

Table 36
Employment and Cohabitation Status
Supervised Male Subjects

Employment Status							
	Comparison		Treatment				Total (n=1,269)
	DAP (n=378)	Non-DAP (n=293)	Completed (n=452)	Dropout (n=31)	Discip. Discharge (n=40)	In- complete (n=75)	
Full-time/entire period	41 %	41 %	49 %	32 %	33 %	47 %	44 %
Full-time/partial period	29 %	34 %	29 %	26 %	25 %	20 %	29 %
Part-time	10 %	9 %	7 %	13 %	13 %	7 %	9 %
Ineligible ¹	6 %	4 %	5 %	3 %	8 %	8 %	5 %
Unemployed	15 %	12 %	10 %	26 %	23 %	19 %	13 %
Missing = 19							
Cohabitation Status							
	(n=382)	(n=295)	(n=455)	(n=31)	(n=42)	(n=76)	(n=1,281)
With spouse	17 %	20 %	22 %	16 %	12 %	26 %	20 %
With common-law spouse or paramour	13 %	14 %	15 %	19 %	12 %	17 %	15 %
Neither	69 %	65 %	63 %	65 %	76 %	57 %	65 %
Missing = 7							

Note: 236 male subjects were not under post-release supervision. Due to rounding, columns may not sum to 100 percent.

¹ Subjects were categorized as ineligible if they were involved in a school program, retired or disabled, or detainees who had very little time available "on the streets" to be employed.

Table 37
Employment and Cohabitation Status
Supervised Female Subjects

Employment Status							
	Comparison		Treatment				Total
	DAP (n=97)	Non-DAP (n=31)	Completed (n=87)	Dropout (n=12)	Discip. Discharge (n=14)	In- complete (n=34)	(n=275)
Full-time/entire period	26 %	26 %	34 %	17 %	21 %	26 %	28 %
Full-time/some period	34 %	32 %	36 %	25 %	36 %	44 %	35 %
Part-time	14 %	13 %	18 %	25 %	14 %	18 %	16 %
Ineligible ¹	10 %	6 %	5 %	17 %	7 %	6 %	8 %
Unemployed	15 %	23 %	7 %	17 %	21 %	6 %	13 %
Missing = 6							
Cohabitation Status							
	(n=97)	(n=32)	(n=87)	(n=12)	(n=15)	(n=35)	(n=278)
With spouse	12 %	12 %	10 %	17 %	7 %	11 %	12 %
With common-law spouse or paramour	13 %	12 %	3 %	0 %	7 %	9 %	9 %
Neither	74 %	75 %	86 %	83 %	87 %	80 %	80 %
Missing = 3							
Note: 61 female subjects were not under post-release supervision. Due to rounding, columns may not sum to 100 percent.							
¹ Subjects were categorized as ineligible if they were involved in a school program, retired or disabled, or detainees who had very little time available "on the streets" to be employed.							

Table 38
Traditional Models of Failure as Arrest: Supervised and Unsupervised Subjects

Male and Female Subjects

Model of Arrest with:	<u>L²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	2049.9	38	---	---
Base and Additional Background Variables	2041.6	45	8.3	7
Base and Change Assessment Variables	2044.1	44	5.8	6
Base and Additional Treatment Variables	2047.5	41	2.4	3
Base and Supervision Variables	2041.9	41	8.0**	3
Final Model Variables	2029.8	49	20.1**	11

Male Subjects

Model of Arrest with:	<u>L²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	1836.4	37	---	---
Base and Additional Background Variables	1826.8	44	9.6	7
Base and Change Assessment Variables	1830.3	43	6.1	6
Base and Additional Treatment Variables	1832.9	40	3.5	3
Base and Supervision Variables	1830.9	40	5.5	3
Final Model Variables	1823.0	48	13.4	11

Notes to Table:

[†]Difference in L² between traditional base model and model in question.

* Significant at p < .10
 ** Significant at p < .05
 *** Significant at p < .01

NOTE: The blocks for additional treatment variables and supervision variables exclude variables not available for unsupervised subjects.

Table 39
Traditional Models of Failure as Arrest: Supervised Subjects Only

Male and Female Subjects

Model of Arrest with:	<u>L²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	1682.2	38	---	---
Base and Additional Background Variables	1672.8	45	9.4	7
Base and Change Assessment Variables	1673.4	44	8.8	6
Base and Additional Treatment Variables	1670.6	47	11.6	9
Base and Supervision Variables	1666.7	43	15.5***	5
Base and Post Release Behavior Variables	1546.4	43	135.8***	5
Final Model Variables	1521.1	55	161.1***	17

Male Subjects

Model of Arrest with:	<u>L²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	1506.4	37	---	---
Base and Additional Background Variables	1494.3	44	12.1	7
Base and Change Assessment Variables	1497.1	43	9.3	6
Base with Additional Treatment Variables	1494.3	46	12.1	9
Base with Supervision Variables	1492.9	42	13.5***	5
Base and Post Release Behavior Variables	1377.2	42	129.2***	5
Final Model Variables	1363.9	54	142.5***	17

Notes to Table:

[†]Difference in L² between traditional base model and model in question.

* Significant at p < .10
 ** Significant at p < .05
 *** Significant at p < .01

Table 40
Traditional Models of Failure as Arrest or Revocation[†]

Male and Female Subjects

Model of Arrest or Revocation with:	<u>L²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	2427.4	38	---	---
Base and Additional Background Variables	2413.6	45	13.8*	7
Base and Change Assessment Variables	2418.6	44	8.8	6
Base with Additional Treatment Variables	2374.5	47	52.9***	9
Base with Supervision Variables	2375.0	42	52.4***	4
Base and Post Release Behavior Variables	2066.1	43	361.3***	5
Final Model Variables	1983.9	64	443.5***	26

Male Subjects

Model of Arrest or Revocation with:	<u>L²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	2143.4	37	---	---
Base and Additional Background Variables	2131.8	44	11.6	7
Base and Change Assessment Variables	2135.1	43	8.3	6
Base with Additional Treatment Variables	2098.1	46	45.3***	9
Base with Supervision Variables	2103.2	41	40.2***	4
Base and Post Release Behavior Variables	1824.7	42	318.7***	5
Final Model Variables	1755.6	63	387.8***	26

Notes to Table:

[†]Difference in L² between traditional base model and model in question.

-
- * Significant at p < .10
 - ** Significant at p < .05
 - *** Significant at p < .01

[‡] Only includes subjects who were under supervision and thus had a probability of revocation greater than zero.

Table 41
Traditional Models of Failure as Evidence of Drug Use[†]

Male and Female Subjects

Model of Drug Use with:	<u>x²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	3012.8	38	---	---
Base and Additional Background Variables	3006.0	45	6.8	7
Base and Change Assessment Variables	3004.8	44	8.0	6
Base and Additional Treatment Variables	2854.0	47	158.8***	9
Base and Supervision Variables	2934.1	42	78.7***	4
Base and Post Release Behavior Variables	2921.4	42	91.4***	4
Final Model Variables	2745.5	63	267.3***	25

Male Subjects

Model of Drug use with:	<u>x²</u>	<u>DF</u>	<u>Diff.[†]</u>	<u>DF</u>
Base Variables	2585.3	37	---	---
Base and Additional Background Variables	2576.6	44	8.7	7
Base and Change Assessment Variables	2578.0	43	7.3	6
Base with Additional Treatment Variables	2447.5	46	137.8***	9
Base with Supervision Variables	2513.5	41	71.8***	4
Base and Post Release Behavior Variables	2510.1	41	75.2***	4
Final Model Variables	2355.2	62	230.1***	25

Notes to Table:

[†]Difference in x² between traditional base model and model in question.

-
- * Significant at p < .10
 - ** Significant at p < .05
 - *** Significant at p < .01

[†] Only includes subjects who were under supervision and who had urine testing, thus had a probability of drug use greater than zero.

Table 42
Arrests, Male and Female Subjects, Supervised and Unsupervised Subjects
Traditional Model

Variable	Base Model			Final Model		
	b	se(b)	OR	b	se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-3.2054***	0.6236		-3.2548***	0.6391	
COMPDAF	-0.1506	0.1870	0.860	-0.2483	0.1954	0.780
GRAD12MO	-0.2497	0.2949	0.779	-0.4186	0.3187	0.658
GRAD9MO	-0.4604**	0.2089	0.631	-0.5320***	0.2204	0.587
INCOMPTX	-0.0221	0.2723	0.978	-0.2413	0.3025	0.786
DISCIPTX	0.0113	0.3206	1.011	-0.1370	0.3344	0.872
WITHDRTX	0.3772	0.3788	1.458	0.2147	0.3913	1.239
EBLACK	-0.1130	0.1491	0.893	-0.0891	0.1509	0.915
ERACEOTH	0.2778	0.2328	1.320	0.2072	0.2359	1.230
EHISP	-0.2493	0.1528	0.779	-0.2566*	0.1534	0.774
EFEM	-0.3300***	0.1252	0.719	-0.3257***	0.1253	0.722
EPRIORCM	0.4429***	0.1029	1.557	0.4222***	0.1033	1.525
ERECVIOL	0.2695**	0.1153	1.309	0.2722**	0.1167	1.313
EPASTVIO	-0.0328	0.1113	0.968	-0.0712	0.1123	0.931
TIMESRVD	0.0308	0.0369	1.031	0.0271	0.0369	1.028
ECJSPVNY	0.1940	0.2155	1.214	0.2223	0.2195	1.249
ECJSPVNM	-0.2070	0.4083	0.813	-0.2232	0.4138	0.800
AGERLSE	-0.0487***	0.0104	0.952	-0.0455***	0.0104	0.956
ESUPILL	-0.0359	0.0758	0.965	-0.0351	0.0760	0.965
EWORKJOB	0.0014	0.1729	1.001	-0.0104	0.1749	0.990
ELEGITUN	-0.0707	0.3191	0.932	-0.0522	0.3208	0.949
EUNEMP	0.0232	0.2391	1.023	0.0103	0.2405	1.010
EJOB_UNK	-0.1396	0.4954	0.870	-0.1168	0.5010	0.890
GRADEA	0.0207	0.0367	1.021	0.0194	0.0365	1.020
COC_FRQ	0.0013	0.0391	1.001	0.0014	0.0397	1.001
CRK_FRQ	-0.0546	0.0415	0.947	-0.0573	0.0416	0.944
HAL_FRQ	0.0042	0.0585	1.004	-0.0115	0.0593	0.989
HER_FRQ	0.0278	0.0429	1.028	0.0120	0.0433	1.012
OPIA_FRQ	-0.0020	0.0607	0.998	0.0027	0.0609	1.003
POT_FRQ	-0.0593	0.0420	0.942	-0.0574	0.0424	0.944
BARB_FRQ	0.0387	0.0586	1.039	0.0437	0.0591	1.045
STIM_FRQ	-0.0194	0.0466	0.981	-0.0138	0.0466	0.986
DEPLOGTA	0.0188	0.0209	1.019	0.0190	0.0209	1.019
DEPLOGTD	0.0169	0.0355	1.017	0.0091	0.0355	1.009

Table 42 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.0017	0.1034	0.998
ECCCFAIL				0.2585**	0.1177	1.295
SUP_REL				0.1990	0.2001	1.220
ECOHO1_6				0.2173	0.2221	1.243
ECOHO7				0.4607*	0.2765	1.585
ECOHO8				0.2614	0.2268	1.299
ECOHO9				-0.3405	0.2887	0.711
ECOHO10				0.2854	0.1972	1.330
ECOHO11				-0.3884*	0.2342	0.678
ECOHO12				-0.1007	0.1648	0.904
ECOHO13				-0.0877	0.1752	0.916
D_T2	0.4280	0.2623	1.534	0.4340*	0.2626	1.543
D_T3	0.4751*	0.2624	1.608	0.4826*	0.2627	1.620
D_T4	0.6071**	0.2586	1.835	0.6205**	0.2589	1.860
D_T5	0.8791***	0.2497	2.409	0.8988***	0.2501	2.457
D_T6	0.6786***	0.2614	1.971	0.7050***	0.2618	2.024
-2 Log Likelihood						
Intercept Only		2176.541			2176.541	
Intercept and Covariates		2049.924			2029.842	
Concordant Pairs		69.4%			71.4%	
Somer's D		0.420			0.458	
Hosmer-Lemeshow						
Goodness of Fit			9.7344 with 8 DF (p=0.2842)			11.431 with 8 DF (p=0.1785)
* p < .10						
** p < .05						
*** p < .01						

Table 43
Arrests, Male and Female Subjects, Supervised Subjects Only
Traditional Model

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-2.4360***	0.6766	.	-2.5776***	0.7021	.
COMPDP	-0.1641	0.2068	0.849	-0.2076	0.2185	0.813
GRAD12MO	-0.2520	0.3042	0.777	-0.2137	0.3389	0.808
GRAD9MO	-0.5114**	0.2323	0.600	-0.4099*	0.2503	0.664
INCOMPTX	-0.1910	0.3309	0.826	-0.2926	0.3676	0.746
DISCIPTX	0.0000	0.3693	1.000	-0.2959	0.3936	0.744
WITHDRTX	0.3918	0.4130	1.480	0.3547	0.4568	1.426
EBLACK	-0.1061	0.1591	0.899	-0.1186	0.1658	0.888
ERACEOTH	0.2857	0.2381	1.331	0.1488	0.2565	1.160
EHISP	-0.1302	0.1569	0.878	-0.1625	0.1625	0.850
EFEM	-0.2820**	0.1397	0.754	-0.3192**	0.1447	0.727
EPRIORCM	0.4631***	0.1080	1.589	0.4190***	0.1126	1.520
ERECVIOL	0.1512	0.1311	1.163	0.1359	0.1377	1.146
EPASTVIO	0.0130	0.1244	1.013	-0.0432	0.1313	0.958
TIMESRVD	0.0472	0.0384	1.048	0.1054***	0.0399	1.111
ECJSPVNY	0.0996	0.2262	1.105	0.0385	0.2490	1.039
ECJSPVNM	-0.0585	0.4201	0.943	-0.0415	0.4679	0.959
AGERLSE	-0.0587***	0.0116	0.943	-0.0564***	0.0113	0.945
ESUPILL	-0.0624	0.0845	0.940	-0.1051	0.0885	0.900
EWORKJOB	-0.1144	0.1852	0.892	0.1772	0.1981	1.194
ELEGITUN	-0.0746	0.3407	0.928	-0.5095	0.3514	0.601
EUNEMP	-0.2133	0.2702	0.808	-0.3226	0.2832	0.724
EJOB_UNK	0.3189	0.5154	1.376	0.5281	0.5630	1.696
GRADEA	0.0177	0.0408	1.018	0.0470	0.0424	1.048
COC_FRQ	-0.0096	0.0435	0.990	0.0060	0.0460	1.006
CRK_FRQ	-0.0685	0.0479	0.934	-0.0920*	0.0493	0.912
HAL_FRQ	0.0232	0.0634	1.023	0.0092	0.0662	1.009
HER_FRQ	0.0172	0.0487	1.017	-0.0094	0.0508	0.991
OPIA_FRQ	-0.0357	0.0687	0.965	-0.0441	0.0747	0.957
POT_FRQ	-0.0594	0.0471	0.942	-0.0552	0.0492	0.946
BARB_FRQ	0.0780	0.0632	1.081	0.0776	0.0660	1.081
STIM_FRQ	-0.0407	0.0521	0.960	-0.0130	0.0536	0.987
DEPLOGTA	0.0533**	0.0233	1.055	0.0533**	0.0233	1.055
DEPLOGTD	0.0076	0.0395	1.008	0.0050	0.0400	1.005

Table 43 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.1379	0.1203	0.871
ECCCFAIL				0.1235	0.1377	1.131
UARATE				-0.1477***	0.0468	0.863
HHSE_STR				-0.7069	0.7396	0.493
<i>Post-Release Variables</i>						
ESPOUSE				-0.5367***	0.1957	0.585
ECOM_LAW				0.1650	0.1701	1.179
SUPVVIOL				-0.0312	0.0632	0.969
DIRTY				0.6347***	0.1834	1.886
EMP_HRS				-0.0438***	0.0049	0.957
ECOH01_6				0.1515	0.2504	1.164
ECOH07				0.1973	0.3788	1.218
ECOH08				0.1925	0.2771	1.212
ECOH09				-0.4091	0.3515	0.664
ECOH010				0.4151*	0.2318	1.514
ECOH011				-0.4751*	0.2606	0.622
ECOH012				0.1567	0.1854	1.170
ECOH013				0.1192	0.1910	1.127
D_T2	0.3111	0.2866	1.365	0.3639	0.2914	1.439
D_T3	0.4246	0.2828	1.529	0.4872*	0.2884	1.628
D_T4	0.4438	0.2848	1.559	0.5361*	0.2923	1.709
D_T5	0.8082***	0.2700	2.244	0.9025***	0.2785	2.466
D_T6	0.7039**	0.2782	2.022	0.8213***	0.2871	2.273
-2 Log Likelihood						
Intercept Only		1798.026			1798.026	
Intercept and Covariates		1682.162			1521.068	
Concordant Pairs		70.7%			83.0%	
Somer's D		0.444			0.675	
Hosmer-Lemshow						
Goodness of Fit	8.4068 with 8 DF	(p=0.3948)		16.380 with 8 DF	(p=0.0373)	
* p < .10						
** p < .05						
*** p < .01						

Table 44
Arrests or Revocations, Male and Female Subjects
Traditional Model

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-3.0183***	0.5327	.	-3.3434***	0.6664	.
COMPDAP	-0.0746	0.1684	0.928	-0.1634	0.1870	0.849
GRAD12MO	-0.2665	0.2535	0.766	-0.1965	0.3039	0.822
GRAD9MO	-0.3808**	0.1840	0.683	-0.1700	0.2182	0.844
INCOMPTX	-0.0361	0.2573	0.965	-0.0794	0.2993	0.924
DISCIPTX	0.1603	0.3016	1.174	-0.3386	0.3461	0.713
WITHDRTX	0.2856	0.3621	1.331	0.4614	0.4059	1.586
EBLACK	-0.0516	0.1358	0.950	0.0256	0.1510	1.026
ERACEOTH	0.2547	0.2141	1.290	-0.0881	0.2428	0.916
EHISP	-0.1014	0.1280	0.904	-0.0674	0.1374	0.935
EFEM	-0.2332**	0.1057	0.792	-0.3042***	0.1160	0.738
EPRIORCM	0.3437***	0.0867	1.410	0.2801***	0.0950	1.323
ERECVIOL	0.1224	0.1095	1.130	0.1411	0.1211	1.151
EPASTVIO	0.0843	0.0986	1.088	-0.0258	0.1108	0.975
TIMESRVD	-0.0045	0.0328	0.995	0.0814**	0.0351	1.085
ECJSPVNY	0.1178	0.1671	1.125	-0.0182	0.1918	0.982
ECJSPVNM	0.0699	0.3072	1.072	0.1777	0.3560	1.194
AGERLSE	-0.0255***	0.0086	0.975	-0.0275***	0.0090	0.973
ESUPILL	-0.0288	0.0670	0.972	-0.0628	0.0738	0.939
EWORKJOB	-0.1033	0.1484	0.902	0.3503**	0.1675	1.420
ELEGITUN	-0.0915	0.2636	0.913	-0.5850**	0.2851	0.557
EUNEMP	-0.2782	0.2222	0.757	-0.5042**	0.2483	0.604
EJOB_UNK	0.2652	0.4086	1.304	0.4583	0.4784	1.581
GRADEA	0.0124	0.0319	1.012	0.0280	0.0340	1.028
COC_FRQ	0.0008	0.0343	1.001	-0.0047	0.0385	0.995
CRK_FRQ	-0.0066	0.0351	0.993	-0.0602	0.0384	0.942
HAL_FRQ	0.0642	0.0503	1.066	0.0323	0.0552	1.033
HER_FRQ	0.0187	0.0370	1.019	-0.0288	0.0406	0.972
OPIA_FRQ	0.0063	0.0526	1.006	-0.0164	0.0612	0.984
POT_FRQ	-0.0533	0.0370	0.948	-0.0709*	0.0410	0.932
BARB_FRQ	0.0117	0.0515	1.012	0.0134	0.0561	1.013
STIM_FRQ	-0.0610	0.0417	0.941	0.0122	0.0448	1.012
DEPLOGTA	0.0225	0.0186	1.023	0.0260	0.0195	1.026
DEPLOGTD	0.0261	0.0311	1.026	0.0315	0.0339	1.032
<i>Treatment Variables</i>						
ENRGENT				-0.2749	0.1741	0.760
ENRSUPY				-0.1932	0.2781	0.824
ETSYES				-0.0427	0.0886	0.958
ECTRONLY				-0.2767	0.1735	0.758
EOTHONLY				-0.0780	0.2925	0.925
EBOTH				-0.9689***	0.3083	0.379
ETXMISS				1.6965***	0.4793	5.455
EAAYES				0.1294	0.1800	1.138
EAAMISS				-0.1694	0.3012	0.844

Table 44 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.1841	0.1161	0.832
ECCCFAIL				0.2301**	0.1173	1.259
UARATE				-0.1938***	0.0435	0.824
HHSE_STR				-0.2925	0.4667	0.746
<i>Post-Release Variables</i>						
ESPOUSE				-0.4205**	0.1710	0.657
ECOM_LAW				-0.0984	0.1617	0.906
SUPVVIOL				0.1286***	0.0399	1.137
DIRTY				1.1800***	0.1531	3.254
EMP_HRS				-0.0490***	0.0043	0.952
ECOH01_6				0.0529	0.2138	1.054
ECOH07				0.4958*	0.2873	1.642
ECOH08				-0.0374	0.2440	0.963
ECOH09				-0.5005*	0.2876	0.606
ECOH010				0.4079**	0.1957	1.504
ECOH011				-0.3035	0.2050	0.738
ECOH012				0.2234	0.1554	1.250
ECOH013				-0.1573	0.1689	0.854
<i>Time Variables</i>						
D_T2	0.2598	0.2411	1.297	0.3256	0.2541	1.385
D_T3	0.6349***	0.2267	1.887	0.7299***	0.2410	2.075
D_T4	0.6514***	0.2283	1.918	0.7872***	0.2442	2.197
D_T5	0.8282***	0.2242	2.289	0.9670***	0.2412	2.630
D_T6	0.7604***	0.2294	2.139	0.9316***	0.2469	2.539
<i>-2 Log Likelihood</i>						
Intercept Only		2548.969			2548.969	
Intercept and Covariates		2419.674			1989.642	
Concordant Pairs		67.7%			85.6%	
Somer's D		0.378			0.723	
Hosmer-Lemshow						
Goodness of Fit		9.5458 with 8 DF (p=0.2984)			12.177 with 8 DF (p=0.1435)	
* p < .10						
** p < .05						
*** p < .01						

Table 45
Drug Use, Male and Female Subjects
Traditional Model

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-1.8589***	0.4415		-2.2986***	0.5255	
COMPDA	-0.1051	0.1432	0.900	-0.3060**	0.1575	0.736
GRAD12MO	-0.4602**	0.2286	0.631	-0.6677***	0.2585	0.513
GRAD9MO	-0.1703	0.1494	0.843	-0.3858**	0.1752	0.680
INCOMPTX	-0.1492	0.2172	0.861	-0.4054*	0.2495	0.667
DISCPTX	-0.1963	0.2835	0.822	-0.3719	0.3044	0.689
WITHDRTX	-0.4859	0.4090	0.615	-0.5971	0.4295	0.550
EBLACK	0.1767	0.1241	1.193	0.2656**	0.1323	1.304
ERACEOTH	0.3186	0.2075	1.375	0.1969	0.2209	1.218
EHISP	0.2257**	0.1023	1.253	0.2876***	0.1077	1.333
EFEM	-0.2862***	0.0856	0.751	-0.2747***	0.0909	0.760
EPRIORCM	0.1692**	0.0686	1.184	0.1761**	0.0729	1.193
ERECVIOL	0.0893	0.0961	1.093	0.1417	0.1017	1.152
EPASTVIO	0.0727	0.0852	1.075	0.0184	0.0905	1.019
TIMESRVD	-0.0943***	0.0321	0.910	-0.0591*	0.0315	0.943
ECJSPVNY	0.1290	0.1525	1.138	0.0644	0.1580	1.067
ECJSPVNM	0.0208	0.2847	1.021	0.0235	0.2924	1.024
AGERLSE	-0.0049	0.0073	0.995	0.0028	0.0077	1.003
ESUPILL	0.0302	0.0550	1.031	0.0191	0.0586	1.019
EWORKJOB	-0.1143	0.1268	0.892	0.0092	0.1337	1.009
ELEGITUN	0.1532	0.2164	1.166	0.1208	0.2326	1.128
EUNEMP	-0.0998	0.1727	0.905	-0.1925	0.1827	0.825
EJOB_UNK	-0.0442	0.3681	0.957	-0.0403	0.3768	0.960
GRADEA	-0.0033	0.0273	0.997	0.0088	0.0288	1.009
COC_FRQ	-0.0089	0.0288	0.991	-0.0175	0.0305	0.983
CRK_FRQ	0.0649**	0.0270	1.067	0.0453	0.0287	1.046
HAL_FRQ	0.0106	0.0439	1.011	0.0137	0.0456	1.014
HER_FRQ	0.0356	0.0298	1.036	-0.0085	0.0320	0.991
OPIA_FRQ	0.0407	0.0436	1.042	0.0641	0.0466	1.066
POT_FRQ	0.0596*	0.0326	1.061	0.0761**	0.0349	1.079
BARB_FRQ	-0.0601	0.0438	0.942	-0.0710	0.0466	0.931
STIM_FRQ	-0.0205	0.0351	0.980	-0.0059	0.0369	0.994
DEPLOGTA	-0.0167	0.0160	0.983	-0.0246	0.0165	0.976
DEPLOGTD	0.0663**	0.0273	1.069	0.0269	0.0287	1.027
<i>Treatment Variables</i>						
ENRGY				-0.3344**	0.1339	0.716
ENRSUPY				-0.0374	0.1753	0.963
ETSYES				-0.0021	0.0723	0.998
ECTRONLY				-0.2598*	0.1557	0.771
EOTHONLY				-0.1778	0.2539	0.837
EBOTH				0.7955***	0.2261	2.216
ETXMISS				0.9226*	0.5018	2.516
EAAYES				0.2098	0.1516	1.233
EAAMISS				-0.2454	0.2672	0.782

