.3 (28)	0.0 (0)	14.8 (4)	43.9 (18)	54.5 (6)
Comparison	44.2 (57)	11.1 (1)	20.0 (7)	41.9 (18)	73.8 (31)

\*Difference Significant at  $p < .05$

Tables 43 through 45 present the outcome analyses using reincarceration data as the outcome measure. Note that with each measure, reincarceration for a technical violation,

**Table 43. Reincarceration for a Technical Violation By Group Membership and Risk Level for Rural Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	23.7 (22)	0.0 (0)	24.1 (7)	27.7 (13)	18.2 (2)
Comparison	26.5 (35)	11.1 (1)	8.3 (3)	29.5 (13)	41.9 (18)

\*Difference Significant at  $p < .05$

reincarceration for a new offense, or reincarceration for any reason, the treatment group outperforms the comparison group.

In each of the tables many risk categories demonstrate a treatment effect, however, very few are significant.<sup>16</sup> With reincarceration for a new offense and any reincarceration, the overall effects indicate a significant treatment effect. With each outcome measure, regardless of significance and overall effects, the high-risk category demonstrates the largest treatment effects. These results must be reviewed carefully given the small sample sizes associated with the rural HWH programs.

**Table 44. Reincarceration for a New Offense By Group Membership and Risk Level for Rural Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	7.5 (7)*	0.0 (0)	6.9 (2)	8.5 (4)*	9.1 (1)
Comparison	25.0 (33)*	0.0 (0)	13.9 (5)	25.0 (11)*	39.5 (17)

\*Difference Significant at  $p < .05$

**Table 45. Any New Reincarceration By Group Membership and Risk Level for Rural Halfway Houses**

	All	Risk Level			
		Low	Low/Moderate	Moderate	High
	% (N)	% (N)	% (N)	% (N)	% (N)
Experimental	28.0 (26)*	0.0 (0)	24.1 (7)	34.0 (16)	27.3 (3)*
Comparison	43.9 (58)*	11.1 (1)	22.2 (8)	47.7 (21)	65.1 (28)*

\*Difference Significant at  $p < .05$

As with the HWH and CBCF bivariate analyses, a concern arises as to whether the bivariate results for the HWH programs by geographic setting would be impacted when controlling for individual differences of the offenders between the treatment and comparison groups. As such, multivariate analyses were conducted for each group of HWH programs based on geographic setting. The same procedures were followed in these analyses as in earlier analyses. Control variables included race, sex, risk category, group membership, and an interaction term between group membership and risk category. The dependent variables in these

<sup>16</sup> This is probably due to the small sample size for the rural halfway house programs.

analyses are any arrest and re-reincarceration for any reason. The results of these analyses are reported in the next subsection. The results from each of the three geographic designations are presented together for comparison purposes.

Multivariate Outcome Analyses

Tables 46 and 47 provide the predicted probabilities of recidivism for the HWH programs by geographic setting. Table 46 provides the predicted probabilities of any arrest while Table 47 lists the probabilities of any reincarceration. The probabilities were calculated for each geographic setting overall and by risk category within each geographic setting. In each table, the predicted probabilities of recidivism for all facilities as one group are provided for reference.

**Table 46. Halfway House By Geographic setting Predicted Rates of Any Arrest by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	47	49	28	17	37	32	49	49	63	67
Urban	47	48	26	17	37	31	50	48	63	66
Metro	48	52	32	20	41	36	51	55	62	72
Rural	33	44	7	8	18	21	38	44	66	72

The first column of Table 46 indicates that overall, the rural HWH programs demonstrate the greatest treatment effect (11% difference) followed by the metro HWH programs (4% difference) and then finally by the urban HWH programs (1% difference). Both the urban and metro HWH programs increase the probability of recidivism for low and low/moderate risk offenders. The urban programs continue to be ineffective with the moderate risk offenders, however, they demonstrate a treatment effect with high risk offenders. The metro programs show treatment effects with both moderate and high-risk offenders while the rural programs have treatment effects with all risk-levels of offenders.

**Table 47. Halfway House By Geographic setting Predicted Rates of Any Reincarceration by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	32	38	19	14	24	25	33	39	45	54
Urban	30	36	16	13	23	23	32	36	44	52
Metro	36	44	22	18	30	31	38	46	48	63
Rural	28	44	13	11	23	26	31	43	37	67

Data in Table 47 (probability of reincarceration) indicate that all of the HWH programs, regardless of geographic setting, are effective, however, none demonstrate treatment effects with low-risk offenders. Further, urban programs show no effects with low/moderate risk offenders. The largest effects observed in Table 47 are with the high-risk offenders, this is the case across the three groupings based on geographic setting. The treatment effects with high-risk offenders range in magnitude from .08 to .30 whereas negative effects are seen with low-risk offenders.