Table 45 — Continued

Variable	Base Model		OR	Final Model		OR
	b	se(b)		b	se(b)	
<i>Supervision Variables</i>						
ECCCNO				-0.1568	0.1026	0.855
ECCCFAIL				0.4266***	0.0952	1.532
UARATE				0.0565*	0.0302	1.058
HHSE_STR				0.2063	0.3687	1.229
<i>Post-Release Variables</i>						
ESPOUSE				-0.2335**	0.1086	0.792
ECOM_LAW				-0.0191	0.1123	0.981
SUPVVIOL				0.2331***	0.0360	1.262
EMP_HRS				-0.0078***	0.0030	0.992
ECOH01_6				0.0089	0.1841	1.009
ECOH07				-0.1791	0.2810	0.836
ECOH08				0.1746	0.2046	1.191
ECOH09				0.0359	0.2076	1.037
ECOH010				-0.1355	0.1785	0.873
ECOH011				0.2614*	0.1565	1.299
ECOH012				0.0619	0.1307	1.064
ECOH013				-0.1677	0.1387	0.846
<i>Time Variables</i>						
D_T2	-0.2751*	0.1439	0.759	-0.1778	0.1509	0.837
D_T3	-0.2985**	0.1499	0.742	-0.1047	0.1571	0.901
D_T4	-0.6677***	0.1711	0.513	-0.4169**	0.1779	0.659
D_T5	-0.5514***	0.1693	0.576	-0.2345	0.1763	0.791
D_T6	-1.3578***	0.2317	0.257	-1.0287***	0.2378	0.357
<i>-2 Log Likelihood</i>						
Intercept Only		3274.165			3274.165	
Intercept and Covariates		3012.751			2745.484	
Concordant Pairs		71.8%			79.9%	
Somer's D		0.447			0.605	
Hosmer-Lemeshow						
Goodness of Fit		8.6707 with 8 DF (p=0.3708)			15.403 with 8 DF (p=0.0518)	
* p < .10						
** p < .05						
*** p < .01						

Table 46
Arrests, Male and Female Subjects, Supervised and Unsupervised Subjects
Bloom Model

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-4.7408***	0.6099	.	-4.9127***	0.6536	.
SUBJECT	0.0086	0.1564	1.009	-0.2111	0.1779	0.810
EBLACK	-0.3514***	0.1356	0.704	-0.2695*	0.1411	0.764
ERACEOTH	0.6252***	0.2069	1.869	0.5156**	0.2181	1.675
EHISP	-0.1022	0.1249	0.903	-0.1271	0.1340	0.881
EFEM	-0.3742***	0.1110	0.688	-0.4427***	0.1225	0.642
EPRIORCM	0.3991***	0.0945	1.491	0.3419***	0.0964	1.408
ERECVIOL	-0.1196	0.1316	0.887	-0.0882	0.1369	0.916
EPASTVIO	0.0774	0.1148	1.080	0.0120	0.1196	1.012
TIMESRVD	0.0337	0.0334	1.034	0.0265	0.0354	1.027
ECJSPVNY	0.5287	0.3293	1.697	0.7695**	0.3380	2.159
ECJSPVNM	-0.5544	0.6476	0.574	-0.7845	0.6618	0.456
AGERLSE	-0.0421***	0.0092	0.959	-0.0410***	0.0097	0.960
EWORKJOB	0.1666	0.1906	1.181	0.1131	0.1935	1.120
ESUPILL	0.0846	0.0691	1.088	0.0741	0.0720	1.077
ELEGITUN	-0.2922	0.3628	0.747	-0.2327	0.3669	0.792
EUNEMP	-0.2704	0.2732	0.763	-0.4049	0.2809	0.667
EJOB_UNK	-0.0203	0.5800	0.980	0.3003	0.5912	1.350
GRADEA	0.1344***	0.0332	1.144	0.1084***	0.0342	1.115
COC_FRQ	-0.0328	0.0379	0.968	0.0025	0.0409	1.003
CRK_FRQ	0.1531***	0.0355	1.165	0.1322***	0.0376	1.141
HAL_FRQ	-0.1645***	0.0638	0.848	-0.1445**	0.0655	0.865
HER_FRQ	-0.0080	0.0405	0.992	-0.0149	0.0423	0.985
OPIA_FRQ	-0.0081	0.0534	0.992	-0.0015	0.0559	0.999
POT_FRQ	-0.1890***	0.0372	0.828	-0.1760***	0.0393	0.839
BARB_FRQ	0.0762	0.0529	1.079	0.0352	0.0568	1.036
STIM_FRQ	0.0393	0.0443	1.040	0.0541	0.0460	1.056
DEPLOGTA	0.0502**	0.0209	1.052	0.0553**	0.0217	1.057
DEPLOGTD	0.0214	0.0336	1.022	-0.0168	0.0353	0.983

Table 46 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.3314***	0.1024	0.718
ECCCFAIL				0.5299***	0.1174	1.699
SUP_REL				0.5628**	0.2201	1.756
ECOH01_6				0.9334***	0.1717	2.543
ECOH07				0.6424**	0.2537	1.901
ECOH08				0.0678	0.2378	1.070
ECOH09				-0.8381**	0.3555	0.433
ECOH010				-0.2990	0.2347	0.742
ECOH011				0.2998*	0.1705	1.350
ECOH012				-0.1219	0.1788	0.885
ECOH013				-0.0297	0.1720	0.971
D_T2	0.6656***	0.2344	1.946	0.6847***	0.2369	1.983
D_T3	-0.0011	0.2741	0.999	0.0912	0.2770	1.096
D_T4	1.3205***	0.2192	3.745	1.4254***	0.2231	4.159
D_T5	0.5317**	0.2522	1.702	0.6738***	0.2558	1.962
D_T6	0.6988***	0.2462	2.011	0.8460***	0.2500	2.330
-2 Log Likelihood						
Intercept Only		2547.506			2547.506	
Intercept and Covariates		2324.885			2250.129	
Concordant Pairs		60.2%			61.1%	
Somer's D		0.238			0.258	
Hosmer-Lemeshow						
Goodness of Fit		63.538 with 8 DF (p=0.0001)			115.88 with 8 DF (p=0.0001)	

* p < .10
 ** p < .05
 *** p < .01

Table 47
Arrests, Male and Female Subjects, Supervised Subjects Only
Bloom Model

Variable	Base Model			Final Model		
	b	se(b)	OR	b	se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-4.6073***	0.6606	.	-5.0224***	0.7329	.
SUBJECT	0.0740	0.1755	1.077	0.0513	0.2019	1.053
EBLACK	-0.4005***	0.1416	0.670	-0.3572**	0.1619	0.700
ERACEOTH	0.7238***	0.2099	2.062	0.5983**	0.2521	1.819
EHISP	0.0494	0.1296	1.051	-0.1261	0.1608	0.882
EFEM	-0.4048***	0.1200	0.667	-0.5766***	0.1520	0.562
EPRIORCM	0.4203***	0.0975	1.522	0.2698**	0.1068	1.310
ERECVIOL	-0.2627*	0.1522	0.769	-0.1450	0.1653	0.865
EPASTVIO	0.0778	0.1276	1.081	-0.0630	0.1475	0.939
TIMESRVD	0.0286	0.0358	1.029	0.1628***	0.0404	1.177
ECJSPVNY	0.5208	0.3345	1.683	0.5627	0.3605	1.755
ECJSPVNM	-0.3971	0.6560	0.672	-0.5105	0.7019	0.600
AGERLSE	-0.0446***	0.0100	0.956	-0.0486***	0.0106	0.953
ESUPILL	0.0491	0.0745	1.050	-0.1634*	0.0888	0.849
EWORKJOB	0.1035	0.1993	1.109	0.3222	0.2199	1.380
ELEGITUN	-0.3710	0.3935	0.690	-1.0597**	0.4151	0.347
EUNEMP	-0.4716	0.2985	0.624	-0.5314	0.3270	0.588
EJOB_UNK	0.4310	0.5959	1.539	0.8633	0.6566	2.371
GRADEA	0.1508***	0.0362	1.163	0.1618***	0.0414	1.176
COC_FRQ	-0.0235	0.0411	0.977	0.0691	0.0478	1.072
CRK_FRQ	0.1793***	0.0381	1.196	0.0402	0.0475	1.041
HAL_FRQ	-0.2197***	0.0710	0.803	-0.0863	0.0724	0.917
HER_FRQ	-0.0108	0.0442	0.989	-0.0546	0.0522	0.947
OPIA_FRQ	-0.0359	0.0569	0.965	0.0202	0.0675	1.020
POT_FRQ	-0.1825***	0.0402	0.833	-0.1456***	0.0471	0.864
BARB_FRQ	0.1058*	0.0554	1.112	0.0351	0.0657	1.036
STIM_FRQ	0.0066	0.0486	1.007	0.0656	0.0529	1.068
DEPLOGTA	0.0761***	0.0225	1.079	0.0806***	0.0253	1.084
DEPLOGTD	0.0274	0.0357	1.028	-0.0143	0.0413	0.986

Table 47 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.3479***	0.1241	0.706
ECCCFAIL				0.2631*	0.1514	1.301
UARATE				-0.2892***	0.0473	0.749
SUP_REL						
HHSE_STR				-1.0163	0.9531	0.362
ESPOUSE				-0.8565***	0.2421	0.425
ECOM_LAW				0.2866	0.1989	1.332
SUPVVIOL				-0.1684**	0.0703	0.845
DIRTY				1.2820***	0.1756	3.604
EMP_HRS				-0.0562***	0.0048	0.945
ECOH01_6				0.9160***	0.2056	2.499
ECOH07				1.0124***	0.3106	2.752
ECOH08				-0.1738	0.2886	0.840
ECOH09				-1.8516***	0.5401	0.157
ECOH010				-0.2706	0.2910	0.763
ECOH011				0.3417*	0.1964	1.407
ECOH012				0.3164	0.2024	1.372
ECOH013				0.3602*	0.1943	1.434
D_T2	0.6092**	0.2455	1.839	0.5372**	0.2645	1.711
D_T3	-0.0916	0.2925	0.912	-0.0117	0.3080	0.988
D_T4	1.3306***	0.2287	3.783	1.5265***	0.2486	4.602
D_T5	0.3838	0.2737	1.468	0.6799**	0.2934	1.974
D_T6	0.7726***	0.2556	2.165	1.0556***	0.2771	2.874
-2 Log Likelihood						
Intercept Only		2246.057			2246.057	
Intercept and Covariates		2008.106			1626.307	
Concordant Pairs		59.1%			76.3%	
Somer's D		0.218			0.557	
Hosmer-Lemshow						
Goodness of Fit		86.909 with 8 DF (p=0.0001)			93.517 with 8 DF (p=0.0001)	

* p < .10
 ** p < .05
 *** p < .01

Table 48
Arrests or Revocations, Male and Female Subjects
Bloom Model

Variable	Base Model			Final Model		
	b	se(b)	OR	b	se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-4.3224***	0.5391	.	-5.6530***	0.8100	.
SUBJECT	0.0310	0.1468	1.031	0.0470	0.1783	1.048
EBLACK	-0.2380*	0.1280	0.788	-0.0555	0.1544	0.946
ERACEOTH	0.5307***	0.1990	1.700	0.0747	0.2504	1.078
EHISP	0.0372	0.1130	1.038	-0.0044	0.1433	0.996
EFEM	-0.3839***	0.1041	0.681	-0.5640***	0.1336	0.569
EPRIORCM	0.3801***	0.0847	1.462	0.2277**	0.0970	1.256
ERECVIOL	-0.2462*	0.1299	0.782	-0.0982	0.1474	0.906
EPASTVIO	0.1896*	0.1061	1.209	-0.0086	0.1295	0.991
TIMESRVD	-0.0205	0.0323	0.980	0.1008***	0.0379	1.106
ECJSPVNY	0.4161*	0.2472	1.516	0.4082	0.2877	1.504
ECJSPVNM	-0.2731	0.4813	0.761	-0.3348	0.5558	0.715
AGERLSE	-0.0253***	0.0082	0.975	-0.0315***	0.0091	0.969
ESUPILL	0.0716	0.0639	1.074	-0.0817	0.0782	0.922
EWORKJOB	0.0763	0.1702	1.079	0.5015**	0.2061	1.651
ELEGITUN	-0.2278	0.3099	0.796	-1.1146***	0.3526	0.328
EUNEMP	-0.5025**	0.2520	0.605	-0.7051**	0.2966	0.494
EJOB_UNK	0.3856	0.5220	1.471	0.8129	0.6431	2.254
GRADEA	0.1155***	0.0310	1.122	0.1150***	0.0359	1.122
COC_FRQ	-0.0111	0.0347	0.989	0.0430	0.0428	1.044
CRK_FRQ	0.1638***	0.0325	1.178	0.0232	0.0416	1.023
HAL_FRQ	-0.1220**	0.0573	0.885	-0.0348	0.0612	0.966
HER_FRQ	0.0005	0.0367	1.000	-0.0667	0.0448	0.936
OPIA_FRQ	-0.0295	0.0492	0.971	0.0431	0.0602	1.044
POT_FRQ	-0.1409***	0.0347	0.869	-0.1389***	0.0431	0.870
BARB_FRQ	0.0557	0.0493	1.057	-0.0292	0.0592	0.971
STIM_FRQ	-0.0100	0.0414	0.990	0.0945**	0.0478	1.099
DEPLOGTA	0.0584***	0.0193	1.060	0.0701***	0.0228	1.073
DEPLOGTD	0.0170	0.0309	1.017	-0.0044	0.0378	0.996
<i>Treatment Variables</i>						
ENRGYENY				-0.3654	0.2452	0.694
ENRSUPY				-0.4669	0.4668	0.627
ETSYES				-0.2501***	0.0952	0.779
ECTRONLY				-0.0316	0.2053	0.969
EOTHONLY				-0.4145	0.3920	0.661
EBOTH				-1.6182***	0.3980	0.198
ETXMISS				2.1752***	0.5168	8.804
EAAYES				0.3546	0.2184	1.426
EAAMISS				-0.3911	0.3822	0.676

Table 48 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.5462***	0.1168	0.579
ECCCFAIL				0.5429***	0.1306	1.721
UARATE				-0.2807***	0.0471	0.755
HHSE_STR				-0.1225	0.5193	0.885
<i>Post-Release Variables</i>						
ESPOUSE				-0.6226***	0.2067	0.537
ECOM_LAW				-0.0143	0.1861	0.986
SUPVVIOL				0.0572	0.0448	1.059
DIRTY				1.6011***	0.1589	4.958
EMP_HRS				-0.0586***	0.0044	0.943
ECOH01_6				0.5712***	0.1948	1.770
ECOH07				1.3046***	0.2667	3.686
ECOH08				-0.3408	0.2721	0.711
ECOH09				-1.6491***	0.4284	0.192
ECOH010				0.0319	0.2236	1.032
ECOH011				0.1580	0.1765	0.171
ECOH012				0.3185*	0.1723	1.375
ECOH013				0.0655	0.1797	1.068
D_T2	0.4156*	0.2134	1.515	0.3721	0.2405	1.451
D_T3	0.2139	0.2265	1.239	0.3355	0.2517	1.399
D_T4	1.1331***	0.1961	3.105	1.4360***	0.2241	4.204
D_T5	0.3364	0.2299	1.400	0.7456***	0.2576	2.108
D_T6	0.6886***	0.2163	1.991	1.0871***	0.2455	2.966
-2 Log Likelihood						
Intercept Only		2819.505		2819.505		
Intercept and Covariates		2596.770		1963.616		
Concordant Pairs		61.1%		83.0%		
Somer's D		0.246		0.677		
Hosmer-Lemeshow						
Goodness of Fit		72.063 with 8 DF (p=0.0001)			70.558 with 8 DF (p=0.0001)	

* p < .10
 ** p < .05
 *** p < .01

Table 49
Drug Use, Male and Female Subjects
Bloom Model

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-2.9136***	0.4422	.	-3.4254***	0.5628	.
SUBJECT	-0.0771	0.1251	0.926	-0.4615***	0.1490	0.630
EBLACK	-0.0273	0.1042	0.973	0.0912	0.1140	1.095
ERACEOTH	0.7463***	0.1622	2.109	0.7629***	0.1817	2.144
EHISP	-0.0367	0.1145	0.964	0.1192	0.1212	1.127
EFEM	-0.3207***	0.0867	0.726	-0.3756***	0.0972	0.687
EPRIORCM	0.2377***	0.0670	1.268	0.2603***	0.0732	1.297
ERECVIOL	0.0503	0.1016	1.052	0.1529	0.1083	1.165
EPASTVIO	0.0148	0.0148	1.015	-0.1528	0.0990	0.858
TIMESRVD	-0.1135***	0.0299	0.893	-0.0484	0.0297	0.953
ECJSPVNY	0.0166	0.1746	1.017	-0.0698	0.1855	0.933
ECJSPVNM	0.0840	0.3321	1.088	0.1086	0.3486	1.115
AGERLSE	-0.0031	0.0031	0.997	0.0118	0.0076	1.012
ESUPILL	0.1595***	0.0547	1.173	0.1199**	0.0593	1.127
EWORKJOB	0.0499	0.1395	1.051	0.2870*	0.1498	1.332
ELEGITUN	0.1461	0.2481	1.157	-0.0098	0.2744	0.990
EUNEMP	-0.1770	0.1988	0.838	-0.2820	0.2103	0.754
EJOB_UNK	-0.0362	0.4278	0.964	0.0583	0.4518	1.060
GRADEA	0.0659**	0.0286	1.068	0.0735**	0.0310	1.076
COC_FRQ	-0.0248	0.0295	0.975	0.0735	0.0310	1.001
CRK_FRQ	0.1230***	0.0279	1.131	0.0667**	0.0307	1.069
HAL_FRQ	-0.0849	0.0491	0.919	-0.0500	0.2406	0.976
HER_FRQ	-0.0023	0.0317	0.998	-0.0617*	0.0344	0.940
OPIA_FRQ	-0.1192**	0.0482	0.888	-0.0622	0.0520	0.940
POT_FRQ	0.0656**	0.0332	1.068	0.1131***	0.0365	1.120
BARB_FRQ	-0.0050	0.0442	0.995	-0.0479	0.0484	0.953
STIM_FRQ	-0.0356	0.0380	0.965	-0.0330	0.0407	0.968
DEPLOGTA	-0.0262	0.0174	0.974	-0.0288	0.0181	0.972
DEPLOGTD	0.0856***	0.0291	1.089	0.0290	0.0317	1.029
<i>Treatment Variables</i>						
ENRGY				-0.3882**	0.1733	0.678
ENRSUPY				0.0957	0.2426	1.100
ETSYES				-0.0327	0.0693	0.968
ECTRONLY				-0.3821**	0.1751	0.682
EOTHONLY				0.0620	0.2800	1.064
EBOTH				0.5580**	0.2651	1.747
ETXMISS				1.1141**	0.5658	3.047
EAAYES				0.3223**	0.1640	1.380
EAAMISS				-0.2797	0.2893	0.756

Table 49 — Continued

Variable	Base Model		OR	Final Model		OR
	b	se(b)		b	se(b)	
<i>Supervision Variables</i>						
ECCCNO				-0.2272**	0.0955	0.797
ECCCFAIL				0.4395***	0.0980	1.552
UARATE				0.0754**	0.0302	1.078
HHSE_STR				0.9603***	0.3686	2.613
<i>Post-Release Variables</i>						
ESPOUSE				-0.0916	0.1134	0.912
ECOM_LAW				-0.1608	0.1248	0.851
SUPVVIOL				0.1805***	0.0375	1.198
EMP_HRS				-0.0089***	0.0029	0.991
ECOH01_6				0.4975***	0.1522	1.645
ECOH07				-0.3812	0.2933	0.683
ECOH08				0.2822	0.1976	1.326
ECOH09				-0.0255	0.2146	0.975
ECOH010				0.0163	0.1686	1.016
ECOH011				0.3707**	0.1480	1.449
ECOH012				-0.1081	0.1490	0.897
ECOH013				-0.3794**	0.1527	0.684
D_T2	0.0102	0.1376	1.010	0.1634	0.1447	1.178
D_T3	-0.3502**	0.1570	0.705	-0.1023	0.1644	0.903
D_T4	-0.5054***	0.1686	0.603	-0.2004	0.1760	0.818
D_T5	-0.6777***	0.1822	0.508	-0.3442*	0.1891	0.709
D_T6	-0.5389***	0.1782	0.583	-0.1951	0.1853	0.823
<i>-2 Log Likelihood</i>						
Intercept Only		3464.186			3464.186	
Intercept and Covariates		3156.096			2897.069	
Concordant Pairs		68.0%			76.3%	
Somer's D		0.371			0.535	
Hosmer-Lemeshow						
Goodness of Fit		22.125 with 8 DF (p=0.0047)			23.91 with 8 DF (p=0.0024)	
* p < .10						
** p < .05						
*** p < .01						

Table 50
Arrests, Males and Females, Supervised and Unsupervised Subjects
Complete, Heckman Model

Variable	b	Final Model se(b)
<i>Base Model Variables</i>		
CONSTANT	6.0448***	0.5777
COMPLETE	1.1203***	0.3101
EBLACK	0.1701	0.1524
ERACEOTH	-0.3030	0.2480
EHISP	0.3047**	0.1397
EFEM	0.2728***	0.1128
EPRIORCM	-0.4165***	0.0930
ERECVIOL	-0.2713**	0.1186
EPASTVIO	0.0696	0.1089
TIMESRVD	-0.0152	0.0349
ECJSPVNY	-0.2460	0.2033
ECJSPVNM	0.2921	0.3798
AGERLSE	0.0434***	0.0098
ESUPILL	0.0458	0.0714
EWORKJOB	0.0099	0.1574
ELEGITUN	0.1060	0.2896
EUNEMP	-0.0138	0.2226
EJOB_UNK	0.0719	0.4436
GRADEA	-0.0149	0.0333
COC_FRQ	-0.0043	0.0368
CRK_FRQ	0.0557	0.0389
HAL_FRQ	-0.0118	0.0548
HER_FRQ	-0.0187	0.0407
OPIA_FRQ	0.0279	0.0574
POT_FRQ	0.0525	0.0406
BARB_FRQ	-0.0561	0.0543
STIM_FRQ	0.0102	0.0427
DEPLOGTA	-0.0113	0.0200
DEPLOGTD	0.0066	0.0330
<i>Supervision Variables</i>		
ECCCNO	-0.0450	0.0991
ECCCFAIL	-0.2348**	0.1159
SUP_REL	-0.2123	0.1943
<i>Post-Release Variables</i>		
ECOH01_6	-0.1232	0.2113
ECOH07	-0.4653*	0.2731
ECOH08	-0.2596	0.2225
ECOH09	0.3394	0.2584
ECOH010	-0.3102	0.1912

Table 50 - Continued

Variable	b	Final Model se(b)
ECOHO11	0.3093*	0.2054
ECOHO12	0.0210	0.1519
ECOHO13	0.1590	0.1627
<i>Selection Bias Variables</i>		
COVARIAN	-0.6877***	0.2348
SIGMA	1.7163***	0.0973

* p < .10
 ** p < .05
 *** p < .01

Table 51
Arrests, Males and Females, Supervised Subjects Only
Complete, Heckman Model

Variable	b	Final Model se(b)
<i>Base Model Variables</i>		
CONSTANT	5.4181***	0.6098
COMPLETE	1.2406***	0.3377
EBLACK	0.1977	0.1617
ERACEOTH	-0.3340*	0.2565
EHISP	0.2062	0.1478
EFEM	0.2219*	0.1241
EPRIORCM	-0.4426***	0.0988
ERECVIOL	-0.1830	0.1314
EPASTVIO	-0.0052	0.1193
TIMESRVD	-0.0470	0.0363
ECJSPVNY	-0.1706	0.2218
ECJSPVNM	0.2178	0.4133
AGERLSE	0.0485***	0.0107
ESUPILL	0.0915	0.0789
EWORKJOB	0.0016	0.1742
ELEGITUN	0.3090	0.3192
EUNEMP	0.1520	0.2506
EJOB_UNK	-0.3050	0.4861
GRADEA	-0.0213	0.0373
COC_FRQ	0.0072	0.0407
CRK_FRQ	0.0789*	0.0445
HAL_FRQ	-0.0271	0.0610
HER_FRQ	-0.0103	0.0447
OPIA_FRQ	0.0759	0.0652
POT_FRQ	0.0518	0.0448
BARB_FRQ	-0.0918	0.0599
STIM_FRQ	0.0219	0.0471
DEPLOGTA	-0.0353	0.0220
DEPLOGTD	0.0026	0.0363
<i>Supervision Variables</i>		
ECCCNO	0.0612	0.1130
ECCCFail	-0.1967	0.1294
UARATE	0.0911*	0.0399
HHSE_STR	0.4974	0.5655
<i>Post-Release Variables</i>		
ESPOUSE	0.5493***	0.1626
ECOM_LAW	-0.1436	0.1488
SUPVVIOL	-0.0923	0.0603
DRUGVIOL	0.0348	0.0416
PRCTFULL	0.0044***	0.0018
ECOHO1_6	-0.1696	0.2236
ECOHO7	-0.1244	0.3306
ECOHO8	-0.2630	0.2581
ECOHO9	0.3789	0.2996
ECOHO10	-0.3923*	0.2147
ECOHO11	0.2177	0.2191