**Halfway Houses by Referral Type**

The final analyses conducted were multivariate analyses predicting any arrest and any reincarceration by referral type. For the HWH programs, offenders could have come from one of three referral methods: either as a condition of parole/PRC, as a result of a parole/PRC violation, or as a part of transitional control. Three logistic regression models were conducted for each of two outcome measures. The results of these analyses are contained in Tables 48 and 49. Recall from Table 15, that fifty-three percent (1,967) of the offenders in the treatment group were referred as a condition of parole/PRC, twenty-four percent (909) were referred as a result of a parole/PRC violation, and twenty-three percent (861) were referred as part of their transitional control. Also recall that specialized comparison groups were developed for each referral type. With parole/PRC referrals, the comparison group was matched based on county and sex. For

those referred due to a parole/PRC violation, the comparison group cases had violations and were returned to prison prior to being released during the study period. Finally, with the transitional control referrals, several criteria was matched including prior criminal history items and current criminal case information (for a complete list see page 4).

**Table 48. Halfway House By Referral Type Predicted Rates of Any Arrest by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	47	49	28	17	37	32	49	49	63	67
Parole/PRC	50	46	30	15	40	30	52	47	65	67
Parole/PRC Violator	49	58	27	29	39	42	52	57	62	70
Transitional Control	38	44	22	20	31	33	43	47	55	63

Consistent with other multivariate analyses conducted in this report, Table 48 indicates that with each referral type the effects of treatment are strongest and most consistently seen with the moderate and high risk offenders. Low-risk parole/PRC violators placed in programming do better than the comparison group, however, with those offenders referred for parole/PRC and transitional control no treatment effect is noted in the low-risk offender. In fact, the low-risk treatment group from the parole/PRC and transitional control referrals does worse than the comparison group. Treatment effects are seen for both parole/PRC violators and transitional control placements that are low/moderate-risk or higher. Within the parole/PRC group only high-risk offenders receive benefits from the HWH programming.

**Table 49. Halfway House By Referral Type Predicted Rates of Any Reincarceration by Group and Risk Level Controlling for Race, Sex, Risk, Group Membership, and Group Membership by Risk Interaction Term**

Group	Risk Level									
	All		Low		Low/Moderate		Moderate		High	
	E	C	E	C	E	C	E	C	E	C
All Facilities	32	38	19	14	24	25	33	39	45	54
Parole/PRC	34	34	22	13	27	22	35	35	44	50
Parole/PRC Violator	40	52	19	26	30	37	43	51	55	64
Transitional Control	21	36	11	12	16	23	24	37	33	55

The last analysis conducted on HWH program participants was the multivariate logistic regression model predicting any reincarceration by referral type. A similar trend is noted with this outcome measure as was seen with any arrest. That is, each referral type benefits most substantially from the programming when considering only the high-risk offenders. While the parole/PRC violator and transitional control group demonstrate treatment effects at each level of risk, the effects are greatest with the high-risk group. Focusing on parole/PRC referrals, overall no effect is demonstrated, however, a treatment effect was noted for the high-risk group.



## SECTION V—SUMMARY AND RECOMMENDATIONS

### Summary

This report was structured to provide information as stipulated in the RFP issued by the ODRC. More specifically, the research methodology employed and data collected focused on:

- 1) Describing the major program components of the programs listed in the RFP
- 2) Providing a profile of CBCF and HWH offenders and comparing them on key characteristics to a comparison group
- 3) Calculating in program success rates and identifying differences between the successful and unsuccessful program terminations
- 4) Investigating and reporting on the post-release recidivism rates of the offenders served in CBCF and HWH programs and how these rates differ from a comparison group

Several sub-analyses were requested for the HWH programs including analyses by geographic setting and analyses by referral type. This section of the report focuses on summarizing the findings from the above research and making policy recommendations based on this information.

### Summary of CBCF Findings

Analyses of the programmatic and non-programmatic features of the CBCF programs indicates that the average CBCF has been in operation for ten years and has an average capacity of 114 offenders. The typical CBCF program provides services for both males and females and offers substance abuse, education, and employment programming. Most CBCF programs provide anger management, cognitive groups, mental health counseling, and financial management classes. Slightly less than half of the programs offer sex offender treatment.