Table 51 — Continued

Variable	b	Final Model se(b)
ECOHO12	-0.0759	0.1676
ECOHO13	0.0822	0.1730
<i>Selection Bias Variables</i>		
COVARIAN	-0.7738***	0.2555
SIGMA	1.6808***	0.1046

* p < .10
 ** p < .05
 *** p < .01

Table 52
Arrests or Revocations
Male and Female Subjects, Complete
Heckman Model

Variable	b	Final Model se(b)
<i>Base Model Variables</i>		
CONSTANT	5.4249***	0.5092
COMPLETE	1.0047***	0.2525
EBLACK	0.1977	0.1617
ERACEOTH	0.1047	0.1228
EHISP	0.1318	0.1062
EFEM	0.1899**	0.0882
EPRIORCM	-0.2830***	0.0708
ERECVIOL	-0.1560	0.0987
EPASTVIO	-0.0439	0.0866
TIMESRVD	-0.0327	0.0267
ECJSPVNY	-0.1098	0.1530
ECJSPVNM	0.0348	0.2843
AGERLSE	0.0221***	0.0072
ESUPILL	0.0890	0.0579
EWORKJOB	-0.1328	0.1300
ELEGITUN	0.3665	0.2315
EUNEMP	0.1937	0.1894
EJOB_UNK	-0.1672	0.3728
GRADEA	-0.0125	0.0263
COC_FRQ	-0.0037	0.0298
CRK_FRQ	0.0789	0.0445
HAL_FRQ	-0.0327	0.0444
HER_FRQ	-0.0079	0.0315
OPIA_FRQ	0.0471	0.0463
POT_FRQ	0.0380	0.0324
BARB_FRQ	-0.0490	0.0434
STIM_FRQ	0.0296	0.0346
DEPLOGTA	-0.0212	0.0159
DEPLOGTD	0.0015	0.0263
<i>Treatment Variables</i>		
ENRGYEN	0.1279	0.1241
ENRSUPY	0.0965	0.1960
ETSYES	0.0638	0.0691
ECTRONLY	0.3161**	0.1416
EOTHONLY	0.1034	0.2426
EBOOTH	0.4696*	0.2505
ETXMISS	-1.3987***	0.4023

Table 52— Continued

Variable	b	Final Model se(b)
EAAYES	-0.0705	0.1490
EAAMISS	-0.0042	0.2559
<i>Supervision Variables</i>		
ECCCNO	0.1279	0.0937
ECCCFAIL	-0.2213***	0.0939
UARATE	0.1321***	0.0324
HHSE_STR	-0.1062	0.3471
<i>Post-Release Variables</i>		
ESPOUSE	0.4651***	0.1227
ECOM_LAW	-0.0305	0.1168
SUPVVIOL	-0.2102***	0.0387
DRUGVIOL	-0.0705***	0.0266
PRCTFULL	0.0062***	0.0013
ECOH01_6	-0.0377	0.1643
ECOH07	-0.4128*	0.2235
ECOH08	-0.1003	0.1918
ECOH09	0.4016	0.2159
ECOH010	-0.3520	0.1566
ECOH011	0.2177**	0.1525
ECOH012	-0.0550	0.1223
ECOH013	0.2441	0.1301
<i>Selection Bias Variables</i>		
COVARIAN	-0.8639***	0.2243
SIGMA	1.3728***	0.0684

* p < .10
 ** p < .05
 *** p < .01

Table 53
Drug Use
Male and Female Subjects Who Had Urine Testing During Follow-Up, Complete
Heckman Model

Variable	b	Final Model se(b)
<i>Base Model Variables</i>		
CONSTANT	6.0021***	0.5711
COMPLETE	0.6829**	0.3157
EBLACK	-0.1604	0.1485
ERACEOTH	-0.3313	0.2500
EHISP	-0.2704**	0.1190
EFEM	0.3390***	0.0989
EPRIORCM	-0.1956***	0.0794
ERECVIOL	-0.2066*	0.1139
EPASTVIO	-0.0236	0.1003
TIMESRVD	0.0682**	0.0343
ECJSPVNY	-0.0310	0.1807
ECJSPVNM	-0.0558	0.3369
AGERLSE	0.0028	0.0085
ESUPILL	-0.0307	0.0644
EWORKJOB	-0.0796	0.1483
ELEGITUN	-0.1024	0.2558
EUNEMP	0.1753	0.2021
EJOB_UNK	0.1391	0.4309
GRADEA	-0.0279	0.0315
COC_FRQ	0.0381	0.0332
CRK_FRQ	-0.0552*	0.0318
HAL_FRQ	-0.0516	0.0501
HER_FRQ	-0.0041	0.0352
OPIA_FRQ	-0.0315	0.0511
POT_FRQ	-0.0769**	0.0380
BARB_FRQ	0.0805	0.0505
STIM_FRQ	0.0135	0.0401
DEPLOGTA	0.0302*	0.0181
DEPLOGTD	-0.0403	0.0311
<i>Treatment Variables</i>		
ENRGY	0.2905**	0.1420
ENRSUPY	0.0312	0.1886
ETSYES	0.0208	0.0776
ECTRONLY	0.3103	0.1772
EOTHONLY	0.2332	0.2859
EBOOTH	-0.8881***	0.2507
ETXMISS	-1.1132	0.5817

Table 53 — Continued

Variable	b	Final Model se(b)
EAAYES	-0.3056	0.1736
EAAMISS	0.4010	0.3082
<i>Supervision Variables</i>		
ECCCNO	0.2735***	0.1138
ECCCFAIL	-0.5684***	0.1095
UARATE	-0.0553*	0.0332
HHSE_STR	-0.2364	0.3927
<i>Post-Release Variables</i>		
ESPOUSE	0.2684**	0.1182
ECOM_LAW	0.0064	0.1233
SUPVVIOL	-0.2421***	0.0400
PRCTFULL	0.0065***	0.0015
ECOH01_6	0.0412	0.1981
ECOH07	0.1732	0.2971
ECOH08	-0.2384	0.2238
ECOH09	0.0199	0.2305
ECOH010	0.1693	0.1967
ECOH011	-0.2956*	0.1674
ECOH012	-0.1123	0.1401
ECOH013	0.1800	0.1496
COVARIAN	-0.5354	0.4060
SIGMA	-0.8999***	0.1323

* p < .10

** p < .05

*** p < .01

Table 54
Traditional Models of CCC Outcomes

Male and Female Subjects

Model of CCC Failure with:	χ^2	DF	Diff.†	DF
Base Variables	1021.7	33	---	---
Base and Additional Background Variables 7	1008.6		40 13.1*	
Base and Change Assessment Variables 6	1005.1	39	16.6**	
Base and Additional Treatment Variables 3	1018.8		36 2.9	
Full Model Variables	992.0	46	29.7***	13

Male Subjects

Model of CCC Failure with:	χ^2	DF	Diff.†	DF
Base Variables	864.4	31	---	---
Base and Additional Background Variables	851.6	38	12.8*	7
Base and Change Assessment Variables	845.9	37	18.5***	6
Base and Additional Treatment Variables	861.6	34	2.8	3
Full Model Variables	833.1	44	31.3***	13

† Difference in χ^2 between traditional base model and model in question.

* Significant at $p < .10$
 ** Significant at $p < .05$
 *** Significant at $p < .01$

Table 55
CCC Failure, Male and Female Subjects
Traditional Model

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-0.2040	0.6392	.	-0.5544	0.6818	.
COMPDAF	-0.1922	0.2060	0.825	-0.2128	0.2095	0.808
GRAD12MO	-0.6231**	0.3201	0.536	-0.7034**	0.3298	0.495
GRAD9MO	-0.3689*	0.2078	0.691	-0.3914*	0.2148	0.676
INCOMPTX	0.0203	0.2922	1.021	-0.0094	0.2981	0.991
DISCIPTX	0.4080	0.4181	1.504	0.4250	0.4262	1.530
WITHDRTX	-0.0489	0.5476	0.952	-0.0790	0.5499	0.924
EBLACK	0.1603	0.2018	1.174	0.1236	0.2055	1.132
ERACEOTH	-0.0463	0.3534	0.955	-0.0253	0.3591	0.975
EHISP	-0.0088	0.1506	0.991	-0.0379	0.1532	0.963
EFEM	-0.2613**	0.1168	0.770	-0.2764**	0.1224	0.759
EPRIORCM	0.2765***	0.0982	1.318	0.2780***	0.1004	1.320
ERECVIOL	-0.0345	0.1492	0.966	-0.0624	0.1534	0.940
EPASTVIO	0.1487	0.1243	1.160	0.1636	0.1274	1.178
TIMESRVD	-0.0409	0.0453	0.960	-0.0358	0.0461	0.965
ECJSPVNY	-0.1286	0.1853	0.879	-0.1561	0.1900	0.856
ECJSPVNM	0.2809	0.3354	1.324	0.3053	0.3443	1.357
AGERLSE	-0.0144	0.0104	0.986	-0.0140	0.0107	0.986
ESUPILL	0.1058	0.0795	1.112	0.1028	0.0810	1.108
EWORKJOB	0.0260	0.1769	1.026	0.0308	0.1796	1.031
ELEGITUN	-0.7181**	0.3579	0.488	-0.7370**	0.3649	0.479
EUNEMP	0.2017	0.2486	1.224	0.2617	0.2524	1.299
EJOB_UNK	0.2379	0.4789	1.269	0.1962	0.4867	1.217
GRADEA	-0.0404	0.0400	0.960	-0.0399	0.0410	0.961
COC_FRQ	-0.0517	0.0411	0.950	-0.0464	0.0419	0.955
CRK_FRQ	0.0218	0.0416	1.022	0.0101	0.0427	1.010
HAL_FRQ	-0.0224	0.0648	0.978	-0.0129	0.0657	0.987
HER_FRQ	0.0793*	0.0436	1.082	0.0806*	0.0446	1.084
OPIA_FRQ	0.0085	0.0617	1.009	-0.0048	0.0629	0.995
POT_FRQ	-0.0011	0.0451	0.999	0.0062	0.0460	1.006
BARB_FRQ	-0.0104	0.0595	0.990	-0.0103	0.0602	0.990
STIM_FRQ	-0.1103**	0.0507	0.896	-0.1145**	0.0515	0.892
DEPLOGTA	0.0279	0.0226	1.028	0.0186	0.0241	1.019
DEPLOGTD	0.0948**	0.0395	1.099	0.0785*	0.0411	1.082

Table 55 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Other Background Factors</i>						
EPSTDGTX				-0.0120	0.0848	0.988
EPSTETOH				-0.2362	0.2015	0.790
EDIAGNO				0.1149	0.1364	1.122
EDIAGDEP				-0.1871	0.2444	0.829
EDIAGASP				-0.0459	0.1548	0.955
EDIAGBTH				0.4157*	0.2291	1.515
EPSTMHTX				-0.0099	0.1023	0.990
<i>Motivation for Change Variables</i>						
ECLUST1				0.3028**	0.1533	1.354
ECLUST2				-0.3752**	0.1867	0.687
ECLUST3				-0.1463	0.1848	0.864
ECLUST4				0.4177**	0.1959	1.518
ECLUST5				0.2140	0.2221	1.239
ECLUST6				-0.3567	0.3349	0.700
<i>-2 Log Likelihood</i>						
Intercept Only		1294.811			1294.811	
Intercept and Covariates		1194.420			1173.060	
Concordant Pairs		69.5%			71.7%	
Somer's D		0.395			0.438	
Hosmer-Lemeshow						
Goodness of Fit	5.6426 with 8 DF (p=0.6872)			12.668 with 8 DF (p=0.1238)		

* p < .10
 ** p < .05
 *** p < .01

Table 56
CCC Failure, Male and Female Subjects
Bloom Model

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Base Model Variables</i>						
INTERCPT	-1.1610	0.7660		-1.7871**	0.8272	
SUBJECT	-0.1922	0.1826	0.825	-0.2423	0.1872	0.785
EBLACK	0.2926	0.2752	1.340	0.2312	0.2775	1.260
ERACEOTH	-0.2139	0.5131	0.807	-0.1603	0.5164	0.852
EHISP	-0.2164	0.1882	0.805	-0.2679	0.1924	0.765
EFEM	-0.3816***	0.1438	0.683	-0.3003**	0.1505	0.741
EPRIORCM	0.2802***	0.1066	1.323	0.2736***	0.1113	1.315
ERECVIOL	-0.1102	0.1796	0.896	-0.1374	0.1844	0.872
EPASTVIO	0.1879	0.1448	1.207	0.2118	0.1493	1.236
TIMESRVD	-0.0424	0.0485	0.958	-0.0514	0.0504	0.950
ECJSPVNY	-0.2644	0.2379	0.768	-0.2750	0.2438	0.760
ECJSPVNM	0.2650	0.4386	1.303	0.2705	0.4492	1.311
AGERLSE	-0.0213*	0.0114	0.979	-0.0219*	0.0117	0.978
ESUPILL	0.2496***	0.0878	1.283	0.2454***	0.0909	1.278
EWORKJOB	0.2403	0.2298	1.272	0.1540	0.2366	1.167
ELEGITUN	-0.7897*	0.4675	0.454	-0.8068*	0.4759	0.446
EUNEMP	0.4064	0.3140	1.501	0.4356	0.3208	1.546
EJOB_UNK	-0.1406	0.6922	0.869	-0.0379	0.7142	0.963
GRADEA	0.0059	0.0476	1.006	0.0229	0.0496	1.023
COC_FRQ	-0.1351***	0.0475	0.874	-0.1369***	0.0490	0.872
CRK_FRQ	0.1085**	0.0473	1.115	0.0848*	0.0498	1.089
HAL_FRQ	-0.1781**	0.0767	0.837	-0.1377*	0.0786	0.871
HER_FRQ	0.0659	0.0509	1.068	0.0787	0.0528	1.082
OPIA_FRQ	-0.0597	0.0700	0.942	-0.0642	0.0725	0.938
POT_FRQ	0.0432	0.0521	1.044	0.0524	0.0549	1.054
BARB_FRQ	0.0836	0.0627	1.087	0.0826	0.0651	1.086
STIM_FRQ	-0.1031*	0.0593	0.902	-0.0983	0.0608	0.906
DEPLOGTA	0.0204	0.0261	1.021	0.0139	0.0282	1.014
DEPLOGTD	0.1800***	0.0464	1.197	0.1478***	0.0498	1.159

Table 56 — Continued

Variable	b	Base Model se(b)	OR	b	Final Model se(b)	OR
<i>Other Background Factors</i>						
EPSTDGTX				-0.0219	0.1006	0.978
EPSTETOH				-0.3051	0.2469	0.737
EDIAGNO				0.1951	0.1593	1.215
EDIAGDEP				-0.4460	0.3293	0.640
EDIAGASP				0.0485	0.1815	1.050
EDIAGBTH				0.3327	0.2648	1.395
EPSTMHTX				-0.2323*	0.1223	0.793
<i>Motivation for Change Variables</i>						
ECLUST1				0.5299***	0.1641	1.699
ECLUST2				-0.5362**	0.2299	0.585
ECLUST3				-0.2394	0.1918	0.787
ECLUST4				0.4635**	0.2342	1.590
ECLUST5				0.1286	0.2429	1.137
ECLUST6				-0.3225	0.3314	0.724
-2 Log Likelihood						
Intercept Only		1137.353			1137.353	
Intercept and Covariates		1004.207			973.289	
Concordant Pairs		66.4%			68.0%	
Somer's D		0.331			0.364	
Hosmer-Lemshow						
Goodness of Fit	18.32 with 8 DF (p=0.0190)			25.631 with 8 DF (p=0.0012)		

* p < .10
 ** p < .05
 *** p < .01

Table 57
CCC Failure, Male and Female Subjects, Complete
Heckman Model

Variable	b	Final Model se(b)
<i>Base Model Variables</i>		
CONSTANT	-0.1970	0.3965
COMPLETE	-0.0796	0.2791
EBLACK	0.0755	0.1214
ERACEOTH	0.0004	0.2120
EHISP	-0.0145	0.0873
EFEM	-0.1557*	0.0674
EPRIORCM	0.1595***	0.0556
ERECVIOL	-0.0377	0.0894
EPASTVIO	0.1004	0.0744
TIMESRVD	-0.0336	0.0260
ECJSPVNY	-0.0938	0.1122
ECJSPVNM	0.1931	0.2043
AGERLSE	-0.0103*	0.0061
ESUPILL	0.0644	0.0466
EWORKJOB	0.0117	0.1036
ELEGITUN	-0.3394*	0.1953
EUNEMP	0.1291	0.1463
EJOB_UNK	0.0543	0.2929
GRADEA	-0.0274	0.0232
COC_FRQ	-0.0260	0.0240
CRK_FRQ	0.0075	0.0246
HAL_FRQ	-0.0100	0.0374
HER_FRQ	0.0527**	0.0260
OPIA_FRQ	-0.0023	0.0361
POT_FRQ	-0.0069	0.0260
BARB_FRQ	-0.0074	0.0343
STIM_FRQ	-0.0597**	0.0288
DEPLOGTA	0.0114	0.0137
DEPLOGTD	0.0421*	0.0230
<i>Other Background Factors</i>		
EPSTDGTX	-0.0077	0.0491
EPSTETOH	-0.1399	0.1123
EDIAGNO	0.0547	0.0774
EDIAGDEP	-0.1520	0.1351
EDIAGASP	-0.0076	0.0886
EDIAGBTH	0.2563*	0.1335
EPSTMHTX	-0.0004	0.0585

Table 57 - Continued

Variable	b	Final Model se(b)
<i>Motivation for Change Variables</i>		
ECLUST1	0.1615*	0.0899
ECLUST2	-0.2104**	0.1038
ECLUST3	-0.0719	0.1076
ECLUST4	0.2249*	0.1282
ECLUST5	0.1231	0.1285
ECLUST6	-0.1974	0.1932
COVARIAN	-0.0266	0.3147

* p < .10
 ** p < .05
 *** p < .01

Table 58
Traditional Models of Employment Outcomes

Male Subjects

Model of Arrest with:	<u>r²</u>	<u>DF</u>	<u>Diff. F†</u>	<u>DF</u>
Base Variables	.12	32	---	---
Base and Additional Background Variables	.13	39	1.9	7
Base and Change Assessment Variables	.13	38	2.2**	6
Base and Additional Treatment Variables	.16	41	6.0***	9
Base with Supervision Variables	.19	36	25.1***	4
Base and Post Release Behavior Variables	.16	36	13.6***	4
Full Model Variables	.24	63	5.8***	31

Female Subjects

Model of Arrest with:	<u>r²</u>	<u>DF</u>	<u>Diff. F†</u>	<u>DF</u>
Base Variables	.19	32	---	---
Base and Additional Background Variables	.24	39	2.0**	7
Base and Change Assessment Variables	.21	38	.9	6
Base and Additional Treatment Variables	.29	41	3.3***	9
Base with Supervision Variables	.21	36	1.2	4
Base and Post Release Behavior Variables	.24	36	3.6***	4
Full Model Variables	.39	60	2.2***	28

Notes to Table:

†Difference in F between traditional base model and model in question.

-
- * Significant at $p < .10$
 - ** Significant at $p < .05$
 - *** Significant at $p < .01$

Table 59
Employment, Male Subjects
Traditional Model

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Base Model Variables</i>				
INTERCPT	28.9880***	9.7275	31.1511***	11.7475
COMPDAP	-4.7479	3.2558	-1.4176	3.2076
GRAD12MO	6.8039	4.6655	7.6667	4.9449
GRAD9MO	1.0064	3.3279	-1.2716	3.6508
INCOMPTX	-0.7225	5.4825	3.8089	5.7456
DISCIPTX	-12.1673*	7.1087	-2.9298	6.9049
WITHDRTX	-12.1044	7.8443	-6.0142	7.6433
EBLACK	-2.9191	2.8175	-3.4784	2.7798
ERACEOTH	-5.0171	4.5967	-1.5629	4.5358
EHISP	-2.7351	2.2407	-2.1440	2.1592
EPRIORCM	-2.1987	1.4511	-1.6160	1.3893
ERECVIOL	-2.5504	2.3005	-2.9855	2.2016
EPASTVIO	-0.4744	1.9754	1.4067	1.8920
TIMESRVD	1.7559***	0.6041	1.3406**	0.5844
ECJSPVNY	0.4576	3.6917	-0.1537	3.5564
ECJSPVNM	-0.7546	6.8442	2.6929	6.6083
AGERLSE	0.0117	0.1553	-0.1408	0.1508
ESUPILL	-4.1514***	1.3080	-3.7893***	1.2462
EWORKJOB	8.8585***	2.9656	8.4418***	2.8475
ELEGITUN	-6.9466	6.0237	-7.5520	5.7750
EUNEMP	-4.0649	4.1255	-1.5922	3.9668
EJOB_UNK	0.6873	8.6356	-2.4449	8.2787
GRADEA	1.7266***	0.5989	1.9288***	0.5750
COC_FRQ	-0.6574	0.6667	-0.7420	0.6391
CRK_FRQ	-0.1397	0.7253	0.2243	0.7004
HAL_FRQ	-2.4919**	0.9875	-2.0709**	0.9471
HER_FRQ	-1.9161***	0.7386	-1.2945*	0.7091
OPIA_FRQ	0.0534	1.0900	0.3028	1.0457
POT_FRQ	0.3520	0.7277	-0.0248	0.7025
BARB_FRQ	-0.4755	1.0050	-1.1064	0.9584
STIM_FRQ	1.1121	0.7913	0.7238	0.7586
DEPLOGTA	0.3374	0.3584	0.3072	0.3492
DEPLOGTD	1.4265**	0.6021	1.8886***	0.5852

Table 59 — Continued

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Motivation for Change Variables</i>				
ECLUST1			-4.3391*	2.4184
ECLUST2			2.8107	2.5269
ECLUST3			-0.6487	2.5118
ECLUST4			-0.1627	3.2289
ECLUST5			3.4910	3.3681
ECLUST6			-0.2364	4.1331
<i>Treatment Variables</i>				
ENRGY			-1.9615	2.3342
ENRSUPY			5.8666	3.5946
ETSY			1.8097	1.5434
ECTRONLY			10.6332**	5.0352
EOTHONLY			5.1938	6.9086
EBOTH			1.8855	7.0250
ETXMISS			-28.8633	18.1778
EAAYES			2.5506	4.2879
EAAMISS			2.2318	7.9856
<i>Supervision Variables</i>				
ECCCNO			-6.3523***	2.1549
ECCCFAIL			-6.0824***	2.2321
UARATE			0.2027	0.6528
HHSE_STR			7.1196	6.1718
<i>Post-Release Variables</i>				
ESPOUSE			2.7810	1.9862
ECOM_LAW			-1.1263	2.1549
SUPVVIOL			-4.8482***	1.0276
DRUGVIOL			-1.1688*	0.6348
ECOH01_6			-10.7246***	3.9251
ECOH07			0.3506	5.6580
ECOH08			-1.0738	4.5840
ECOH09			0.4155	4.3406
ECOH010			-0.8845	3.5866
ECOH011			1.2534	3.2579
ECOH012			1.7959	2.6678
ECOH013			4.5604	2.7820
R-square	0.1238		0.2381	
Adjusted R-square	0.0998		0.1959	

* p < .10

** p < .05

*** p < .01

Table 60
Employment, Female Subjects
Traditional Model

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Base Model Variables</i>				
INTERCPT	-18.1320	25.5520	-34.9104	29.6574
COMPDAp	-1.6120	9.5452	4.4894	9.4709
GRAD12MO	1.4758	11.8266	-17.7553	13.1370
GRAD9MO	5.2333	10.2356	-5.2152	11.1940
INCOMPTX	9.2328	11.2147	-1.6556	11.8636
DISCIPTX	3.2188	15.0151	5.5858	14.5952
WITHDRTX	-9.9643	15.8853	-6.1062	15.6109
EBLACK	-5.7266	8.2061	-6.3921	8.3974
ERACEOTH	6.2170	14.7012	7.2205	15.0828
EHISP	-15.1066**	6.0649	-12.2818**	6.0289
EPRIORCM	1.6899	3.1259	2.6031	3.0649
ERECVIOL	-7.3324	8.2581	-9.9475	8.2552
EPASTVIO	7.6958	8.6831	12.6088	8.6087
TIMESRVD	3.8931	2.3631	0.9551	2.4593
ECJSPVNY	-1.8024	9.2954	-2.9381	9.8612
ECJSPVNM	9.3431	16.9679	10.2751	17.8340
AGERLSE	0.3051	0.4169	0.0393	0.4339
ESUPILL	-0.1664	3.0356	1.7705	3.0027
EWORKJOB	12.8315**	6.4468	18.0217***	6.4765
ELEGITUN	10.8900	10.4673	23.7031**	10.4613
EUNEMP	-1.0021	9.1731	-4.7113	9.3345
EJOB_UNK	-30.7304	17.7794	-52.2313***	18.2290
GRADEA	2.1674	1.4791	2.1355	1.5048
COC_FRQ	2.8502	1.4889	2.8587**	1.4613
CRK_FRQ	0.6521	1.3554	1.6786	1.3846
HAL_FRQ	3.3112	2.5466	3.9732	2.5676
HER_FRQ	-1.0010	1.6868	0.7605	1.7733
OPIA_FRQ	1.9957	2.1947	0.1654	2.1874
POT_FRQ	2.6858	1.5535	2.8965	1.5113
BARB_FRQ	1.4788	2.0555	2.7277	2.0991
STIM_FRQ	0.7587	1.5980	1.7658	1.6052
DEPLOGTA	-0.7855	0.8454	-0.4133	0.8716
DEPLOGTD	-4.8396***	1.5075	-4.6802***	1.4696

Table 60 — Continued

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Other Background Factors</i>				
EPSTDGTX			-8.0701**	3.1985
EPSTETOH			-2.6913	7.8299
EDIADNO			3.5047	4.6410
EDIAGDEP			2.9908	6.5546
EDIAGASP			-7.5541	6.4994
EDIAGBTH			0.3519	7.6459
EPSTMHTX			-9.0855***	3.1244
<i>Treatment Variables</i>				
ENRGY			2.1950	6.2035
ENRSUPY			-12.1973	7.9493
ETSYES			10.7616***	3.4218
ECTRONLY			-7.7252	9.0857
EOTHONLY			4.1375	15.9861
EBOTH			-23.9320	16.8020
ETXMISS			24.1327	27.5755
EAAYES			29.2638**	11.8031
EAAMISS			-37.6599	22.4596
<i>Post-Release Variables</i>				
ESPOUSE			-5.9017	6.0354
ECOM_LAW			-2.8794	6.2510
SUPVVIOL			-3.0339	3.1748
DRUGVIOL			-3.5556	2.0597
ECOH01_6			-8.2872	9.1853
ECOH07			0.3558	21.0413
ECOH08			9.5539	10.5283
ECOH09			11.3059	9.0468
ECOH010			-16.7597	10.1613
ECOH011			6.1236	8.2996
ECOH012			-0.7174	7.5298
ECOH013			-1.1123	7.2006
R-square	0.1931		0.3864	
Adjusted R-square	0.0763		0.1957	

* p < .10

** p < .05

*** p < .01

Table 61
Employment, Male Subjects
Bloom Model

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Base Model Variables</i>				
INTERCPT	18.0146	10.2451	21.0744	12.7373
SUBJECT	-3.5604	2.8745	1.8861	2.9951
EBLACK	3.0948	2.6951	0.0421	2.7033
ERACEOTH	-8.9317**	4.3530	-1.4294	4.4435
EHISP	-4.9315**	2.2753	-2.9729	2.2203
EPRIORCM	-0.4662	1.4890	0.2588	1.4555
ERECVIOL	1.8407	2.5948	2.0221	2.4858
EPASTVIO	-7.6954***	2.1527	-5.6721***	2.0801
TIMESRVD	2.2669***	0.6135	1.4912**	0.6016
ECJSPVNY	1.2142	4.4424	0.0261	4.2645
ECJSPVNM	-3.2037	8.4249	-0.2077	8.0704
AGERLSE	-0.0860	0.1588	-0.2757*	0.1570
ESUPILL	-5.4151***	1.3133	-3.7362***	1.2719
EWORKJOB	11.8585***	3.5387	13.6494***	3.4174
ELEGITUN	-6.9966	7.3456	-5.7371	7.0227
EUNEMP	-6.9066	4.6378	-2.8907	4.5137
EJOB_UNK	2.8166	10.8210	-7.7734	10.3919
GRADEA	2.0291***	0.6811	2.4063***	0.6581
COC_FRQ	-0.6309	0.6916	-1.5554**	0.6713
CRK_FRQ	-1.0787	0.7983	-0.1806	0.7925
HAL_FRQ	0.3992	1.0212	0.3392	0.9999
HER_FRQ	-1.6510**	0.7822	-1.3699*	0.7675
OPIA_FRQ	0.5870	1.0225	0.1373	1.0290
POT_FRQ	1.3623	0.7713	0.3937	0.7539
BARB_FRQ	-3.2637***	0.9803	-2.7819***	0.9526
STIM_FRQ	1.1009	0.8298	0.2699	0.8005
DEPLOGTA	0.3667	0.3969	0.4476	0.3867
DEPLOGTD	1.2818**	0.6544	2.7600***	0.6624

Table 61 — Continued

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Motivation for Change Variables</i>				
ECLUST1			-13.7879***	2.5427
ECLUST2			2.0891	2.9414
ECLUST3			-3.0012	2.3318
ECLUST4			-0.9989	3.7778
ECLUST5			4.8392	3.3196
ECLUST6			11.7391***	3.6201
<i>Treatment Variables</i>				
ENRGENY			-1.8194	2.9068
ENRSUPY			2.6520	5.3936
ETSYES			3.9286***	1.5117
ECTRONLY			14.9758***	5.7312
EOTHONLY			14.3607*	8.2256
EBOTH			4.6274	8.3332
ETXMISS			-49.8283**	20.5906
EAAYES			-0.0096	4.7608
EAAMISS			9.8603	8.9572
<i>Supervision Variables</i>				
ECCCNO			-4.5489**	2.0410
ECCCFAIL			-6.1504***	2.3266
UARATE			0.1417	0.6870
HHSE_STR			20.8516***	6.0948
<i>Post-Release Variables</i>				
ESPOUSE			3.3081	2.2198
ECOM_LAW			-3.8566	2.4917
SUPVVIOL			-3.3162***	1.0871
DRUGVIOL			-1.3010*	0.6834
ECOH01_6			-6.4278*	3.8913
ECOH07			2.3430	5.1635
ECOH08			-3.1430	4.6208
ECOH09			-4.5410	4.1592
ECOH010			-3.9675	3.6514
ECOH011			1.0290	3.0413
ECOH012			1.4886	2.9491
ECOH013			4.4582	3.0243
R-square	0.1507		0.2682	
Adjusted R-square	0.1311		0.2310	

* p < .10

** p < .05

*** p < .01

Table 62
Employment, Female Subjects
Bloom Model

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Base Model Variables</i>				
INTERCPT	-9.1822	23.4301	-40.8729	27.1713
SUBJECT	-0.6381	7.5064	2.4555	7.5681
EBLACK	-4.4442	7.2187	-1.9871	7.5018
ERACEOTH	9.5151	12.2625	6.7541	12.9251
EHISP	-8.6656	4.9906	-11.3521**	5.4915
EPRIORCM	-0.4632	3.0889	1.8176	2.9491
ERECVIOL	-1.2212	6.5812	-0.8017	6.8201
EPASTVIO	12.1045	8.8515	7.9503	8.5550
TIMESRVD	3.0405	2.4398	-0.0019	2.4832
ECJSPVNY	1.4795	11.2743	5.2046	11.0227
ECJSPVNM	6.2776	21.2466	-0.5006	20.4219
AGERLSE	-0.2444	0.4089	-0.3086	0.4289
ESUPILL	-1.0723	2.9837	-0.1124	2.9739
EWORKJOB	6.0379	6.3938	16.9472***	6.5986
ELEGITUN	16.9356	10.8024	28.5125***	10.6952
EUNEMP	4.9202	9.3432	-5.2177	9.1034
EJOB_UNK	-45.3106**	18.6578	-64.1265***	18.7402
GRADEA	3.6815***	1.1565	4.2940***	1.3039
COC_FRQ	6.1302***	1.4930	5.0228***	1.4809
CRK_FRQ	-2.9981**	1.2838	-0.2952	1.4137
HAL_FRQ	1.8972	2.6475	2.1343	2.6173
HER_FRQ	-2.8573**	1.3575	0.7411	1.6200
OPIA_FRQ	2.3736	2.1726	0.2313	2.1311
POT_FRQ	2.7747	1.4710	2.9582**	1.4253
BARB_FRQ	4.5700**	2.0172	3.6906*	2.1072
STIM_FRQ	4.0786**	1.6667	2.8735*	1.6205
DEPLOGTA	-2.1973***	0.8324	-1.3691	0.8802
DEPLOGTD	-6.6055***	1.5892	-5.7293***	1.5056

Table 62 — Continued

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Other Background Factors</i>				
EPSTDGTX			-7.2670**	3.1555
EPSTETOH			-3.2428	7.7473
EDIAGNO			-0.2233	4.6179
EDIAGDEP			-0.8293	6.2872
EDIAGASP			-14.3311**	6.1159
EDIAGBTH			-3.2677	7.3209
EPSTMHTX			-6.6580**	3.0297
<i>Treatment Variables</i>				
ENRGY			2.1505	5.6322
ENRSUPY			-4.4092	7.9864
ETSYES			6.0215**	3.0279
ECTRONLY			-9.2331	9.6198
EOTHONLY			2.5367	17.5175
EBOTH			-13.4968	15.9204
ETXMISS			19.8380	28.5482
EAAYES			18.2420	12.6264
EAAMISS			-23.9299	23.8895
<i>Post-Release Variables</i>				
ESPOUSE			-7.6487	5.7708
ECOM_LAW			-3.0093	6.0982
SUPVVIOL			-3.1191	3.3753
DRUGVIOL			-6.1659**	1.9143
ECOH01_6			-0.6759	7.9887
ECOH07			-16.0996	14.9781
ECOH08			10.9226	9.2785
ECOH09			10.6195	8.3168
ECOH010			-7.1430	8.6438
ECOH011			2.1817	8.8995
ECOH012			4.4315	6.9258
ECOH013			-3.3400	6.9230
R-square	0.4454		0.6078	
Adjusted R-square	0.3791		0.4988	

* p < .10

** p < .05

*** p < .01

Table 63
Employment, Male Subjects, Complete
Heckman Model

Variable	b	Final Model se(b)
<i>Base Model Variables</i>		
CONSTANT	-32.1110	33.0520
COMPLETE	17.2258	20.7844
EBLACK	-10.0642	8.2328
ERACEOTH	-0.7299	13.6061
EHISP	-7.3069	6.1439
EPRIORCM	-4.4277	4.0312
ERECVIOL	-7.8160	6.2269
EPASTVIO	4.7354	5.3460
TIMESRVD	4.2533***	1.6597
ECJSPVNM	5.9392	18.5640
ECJSPVNY	-1.7189	10.0180
AGERLSE	-1.2592***	0.4273
ESUPILL	-12.8703***	3.5538
EWORKJOB	33.2225***	8.0514
ELEGITUN	-67.5976***	14.6025
EUNEMP	8.6471	11.0839
EJOB_UNK	14.6921	24.1302
GRADEA	7.0702***	1.6470
COC_FRQ	-0.2528	1.8236
CRK_FRQ	-1.6577	1.9754
HAL_FRQ	-2.8671	2.7733
HER_FRQ	-2.3122	2.0165
OPIA_FRQ	-1.4065	3.0048
POT_FRQ	-0.9506	2.0245
BARB_FRQ	-1.9828	2.7868
STIM_FRQ	0.4170	2.1667
DEPLOGTA	-0.2646	0.9916
DEPLOGTD	5.0719***	1.6508
<i>Motivation for Change Variables</i>		
ECLUST1	-3.2774	7.0053
ECLUST2	3.2775	7.2702
ECLUST3	2.7983	7.3101
ECLUST4	-1.9732	10.0991
ECLUST5	4.8922	9.6808
ECLUST6	1.5480	12.0130
<i>Treatment Variables</i>		
ENRGY	-8.2659	6.6498
ENRSUPY	12.7788	10.5683

Table 63 — Continued

Variable	b	Final Model se(b)
ETSYES	8.5452**	4.3213
ECTRONLY	36.2152***	12.5768
EOTHONLY	28.2776	18.4097
EBOTH	7.6860	18.6364
ETXMISS	-108.8187***	43.7235
EAAYES	15.4717*	11.5112
EAAMISS	-5.6524	21.1216
<i>Supervision Variables</i>		
ECCCNO	-22.9065***	6.0379
ECCCFAIL	-13.6094*	6.2678
UARATE	0.6791	1.8480
HHSE_STR	39.2389*	21.6417
<i>Post-Release Variables</i>		
ESPOUSE	10.4433*	5.8034
ECOM_LAW	-4.1095	6.1736
SUPVVIOL	-13.0330***	2.9608
DRUGVIOL	-3.6384**	1.7792
ECOH01_6	-31.4436***	11.0559
ECOH07	10.9644	16.2027
ECOH08	-4.7308	13.0873
ECOH09	-7.2790	12.2725
ECOH010	-5.6929	10.4097
ECOH011	2.0520	9.1687
ECOH012	9.8891	7.5761
ECOH013	12.8270*	7.7957
COVARIAN	-0.1731	0.2322
SIGMA	96.3157***	4.0892

* p < .10
 ** p < .05
 *** p < .01

Table 64
Employment, Female Subjects, Complete
Heckman Model

Variable	b	Final Model se(b)
<i>Base Model Variables</i>		
CONSTANT	-247.2121**	136.5464
COMPLETE	-25.4524	39.4746
EBLACK	2.2213	16.5481
ERACEOTH	-22.7347	29.3515
EHISP	-41.9586***	14.0349
EPRIORCM	6.5783	6.4969
ERECVIOL	-29.1517*	16.8577
EPASTVIO	27.5197	17.8484
TIMESRVD	-2.7949	4.7383
ECJSPVNY	-5.5018	20.6673
ECJSPVNM	15.8639	37.3754
AGERLSE	-0.6517	0.9272
ESUPILL	3.5440	6.2005
EWORKJOB	46.4459***	15.0039
ELEGITUN	33.7117	22.3265
EUNEMP	-14.6981	20.1353
EJOB_UNK	-113.9005***	46.5668
GRADEA	3.2357	3.1933
COC_FRQ	4.7075	3.0739
CRK_FRQ	3.3980	2.9440
HAL_FRQ	11.7363**	5.4208
HER_FRQ	2.5719	3.7321
OPIA_FRQ	1.5998	4.4917
POT_FRQ	6.2249**	3.0237
BARB_FRQ	5.9649	4.3535
STIM_FRQ	4.3169	3.2972
DEPLOGTA	-0.5535	1.7808
DEPLOGTD	-11.6221***	3.0589
<i>Other Background Factors</i>		
EPSTDGTX	-19.9376***	6.9881
EPSTETOH	-14.6600	14.8143
EDIAGNO	7.5648	9.8947
EDIAGDEP	-6.2374	12.6390
EDIAGASP	-20.5639	14.2575
EDIAGBTH	10.7854	15.9964
EPSTMHTX	-21.8755***	6.6828
<i>Treatment Variables</i>		
ENRGY	10.5016	12.8803
ENRSUPY	-41.1975**	17.9066
ETSYES	23.5507***	7.9883
ECTRONLY	6.9478	20.9722
EOTHONLY	-20.2095	31.0567
EBOOTH	-65.6195	44.6805
ETXMISS	51.4462	64.7839
EAAYES	129.7196	126.6303
EAAMISS	-216.0057	252.5413
<i>Post-Release Variables</i>		
ESPOUSE	-24.3226*	13.1360
ECOM_LAW	4.4116	12.8448
SUPVVIOL	-1.7698	6.5649
ECOH01_6	-42.0943*	18.5261

Table 64 — Continued

Variable	b	Final Model se(b)
ECOHO7	-13.8106	40.0700
ECOHO8	16.0893	21.5139
ECOHO9	41.2103**	20.4657
ECCCNO	-5.8564	12.4212
ECOHO10	-34.4378**	20.0645
ECOHO11	19.0277	17.4111
ECOHO12	5.0852	15.2581
ECOHO13	12.0990	14.4356
COVARIAN	-0.0127	0.5828
SIGMA	72.0446***	5.7980

* p < .10
 ** p < .05
 *** p < .01

Table 65
Arrests, Male and Female Subjects, Supervised and Unsupervised Subjects
Treatment Subjects Only

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
INTERCPT	-3.7881***	0.4897		-2.6817*	1.4784	
COMPLETE	-0.4423**	0.1727	0.643	-0.2799	0.2224	0.756
DISCIP	0.2810	0.2514	1.324	0.0207	0.2778	1.021
WITHDRAW	0.3040	0.2968	1.355	0.2885	0.3323	1.334
<i>Institution Indicators</i>						
ELEXSITM	-0.6851	0.4232	0.504	-0.7925	0.7767	0.453
EBUTSITM	-0.2426	0.3431	0.785	-0.4267	0.5725	0.653
EFAISITM	0.3371	0.3397	1.401	0.0296	0.3824	1.030
ELOFSITM	-0.1472	0.7058	0.863	0.2392	0.9370	1.270
EMCKSITM	0.5373	0.5754	1.711	0.6146	0.7299	1.849
EMNASITM	0.4834	0.3814	1.622	0.1112	0.4689	1.118
EOXFSITM	0.4879	0.3293	1.629	-0.2089	0.4691	0.811
EPHXSITM	0.3505	0.4938	1.420	0.3088	0.5535	1.362
ERCHSITM	-0.0178	0.4647	0.982	-0.1593	0.5630	0.853
ESEASITM	-0.3702	0.5885	0.691	-0.0316	0.6891	0.969
ESHESITM	0.3125	0.3919	1.367	-0.0099	0.4822	0.990
ETALSITM	0.0708	0.3446	1.073	-0.4333	0.6046	0.648
ETRMSITM	0.1709	0.5775	1.186	0.9381	0.8191	2.555
EYANSITM	-0.3609	0.3871	0.697	0.0681	0.5431	1.071
EMRGSITM	-0.9267*	0.5174	0.399	-0.2475	0.7867	0.781
COHTIME	0.0091	0.0129	1.009	0.0269	0.0323	1.027
TIMETORL	-0.0360**	0.0165	0.965	-0.0173	0.0359	0.983
<i>Base Model Variables</i>						
EBLACK				-0.0805	0.2332	0.923
ERACEOTH				0.1058	0.3443	1.112
EHISP				0.0777	0.2379	1.081
EPRIORCM				0.3510**	0.1596	1.420
ERECVIOL				0.3634*	0.1924	1.438
EPASTVIO				-0.0407	0.1868	0.960
TIMESRVD				0.0988*	0.0596	1.104
ECJSPVNY				-0.2744	0.2691	0.760
ECJSPVNM				0.4202	0.4721	1.522
AGERLSE				-0.0606***	0.0180	0.941
ESUPILL				-0.0768	0.1289	0.926
EWORKJOB				0.0357	0.3099	1.036
ELEGITUN				0.2187	0.5643	1.244
EUNEMP				0.2437	0.4209	1.276
EJOB_UNK				-1.0386	0.9131	0.354
GRADEA				0.0112	0.0537	1.011
COC_FRQ				0.0369	0.0659	1.038
CRK_FRQ				-0.1486**	0.0727	0.862
HAL_FRQ				-0.0014	0.0921	0.999
HER_FRQ				0.1084	0.0678	1.114
OPIA_FRQ				-0.0817	0.1035	0.922
POT_FRQ				-0.0417	0.0701	0.959
BARB_FRQ				0.0870	0.0976	1.091
STIM_FRQ				-0.0952	0.0766	0.909
DEPLOGTA				-0.0351	0.0349	0.966
DEPLOGTD				0.0309	0.0560	1.031

Table 65 — Continued

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.1687	0.1822	0.845
ECCCFAIL				0.4493**	0.1926	1.567
SUP_REL				-0.0108	0.3480	0.989
<i>Post-Release Variables</i>						
ECOH01_6				0.3816	0.5568	1.465
ECOH07				-0.0306	0.5019	0.970
ECOH08				0.5803	0.3707	1.787
ECOH09				-0.5831	0.4524	0.558
ECOH010				0.7502***	0.2731	2.117
ECOH011				-0.8075	0.4929	0.446
ECOH012				0.0401	0.3809	1.041
ECOH013				0.3438	0.4303	1.410
<i>Time Variables</i>						
D_T2	0.4500	0.3774	1.568	0.4720	0.3829	1.603
D_T3	0.3015	0.3920	1.352	0.3494	0.3977	1.418
D_T4	0.2073	0.4050	1.230	0.3089	0.4108	1.362
D_T5	0.8413**	0.3616	2.319	0.9977***	0.3688	2.712
D_T6	0.3854	0.3985	1.470	0.5700	0.4053	1.768
<i>-2 Log Likelihood</i>						
Intercept Only		913.772			913.772	
Intercept and Covariates		879.189			803.653	
DF		24			61	
Concordant Pairs		65.0%			78.1%	
Somer's D		0.342			0.584	
Hosmer-Lemeshow						
Goodness of Fit	15.218 with 8 DF (p=0.0550)			4.8296 with 8 DF (p=0.7756)		

* p < .10

** p < .05

*** p < .01

NOTE: Cases from Danbury, Dublin, LaTuna, and Three Rivers were deleted due to no failures, and cases from Alderson deleted due to quasi-complete separation.

Table 66
Arrests, Male and Female Subjects, Supervised Subjects Only
Treatment Subjects Only

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
INTERCPT	-3.6895***	0.5370	.	-2.1701	1.6661	.
COMPLETE	-0.4389**	0.1903	0.645	-0.0694	0.2713	0.933
DISCIP	0.3557	0.2839	1.427	-0.1829	0.3401	0.833
WITHDRAW	0.3368	0.3199	1.400	0.3133	0.4058	1.368
<i>Institution Indicators</i>						
ELEXSITM	-0.2787	0.4326	0.757	-0.6892	0.8726	0.502
EBUTSITM	-0.2248	0.3748	0.799	-0.8250	0.6591	0.438
EFAISITM	0.0480	0.4124	1.049	-0.5022	0.4848	0.605
ELOFSITM	-0.0449	0.7147	0.956	0.0387	1.0276	1.039
EMCKSITM	0.5300	0.5862	1.699	0.7149	0.8125	2.044
EMNASITM	0.5305	0.3940	1.700	0.2956	0.5320	1.344
EOXFSITM	0.6815**	0.3387	1.977	-0.1814	0.5045	0.834
EPHXSITM	0.4443	0.5043	1.559	0.8566	0.5956	2.355
ERCHSITM	0.2144	0.7060	1.239	0.3642	0.8628	1.439
ESEASITM	-0.9344	0.9712	0.393	-0.2416	1.0603	0.785
ESHESITM	0.3916	0.4071	1.479	-0.0228	0.5679	0.977
ETALSITM	0.2337	0.3746	1.263	-0.3054	0.6448	0.737
ETRMSITM	-0.0319	0.6945	0.969	1.3015	0.9730	3.675
EYANSITM	-0.2352	0.4194	0.790	0.1192	0.6454	1.127
EMRGSITM	-1.3239	0.7052	0.266	-0.9232	0.9619	0.397
COHTIME	0.0038	0.0138	1.004	0.0323	0.0355	1.033
TIMETORL	-0.0374**	0.0174	0.963	-0.0038	0.0391	0.996
<i>Base Model Variables</i>						
EBLACK				0.0107	0.2745	1.011
ERACEOTH				-0.1936	0.4114	0.824
EHISP				0.1077	0.2786	1.114
EPRIORCM				0.3576*	0.1945	1.430
ERECVIOL				0.0297	0.2363	1.030
EPASTVIO				0.3554	0.2206	1.427
TIMESRVD				0.1707***	0.0637	1.186
ECJSPVNY				-0.6832**	0.3149	0.505
ECJSPVNM				0.9882*	0.5217	2.686
AGERLSE				-0.0873***	0.0219	0.916
ESUPILL				-0.0050	0.1571	0.995
EWORKJOB				0.2660	0.3506	1.305
ELEGITUN				-0.0271	0.6039	0.973
EUNEMP				0.1205	0.5062	1.128
EJOB_UNK				-1.0000	0.9732	0.368
GRADEA				0.0514	0.0690	1.053
COC_FRQ				0.0312	0.0818	1.032
CRK_FRQ				-0.2479***	0.0946	0.780
HAL_FRQ				-0.0194	0.1100	0.981
HER_FRQ				0.1129	0.0805	1.119
OPIA_FRQ				-0.2269*	0.1343	0.797
POT_FRQ				-0.0724	0.0852	0.930
BARB_FRQ				0.2308**	0.1164	1.260
STIM_FRQ				-0.0677	0.0942	0.935
DEPLOGTA				0.0075	0.0400	1.008
DEPLOGTD				0.0053	0.0654	1.005

Table 66 — Continued

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
<i>Supervision Variables</i>						
ECCCNO				-0.3837*	0.2280	0.681
ECCCFAIL				0.2013	0.2245	1.223
UARATE				-0.0954	0.0795	0.909
<i>Post-Release Variables</i>						
ESPOUSE				-0.5624*	0.3067	0.570
ECOM_LAW				0.1971	0.2978	1.218
SUPVVIOL				0.0849	0.1107	1.089
DIRTY				0.3433	0.3126	1.410
EMP_HRS				-0.0518***	0.0084	0.950
ECOH01_6				0.4346	0.6407	1.544
ECOH07				-0.4526	0.6882	0.636
ECOH08				0.8136*	0.4603	2.256
ECOH09				-0.8550	0.6158	0.425
ECOH010				1.1181***	0.3393	3.059
ECOH011				-1.0942*	0.5829	0.335
ECOH012				0.2009	0.4805	1.222
ECOH013				0.4901	0.4837	1.633
<i>Time Variables</i>						
D_T2	0.3833	0.4193	1.467	0.4222	0.4368	1.525
D_T3	0.3415	0.4259	1.407	0.4149	0.4459	1.514
D_T4	0.1314	0.4524	1.140	0.3563	0.4776	1.428
D_T5	0.8431**	0.3969	2.324	1.2044***	0.4279	3.335
D_T6	0.5051	0.4265	1.657	0.9099**	0.4593	2.484
 -2 Log Likelihood						
Intercept Only		762.944			762.944	
Intercept and Covariates		730.505			584.937	
DF		24			66	
Concordant Pairs		66.6%			87.3%	
Somer's D		0.372			0.760	
Hosmer-Lemeshow						
Goodness of Fit (p=0.1619)	4.3931 with 8 DF (p=0.8200)			11.767 with 8 DF		

* p < .10
 ** p < .05
 *** p < .01

NOTE: Cases from Danbury, Dublin, LaTuna, and Three Rivers deleted due to no failures and cases from Alderson deleted due to quasi-complete separation. CCC placement during supervision (HHSE_STR) variable deleted due to small sample size.