The typical offender referred to a CBCF is a White male with an average age of 29. CBCF referrals are also typically single, and exhibit needs in education, employment, vocational

training, substance abuse counseling, anger management and vocational training. Of the CBCF terminations considered in this study, seventy-nine percent were terminated successfully leaving twenty-one percent unsuccessfully terminated from programming.

Data on risk/need factors and demographic characteristics (see Tables 4 and 5) indicate some significant differences between successful and unsuccessful terminations. While many factors investigated were significant in their relation with unsuccessful termination, the differences were very slight. A multivariate logistic regression model indicated that both race and risk level significantly predicted unsuccessful termination. Black offenders had a 24 percent predicted probability of unsuccessful termination whereas the probability for White offenders was 18 percent. Low-risk offenders had a ten percent chance of unsuccessful termination while high-risk offenders had a 27 percent chance (see Figure 3).

Bivariate analyses of outcome data on the CBCF sample indicated that the CBCF treatment group did significantly worse than the comparison group when using any arrest as the outcome measure (see Table 6). When using any reincarceration as the measure of outcome, a small three percent treatment effect is noted. This effect increases to eight percent when looking at only high-risk offenders placed in the CBCF programs. Multivariate analyses revealed the same trend; CBCF programs are more often effective and demonstrate larger treatment effects when the offenders are moderate or high-risk offenders (see Tables 10, 11, and 12 and Figures 4 through 8).

### Summary of HWH Findings

The HWH programs under study in this report have been in operation for an average of nineteen years. The average capacity of the HWH programs is 54 with an average length of stay of four months. Few HWH facilities house both males and females, but a good percentage of

programs (22%) serve females exclusively. Almost all HWH programs offer substance abuse and employment programming. Roughly two-thirds offer education and financial management classes, while just over half offer cognitive-based groups. Anger management is offered by less than half of the programs while mental health services are a core service at one-third of the facilities. Five HWH programs reported sex offender treatment as a core or ancillary service offered.

The typical client served by the HWH programs is a thirty-four year old, single, Black, male. The average HWH client was assessed as having a history of substance abuse and alcohol abuse. HWH offenders were most likely to be referred for property offenses.

An analysis of programming needs indicates that most HWH offenders need employment assistance, substance abuse, and alcohol abuse counseling. Most of the offenders referred by ODRC and placed in HWH programs are placed as a condition of parole/PRC (53%), followed by placement due to a parole/PRC violation (24%), and then by transitional control (23%). The HWH programs have a sixty-four percent successful termination rate.

Analyses of risk/need factors and demographic characteristics in relation to termination status revealed very few variables that demonstrated a strong relationship with unsuccessful terminations. Multivariate analyses indicated that sex and risk level were significantly related to an unsuccessful termination (see Figure 9). Males were twenty-five percent more likely to be unsuccessfully terminated than female offenders (probabilities of 38% for males compared to 28% for females). High-risk offenders were almost twice as likely as low-risk offenders to be unsuccessfully terminated.

Bivariate outcome analyses of the HWH programs regardless of geographic setting and referral reason indicated a small treatment effect of nearly two percent when using arrest as the

outcome measure. These effects increased to four percent when focusing on just the high-risk offenders (see Table 18). These effects become stronger when reincarceration for any reason is utilized as the outcome measure. An overall treatment effect of seven percent is noted for all HWH programs regardless of risk, geographic setting, and referral reason. Again, with any reincarceration during the follow up period as the outcome measure, stronger effects are noted for the moderate and high-risk offenders when comparing them with treatment effects of low and low/moderate risk offenders (see Table 21).

Multivariate analyses of both outcome measures indicates the same pattern; that is, the HWH programs demonstrate larger treatment effects and more often demonstrate any treatment effect when focusing on the moderate and high-risk offenders (see Tables 22, 23, and 24, and Figures 10-14).

The last set of multivariate analyses conducted on the HWH offenders were split by geographic setting and referral reason. Recall from Tables 46 and 47, that the Rural HWH programs demonstrated the largest treatment effects overall. All three groupings of HWH programs demonstrated treatment effects with high-risk offenders ranging from an eight-percentage point reduction in the Urban programs, to fifteen percentage point reduction in the Metro programs, and a thirty-percentage point reduction in the Rural programs.<sup>17</sup>

Tables 48 and 49 illustrate the same trend (see pages 126 and 127). In these two tables, the predicted recidivism rates by referral reason are presented. While there is variability in the treatment effects, all three referral sources are associated with treatment effects with the high-risk offenders. Treatment effects are associated with all four risk groups of parole/PRC violators

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<sup>17</sup> When using any incarceration as the outcome measure. Treatment effects are smaller when using any arrest as the outcome measure.

(regardless of the outcome measure) and transitional control releases (when using any reincarceration as the outcome measure). Those offenders referred as a condition of parole/PRC only benefit from treatment if they are high-risk.

### **Conclusions and Recommendations**

The results presented in this report provide strong support for the utilization of HWH and CBCF programs with moderate and high-risk offenders. These findings are not surprising given the well-documented risk principle in previous research on correctional interventions. The basic premise of the risk principle is that intensive rehabilitation programming should be reserved for high-risk offenders. Placing low-risk offenders in intensive programming at best leads to a costly null effect or can increase the risk and recidivism rates of lower-risk offenders. Given the risk principle and the distribution of CBCF and HWH participants across the categories of risk (see Tables 2 and 14, and Lowenkamp and Latessa 2002) the findings illustrated in Figures 15 and 16 below become straightforward and practical. That is, CBCF and HWH programs tend to be at the higher end of intensity and duration when compared to other typical community corrections programs. At the same time, both types of programs receive offenders that vary substantially in their level of risk. Given this information it makes sense that null or contrary effects are seen with lower risk offenders while treatment effects are observed with higher risk offenders in most of the programs.

Of the 32 programs listed in Figure 15 all but ten programs fail to show a treatment effect with low-risk offenders. Even programs that show an impact with low-risk offenders, the average treatment effect is small (just over 4%). Figure 16 indicates that when focusing on high-risk offenders, only eight programs fail to show a treatment effect. The treatment effects range

from a two to a thirty-four-point difference in recidivism rates between the treatment and comparison groups.

The data in these figures and contained throughout this report would indicate that some thought and consideration should be given to the method in which offenders are referred to and accepted into both HWH and CBCF programs. It is apparent from these data that low-risk offenders simply do not respond well to the treatments provided. A similar trend is seen with low/moderate risk offenders. These data question the utility of such placements for low and low/moderate risk offenders and worse, the results tend to indicate that such placements *increase the recidivism rates of the lower-risk offenders*. The only exception to this trend is those offenders referred to a HWH on a parole/PRC violation. All risk levels of parole/PRC violators responded favorably to treatment in relation to the comparison cases.

On the other hand, the data in this report indicate, fairly consistently, that the programs have a treatment effect with moderate and high-risk offenders. These effects are not negligible and are present in both the bivariate and multivariate analyses. These data, taken together, would indicate that referrals and placements made to HWH and CBCF programs should be based on the offender's risk-level.

While the data in this report indicate that HWH and CBCF programs decrease the recidivism rates of moderate and high-risk offenders, there are several other questions uncovered by this report that should be answered with subsequent research. This continued research can serve to inform policy development by the ODRC and the individual programs.

First, the ODRC and the programs need to establish a common method for assessing offender risk. While the majority of CBCF programs utilize the LSI-R to assess risk, there is

Figure 15. Treatment Effects for Low Risk Offenders in Both CBCF and HWH Programs