Table 67
Arrests or Revocations, Male and Female Subjects, Treatment Subjects Only

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
INTERCPT	-3.5532***	0.4380	.	-2.2143	1.4347	.
COMPLETE	-0.3167**	0.1528	0.729	0.0039	0.2368	1.004
DISCIP	0.3276	0.2334	1.388	-0.3928	0.3030	0.675
WITHDRAW	0.1800	0.2668	1.197	0.4671	0.3538	1.595
<i>Institution Indicators</i>						
EALDSITM	-0.6540	0.4397	0.520	-0.5836	0.7422	0.558
EDANSITM	-0.7320	0.9885	0.481	-1.0540	1.1137	0.349
EDUBSITM	-0.5136	0.9760	0.598	0.2137	1.1297	1.238
ELEXSITM	-0.0069	0.3531	0.993	0.0034	0.7793	1.003
EBUTSITM	-0.2477	0.3346	0.781	-0.7538	0.6699	0.471
EFAISITM	-0.1318	0.3885	0.877	-1.6557	0.4719	0.519
ELATSITM	-0.0758	0.9808	0.927	-0.3335	1.1177	0.716
ELOFSITM	-0.0305	0.5944	0.970	0.7376	0.8509	2.091
EMCKSITM	0.7359	0.4715	2.087	-0.1984	0.7127	0.820
EMNASITM	0.7073**	0.3219	2.029	0.3056	0.4458	1.357
EOXFSITM	0.6152	0.3079	1.850	0.3186	0.5113	1.375
EPHXSITM	0.7448	0.4022	2.106	1.3566**	0.5351	3.883
ERCHSITM	0.2874	0.5973	1.333	1.5374**	0.7450	4.652
ESEASITM	-0.5860	0.7162	0.557	-0.0309	0.9076	0.970
ESHESITM	0.8224***	0.3073	2.276	0.6897	0.4620	1.993
ETALSITM	0.1792	0.3345	1.196	0.1442	0.6495	1.155
ETRMSITM	0.3744	0.5132	1.454	0.2269	0.7911	1.255
ETRVSITM	-0.2931	0.9753	0.746	-1.2439	1.1185	0.288
EYANSITM	-0.1947	0.3533	0.823	0.5979	0.5151	1.818
EMRGSITM	-1.0004*	0.5166	0.368	-1.2278	0.8312	0.279
TIMETORL	-0.0395***	0.0141	0.961	-0.0139	0.0327	0.986
COHTIME	0.0024	0.0112	1.002	0.0061	0.0305	1.006
<i>Base Model Variables</i>						
EBLACK				0.2048	0.2462	1.227
ERACEOTH				-0.4369	0.3743	0.646
EHISP				0.1500	0.2331	1.162
EFEM						
EPRIORCM				0.1446	0.1601	1.156
ERECVIOL				0.1683	0.1982	1.183
EPASTVIO				0.3025	0.1876	1.353
TIMESRVD				0.1627***	0.0549	1.177
ECJSPVNY				-0.3901	0.2470	0.677
ECJSPVNM				1.1693***	0.4126	3.220
AGERLSE				-0.0383**	0.0165	0.962
ESUPILL				-0.0563	0.1306	0.945
EWORKJOB				0.3438	0.2617	1.410
ELEGITUN				-0.4237	0.4722	0.655
EUNEMP				-0.1207	0.4283	0.886
EJOB_UNK				-0.1300	0.6441	0.878
GRADEA				-0.0242	0.0534	0.976
COC_FRQ				0.0382	0.0664	1.039
CRK_FRQ				-0.1077	0.0643	0.898
HAL_FRQ				0.0267	0.0943	1.027
HER_FRQ				0.0124	0.0677	1.013
OPIA_FRQ				-0.1012	0.1033	0.904
POT_FRQ				-0.0918	0.0691	0.912
BARB_FRQ				0.1437	0.0925	1.155

Table 67 — Continued

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
STIM_FRQ				-0.0958	0.0759	0.909
DEPLOGTA				-0.0349	0.0309	0.966
DEPLOGTD				0.0806	0.0567	1.084
<i>Treatment Variables</i>						
ENRGY				-0.1267	0.2577	0.881
ENRSUPY				0.5322	0.3812	1.703
ETSYES				-0.2560	0.1692	0.774
ECTRONLY				-0.1171	0.2090	0.890
EOTHONLY				0.8942	0.3739	2.445
EBOTH				-0.9315**	0.3780	0.394
EAAYES				0.7140**	0.3103	2.042
EAAMISS				-1.0270	0.5179	0.358
<i>Supervision Variables</i>						
ECCCN0				-0.6034**	0.2465	0.547
ECCCFAIL				0.3574	0.2098	1.430
UARATE				-0.1605**	0.0726	0.852
HHSE_STR				-1.6848	0.9720	0.185
<i>Post-Release Variables</i>						
ESPOUSE				-0.4634	0.2765	0.629
ECOM_LAW				-0.0896	0.2888	0.914
SUPVVIOL				0.2642***	0.0754	1.302
DIRTY				1.1931***	0.2538	3.297
EMP_HRS				-0.0631***	0.0073	0.939
ECOH01_6				-0.0908	0.5432	0.913
ECOH07				-0.2940	0.5151	0.745
ECOH08				0.2199	0.4121	1.246
ECOH09				-0.6566	0.4265	0.519
ECOH010				0.7141**	0.2975	2.042
ECOH011				-0.6531	0.3732	0.520
ECOH012				0.6516	0.3827	1.919
ECOH013				0.4079	0.4160	1.504
<i>Time Variables</i>						
D_T2	0.1724	0.3712	1.188	0.4196	0.4233	1.521
D_T3	0.7880**	0.3334	2.199	1.1563***	0.3923	3.178
D_T4	0.5967	0.3478	1.816	1.0397**	0.4104	2.828
D_T5	0.9349***	0.3319	2.547	1.4639***	0.3977	4.323
D_T6	0.6983**	0.3482	2.010	1.2127***	0.4139	3.362
<i>-2 Log Likelihood</i>						
Intercept Only		1168.728			1139.942	
Intercept and Covariates		1111.686			804.256	
DF		29			80	
Concordant Pairs		67.4%			89.3%	
Somer's D		0.376			0.796	
Hosmer-Lemeshow						
Goodness of Fit	6.0254 with 8 DF	(p=0.6444)		9.1881 with 8 DF	(p=0.3267)	

* p < .10

** p < .05

*** p < .01

Table 68
Drug Use, Male and Female Subjects
Treatment Subjects Only

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
INTERCPT	-2.1676***	0.3347		-3.1879***	1.2173	
COMPLETE	-0.1126	0.1469	0.893	-0.2581	0.1964	0.773
DISCIP	0.4284*	0.2263	1.535	0.3106	0.2689	1.364
WITHDRAW	-0.4167	0.3049	0.659	0.0724	0.3354	1.075
<i>Institution Indicators</i>						
EALDSITM	-0.0704	0.2901	0.932	-0.1939	0.5574	0.824
ELEXSITM	-0.6854*	0.3574	0.504	-0.5203	0.6937	0.594
EBUTSITM	-0.2465	0.2769	0.782	0.1128	0.5293	1.119
EFAISITM	0.3953	0.2532	1.485	0.5640	0.3480	1.758
ELATSITM	1.0413**	0.5313	2.833	1.2254*	0.6948	3.406
ELOFSITM	0.3077	0.4091	1.360	0.3923	0.6377	1.480
EMCKSITM	-1.7336*	0.9608	0.177	-2.9868***	1.0354	0.050
EMNASITM	0.5428**	0.2718	1.721	0.6189*	0.3467	1.857
EOXFSITM	0.6565***	0.2499	1.928	0.2656	0.4212	1.304
EPHXSITM	0.1472	0.4570	1.159	0.2760	0.5198	1.318
ERCHSITM	0.3795	0.4762	1.462	0.6945	0.5794	2.003
ESEASITM	0.0178	0.4814	1.018	0.8866	0.6066	2.427
ESHESITM	0.1116	0.3100	1.118	-0.1174	0.4014	0.889
ETALSITM	-0.1226	0.2921	0.885	0.6181	0.5764	1.855
ETRMSITM	0.3157	0.4233	1.371	-0.2933	0.5842	0.746
ETRVSITM	-0.8557	0.9674	0.425	-1.4215	1.0782	0.241
EYANSITM	0.0678	0.2661	1.070	0.0691	0.3934	1.072
EMRGSITM	-0.2689	0.3042	0.764	-0.1902	0.5604	0.827
TIMETORL	-0.0288**	0.0119	0.972	-0.0179	0.0284	0.982
COHTIME	-0.0002	0.0094	1.000	-0.0142	0.0266	0.986
<i>Base Model Variables</i>						
EBLACK				0.3913**	0.2026	1.479
ERACEOTH				-0.1190	0.3285	0.888
EHISP				-0.0331	0.1967	0.967
EPRIORCM				0.2158*	0.1139	1.241
ERECVIOL				0.2950*	0.1683	1.343
EPASTVIO				-0.0588	0.1518	0.943
TIMESRVD				-0.0525	0.0626	0.949
ECJSPVNY				0.1812	0.2196	1.199
ECJSPVNM				0.0447	0.3878	1.046
AGERLSE				-0.0068	0.0128	0.993
ESUPILL				0.0040	0.0975	1.004
EWORKJOB				-0.1963	0.2033	0.822
ELEGITUN				-0.1216	0.3711	0.885
EUNEMP				-0.1413	0.2877	0.868
EJOB_UNK				0.3812	0.5156	1.464
GRADEA				0.0727*	0.0429	1.075
COC_FRQ				-0.0312	0.0504	0.969
CRK_FRQ				0.0904**	0.0452	1.095
HAL_FRQ				0.0157	0.0699	1.016
HER_FRQ				0.0092	0.0511	1.009
OPIA_FRQ				0.1481**	0.0720	1.160
POT_FRQ				0.0430	0.0546	1.044
BARB_FRQ				-0.1065	0.0712	0.899

Table 68 — Continued

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
STIM_FRQ				0.0385	0.0544	1.039
DEPLOGTA				-0.0408*	0.0247	0.960
DEPLOGTD				0.0261	0.0443	1.026
<i>Treatment Variables</i>						
ENRGYENY				-0.3075*	0.1893	0.735
ENRSUPY				-0.0204	0.2650	0.980
ETSYES				0.1240	0.1498	1.132
EOTHONLY				-0.1935	0.3840	0.824
ECTRONLY				-0.4595*	0.2494	0.632
EBOTH				0.8917***	0.3380	2.439
ETXMISS				1.3357	0.8251	3.803
EAAYES				0.3737	0.2506	1.453
EAAMISS				-0.9230**	0.4479	0.397
<i>Supervision Variables</i>						
ECCCNO				0.0475	0.2227	1.049
ECCCFAIL				0.4522***	0.1658	1.572
UARATE				0.0912*	0.0497	1.095
HHSE_STR				0.1366	0.5946	1.146
<i>Post-Release Variables</i>						
ESPOUSE				-0.2595	0.1849	0.771
ECOM_LAW				0.0077	0.1945	1.008
SUPVVIOL				0.3485***	0.0641	1.417
EMP_HRS				-0.0104**	0.0049	0.990
ECOH01_6				-0.2241	0.4658	0.799
ECOH07				-0.4429	0.4276	0.642
ECOH08				-0.1896	0.3449	0.827
ECOH09				-0.4811	0.3039	0.618
ECOH010				0.1221	0.2736	1.130
ECOH011				0.5673**	0.2582	1.763
ECOH012				0.5646**	0.2785	1.759
ECOH013				-0.0283	0.3421	0.972
<i>Time Variables</i>						
D_T2	-0.1808	0.2143	0.835	-0.0318	0.2345	0.969
D_T3	-0.2046	0.2205	0.815	0.1469	0.2412	1.158
D_T4	-0.4491*	0.2411	0.638	0.0067	0.2613	1.007
D_T5	-0.5054**	0.2501	0.603	0.0778	0.2701	1.081
D_T6	-1.5019***	0.3657	0.223	-0.8177**	0.3797	0.441
<i>-2 Log Likelihood</i>						
Intercept Only		1519.130		1519.130		
Intercept and Covariates		1450.624		1206.570		
<i>DF</i>						
Concordant Pairs		65.7%		83.2%		
Somer's D		0.331		0.671		
Hosmer-Lemeshow						
Goodness of Fit	4.0023 with 8 DF	(p=0.8569)		7.0056 with 8 DF	(p=0.5360)	
* p < .10						
** p < .05						
*** p < .01						

NOTE: Six cases from Dublin were omitted from the models due to zero cells (*i.e.*, no failures). In addition, eight cases from Danbury were deleted due to quasi-complete separation.

Table 69
CCC Failure, Male and Female Subjects, Treatment Subjects Only

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
INTERCPT	-1.4875***	0.4931	.	-0.2713	1.1315	.
COMPLETE	-0.5148**	0.2069	0.598	-0.5885**	0.2346	0.555
DISCIP	0.7843**	0.3440	2.191	0.8309**	0.3887	2.295
WITHDRAW	-0.3716	0.4126	0.690	-0.0901	0.4560	0.914
<i>Institution Indicators</i>						
EALDSITM	0.2373	0.3831	1.268	0.6862	0.4728	1.986
EBUTSITM	-0.7560*	0.4301	0.470	-0.8019*	0.4731	0.448
EDANSITM	-0.2715	1.1474	0.762	-0.6516	1.3059	0.521
EDUBSITM	1.3000	0.9780	3.669	1.0322	1.0922	2.807
EFAISITM	-0.5884	0.4911	0.555	-0.9504*	0.5684	0.387
ELATSITM	2.0990***	0.6585	8.158	2.1748***	0.7872	8.801
ELEXSITM	-2.4045***	0.7553	0.090	-3.5497***	0.9278	0.029
ELOFSITM	-1.1358	1.0135	0.321	-1.1711	1.0615	0.310
EMCKSITM	0.9725	0.7365	2.645	0.7900	0.8034	2.203
EMNASITM	0.4069	0.3980	1.502	0.3167	0.4675	1.373
EMRGSITM	-0.2805	0.4215	0.755	0.2242	0.4867	1.251
EOXFSITM	0.1086	0.3834	1.115	0.0009	0.4568	1.001
EPHXSITM	0.0470	0.5752	1.048	0.2782	0.6414	1.321
ERCHSITM	-0.2872	0.6564	0.750	-0.3836	0.7342	0.681
ESEASITM	-0.4159	0.6640	0.660	0.0506	0.7215	1.052
ESHESITM	0.4053	0.4166	1.500	0.2279	0.5264	1.256
ETALSITM	0.1141	0.3853	1.121	0.5120	0.4477	1.669
ETRMSITM	0.1275	0.6804	1.136	0.1298	0.7272	1.139
ETRVSITM	0.0329	1.0897	1.033	0.4245	1.2375	1.529
EYANSITM	0.2889	0.3388	1.335	0.6600	0.4267	1.935
COHTIME	0.0129	0.0147	1.013	0.0174	0.0169	1.018
TIMETORL	0.0156	0.0167	1.016	0.0312	0.0199	1.032
<i>Base Model Variables</i>						
EBLACK				0.2615	0.2878	1.299
ERACEOTH				-0.2645	0.4579	0.768
EHISP				0.0362	0.2468	1.037
EPRIORCM				0.4986***	0.1602	1.646
ERECVIOL				-0.3615	0.2743	0.697
EPASTVIO				0.2175	0.2159	1.243
TIMESRVD				0.0195	0.0796	1.020
ECJSPVNY				-0.2012	0.2754	0.818

Table 69 — Continued

Variable	b	Sites Only se(b)	OR	b	Final Model se(b)	OR
ECJSPVNM				0.4638	0.4809	1.590
AGERLSE				-0.0444***	0.0178	0.957
COC_FRQ				-0.0045	0.0661	0.995
CRK_FRQ				-0.0063	0.0671	0.994
HAL_FRQ				-0.0896	0.0989	0.914
HER_FRQ				0.1160	0.0725	1.123
OPIA_FRQ				-0.0004	0.0923	1.000
POT_FRQ				-0.0465	0.0734	0.955
BARB_FRQ				0.0353	0.0940	1.036
STIM_FRQ				-0.0936	0.0761	0.911
DEPLOGTA				0.0286	0.0381	1.029
DEPLOGTD				0.1017*	0.0604	1.107
ESUPILL				-0.1303	0.1317	0.878
EWORKJOB				-0.0911	0.2797	0.913
ELEGITUN				-0.8875	0.5657	0.412
EUNEMP				-0.1412	0.4332	0.868
EJOB_UNK				0.3611	0.6665	1.435
GRADEA				-0.0291	0.0602	0.971
<i>Change Assessment Variables</i>						
ECLUST1				0.4184*	0.2426	1.519
ECLUST2				-0.4340	0.2808	0.648
ECLUST3				-0.0834	0.3491	0.920
ECLUST4				0.4168	0.3020	1.517
ECLUST5				0.2385	0.4115	1.269
ECLUST6				0.0017	0.6295	1.002
<i>Additional Background Variables</i>						
EPSTDGTX				-0.1355	0.1400	0.873
EPSTETOH				-0.0290	0.2711	0.971
EDIAGNO				0.0545	0.2188	1.056
EDIAGDEP				-0.0816	0.3492	0.922
EDIAGASP				-0.2131	0.2521	0.808
EDIAGBTH				0.5325	0.4150	1.703
EPSTMHTX				0.0949	0.1623	1.100
-2 Log Likelihood						
Intercept Only		633.409		633..409		
Intercept and Covariates		585.988		511.883		
Concordant Pairs			68.6%	79.8		
Somer's D		0.378		0.599		
Hosmer-Lemshow						
Goodness of Fit		4.85 with 8 DF (p=0.7735)		9.6741 with 8 DF (p=0.2886)		

* p < .10

** p < .05

*** p < .01

Table 70
Employment, Male Subjects, Treatment Subjects Only

Variable	Sites Only		Final Model	
	b	se(b)	b	se(b)
INTERCEP	38.7495***	7.2791	30.6567	22.6200
COMPLETE	11.3253***	3.2174	3.3670	3.7303
DISCIP	-10.3042*	5.5566	-0.5381	5.5207
WITHDRAW	-9.9472*	6.0105	-8.7872	6.0340
<i>Institution Indicators</i>				
EBUTSITM	5.5338	5.2200	8.1419	9.2079
EFAISITM	-11.4393**	5.5163	-5.0006	6.2276
ELOFSITM	11.9363	9.4912	1.7157	11.7128
EMCKSITM	-18.2962	10.0178	-8.4229	10.8313
EMNASITM	12.0731	6.3280	13.2705**	6.4449
EMRGSITM	13.5867**	6.3120	3.5959	9.8491
EOXFSITM	-16.6510***	5.8436	-7.7553	7.6801
ERCHSITM	1.6550	10.3131	-1.2167	10.7080
ESEASITM	4.6932	9.1964	-1.7873	10.5701
ESHESITM	6.5996	6.5081	4.7255	7.2023
ETALSITM	-0.7683	5.9878	4.4062	9.4668
ETRMSITM	-9.3956	9.6671	-7.9623	11.7833
ETRV SITM	-13.5148	13.3971	-14.4127	14.1510
EYANSITM	13.9876***	5.2701	10.7020	6.5497
COHTIME	0.3379	0.2216	0.1797	0.4598
TIMETORL	0.9370***	0.2498	0.6076	0.4954
<i>Base Model Variables</i>				
EBLACK			-1.3437	3.9582
ERACEOTH			-4.9109	6.1037
EHISP			1.1529	3.5635
EPRIORCM			-1.8591	2.0270
ERECVIOL			-7.4356**	3.2583
EPASTVIO			5.5369**	2.8103
TIMESRVD			0.4225	0.9482
ECJSPVNY			-2.8101	4.7201
ECJSPVNM			5.4680	8.3580
AGERLSE			-0.3028	0.2319
ESUPILL			-3.6451	1.9427
EWORKJOB			7.2200	3.9002
ELEGITUN			-12.1341	8.3415
EUNEMP			3.4986	5.9480
EJOB_UNK			-6.2709	10.3687
GRADEA			1.6459**	0.7792
COC_FRQ			-0.7529	0.9695
CRK_FRQ			1.0265	0.9917
HAL_FRQ			-0.7901	1.3497
HER_FRQ			0.2400	1.0812
OPIA_FRQ			-1.6642	1.5077
POT_FRQ			-0.4556	1.0100
BARB_FRQ			-0.6734	1.3922
STIM_FRQ			1.4907	1.0988
DEPLOGTA			0.8004	0.5103
DEPLOGTD			0.2564	0.8155

Table 70 — Continued

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Treatment Variables</i>				
ENRGY			-3.8281	3.1819
ENRSUPY			7.0113	4.4415
ETSY			2.6255	2.8161
ECTONLY			5.2732	6.4047
EOTHONLY			2.9580	9.1898
EBOTH			-9.9466	8.8634
ETXMISS			-4.9454	22.4388
EAAYES			1.7481	7.0945
EAAMISS			-0.3514	13.3841
<i>Supervision Variables</i>				
ECCNO			-3.3175	4.0947
ECCCFAIL			-10.3152***	3.5034
UARATE			0.2792	1.1016
HHSE_STR			2.5239	9.7071
<i>Post-Release Variables</i>				
ESPOUSE			4.8795	2.8943
ECOM_LAW			-0.2148	3.1480
SUPVVIOL			-6.3430***	1.6151
DRUGVIOL			-0.3313	1.0681
ECOH01_6			-6.1697	8.2326
ECOH07			3.7840	8.1534
ECOH08			-0.9205	6.6688
ECOH09			2.6910	5.5651
ECOH010			2.8452	4.7694
ECOH011			-1.8155	5.1634
ECOH012			4.9572	5.4542
ECOH013			-2.7609	6.2530
R-square	0.1017		0.3121	
Adjusted R-square	0.0722		0.2068	

* p < .10

** p < .05

*** p < .01

Table 71
Employment, Female Subjects
Treatment Subjects Only

Variable	b	Sites Only se(b)	b	Final Model se(b)
INTERCEP	61.0837***	18.8709	-42.8151	57.7088
COMPLETE	3.3093	6.4204	-15.6595*	8.4658
WITHDRAW	-12.6133	10.9331	5.5565	11.1068
DISCIP	2.0879	10.5692	15.8256	11.5945
<i>Institution Indicators</i>				
EALDSITF	-5.3871	12.0890	-7.5404	24.8843
EDUBSITF	1.2791	13.2501	8.3793	17.0461
EDANSITF	0.2654	14.4700	9.9221	16.0893
ELEXSITF	3.8370	9.8438	-10.7610	25.4852
COHTIME	-0.5407	0.5499	-0.6510	1.2074
TIMETORL	0.3497	0.6114	-0.0450	1.1648
<i>Base Model Variables</i>				
EBLACK			-13.9794	12.3872
ERACEOTH			7.5346	23.2314
EHISP			-14.0500	9.4380
EPRIORCM			2.7749	4.5347
ERECVIOL			-16.4935	13.2149
EPASTVIO			14.6624	12.1796
TIMESRVD			-2.6116	4.4719
ECJSPVNY			-21.8618	13.3840
ECJSPVNM			46.8719	24.2315
AGERLSE			0.7641	0.6304
ESUPILL			6.3584	4.2381
EWORKJOB			15.4427	9.3212
ELEGITUN			17.5113	15.6152
EUNEMP			-10.4508	13.4391
EJOB_UNK			-25.3884	25.8912
GRADEA			3.6736	2.4873
COC_FRQ			0.1853	2.1312
CRK_FRQ			5.9633***	1.9387
HAL_FRQ			4.3003	3.6152
HER_FRQ			2.4945	2.3689
OPIA_FRQ			-0.5656	3.0347
POT_FRQ			4.8097**	2.2622
BARB_FRQ			3.0478	3.0274
STIM_FRQ			-0.4217	2.2608
DEPLOGTA			0.0825	1.1768
DEPLOGTD			-5.0124**	1.9809

Table 71 — Continued

Variable	Base Model		Final Model	
	b	se(b)	b	se(b)
<i>Other Background Factors</i>				
EPSTDGTX			-11.5537**	4.9696
EPSTETOH			4.2091	11.7114
EDIAGNO			0.2065	6.4146
EDIAGDEP			4.6496	10.5420
EDIAGASP			-0.0049	9.5346
EDIAGBTH			13.1529	10.8568
EPSTMHTX			-9.8249**	4.7917
<i>Treatment Variables</i>				
ENRGY			-18.6746	14.2786
ETSYES			16.5595***	5.0622
ECTRONLY			-8.2499	10.2734
EOTHONLY			13.4910	19.7962
EBOTH			-21.2734	25.9017
EAAYES			36.2222**	17.1660
EAAMISS			-47.1299	33.2446
<i>Post-Release Variables</i>				
ESPOUSE			-9.5264	9.7654
ECOM_LAW			-4.2805	10.6947
SUPVVIOL			2.2984	5.1067
DRUGVIOL			-3.6110	3.1805
ECOH01_6			-11.9649	22.1765
ECOH07			1.8024	29.5588
ECOH08			16.2751	15.3845
ECOH09			12.9008	12.5676
ECOH010			-6.6371	15.4663
ECOH011			5.2367	10.1319
ECOH012			-9.3290	13.6844
ECOH013			1.4909	15.1372
R-square	0.0288		0.5846	
Adjusted R-square	-0.0315		0.2609	

* p < .10

** p < .05

*** p < .01

NOTE: ENRSUPY and ETXMISS are not included in this model because no women DAP subjects had a value of one for these variables.