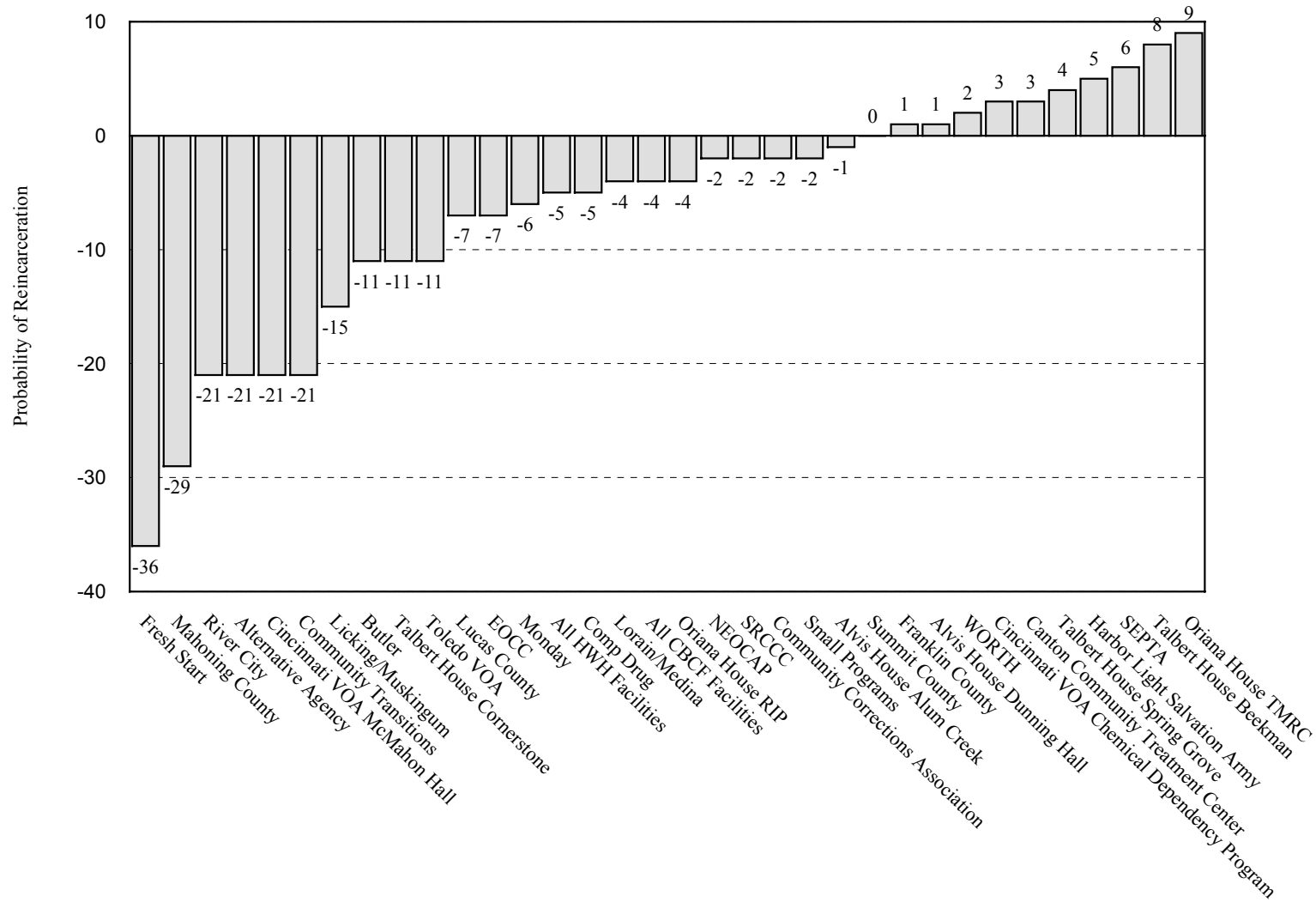
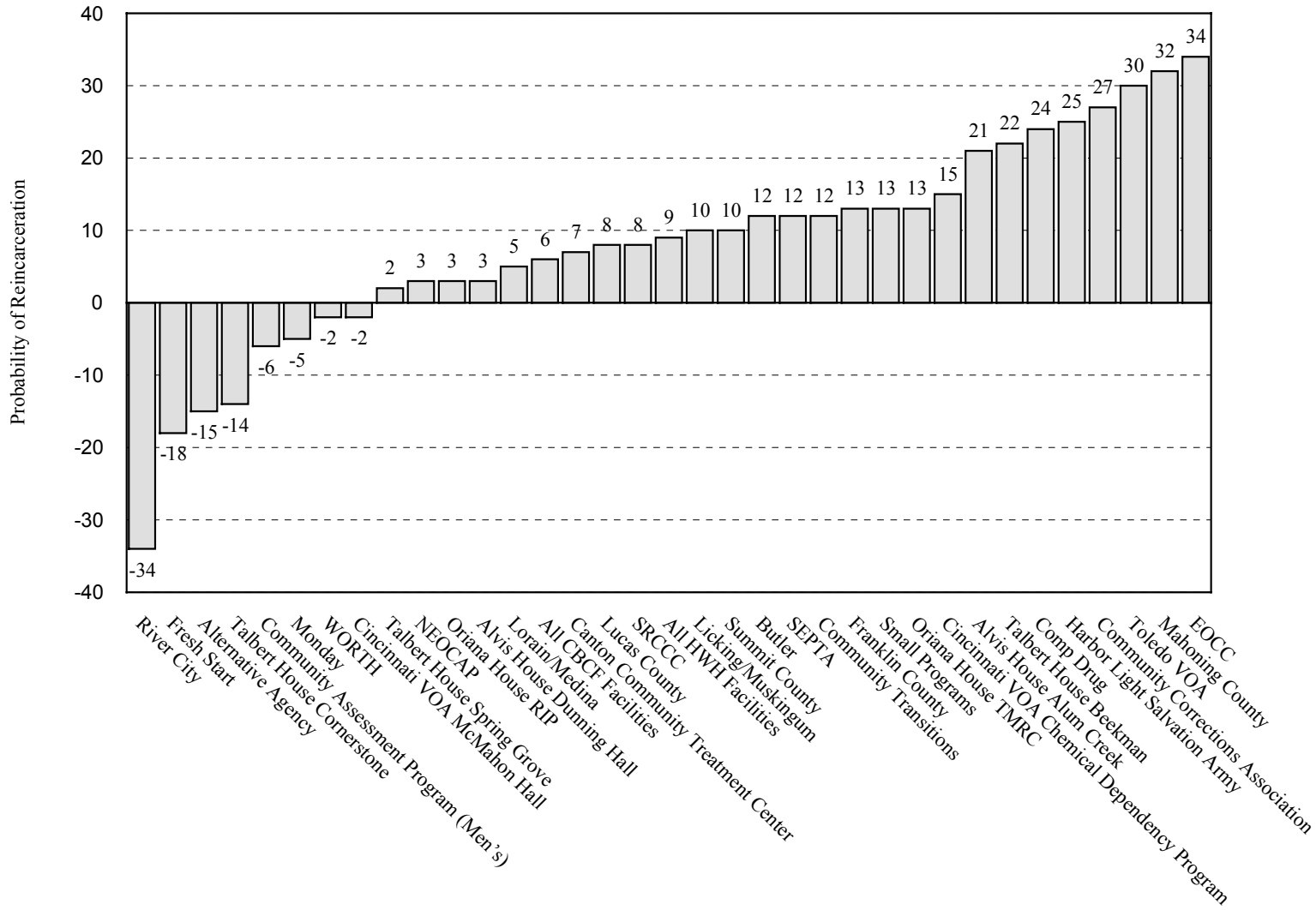