APPENDIX A: SUPPLEMENTARY TABLES

Table A1
HDU Refusals — Male Subjects

Variable	b	se(b)	OR
INTERCPT	-1.8906	0.2049	.
DRACEB	-0.2613***	0.0877	0.770
DRACEO	-0.5633	0.3400	0.569
DSECLEVM	0.2031	0.1324	1.225
DSECLEVL	-0.2288**	0.1160	0.796
DETHNO	-0.2333**	0.1184	0.792
DOFFSEVM	0.2871***	0.1019	1.333
DOFFSEVH	0.1502	0.1388	1.162
DOFFSEVG	0.3300**	0.1309	1.391
DPRIORM	-0.1875	0.1336	0.829
DPRIORS	0.0105	0.1064	1.011
DVIOLM	0.2146	0.1180	1.239
DVIOLS	0.2986**	0.1179	1.348
AGE	0.0162***	0.0040	1.016
-2 Log Likelihood			
Intercept Only		4178.965	
Intercept and Covariates		4070.609	
Concordant Pairs		60.5%	
Somer's D		0.217	
Hosmer-Lemeshow			
Goodness of Fit		7.6473	with 8 DF (p=0.4687)
** p < .05			
*** p < .01			

Table A2
HDU Refusals — Female Subjects

Variable	b	se(b)	OR
INTERCPT	-3.6313	0.4570	.
DRACEB	0.4923**	0.1918	1.636
DRACEO	-0.3275	0.6397	0.721
DSECLEVL	0.3694	0.1946	1.447
DOFFSEVM	0.5301**	0.2298	1.699
DOFFSEVH	0.6937**	0.2898	2.001
DOFFSEVG	0.7013	0.3938	2.016
DVIOLM	0.6696**	0.3094	1.953
DVIOLS	-0.5518	0.5475	0.576
AGE	0.0224**	0.0096	1.023
-2 Log Likelihood			
Intercept Only		830.383	
Intercept and Covariates		801.602	
Concordant Pairs		63.1%	
Somer's D		0.273	
Hosmer-Lemeshow			
Goodness of Fit		4.9634	with 8 DF (p=0.7615)

** p < .05

*** p < .01

Table A3
Missed Research — Male Subjects

Variable	b	se(b)	OR
INTERCPT	-1.8360	0.2694	.
DETHN	0.2197	0.1730	1.246
DRACEB	-0.1214	0.1329	0.886
DRACEO	-0.0114	0.3691	0.989
DCPTR	1.4919***	0.1283	4.446
DNONDAP	-2.2187***	0.2168	0.109
AGE	-0.0117	0.0069	0.988
-2 Log Likelihood			
Intercept Only		2110.361	
Intercept and Covariates		1881.339	
Concordant Pairs		72.4%	
Somer's D		0.459	
Hosmer-Lemeshow			
Goodness of Fit		4.9446	with 8 DF (p=0.7635)

** p < .05

*** p < .01

Table A4
Missed Research — Female Subjects

Variable	b	se(b)	OR
INTERCPT	-2.9544	0.5488	.
DOFFSEVM	-0.4313	0.2366	0.650
DOFFSEVH	-0.0633	0.3375	0.939
DOFFSEVG	-0.1742	0.4852	0.840
DCPTR	1.1466***	0.2277	3.148
DPRIORA	0.2778	0.2754	1.320
DPRIORB	0.2241	0.2640	1.251
DSECLEVL	0.5111**	0.2367	1.667
AGE	0.0225	0.0137	1.023
-2 Log Likelihood			
Intercept Only		605.203	
Intercept and Covariates		563.189	
Concordant Pairs		68.3%	
Somer's D		0.370	
Hosmer-Lemeshow			
Goodness of Fit		5.7372	with 8 DF (p=0.6766)
** p < .05			
*** p < .01			

Table A5
Research Refusals — Male Subjects

Variable	b	se(b)	OR
INTERCPT	-2.7777	0.3421	.
DETHN	0.1700	0.2160	1.185
DRACEB	-0.2808	0.1660	0.755
DRACEO	-0.6562	0.6100	0.519
DCPTR	0.9539***	0.1723	2.596
DPRIORA	-0.3949	0.2410	0.674
DPRIORB	-0.1261	0.1933	0.882
DVIOLL	-0.2215	0.2450	0.801
DVIOLH	0.3117	0.1951	1.366
DNONDAP	-0.2446	0.1797	0.783
AGE	0.0087	0.0083	1.009
-2 Log Likelihood			
Intercept Only		1417.312	
Intercept and Covariates		1363.944	
Concordant Pairs		64.3%	
Somer's D		0.298	
Hosmer-Lemeshow			
Goodness of Fit		5.2222	with 8 DF (p=0.7336)
** p < .05			
*** p < .01			

Table A6
Missed Intake 1 — Male Subjects

Variable	b	se(b)	OR
INTERCPT	-1.7818	0.3693	.
DCPTR	-0.6954***	0.2196	0.499
DNONDAP	-1.8146***	0.4908	0.163
AGE	-0.0059	0.0102	0.994
-2 Log Likelihood			
Intercept Only		1037.665	
Intercept and Covariates		971.820	
Concordant Pairs		63.9%	
Somer's D		0.334	
Hosmer-Lemeshow			
Goodness of Fit		4.5583	with 8 DF (p=0.8036)

** p < .05

*** p < .01

APPENDIX B: CODEBOOK OF VARIABLES USED IN TRIAD ANALYSES

Variables Used in Subject Attrition Analyses

Age at Time of Interview

AGE: A continuous variable.

Comparison vs. Treatment Subject

DCOMPTRMT: Dummy variable coded as 1 if comparison subject.

Excluded group is treatment subject.

DAP vs. non-DAP site (site where subject identified)

DNONDAP: Dummy variable coded as 1 if non-DAP site.

Excluded group is DAP site.

Ethnicity

DETHNO: Dummy variable coded as 1 if non-Hispanic.

Excluded group is Hispanic.

History of Violence (Dummy variables)

DVIOLM: Coded as 1 if minor history of violence.

DVIOLS: Coded as 1 if serious history of violence.

Excluded group has no history of violence.

Institution

This was coded as an effects vector that included all institutions where a research subject was identified.

Offense Severity (Dummy variables)

DOFFSEVM: Coded as 1 if moderate offense severity.

DOFFSEVH: Coded as 1 if high offense severity.

DOFFSEVG: Coded as 1 if great offense severity.

Excluded group is low moderate offense severity.

Prior Commitments (Dummy variables)

DPRIORM: Coded as 1 if minor prior commitments.

DPRIORS: Coded as 1 if serious prior commitments.

Excluded group has no prior commitments.

Race (Dummy variables)

DRACEB: Coded as 1 if black.

DRACEO: Coded as 1 if other race.

Excluded group is white.

Recency of Violence (Dummy variables)

DVIOLR: Coded as 1 if violence within past 5 years.

DVIOLP: Coded as 1 if violence more than 5 years ago.

Excluded group has no history of violence. (Note: Recency of violence was not included in the HDU analyses.)

Security Level of Institution (Dummy variables)

DSECLEVL: Coded as 1 if low security level..

DSECLEVM: Coded as 1 if medium security level.

Excluded group is minimum security level. (Note: female subjects were housed only at minimum and low security facilities.)

Variables Used in Outcome Analyses

Unless otherwise indicated, all of the nominal variables are coded as effects vectors.

Age at Time of Release from Current Incarceration

AGERLSE: A continuous variable.

Alcohol Dependency

DEPLOGTA: log odds of alcohol dependence; a continuous variable.

Alcohol Treatment History

EPSTETOH: Coded 1 if there was no previous inpatient or outpatient alcohol treatment.

Excluded group had previous history of alcohol treatment.

Amount of Time Served for Current Offense

TIMESRVD: Number of years served; a continuous variable.

Criminal Justice Status at Most Recent Incarceration

ECJSPVNY: Coded 1 if under supervision at time of incarceration.

ECJSPVNM: Coded 1 if supervision at time of incarceration unknown.

Excluded group not supervised at time of incarceration.

DAP Maturity

COHTIME: number of months between implementation of program and subject's admission to program; a continuous variable.

Diagnoses of Depression and Antisocial Personality

EDIAGNO: Coded 1 if neither diagnosis.

EDIAGDEP: Coded 1 if diagnosis of depression only.

EDIAGASP: Coded 1 if diagnosis of antisocial personality only.

EDIAGBTH: Coded 1 if both diagnoses.

Excluded group has missing diagnosis information.

Drug Dependency

DEPLOGTD: log odds of drug dependence; a continuous variable.

Drug Treatment History

EPSTDGTX: Coded 1 if no previous inpatient or outpatient drug treatment.

Excluded group had previous history of drug treatment.

Drug Use

The following variables for different drugs represent the frequency of use during the period of heaviest use, with the following values: 0 = never used or used fewer than 5 times, 1 = less than once per month, 2 = 1 to 3 days per week, 3 = 1 to 2 days per week, 4 = 3 to 4 days per week, and 5 = daily.

BARB_FRQ: barbiturates.

COC_FRQ: cocaine.

CRK_FRQ: crack.

HAL_FRQ: hallucinogens.

HER_FRQ: heroin.

OPIA_FRQ: opiates.

POT_FRQ: marijuana.

STIM_FRQ: stimulants.

Education

GRADEA: Number of years of education: A continuous variable.

Employment (Employment status in month before incarceration)

eworkjob: Coded 1 if working full- or part-time.

ELEGITUN: Coded 1 if unemployed because in school, a homemaker, retired, or disabled.

EUNEMP: Coded 1 if unemployed but looking for work.

EJOB_UNK : Coded 1 if employment status unknown.

Excluded group is composed of those unemployed because of involvement in illegal drug use or illegal activities, because the individual has never been employed, or due to other reasons.

Ethnicity

EHISP: Coded 1 for Hispanics, with non-Hispanics serving as excluded group.

History of Violence

ERECVIOL: Coded 1 if violence occurred less than 5 years ago.

EPASTVIO: Coded 1 if violence occurred 5 or more years ago.

Excluded group had no history of violence.

Illegal Source of Income

ESUPILL: Coded 1 if ever supported self mainly through illegal activity for at least one year.

Excluded group did not ever support self mainly through illegal activity for at least one year.

In-Prison Outpatient Treatment

ENRGENY: Coded 1 if received outpatient treatment in prison.

Excluded group did not receive outpatient treatment.

In-Prison Self-Help Group

ENRSUPY: Coded 1 if involved in self-help group (e.g., NA, CA, or AA) in prison.

Excluded group not involved in self-help group.

Involved in Post-Release Self-Help Group

EAAYES: Coded 1 if involved in self-help group.

EAAMISS: Coded 1 if self-help group participation unknown/missing.

Excluded group did not participate in self-help after release from prison.

Level of selection bias

COVARIAN—Ordinal variable.

Living with Spouse

ESPOUSE: Coded 1 if living with spouse.

ECOM_LAW: Coded 1 if living with common-law partner.

Excluded group not living with spouse or common-law partner.

Mental Health Treatment History

EPSTMHTX: Coded 1 if subject received no previous inpatient or outpatient mental health treatment.

Excluded group had previous history of mental health treatment

Monthly Rate of Urine Testing

UARATE: Average number of urinalysis tests per month.

Month Since Release from BOP Custody

D_T2, D_T3, D_T4, D_T5, D_T6: Represents successive months of release, starting with second month of release. Excluded group is first month of release.

Motivation for Change

ECLUST1: Coded 1 for contemplation cluster.

ECLUST2: Coded 1 for preparation cluster.

ECLUST3: Coded 1 for reluctant cluster.

ECLUST4: Coded 1 for action cluster.

ECLUST5: Coded 1 for precontemplation cluster.

ECLUST6: Coded 1 for uninvolved cluster.

Excluded group has motivation for change information missing.

Placement in Halfway House After Release

HHSE_STR: Time-dependent covariate for event history analyses. In the models of employment, this is a dummy variable representing whether a halfway house placement occurred during supervision.

Post-Release Drug Use

A) DIRTY: Time dependent covariate: dummy variable representing whether drug or alcohol use occurred during the month in question. Used in event history analyses for the traditional and Bloom models.

B) DRUGVIOL: Ordinal variable: number of drug-related supervision violations throughout the supervision time period or until arrest or until end of supervision, whichever occurred first. Used in Heckman model.

Post-Release Employment

A) PRCTFULL: Percent of post-release period employed full-time: Used in Heckman model.

B) EMP_HRS: Number of hours worked during each post-release month. Time dependent covariate used for event history analyses in traditional and Bloom models.

Post-Release Supervision Violations

This consists of any violation of a condition of supervision except one related to drug use.

SUPVVIOL: Ordinal variable — number of violations of conditions of supervision throughout the supervision time period or until arrest or until end of supervision, whichever occurred first.

Prior Commitments

EPRIORCM: Coded 1 if had a major or minor prior commitment.

Excluded group had no prior commitment.

Race

EBLACK: Coded as 1 if black

ERACEOTH: Coded as 1 if of other race. Whites serve as excluded group.

Received CCC Placement/CCC Outcome

ECCCNO: Coded 1 if did not receive CCC placement.

ECCCFAIL: Coded 1 if failed CCC placement.

Excluded group completed CCC placement.

Received Transitional Services During CCC Placement

ETSYES: Coded 1 if received transitional services.

Excluded group did not receive transitional services.

Release Cohort of Subject

ECOHO1_6 : Coded 1 if released between July 1992 and December 1993.

ECOHO7: Coded 1 if released between January and March 1994.

ECOHO8: Coded 1 if released between April and June 1994.

ECOHO9: Coded 1 if released between July and September 1994.

ECOHO10: Coded 1 if released between October and December 1994.

ECOHO11: Coded 1 if released between January and March 1995.

ECOHO12: Coded 1 if released between April and June 1995.

ECOHO13: Coded 1 if released between July and September 1995.

Excluded group is cohort 14—released between October and December 1995.

Sex

EFEM: Coded 1 if female, with males serving as the excluded group.

Supervised After Release

SUP_REL: Time dependent covariate for event history analyses.

Time Served After Release from DAP

TIMETORL: Number of months between DAP discharge and release from custody.

Type of Post-Release Treatment

ECTRONLY: Coded 1 if received contract services only.

EOTHONLY: Coded 1 if received non-contract services.

EBOTH: Coded 1 if received both contract and non-contract services.

ETXMISS: Coded 1 if service received is unknown or missing.

Excluded group had no post-release treatment.

Type of Subject (These are dummy-coded variables with non-DAP controls serving as excluded group)

COMPDAP: Coded 1 if DAP comparison.

INCOMPTX: Coded 1 if DAP incomplete.

WITHDRTX: Coded 1 if DAP dropout.

DISCIPTX: Coded 1 if DAP disciplinary discharge.

GRAD9MO: Coded 1 if completed 9-month DAP.

GRAD12MO: Coded 1 if completed 12-month DAP.

Excluded group is non-DAP control.

Type of Subject (used for Bloom model)

SUBJECT: Coded 1 if DAP subject — comparison or treatment.

Excluded group is non-DAP control.

Type of Subject (used for Heckman model)

COMPLETE: Conditional probability of completing treatment if entered treatment.

Type of Treatment Subject (used for treatment subjects-only models)

WITHDRAW: Coded 1 if DAP dropout.

DISCIP: Coded 1 if DAP disciplinary discharge.

COMPLETE: Coded 1 if completed 9-month or 12-month DAP.

Excluded group is DAP incomplete.

APPENDIX C: MODELS FOR DEALING WITH SELECTION BIAS IN AN EVALUATION OF A PRISON-BASED DRUG TREATMENT PROGRAM

Introduction

The Federal Bureau of Prisons (BOP) wanted to assess whether in-prison modified therapeutic community treatment programs improve the post-release behavior of drug-involved offenders following release from the Bureau's custody. The Bureau sought to learn whether or not treatment:

- reduced halfway house placement failure.
- increased the percentage of time that offenders were employed full-time during the 6 months following release from BOP custody.
- decreased the rate of relapse to drug use following release from prison and halfway house confinement.
- decreased the rate of criminal recidivism, defined alternately as:
 - (1) being arrested during the 6 months following release from BOP custody, and
 - (2) being arrested or otherwise being revoked from supervised release during the 6 months following release from BOP custody.

The Bureau was unable to assign subjects randomly to treatment and to no treatment conditions, so it devised a quasi-experimental design to test for treatment effectiveness. Some Federal prisons had therapeutic community treatment programs (hereafter referred to as DAP facilities) and others did not (hereafter non-DAP facilities). Prisoners in DAP facilities did not differ materially from prisoners in non-DAP facilities, so the two populations were comparable for evaluation purposes. Within the DAP facilities, some offenders were offered and accepted treatment (hereafter the DAP treatment group) while others either were not offered treatment or declined treatment that was offered (hereafter the DAP comparison group). Of course, those offenders who were housed in non-DAP facilities did not receive treatment (hereafter the non-DAP control group).

The Bureau wanted to learn whether treatment improved the post-release performance for those who received treatment. However, the Bureau was concerned that a simple comparison of the outcomes for offenders who were treated (the DAP treatment group) with the outcomes for offenders who were not treated (the non-DAP control group and the DAP comparison group) could be misleading because of selection bias. In this case, the concern was that some unmeasured factors (such as motivation to change) that affect the decision to enter treatment might also affect post-release performance, so the relationship between treatment and post-release performance could be partly or wholly spurious. The Bureau consulted with Abt Associates about procedures for dealing with this problem. Abt Associates suggested three instrumental variable models for dealing with this form of selection bias: the *Bloom approach*, a *standard instrumental variables approach*, and a *Heckman selection bias approach*.

The *Bloom approach* (1984) is the most straightforward of the three approaches. Because a prisoner's assignment to a specific prison had nothing to do with whether he or she needed substance abuse treatment, selection bias does not affect a comparison between the outcomes for the non-DAP control group and the *combined* outcomes for the DAP treatment and comparison groups. To illustrate this approach, suppose that every prison comprises two populations of offenders: those who would enter treatment if it were offered to them and those who would not

enter treatment if it were offered. When treatment is offered, these populations can be identified, and when treatment is not offered, they cannot be identified. Let:

P_{accept}	The percentage of a prison population that would accept treatment if given the opportunity. Call this group A.
$1 - P_{\text{accept}}$	The percentage of a prison population that would decline treatment if given the opportunity. Call this group B.
F_{accept}	The fraction of group A that would recidivate if treatment were not provided.
F_{decline}	The fraction of group B that would recidivate.

Then if treatment were provided to no one:

$$F_{\text{untreated population}} = P_{\text{accept}} F_{\text{accept}} + (1 - P_{\text{accept}}) F_{\text{decline}}$$

This is the expected value of the observed proportion of failures in the non-DAP control group.

Suppose that, on average, treatment reduced the proportion of inmates who recidivate by an amount D . If treatment were provided to everyone who would accept it:

$$F_{\text{treated population}} = P_{\text{accept}}(F_{\text{accept}} - D) + (1 - P_{\text{accept}}) F_{\text{decline}}$$

This is the expected value of the observed proportion of failures in the combined DAP groups. A test of treatment effectiveness can be based on the differences between $F_{\text{treated population}}$ and $F_{\text{untreated population}}$. Some algebra shows that the expected value of the effect from treatment is:

$$D = (F_{\text{untreated population}} - F_{\text{treated population}}) / P_{\text{accept}}$$

The Bloom approach affords an estimate of the treatment effect D and a measure of its statistical significance despite the fact that the treated and untreated groups may have failure rates that differ from each other for reasons that have nothing to do with the receipt of treatment.

The Bloom approach to evaluating treatment effectiveness is not much complicated by introducing control variables and using regression models. The introduction of control variables has three benefits. First, by reducing unexplained variance, the regression can reduce the standard error of estimate for the treatment effect. Second, the control variables can help adjust for any population difference between DAP and non-DAP facilities. And, third, the parameters associated with control variables have policy relevance for the Bureau. Thus, the BOP selected the Bloom approach for the analysis reported in the main study. It will not be discussed further in this appendix, except to compare it with two other approaches.

The second approach is to use *standard instrumental variables* (Davidson and MacKinnon, 1993, for example). Suppose an analyst were to combine data from all three sources (non-DAP controls, DAP comparisons, and DAP treatment subjects), assign a dummy variable coded one to those who received treatment and coded zero for those who did not, and then regress the outcome variable on this dummy variable and any control variables that seem appropriate. The problem

with this approach is well known. The estimated regression parameter associated with the dummy variable will be biased and inconsistent if the dummy variable and the error term are not independent. Independence seems unlikely if any unmeasured factor (such as motivation) affects both the receipt of treatment and the error term.

A solution is to identify an instrumental variable that is highly correlated with the dummy variable but that is distributed as independent of the error term. One suitable instrument is the estimated probability of entering treatment, where this instrument might be estimated from a probit model. The dependent variable in the probit model is a dummy variable indicating whether the offender entered treatment. This probit model is estimated using just those data from the DAP subjects, since the non-DAP subjects have a zero probability by definition, so the instrument is set to zero for them. By substituting the instrument for the dummy variable and estimating the regression, the parameter estimate associated with the instrument is a consistent estimate of the treatment effect.

The standard instrumental variable approach is more difficult than is the Bloom approach, and we might ask: Why bother? This is a difficult question to answer in the abstract. Because the standard instrumental variable approach uses more information than does the Bloom approach, we might expect that parameter estimates based on the standard instrumental variable approach would have the potential to be more efficient than would be parameter estimates based on the Bloom approach. Monte Carlo testing shows that this is not necessarily true, however.

How these two approaches compare depends partly on the size of the non-DAP sample relative to the rest of the sample. The Bloom approach can yield relatively poor estimates when the proportion of non-DAP cases is small, but the estimates improve as the proportion approaches 50 percent of the study sample. Also, the instrumental variable estimates are poor when (1) the instrument is not highly correlated with the dummy variable, or (2) the instrument is highly collinear with other variables in the regression. Experience from limited Monte Carlo testing is not much to go on, but we note two facts. The first is that the non-DAP sample is only about 20 percent of the available data. The second is that the instrument is fairly strong, partly because the non-DAP subjects ensure a zero value for the instrumental variable, and partly because the probability of entering treatment varies systematically across the 20 DAP facilities and increases over time.⁶⁴ We return to these issues later.

The *Heckman selection bias* approach (Heckman, 1979; Maddala, 1983) is somewhat more difficult to apply than is the instrumental variable approach. It requires the analyst to jointly model the selection into the sample and into the post-release outcome. We describe this approach at length below. For now, note that the selection bias approach has much in common with the standard instrumental variable approach, and if the analyst is willing to limit his or her analysis to

⁶⁴These are important identifying conditions. For identification, we want the instrument to be strongly correlated with the receipt of treatment. The facts that treatment is unavailable to inmates from non-DAP facilities, that treatment availability varies widely across the DAP facilities, and that treatment availability increases over time means that the receipt of treatment can be predicted with fairly good accuracy by knowing the facilities where the inmate was housed and when he was housed there. The prediction should be strongly correlated with the receipt of treatment. However, there is little or no reason to believe that the place where the inmates was housed and when he was housed in that facility should have a strong effect on his subsequent misconduct following release. Consequently, the instrument should be distributed as independent of unmeasured variables that also affect recidivism. In technical terms, the model is identified.

a linear-additive regression model, there is little to recommend the selection bias approach over the instrumental variable approach. However, as explained by Maddala (1983, p.261), the Heckman selection bias model can be used to study more complicated models where treatment interacts with other variables. For that reason, we developed the selection bias model in this appendix.

In addition to selection bias, another problem complicates this comparison between those who were treated and those who were not treated. The Bureau sampled DAP comparison subjects, but it did not know the probability that an inmate from a DAP facility who declined treatment would be included in the sample. This is a serious problem because all three of the methods discussed above require that this sampling probability be known.⁶⁵

In summary, the Bureau asked Abt Associates to help it develop statistical models for analyzing treatment effectiveness in terms of the outcomes identified earlier. It asked Abt Associates to help it deal with the problem of not knowing the sampling probability for DAP comparison subjects, to develop model-based adjustments for selection bias that are suitable for the Bureau's evaluation, and to demonstrate the use of these models using the Bureau's data. The Bureau provided those data, specified the variables that had to be included in the modeling, and specified that the model had to be linear-additive in those variables and their parameters. The reason for these restrictions was to ensure that inferences based on the Abt Associates' models could be compared readily with inferences based on the models estimated by the Bureau. Two of the Bureau's interests were to estimate models that ignore the selection bias problem and to compare results with findings from models that attempt to adjust for selection bias. Results from this comparison are presented in the main report.

The analysis reported here is preliminary. It is based on 6 months of follow up data, almost certainly too short of a period to judge the effectiveness of treatment. But the Bureau continues to collect data, increasing both the size of its sample and the length of the follow-up period. Given that future data will provide a much better basis for judging treatment effectiveness, and given

⁶⁵The Bureau of Prisons operates a number of facilities across the nation. Some are maximum security, others are medium security, and still others are minimum security. An inmate's original placement depends on his or her security requirements, prison space availability, and geography (so that offenders will be as near their homes as is practicable). Offenders often begin their terms in high or medium security facilities and progress through less secure facilities over time. They also transfer from facility to facility for a variety of other reasons, including the availability of specialized health care and other programs. However, with a few exceptions, inmates did not transfer from one facility to another to receive substance abuse treatment.

The Bureau developed a procedure to estimate the probability of receiving treatment based on an inmate's progression through the prison system. They assigned this probability—PROB in the text—to every member of the study sample. Our problem was to use PROB to estimate the probability of selection into the study sample for offenders at the time they were released from prison. This would be a relatively simple matter if the Bureau could divide the number of DAP comparison subjects who were selected for the study sample by the total number of DAP comparison subjects who were released, but at the time of release, the Bureau could no longer identify the population of DAP comparison subjects. This required us to infer the sampling probability for a releasee cohort.

that future analysis of those data will afford the opportunity for a more rigorous analysis, this appendix focuses on methodology rather than on substantive findings. The prospect of future analysis is the reason why we have developed the selection bias model when, given the constraints of a linear additive model imposed by the Bureau on this analysis, the instrumental variable model would seem to do quite well.

This appendix provides a technical exegesis of the statistical models developed by Abt Associates. There are four models:

- a lognormal survival model (Section 2.0).
- an exponential survival model (also Section 2.0).
- a probit model (Section 3.0).
- a two-limit tobit model (Section 4.0).

Each of these four models has an adjustment for selection bias. The appendix also explains how Abt Associates dealt with the problem of estimating sampling probabilities for DAP comparison cases. Finally, it provides computer output of the results from using the Bureau's data to estimate the four models, and a copy of the computing algorithm, as attachments.

Recidivism: Survival Models That Are Based on the Lognormal and Exponential Distributions

This section of the appendix develops two mathematical models of recidivism. One is based on a lognormal survival model and the other is based on an exponential survival model. We discuss both models (in section 2.1) because they raise similar analytic problems, which have similar solutions. In section 2.2, we introduce a form of selection bias into both models and develop an estimation procedure (maximum likelihood) that yields consistent parameter estimates of the treatment effect, provided the model is true. Deriving those estimates requires a model of the process by which subjects get into treatment, which we develop in section 2.3, and a procedure for deriving sampling weights, which we develop in section 2.4.

The Basic Recidivism Model

Upon release from prison (including release from a half-way house), every offender has a *propensity* to recidivate. Recidivism means either that the offender was rearrested or that illegal drug use was detected. These two events are analyzed separately. The propensity to recidivate can be expressed as a non-negative, increasing function of an underlying latent propensity score, Z_i . This score is in turn assumed to be a linear function of a dummy variable (coded 1 when the offender was treated and coded zero otherwise) and a vector of control variables. Thus, the propensity score is written:

$$Z_i = \alpha_0 + \alpha_1 TR_i + \alpha_2 X_i + \sigma \epsilon_i \quad (8)$$

where:

Z_i a latent variable, measured on a continuous scale, so that within a specified time the probability of recidivism for the i^{th} individual decreases as Z_i increases.

TR_i	a dummy variable coded 1 when the i^{th} offender was treated and coded 0 otherwise.
X_i	a column vector of control variables such as age, gender, and race.
α_0	a scalar parameter — the constant term.
α_1	a scalar parameter — the treatment effect.
α_2	a row vector of parameters associated with the control variables.
ϵ_{1i}	a random error term, identically and independently distributed as standard normal across the sample of offenders. We use ϵ as an error term in other equations, so the superscript "1" is introduced to distinguish error terms across equations.
σ	A scalar parameter. Alternatively, we might drop σ from (8) and assume that ϵ is distributed as normal with a mean of zero and variance of σ^2 , but the derivations are simplified by using this first specification.

We eventually adopt two different assumption about how the latent variable Z affects the distribution of time until recidivism, but it is useful first to define the density and distribution functions for time until recidivism generically, and then substitute parametric distribution functions to get the lognormal and exponential models. Let:

t_i	represent time until recidivism.
$\phi(t_i)$	represent the density function for time until recidivism.
$\Phi(t_i)$	represent the cumulative distribution function for time until recidivism.

The follow up period lasts 6 months. If recidivism occurs within 6 months, then we observe the time at which it occurred. Otherwise we observe that recidivism did not occur within those 6 months. The generic likelihood function for recidivism during the first 6 months is written:

$$L_1 = \prod_i \phi(T_i)^{R_i} (1 - \Phi(6))^{1-R_i} \quad (9)$$

where:

L_1	is the generic likelihood function for a survival model with censoring at 6 months.
T_i	is the time (in months) until recidivism for the i^{th} subject when recidivism is observed.
R_i	is coded 1 when recidivism happens within the 6-month follow up period and is coded 0 otherwise.

This generic likelihood function is standard for survival models (Kalbfleisch and Prentice, 1980; Lancaster, 1990). It is readily changed into the likelihood for the lognormal survival model by substituting the lognormal density and distribution functions into the generic form, and, likewise, it is transformed into a variation of the exponential survival model by substituting density and distribution functions based on a modification of the exponential distribution. We take those steps below.

Based on inspection of the data, it appears reasonable to assume that the time until an arrest follows a lognormal distribution.⁶⁶ In this case, $\ln(t_i) = Z_i$, and the density function for time until an arrest is written:

$$\phi_A(t_{A_i}) = \frac{e^{-0.5 \frac{(\ln(t_{A_i}) - \alpha_0 - \alpha_1 TR_i - \alpha_2 X_i)^2}{\sigma^2}}}{t_{A_i} \sqrt{2\pi\sigma^2}} \quad (10)$$

where:

$\phi_A(t_{A_i})$ represents the lognormal density function for the distribution of time until arrest.

t_{A_i} time of arrest.

Substituting the lognormal density (10) and its distribution function into the generic likelihood function (9) yields the likelihood function for the lognormal survival model.

Based on preliminary analysis, time until a positive urine screen seems to follow an exponential distribution. The propensity to recidivate (8) is now written in the form:

$$\lambda_i = e^{Z_i} \quad (11)$$

Unlike the usual exponential model, this specification has an error term ϵ_1 that must be taken into account in the analysis (see Trussel and Richards, 1985). This introduction of an error term is a convenient and realistic way to introduce selection bias into the model, although it does complicate the mathematics behind the development of the survival model. Thus, the density function for the time until recidivism is now written as the integral of a mixture distribution:

$$\phi_U(t_{U_i}) = \int_{\epsilon = -\infty}^{\epsilon = +\infty} \lambda_i e^{-\lambda_i t_{U_i}} \eta(\epsilon_1) d\epsilon_1 \quad (12)$$

⁶⁶The inspection is based on the Allison model, discussed in the main text, which treats each month's events as independently distributed but censored by occurrence of the first event. The Bureau estimated this model.

where:

$\phi_U(t_{Ui})$ represents the density function for the distribution of time until drug use was detected.

t_{Ui} time until detection of drug use.

$\eta(\epsilon_i)$ the standard normal density function.

The integration removes the unobserved ϵ_i from the distribution.⁶⁷ However, the presence of ϵ_i will not be innocuous in discussions to follow. Equation (12) has no closed-form equivalent expression and requires numerical integration. Of course, this is also true of its cumulative distribution function, which requires a second integration over t_{Ui} from 0 to T_i .

Introducing Selection Bias

A problem occurs when subjects who receive treatment are selected on a non-random basis. This may happen because subjects self-select for treatment or because treatment personnel are selective, or both. To build selection bias into the lognormal and exponential models, we introduce a second latent variable, the propensity to enter treatment:

$$Y_i = \beta_0 + \beta_1 X_i + \epsilon_{2i} \quad (13)$$

Here:

Y_i a latent variable. The higher the value of Y , the more likely a person will enter treatment.

X_i a column vector of control variables, the same as defined earlier.

β_0 a scalar parameter.

β_1 a row vector of parameters conformable with X .

⁶⁷The models developed here are sometimes called mixture models (Lancaster, 1990), and the $\eta(\epsilon)$ is sometimes called the mixture distribution. Estimates of the parameters in the distribution of greatest interest to us (e.g., the exponential) are sensitive to the assumptions made about the mixture distribution (Yamaguchi, 1986). A literature on criminal careers (Spelman, 1994) reports that offense rates have a skewed distribution across offenders, and this finding might be extended to assume that time until recidivism will be similarly skewed, so that the error distributions chosen for this analysis have some justification. Others (Schmidt and Witte, 1988; Rhodes, 1989) have found the lognormal to be a useful distribution for explaining recidivism. Nevertheless, future analyses will test the sensitivity of results to alternative assumptions made about the mixture distribution. For example, by using a power transformations (such as the Box-Cox power transformation), the distribution $\eta(\epsilon)$ can be extremely flexible.

ϵ_{2i} a random error term that is distributed as standard normal.

and:

when $Y \geq 0$, then treatment occurs ($TR=1$), and

when $Y < 0$, then treatment does not occur ($TR=0$).

Unless ϵ_1 and ϵ_2 are statistically independent, the variable representing treatment (TR) will not be independent of ϵ_1 . It seems unlikely that the two will be independent, because they both are affected by excluded variables, such as motivation to change behavior. This correlation will cause the parameter estimate of the treatment effect (α_1) to be biased and inconsistent unless it is taken into account in the analysis.

One approach to overcoming this problem is to assume a parametric form for the joint distribution between ϵ_1 and ϵ_2 , and to take that joint distribution into account in the likelihood functions (equation 9). Assuming that the two are distributed as bivariate normal, two cases are pertinent: the first for time until an arrest and the second for time until detection of drug use. Considering the first case (the lognormal distribution), the density function expressed previously as equation (10) is correct only for those cases that come from non-DAP facilities. For people who receive treatment, we use the conditional density function as represented by equation (7) in place of (10).

$$\phi_A(t_{A_i} | TR_i=1) = \frac{e^{-0.5 \frac{(\ln(t_{A_i}) - \alpha_0 - \alpha_1 TR_i - \alpha_2 X_i)^2}{\sigma_i^2}}}{t_{A_i} \sqrt{2\pi\sigma_i^2}} \frac{H\left(\frac{\beta_0 + \beta_1 X_i + \rho \frac{\ln(t_{A_i}) - \alpha_0 - \alpha_1 TR_i - \alpha_2 X_i}{\sigma_i}}{\sqrt{1-\rho^2}}\right)}{H(\beta_0 + \beta_1 X_i)} \quad (14)$$

and for people who do not enter treatment and were members of the DAP comparison group, we use the conditional density function represented by (8) in place of (10).

$$\phi_A(t_{A_i} | TR_i=0) = \frac{e^{-0.5 \frac{(\ln(t_{A_i}) - \alpha_0 - \alpha_2 X_i)^2}{\sigma_i^2}}}{t_{A_i} \sqrt{2\pi\sigma_i^2}} \frac{H_c\left(\frac{\beta_0 + \beta_1 X_i + \rho \frac{\ln(t_{A_i}) - \alpha_0 - \alpha_2 X_i}{\sigma_i}}{\sqrt{1-\rho^2}}\right)}{H_c(\beta_0 + \beta_1 X_i)} \quad (15)$$

where:

H the standard normal cumulative distribution function.

H_c the complement of the standard normal cumulative distribution function.

ρ the correlation between ϵ_1 and ϵ_2 .

The conditional density functions (7) and (8) have cumulative distribution counterparts, which must also be substituted into (9). We do not show those distribution functions because they are just the appropriate specification of the bivariate normal cdf divided by the unconditional probability that the subject was treated (7) or was not treated (8).

The general approach to deriving this likelihood is explained in Maddala (1983, p. 266). Briefly, we start with the bivariate normal density involving ϵ_1 and ϵ_2 . This can be written as $\eta(\epsilon_1)\eta(\epsilon_2|\epsilon_1)$. We integrate this over the appropriate range for ϵ_2 to get the joint probability of t_A and entering treatment (equation (7)) or not entering treatment (equation (15)). We divide the results by the unconditional probability of entering treatment (equation (7)) or not entering treatment (equation (15)).

In essence, then, the likelihood functions differ depending on whether the subject came from a non-DAP facility, from a DAP facility but did not enter treatment, or from a DAP facility and entered treatment. Nevertheless, the generic likelihood (9) holds; we just substitute the correct density and distribution function depending on whether the subject is a member of the non-DAP control group, the DAP comparison group, or the DAP treatment group.

The generic likelihood function also has to be modified when the exponential model is used. When a subject comes from a non-DAP facility, equation (12) represents the density function. When the subject comes from a DAP facility and receives treatment, we use (16) in place of (12)

$$\phi_U(t_{U_i}|TR_i=1) = \int_{\epsilon_1=-\infty}^{\epsilon_1=+\infty} \lambda_i e^{-\lambda_i t_{U_i}} \eta(\epsilon_1|TR_i=1) d\epsilon_1 \quad (16)$$

and when the subject comes from a DAP facility but does not receive treatment then we use (17) in place of (12)

$$\phi_U(t_{U_i}|TR_i=0) = \int_{\epsilon_1=-\infty}^{\epsilon_1=+\infty} \lambda_i e^{-\lambda_i t_{U_i}} \eta(\epsilon_1|TR_i=0) d\epsilon_1 \quad (17)$$

where:

$\eta(\epsilon_1|TR_i=1)$ is the normal density function conditional on $TR_i = 1$.

$\eta(\epsilon_1|TR_i=0)$ is the normal density function conditional on $TR_i = 0$.

and numerical integration is used to get these conditional distributions, because there is no closed-form equivalent expression. The density function for the error terms in (9) and (10) conditional on TR can be written:

$$\eta(\epsilon_1|TR_i=1) = \frac{\int_{\epsilon_2 = -\beta_0 - \beta_1 X_i}^{\infty} \eta_b(\epsilon_1, \epsilon_2, \rho) d\epsilon_2}{\int_{\epsilon_2 = -\beta_0 - \beta_1 X_i}^{\infty} \eta(\epsilon_2) d\epsilon_2} \quad (18)$$

$$= \frac{H\left(\frac{\beta_0 + \beta_1 X_i + \rho \epsilon_1}{\sqrt{1 - \rho^2}}\right)}{H(\beta_0 + \beta_1 X_i)} \eta(\epsilon_1) \quad (19)$$

where:

η_b represents the density function for the bivariate normal (standard normal in this case), and

ρ represents the correlation between ϵ_1 and ϵ_2 .

and a similar expression exists for $\eta(\epsilon_1|TR_i=0)$. As before, the density functions have cumulative distribution (over t_{ij}) function counterparts. These must be numerically computed with a double integral and substituted, as appropriate, into (9).

The likelihood function is different depending on whether the subject came from the non-DAP control group, the DAP comparison group, or the DAP treatment group. The generic likelihood (9) holds; we substitute the correct density and distribution function depending on whether the subject is a member of the non-DAP control group, the DAP comparison group, or the DAP treatment group.

Estimating the Probability of Selection Into Treatment

Applying the adjustment described above for selection bias requires an estimate of β . Although the α and β parameters could be estimated jointly, it is easier (although less efficient) to estimate the β parameters from the probit model (equation (13)) and then maximize the likelihood expression (equation 9, after the appropriate substitutions) conditional on those estimates of β . Estimation of the probit model was not straightforward. Because the Bureau sampled the DAP comparison cases, we had to take that sampling into account by including the probability of being sampled as part of the likelihood function for the probit model. Thus, the probit model needs to be based on the joint probability of two events: entering treatment or not entering treatment, and being selected into the study sample. DAP treatment cases were selected with certainty, so they have a conditional selection probability equal to one, and non-DAP cases do not enter into this estimation, because those cases have a zero probability of entering treatment. The likelihood for this model is written:

$$L_2 = \prod_i \frac{H(\beta_0 + \beta_1 X_i)^{TR_i} (PS_i (1 - H(\beta_0 + \beta_1 X_i)))^{1 - TR_i}}{H(\beta_0 + \beta_1 X_i) + (PS_i (1 - H(\beta_0 + \beta_1 X_i)))} \quad (20)$$

where:

PS_i is the probability of selection into the study sample for the i^{th} case. When the subject received treatment, the probability is 1, because all treated subjects were included in the sample.

The logic of this approach is that the probit model represents the probability of occurrence of two events. In the first event, a subject either is selected for treatment or he is not selected for treatment. The second event — being included in the sample — is then conditional on the outcome of the first event. If the subject entered treatment, then he was included in the sample, but if he did not enter treatment, he was included in the sample with a probability of PS_i . The likelihood function reflect the joint probability of those two events.

Determining PS, the Probability of Selection Into the Study Sample⁶⁸

Estimation of the likelihood function (20) requires knowing PS_i , the probability of being selected into the study sample given that an offender was from a DAP facility and either entered treatment or did not enter treatment. As we commented in the introduction to this appendix, the Bureau did not record this probability. In fact, it would be difficult to do so, because offenders move from prison to prison, so the DAP comparison group comprises inmates who spent at least some time in a DAP facility, but did not necessarily spend their entire incarceration periods in a DAP facility. We sought to identify a justifiable way of determining the probability of estimating PS_i .

The key to this estimation was to use an estimate of the proportion of inmates who entered treatment given (1) the DAP facilities where an inmate was incarcerated during his imprisonment, (2) how long he spent in each of those facilities, and (3) the proportion of persons who spent time in those facilities who entered treatment. The Bureau estimated that probability $PROB_i$ using procedures described in the main report. Given $PROB_i$, we can estimate the implied value of PS_i that makes the proportion of DAP comparison subjects and DAP treatment subject observed in the data consistent with $PROB$.

Define:

$PROB_i$ The probability that the i^{th} subject enters treatment, as estimated by BOP. The probability of being selected into the study sample is 1 conditional on entering treatment. Thus, the joint probability of entering treatment and being selected into the study sample is $PROB_i$.

⁶⁸ The solution presented in this section is provisional. We continue to work with the Bureau to develop better ways to estimate the implied sampling weights.

$PS_i(1-PROB_i)$ The probability that the i^{th} subject at a DAP facility does not enter treatment $(1-PROB_i)$ times the conditional probability that a subject who does not enter treatment is selected for the study sample — PS_i . PS_i needs to be estimated.

We assume that PS_i is a function of the subject's release cohort (that is, that PS_i varies over time), the prison from which the subject was recruited (that is, that PS_i varies across facilities), and some other variables. We write the relationship between PS_i and the independent variables as:

$$PS_i = \frac{1}{1 + e^{\sum_{j=1}^J \xi_{1j} ECOHO_{ij} + \sum_{k=1}^K \xi_{2k} INST_{ik} + \xi_3 X_i}} \quad (21)$$

where:

$ECOHO_{ij}$ is a dummy variable representing the i^{th} subject's release in cohort ($j=1 \dots J$). Names of variables, as they appear in this appendix, were chosen by BOP and correspond to usage in the main report.

$INST_{ik}$ is a dummy variable representing the k^{th} institution.

ξ parameters to be estimated.

The likelihood function for estimating the ξ is:

$$L_3 = \prod_i \frac{(PS_i (1-PROB_i))^{1-S_i} PROB_i^S}{(PS_i (1-PROB_i)) + PROB_i} \quad (22)$$

where:

L_3 The likelihood.

S_i is a dummy variable coded 1 when the i^{th} subject enters treatment and coded zero when he does not enter treatment.

The reader might note that, for purposes of the analysis discussed in this appendix, the estimation of PS is unnecessary. We could have estimated a linear probability model using $PROB$ as the dependent variable and X as the independent variables and then developed the likelihood function (13) based on this linear probability model instead of the probit model. The reason for taking the extra step of estimating PS is that the Bureau needed the sampling probability, PS , to apply the Bloom solution discussed earlier. Although we will not discuss findings in detail, we did in fact estimate a model using this simpler approach, and found that it provided similar results to those based on the more complicated approach.

To summarize, the estimation requires three steps. In the first step, we estimate the sampling weights for the DAP comparison group members. Using those sampling weights, in the second step we estimate the probability that an offender housed in a DAP facility will be treated. Conditional on that probability, in the third step we estimate the treatment effect.

A Probit Model of Halfway House Failures

The Bureau chose to analyze failures in halfway house assignments as a dichotomous dependent variable — failure (coded 1) and success (coded 0). This decision suggested that a probit model would be an appropriate way to analyze outcomes. As before, we assume that every individual who is placed in a halfway house has a propensity to fail, expressed as a latent variable:

$$Z_i = \alpha_0 + \alpha_1 TR_i + \alpha_2 X_i + \epsilon_{3i} \quad (23)$$

We have reused notation from above because there seems to be little risk of confusion. The Z again represents the latent variable, but now it applies to the propensity to fail in a halfway house confinement.

An inmate fails when:

$$Z_i \geq 0$$

and he or she succeeds when:

$$Z_i < 0$$

Assuming that ϵ_3 and ϵ_2 are distributed as bivariate normal, the likelihood function for estimating the α can be written as:

$$L_{41} = \prod_{i \in \text{nonDAP CONTROL}} H(\alpha_0 + \alpha_2 X_i)^{h_i} [1 - H(\alpha_0 + \alpha_2 X_i)]^{1-h_i} \quad (24)$$

for the non-DAP control group, as:

$$L_{42} = \prod_{i \in \text{DAP COMPARISON}} N(\alpha_0 + \alpha_2 X_i | TR_i = 0)^{h_i} [1 - N(\alpha_0 + \alpha_2 X_i | TR_i = 0)]^{1-h_i} \quad (25)$$

for the DAP comparison group, and as:

$$L_{43} = \prod_{i \in \text{DAP TREATED}} N(\alpha_0 + \alpha_1 TR_i + \alpha_2 X_i | TR_i = 1)^{h_i} [1 - N(\alpha_0 + \alpha_1 TR_i + \alpha_2 X_i | TR_i = 1)]^{1-h_i} \quad (26)$$

for the DAP treatment group, where:

h_i equals 1 when the subject failed and equals 0 otherwise.

$N(\alpha_0 + \alpha_2 X_i | TR_i = 0)$ represents the probability of failing in a halfway house conditional on the i^{th} subject's not being treated and $N(\alpha_0 + \alpha_1 TR_i + \alpha_2 X_i | TR_i = 1)$ represents the probability of failure conditional on the i^{th} subject's being treated:

$$N(\alpha_0 + \alpha_1 TR_i + \alpha_2 X_i | TR_i = 1) = \frac{H_b(\alpha_0 + \alpha_1 TR_i + \alpha_2 X_i, \beta_0 + \beta_1 X_i, \rho)}{H(\beta_0 + \beta_1 X_i)} \quad (27)$$

where:

H_b is the bivariate normal distribution function (standard normal in this case), and a similar expression exists for $N(\alpha_0 + \alpha_2 X_i | TR_i = 0)$.

The likelihood function is then written:

$$L_4 = L_{41} L_{42} L_{43}$$

A Two-Limit Tobit Model of Employment

The Bureau chose to measure post-release employment as the percentage of time employed during the 6-month follow up period. This could range from 0 percent for those who were never employed to 100 percent for those who were always employed. Both extremes were observed in the data.

Although an ordinary least squares regression might be used to analyze this outcome, OLS regression suffers from three problems when applied in this context. The first problem is that parameter estimates will be biased and inconsistent because the outcomes have upper and lower limits, which are not taken into account by the estimation procedure. The second problem is that the standard errors will be inconsistent, because the error terms will necessarily be heteroscedastic. The third problem is that selection bias still needs to be taken into account. Although feasible generalized least squares can be used to deal with all these problems, an alternative approach is to use a two-limit tobit model (Maddala, p. 160).

As used here, this model assumes that the every offender has a propensity to be employed. Reusing the earlier notation, we write this propensity as:

$$Z_i = \alpha_0 + \alpha_1 TR_i + \alpha_2 X_i + \epsilon_{4i} \quad (29)$$

The subject is unemployed at all times when

$$Z_i < 0,$$

and he is employed full time when

$$Z_i > 100,$$

and, otherwise, time employed (TE_i) equals the latent variable, so:

$$TE_i = Z_i \text{ when } Z_i \geq 0 \text{ and } Z_i \leq 100$$

The unknown parameters can be estimated by maximum likelihood. As before, we have to account for three conditions. When the study subject comes from the non-DAP control group, the likelihood is:

$$L_{51} = \prod_{i \in \text{nonDAP CONTROL}} H\left(\frac{-\alpha_0 - \alpha_2 X_i}{\sigma}\right)^{E_{1i}} \left[\frac{\eta\left(\frac{TE_i - \alpha_2 X_i}{\sigma}\right)}{\sigma} \right]^{E_{2i}} \left[1 - H\left(\frac{100 - \alpha_0 - \alpha_2 X_i}{\sigma}\right) \right]^{1 - E_{1i} - E_{2i}} \quad (30)$$

When the subject come from the DAP treatment group, the likelihood is:

$$L_{52} = \prod_{i \in \text{DAP TREATED}} N\left(\frac{-\alpha_0 - \alpha_1 TR_i - \alpha_2 X_i}{\sigma} | TR_i = 1\right)^{E_{1i}} \left[\frac{v\left(\frac{TE_i - \alpha_0 - \alpha_1 TR_i - \alpha_2 X_i}{\sigma} | TR_i = 1\right)}{\sigma} \right]^{E_{2i}} \left[1 - N\left(\frac{100 - \alpha_0 - \alpha_1 TR_i - \alpha_2 X_i}{\sigma} | TR_i = 1\right) \right]^{1 - E_{1i} - E_{2i}} \quad (31)$$

and when the subject comes from the DAP comparison group, the likelihood is:

$$L_{53} = \prod_{i \in DAP \text{ COMPARISON}} N\left(\frac{-\alpha_0 - \alpha_2 X_i}{\sigma} \middle| TR_i = 0\right)^{E_{1i}} \left[\frac{v\left(\frac{TE_i - \alpha_0 - \alpha_2 X_i}{\sigma} \middle| TR_i = 0\right)}{\sigma} \right]^{E_{2i}} \left[1 - N\left(\frac{100 - \alpha_0 - \alpha_2 X_i}{\sigma} \middle| TR_i = 0\right) \right]^{1 - E_{1i} - E_{2i}} \quad (32)$$

where:

E_{1i} equals 1 when the subject was unemployed for the entire follow up period, and otherwise equals zero.

E_{2i} equals 1 when the subject was employed during part (but not all) of the follow up period, and otherwise equals zero.

As before, N and v represent the conditional distribution and density function, respectively. The conditional distribution function has already been presented as part of the probit model, and the density is similar to that for the uncensored part of the lognormal model, except that the dependent variable is in natural rather than logarithmic units. Thus, we do not show them explicitly.

The likelihood function for the two-limit tobit model is written:

$$L_5 = L_{51} L_{52} L_{53}$$

Summary

Parameter estimates are not provided in this appendix; they appear in the main report. Researchers at the Bureau compared the parameter estimates from these selection bias models with estimates derived from other models that do not take selection bias into account. Findings are discussed in the main report.

We consider these estimates to be preliminary. The Bureau continues to collect data for more offenders and for longer follow-up periods. When additional data become available, we will estimate the models reported in this appendix using those data. For this round of estimation, we have used models that have a structural form specified by the Bureau. We expect to experiment with improvements to that structural form in future analyses. Additionally, the models developed in this paper make some strong assumptions, especially about mixture distributions. Some of these

assumptions can be relaxed,⁶⁹ and we will seek to do this in future analyses. Finally, we continue to search for better ways to weight the data.

⁶⁹The derivations in this appendix rely heavily on assumptions about the joint distributions between two error terms. The bivariate normal has played a large role in those assumptions. Although it is difficult to substitute other distributional assumptions without that substitution leading to major changes to these models, it is practical to introduce power transformation (such as the Box-Cox power transformation) to provide more flexibility to the model. Given the possible sensitivity of such models to distributional assumptions (Yamaguchi, 1986), this seems like a prudent step to plan for future analysis.