Figure 16. Treatment Effects for High Risk Offenders in Both CBCF and HWH Programs





little consistency in the assessment of risk by the HWH programs. One option would be for the ODRC and the programs to utilize the measures developed in this report to assess risk. A second option is to conduct an inquiry into the relationship between the LSI-R and the risk measure utilized in this study. If the two measures are found to be consistent, the results of that study can be used to determine what cutoff scores should be used on the LSI-R to identify those offenders most likely to respond to treatment in the CBCF and HWH programs. It should be noted, however, that the implementation of the LSI-R in the HWH programs would have to occur prior to utilizing the LSI-R to determine program eligibility, as many HWH programs do not currently utilize the LSI-R.

The second issue is the relationship between program characteristics and program effectiveness. Considerable research has established the link between the type of programming utilized with offenders and effectiveness of the programming. For example, Andrews et al., (1990) found behavioral interventions to be the most effective. Lipsey and Wilson (1998) found consistent support for cognitive behavioral programming in its effectiveness to reduce recidivism. Many other meta-analyses on correctional interventions support the finding that cognitive/behavioral programs are the most effective in reducing offender behavior. Given this information, investigating the relationship between the type of programming offered and recidivism rates in the State's CBCF and HWH programs might shed some light on most effective combination of programming. This research will allow the ODRC and the programs to determine what types of programming are the most effective in reducing recidivism and make adjustments accordingly.

Finally, a third area of research should focus on the non-programmatic characteristics of agencies. Lipsey (1999) has found that the characteristics of programs, in addition to the content

an delivery of programming, are important factors in determining a program's overall effectiveness in reducing recidivism. Many of these factors empirically identified as Lipsey (1999) have been listed in previous publications as possible factors relating to program effectiveness (see Quay 1977 and Palmer 1995). These factors include: implementation, duration of service, intensity of service, staff qualification, staff training, staff turnover, and offender targeting and matching.

The recommendations listed above will help in the process of increasing the effectiveness of CBCF and HWH programs in the State of Ohio. These recommendation focus on identifying the offenders that are most likely to respond to the treatments offered in the aforementioned programs and increasing the effectiveness of the programming delivered to the offenders and the overall integrity of the program and intervention delivered.

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