GLOSSARY OF TERMS

BOP

Federal Bureau of Prisons

CCC

Community Corrections Center. These facilities also are referred to as halfway houses. Inmates can be placed in a CCC either prior to the end of their sentences while under BOP custody or while under supervision by a Probation officer. Although not applicable to the subjects in this study, an individual may be placed in a CCC for his or her entire sentence.

DAP

Drug Abuse Program — the BOP Residential Drug Abuse Treatment Programs serving individuals with histories of drug or alcohol abuse.

DAP comparison

Subject group consisting of individuals who were housed at one or more DAP sites at times in their incarcerations when they could have volunteered for and been accepted into a DAP.

Non-DAP control

Subject group consisting of individuals who were never housed at a DAP facility or were housed at such a facility only in the last few months of their incarcerations when it would have been too late to volunteer for DAP.

DAP complete

Subject group consisting of individuals who completed the in-prison residential DAP.

DAP incomplete

Subject group consisting of individuals who did not complete the in-prison residential DAP for the following reasons: (1) they were released from BOP custody or released to a CCC before completion, (2) they transferred to another institution before completion, or (3) they went out on writ before completion.

DAP dropout

Subject group consisting of individuals who did not complete the in-prison residential DAP because they voluntarily dropped out.

DAP disciplinary discharge

Subject group consisting of individuals who did not complete the in-prison residential DAP because they were discharged for disciplinary reasons (*i.e.*, did not adhere to program rules or were found guilty of committing a disciplinary infraction).

DSM-III-R

Diagnostic and Statistical Manual for Mental Disorders (American Psychiatric Association, 1987).

FCI

Federal Correctional Institution. A BOP facility housing sentenced inmates.

FMC

Federal Medical Center. A BOP facility serving inmates with medical problems.

INS

Immigration and Naturalization Service.

NCIC

National Crime Information Center. This is an automated database maintained by the Federal Bureau of Investigation with information on Federal and State arrests.

SENTRY

Automated BOP database with comprehensive information on currently and formerly incarcerated inmates. This database holds large amounts of information, including background characteristics, sentence length and conditions, program involvement, disciplinary infractions, institutional transfers, and Community Corrections Center placements.

TRIAD

Acronym for this drug treatment evaluation project. TRIAD stands for Treating Inmates' Addiction to Drugs.

UA

Urinalysis. These tests occur in the halfway house and while under supervision. During a halfway house placement, urinalysis testing may be completed by halfway house staff, as well as by treatment providers for cases in which the individual is enrolled in transitional services.

The standard drugs tested for when an individual is being supervised by a U.S. Probation officer include cocaine metabolites, opiate metabolites, phencyclidine, amphetamines, barbiturates, benzodiazepine, and methadone. As of February 1996, marijuana was added to the regular drug screen test. Other drugs are tested upon special request. The initial screening levels used by Probation officers were those approved by the U.S. Department of Health and Human Services.

VCCLEA

1994 Violent Crime Control and Law Enforcement Act. This law contains provisions for eligible inmates who complete all phases of the BOP's DAP to earn as much as a one-year reduction in their statutory release dates.

REFERENCES

- Allison, Paul D. (1984). *Event History Analysis*. Beverly Hills, California: Sage Publications.
- American Psychiatric Association (1987). *Diagnostic and Statistical Manual of Mental Disorders*. Washington, D.C.
- Anglin, M. Douglas & Speckart, George (1986). Narcotics use, property crime, and dealing: Structural dynamics across the addiction career. *Journal of Quantitative Criminology*, 2, 355-375.
- Anglin, M. Douglas & Speckart, George (1988). Narcotics use and crime: a multisample, multimethod analysis. *Criminology*, 26, 197-233.
- Annis, Helen & Martin, G. (1985a). *Drug-Taking Confidence Questionnaire*. Toronto: Addiction Research Foundation.
- Annis, Helen & Martin, G. (1985b). *Inventory of Drug-Taking Situations*. Toronto: Addiction Research Foundation.
- Ball, John, Rosen, L., Flueck, J.A., & Nurco, David (1981). The criminality of heroin addicts: When addicted and when off opiates. Pp. 39-65. In J.A. Inciardi (Ed.), *The Drugs-Crime Connection*. Beverly Hills, Sage Publications.
- Beck, A.J. & Shipley, B.E. (1989). *Recidivism of Prisoners Released in 1983*. Bureau of Justice Statistics, Washington, D.C.
- Beck, A., Greenfield, L., Harlow, C., Hester, T., Jankowski, L., Snell, T., Stephan, J., & Morton, D. (1993). *Survey of State Prison Inmates, 1991*. Washington, D.C.: Bureau of Justice Statistics, U.S. Department of Justice.
- Berk, Richard A. (1983). An introduction to sample selection bias in sociological data. *American Sociological Review*, 48, 386-398.
- Bloom, Howard S. (1984). Accounting for no-shows in experimental evaluation designs. *Evaluation Review*, 8, 225-246.
- Blossfeld, Hans-Peter, Hamerle, Alfred, & Mayer, Karl Ulrich (1989). *Event History Analysis: Statistical Theory and Application in the Social Sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Chen, Huey-Tsyh (1990). *Theory-Driven Evaluations*. Newbury Park, California: Sage Publications.
- Davidson, Russell & MacKinnon, James G. (1993). *Estimation and Inference in Econometrics*. New York: Oxford University Press.

- De Leon, G., Inciardi, J.A., & Martin, S.S. (1995). Residential drug abuse treatment research: Are conventional control designs appropriate for assessing treatment effectiveness? *Journal of Psychoactive Drugs*, 27(1), 85-91.
- Field, G. (1985). The Cornerstone program: A client outcome study. *Federal Probation*, 49(2), 50-55.
- Field, G. (1992). Oregon prison drug treatment programs. *Drug Abuse Treatment in Prisons and Jails*. National Institute on Drug Abuse Monograph, 118. U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration. Pp. 142-155.
- Fletcher, B.W. & Tims, F.M. (1992). Methodological issues: Drug abuse treatment research in prisons and jails. *Drug Abuse Treatment in Prisons and Jails*. National Institute on Drug Abuse Monograph, 118. U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration. Pp. 246-260.
- Harer, Miles (1994). *Recidivism Among Federal Prison Releasees in 1987*. Unpublished report. Federal Bureau of Prisons.
- Heckman, James (1979). Sample selection bias as a specification error. *Econometrica*, 47:153-61.
- Inciardi, J.A., Martin, S.S., Butzin, C.A., Hooper, R.M., & Harrison, L.D. (1997). An effective model of prison-based treatment for drug-involved offenders. *Journal of Drug Issues*, 27(2), 261-278.
- Inciardi, J. (Personal Communication, April 1997).
- Kalbfleisch, John & Prentice, Ross (1980). *The Statistical Analysis of Failure Time Data*. New York: John Wiley and Sons, Inc.
- Knight, K., Simpson, D.D., Chatham, L.R., Camacho, L.M., & Cloud, M. (1995). *Prison-based treatment assessment (PTA): Final report on 6-month follow up study*. Fort Worth: Texas Christian University, Institute of Behavioral Research.
- Knight, K., Simpson, D.D., Chatham, L.R., & Camacho, L.M. (1997). An assessment of prison-based drug treatment: Texas' in-prison therapeutic program. *Journal of Offender Rehabilitation*, 24(3/4), 75-100.
- Lancaster, Tony (1990). *The Econometric Analysis of Transition Data*. New York: Cambridge University Press.
- Lazarus, R.S. & Folkman, S. (1984). *Stress Appraisal and Coping*. New York: Springer Publishing Co.
- Lipton, D.S. (1995). *The Effectiveness of Treatment for Drug Abusers Under Criminal Justice Supervision*. Washington, D.C.: National Institute of Justice, U.S. Department of Justice.

- Maddala, G.S. (1983). *Limited-Dependent and Qualitative Variables in Econometrics*. New York: Cambridge University Press, 260.
- Martin, S.S., Butzin, C.A., & Inciardi, J.A. (1995). Assessment of a multistage therapeutic community for drug-involved offenders. *Journal of Psychoactive Drugs*, 27(1), 109-116.
- Martin, S.S., Inciardi, J.A., & Saum, C.A. (1995). *Strengths and Shortcomings of Prison-Based Treatment for Male Drug-Involved Offenders: An Empirical Assessment*. Presentation at the Meetings of the Academy of Criminal Justice Sciences, Boston, Massachusetts.
- Menard, Scott (1995). *Applied Logistic Regression Analysis*. Thousand Oaks, California: Sage Publications.
- Mohr, Lawrence B. (1992). *Impact Analysis for Program Evaluation*. Newbury Park, California: Sage Publications.
- Nurco, David N., Ball, John C., Shaffer, John W., & Hanlon, Thomas E. (1985). The criminality of narcotic addicts. *The Journal of Nervous and Mental Disease*, 173(2), 94-102.
- Nurco, David N., Hanlon, Thomas E., Kinlock, Timothy W., & Duszynski, Karen R. (1988). Differential criminal patterns of narcotic addicts over an addiction career. *Criminology*, 26(3), 407-423.
- Prochaska, J. & DiClemente, C.C. (1986). Toward a comprehensive model of change. In W.R. Miller and N. Heather (eds.), *Treating Addictive Behaviors: Processes of Change*. New York: Plenum Press.
- Rhodes, William. (Personal communication, July 1997).
- Rhodes, William (1989). The Criminal Career: Estimates of the Duration and Frequency of Crime Commission. *Journal of Quantitative Criminology*, 5(1), 3-32.
- Saylor, William & Gaes, Gerry (1996). *The Effect of Prison Employment and Vocational/Apprenticeship Training on Long Term Recidivism*. Forum on Corrections Research, Correctional Service of Canada.
- Schmidt & Witte (1988). *Predicting Recidivism Using Survival Models*. New York: Springer-Verlag.
- Snyder, C.R., Harris, C., Anderson, J.R., Holleran, S.A., Irving, L.M., Sigmon, S.T., Yoshinobu, L., Gibb, J., Langelle, C., & Harvey, P. (1991). The will and the ways: Development and validation of an individual differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570-585.
- Simpson, D.D., Knight, K., Chatham, L.R., Camacho, L.M., & Cloud, M. (1994). *Prison-Based Treatment Assessment (PTA): Interim Report on Kyle ITC Evaluation*. Presented to the Texas Commission on Alcohol and Drug Abuse. Fort Worth: Texas Christian University, Institute of Behavioral Research.

- Speckart, George & Anglin, Douglas M. (1985). Narcotics and crime: An analysis of existing evidence for a causal relationship. *Behavioral Sciences and the Law*, 3, 259-282.
- Speckart, George & Anglin, Douglas M. (1986). Narcotics and crime: A causal modeling approach. *Journal of Quantitative Criminology*, 2, 3-28.
- Spelman, William (1994). *Criminal Incapacitation*. New York: Plenum Press.
- Trussel, James & Richards, Toni (1985). Correcting for unmeasured heterogeneity in hazard models using the Heckman-Singer procedure. In Nancy B. Tuma (ed.), *Sociological Methodology 1985*. San Francisco: Jossey-Bass.
- Tsoh, Janice Y. (1995). *Stages of Change, Dropouts, and Outcome in Substance Abuse Treatment*. Doctoral dissertation. University of Rhode Island.
- Wallace, S.B., Pelissier, B.M.M., Murray, D., & McCarthy, D. (1991). Drug treatment. Washington, D.C.: *Federal Prisons Journal*, 2(3), 32-40.
- Ward, J. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, 58, 236-244.
- Wexler, H.K. & Chin, J. (1981). *Evaluation of a System To Evaluate Prison-Based Drug Treatment*. Paper presented at the Eastern Evaluation Research Society Conference, Philadelphia, PA.
- Wexler, H.K., Falkin, G.P., & Lipton, D.S. (1988). *A Model Prison Rehabilitation Program: An Evaluation of the Stay'N Out Therapeutic Community*. Final report to the National Institute on Drug Abuse. NCJ-108560. New York: Narcotic and Drug Research, Inc.
- Wexler, H.K., Falkin, G.P., & Lipton, D.S. (1990). Outcome evaluation of a prison therapeutic community for substance abuse treatment. *Criminal Justice and Behavior*, 17(1), 79-92.
- Wexler, H.K., Falkin, G.P., Lipton, D.S., & Rosenblum, A.B. (1992). Outcome evaluation of a prison therapeutic community for substance abuse treatment. *Drug Abuse Treatment in Prisons and Jails*. National Institute on Drug Abuse Monograph, 118. U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration. Pp. 246-260.
- Wexler, H.K. & Williams, R. (1986). The Stay'N Out therapeutic community: Prison treatment for substance abusers. *Journal of Psychoactive Drugs*, 18(3), 221-230.
- Wexler, H.K., DeLeon, G., Thomas, G., Kressel, D., & Peters, J. (1997). *The Amity Prison TC Evaluation: Reincarceration Outcomes*. Unpublished manuscript.
- Whittenberger, G.J. (1990). *Substance Abuse Assessment Project*. Unpublished draft manuscript, Federal Bureau of Prisons, Federal Correctional Institution, Tallahassee, Florida.
- Yamaguchi, Kazuo (1991). *Event History Analysis*. Newbury Park, California: Sage Publications.

Yamaguchi, Kazuo (1986). Alternative Approaches to Unobserved Heterogeneity in the Analysis of Repeatable Events. In N. Tuma (ed.) *Sociological Methodology 1986*. San Francisco: Jossey-Bass.



U.S. Department of Justice
Office of Justice Programs

Cl. Elaine
Elaine
Cynthia

re: reentry
data

Office of the Assistant Attorney General
Office of Justice Programs
810 7th Street, NW
Washington, DC 20531
Phone: (202) 307-5933
Fax: (202) 514-7805

**FACSIMILE TRANSMISSION
COVER SHEET**

TO: Andrea Kane

OFFICE: Domestic Policy Council

TELEPHONE NO.: 456-5573 FAX#: 456-7431

PAGES: 2 (Includes cover sheet) DATE: 12/21/99

FROM: Judy McBride, Office of the Assistant Attorney General
TELEPHONE NO.: 202/514-1563, Fax: 202/514-7805

Andrea --

To address your question about where prisoners are returning, attached are 1996 data on the number of prisoners released conditionally and unconditionally by state per capita rates of discharge. I hope this is helpful.

Judy 

Attachment

Table 1. Number of prisoners released conditionally and unconditionally by State and per capita rates of discharge, 1996

Region and jurisdiction	Number of Prison Discharges, 1996		Population (000's)	Rate per 100,000	Released prisoners account for 1 out of every "x" residents
	Total conditional releases	Total unconditional releases			
U.S. total	369,808	103,435	265284	178	561
Federal	3,176	19,699	265284	9	11597
State	366,632	83,736	265284	170	589
Northeast	47,110	10,359	51580	111	898
Connecticut	358	836	3274	36	2742
Maine	467	379	1243	68	1469
Massachusetts	948	1,971	6092	48	2087
New Hampshire	738	194	1162	80	1247
New Jersey	11,122	3,242	7988	180	556
New York	26,057	1,761	18185	153	654
Pennsylvania	5,662	1,894	12056	63	1596
Rhode Island	793	3	990	80	1244
Vermont	965	79	589	177	564
Midwest	69,498	18,005	62082	141	709
Illinois	21,428	758	11847	187	534
Indiana	7,540	516	5841	138	725
Iowa	3,054	558	2852	127	790
Kansas	3,292	201	2572	136	736
Michigan	9,463	969	9594	109	920
Minnesota	2,641	341	4658	64	1562
Missouri	8,693	672	5359	175	572
Nebraska	819	702	1652	92	1086
North Dakota	311	160	644	73	1367
Ohio	7,374	12,672	11173	179	557
South Dakota	555	343	732	123	815
Wisconsin	4,328	113	5160	86	1162
South	119,320	46,342	93098	178	562
Alabama	4,745	3,519	4273	193	517
Arkansas	3,889	712	2510	183	546
Delaware	538	611	725	158	631
District of Columbia	3,516	2,141	543	1042	96
Florida	8,336	15,380	14400	165	607
Georgia	10,837	3,805	7353	199	502
Kentucky	3,783	2,827	3884	170	588
Louisiana	11,756	540	4351	283	354
Maryland	7,895	1,050	5072	176	567
Mississippi	1,988	2,515	2716	166	603
North Carolina	11,288	2,851	7323	193	518
Oklahoma	2,684	2,803	3301	166	602
South Carolina	4,553	2,612	3699	194	516
Tennessee	5,942	1,692	5320	143	697
Texas	28,754	1,383	19128	158	635
Virginia	8,406	1,528	6675	149	672
West Virginia	410	373	1826	43	2332
West	130,704	9,030	58523	239	419
Alaska	1,631	406	607	336	298
Arizona	6,777	600	4428	167	600
California	103,859	1,535	31878	331	302
Colorado	3,106	1,079	3823	109	914
Hawaii	1,488	112	1184	135	740
Idaho	1,744	262	1189	169	593
Montana	630	175	879	92	1092
Nevada	1,452	2,023	1603	217	461
New Mexico	1,446	768	1713	129	774
Oregon	2,780	8	3204	87	1149
Utah	1,891	160	2000	103	975
Washington	3,633	1,720	5533	97	1034
Wyoming	267	182	481	93	1071

Note: Conditional releases include persons exiting prison to parole, probation, or supervised mandatory release.

Unconditional releases include persons exiting prison as a result of the expiration of their sentence or commutation.

1/14/00 DRAFT

Project Reentry: Community Supervision of Released Offenders ... \$60,000,000

The Office of Justice Programs requests \$60 million dollars a year for five years to award discretionary grants to address the public safety threats posed by offenders returning to the community from State and Federal prisons or local facilities housing State and Federal prisoners. These initiatives would enable states and local communities to create broad partnerships that will use their combined resources to provide the necessary combination of surveillance, sanctions, incentives, and support services in ways that afford increased protection to communities that experience unusually high returns of inmates. The Department of Justice would administer the program in partnership with the Department of Labor, which would develop and operate jobs-related programs in the same communities.

THE REENTRY PROBLEM

American crime policies of the past two decades have resulted in record numbers of offenders being incarcerated. Some 1.2 million offenders are now living in prisons, and another 600,000 offenders are incarcerated in local jails. Many offenders are serving longer sentences than they would have a decade ago, but offenders still complete their terms and return to the community. An estimated 500,000 inmates will return to communities this year, a record number. Historically, two-thirds of returning prisoners have been rearrested for new crimes within three years.

The safety threat posed by this volume of returns has been exacerbated by reductions in the abilities of States and communities to supervise returning offenders. Parole systems have been abolished in thirteen states. Moreover, policy shifts toward more determinate sentencing have reduced the authority to impose supervisory conditions upon exiting offenders. Consequently, an estimated 105,000 ex-inmates will receive no supervision in the community whatsoever. State systems have also reduced the numbers of transitional support programs aimed at facilitating the return to productive community life styles. Recent studies indicate that many returning prisoners receive no help in finding employment upon release. Substance abuse and mental health problems add to concerns over community safety. Many offenders who have families also need guidance in meeting their child support and other parental and family responsibilities. Approximately 70 percent of state prisoners have a history of drug abuse. Research by the National Institute of Justice indicates that between 60 and 75 percent of inmates with heroin or cocaine problems return to drugs within three months when untreated. An estimated 179,000 State prison inmates have self-reported mental health problems. Mentally ill inmates are more likely than other offenders to have committed a violent offense and be violent recidivists. Few States connect mental health treatment in prisons with treatment in the return community.

Current policies to reduce public safety risks are cost prohibitive. Efforts to enforce offender accountability for release conditions have led to record returns to prison for revocations. These practices have added significantly to state correctional costs. Revocations comprised 20 percent of prison admissions in 1980; they have risen to nearly 40 percent in 1997. Parole revocations have increased by 39 percent between 1990 and 1997.

REENTRY INITIATIVES

The Office of Justice Programs will launch four activities to reduce the short and long term risks presented by returning offenders. A **Reentry Partnerships Initiative** (\$35 million) would award discretionary grants to state and local community partnerships for coordinated approaches to community returns of offenders. A **Juvenile Aftercare Initiative** (\$5 million) would address the special reentry needs of the juvenile justice system. A **Reentry Courts Initiative** (\$10 million) would award grants to states to create courts-based oversight programs for returning offenders. The Office of Justice Programs would collaborate with the Department of Labor's Employment and Training Administration in building these initiatives. Additionally, a **Reentry Research, Development, Testing and Evaluation (RDT&E)** program (\$10 million) would sponsor the research and testing of current and new innovative approaches to both initiatives in order to build more effective programs in the long term. Each of these components is described below.

Reentry Partnerships – \$35,000,000. Patterned after successful police-corrections partnerships, reentry partnerships would establish alliances among institutional corrections, community corrections, community policing, and grassroots community leaders to prepare for more successful returns of inmates to their home neighborhoods. The Office of Justice Programs would award grants up to \$1 million to State/community teams consisting of the entities listed above. Applicants will designate an agency within the partnership to serve as the grantee, responsible for grant administration. The Department of Labor's Employment and Training Administration would award workplace incentive grants in the same communities to provide jobs and other transitional services. The target population for these grants would be young offenders aged 18 to 35. A 25 percent match would be required by grantees for both Justice and Labor funds.

Partnership funds could be used to acquire any of the services needed to facilitate the partnership and operate the reentry program. Communities could hire community safety officers—community corrections (probation/parole) officials to supervise offenders in the targeted neighborhoods—who would work in partnership with police and community leaders to develop the necessary support network to insure successful transition to jobs and housing. These officers would also enforce release conditions by administering graduated sanctions through appropriate administrative law processes. A second major purpose area for the funds could be drug and alcohol treatment and testing. Funds could also be used for community planning efforts, case workers who would coordinate support services, developing appropriate progress tracking tools, convening victims

provision of
services

panels, and surveillance costs.

States could apply with multiple partners. The five year goal of the partnership funding is to establish sufficient programs to supervise 75 percent of the nation's reentry population.

Juvenile Aftercare Programs -- \$5,000,000. A special juvenile transition support program of \$5 million will be used by OJP to address the special integrative needs of youth in custody of the juvenile justice system. Discretionary grants will be awarded to 10-15 demonstration sites in the amount of approximately \$250,000 each to develop and implement an intensive aftercare program with emphasis on employment and job training and placement services. These programs would build upon current efforts by Labor and Justice to create reentry labor opportunities for these youth while simultaneously tending to educational, treatment, and family support needs. Funding will also be used for evaluations of program effectiveness and for training and technical assistance, to include on-site training, cluster meetings, information dissemination to the field, and a national teleconference.

Reentry Courts -- \$10,000,000. Patterned after successful drug courts experiments, reentry courts would create judicial oversight of returning offenders. Funds would be used to create these special courts that would use the coercive powers of the court to maintain positive social behaviors. Inmates would appear regularly before judges to review their progress and problems with successful reentry, including drug and alcohol testing and treatment progress, job stability, child support and family responsibility accountability, and community restitution as appropriate. Graduated sanctions would be applied by the courts to punish violations, and modest incentives would be given to reward sustained clean drug tests and other positive behaviors. Moreover, judges would order offenders to participate in various treatment and reintegration programs, using drug and alcohol testing and other checks to monitor compliance. The expectation is that this continual review of performance, coupled with appropriate rewards and sanctions, will reduce recidivism among the returning inmates.

Grants of up to \$500,000 would be used to establish these courts and to support services like those allowed under reentry partnerships. The Department of Labor would establish workplace incentive programs analogous to those in partnership sites. Eligible award applicants include State and local courts, State agencies, municipalities, public agencies, nonprofit organizations, or tribes that have an agreement with the courts to take the lead in conducting such a project. A 25 percent match is required of reentry court grantees.

Reentry Research, Development, Testing, and Evaluation (RDT&E) -- \$10,000,000. Both Reentry Partnerships and Reentry Courts are new and complex initiatives. While pilot efforts are being tested by the Office of Justice Programs, these efforts are

modest unfunded attempts to explore the issues involved in establishing these kinds of programs. In order to track the progress of these initiatives and to improve program content, the National Institute of Justice will undertake a series of coordinated activities that will inform state and local efforts over time.

NIJ will sponsor research on a range of issues pertinent to reentry programs including drug and alcohol testing and treatment outcomes, the ability of transition programs to prepare offenders for return to the community, the effects of family and community ties on job performance and compliance with release conditions, and the attitudes of the business community toward returning offenders as employees. In order to accelerate the adoption of promising approaches, NIJ will develop and test new reentry components and approaches. It will evaluate the results of these field tests as well as a cross section of the projects funded under the joint Justice/Labor initiatives. These results will be communicated rapidly to participating programs through cluster conferences, training materials, and technical assistance.

Resource Requirements. The Office of Justice Programs requests \$60 million each year for five years and 10 FTEs to accomplish these tasks. Of the funds requested, \$35 million are identified as "Reentry Program Grants" within the COPS FY 2001 budget request and \$25 million are identified within OJP's Drug Testing and Intervention Program as "Reentry Treatment and Testing." Funds would be distributed in constant annual streams as indicated in the table below. A three percent set-aside would be applied to the reentry grant programs to provide for technical assistance and training. Seven FTEs would be assigned to the Office of Justice Programs to administer the two reentry grants programs. Three FTEs would be assigned to the National Institute of Justice to support research, development, testing, and evaluation.

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Reentry Partnerships	\$35 M	\$35 M	\$35 M	\$35 M	\$35 M
Juvenile Aftercare	\$5 M	\$5M	\$5 M	\$5 M	\$5 M
Reentry Courts	\$10 M	\$10 M	\$10 M	\$10 M	\$10 M
Reentry RDT&E	\$10 M	\$10 M	\$10 M	\$10 M	\$10 M

Clinton Presidential Records Digital Records Marker

This is not a presidential record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

This marker identifies the place of a publication.

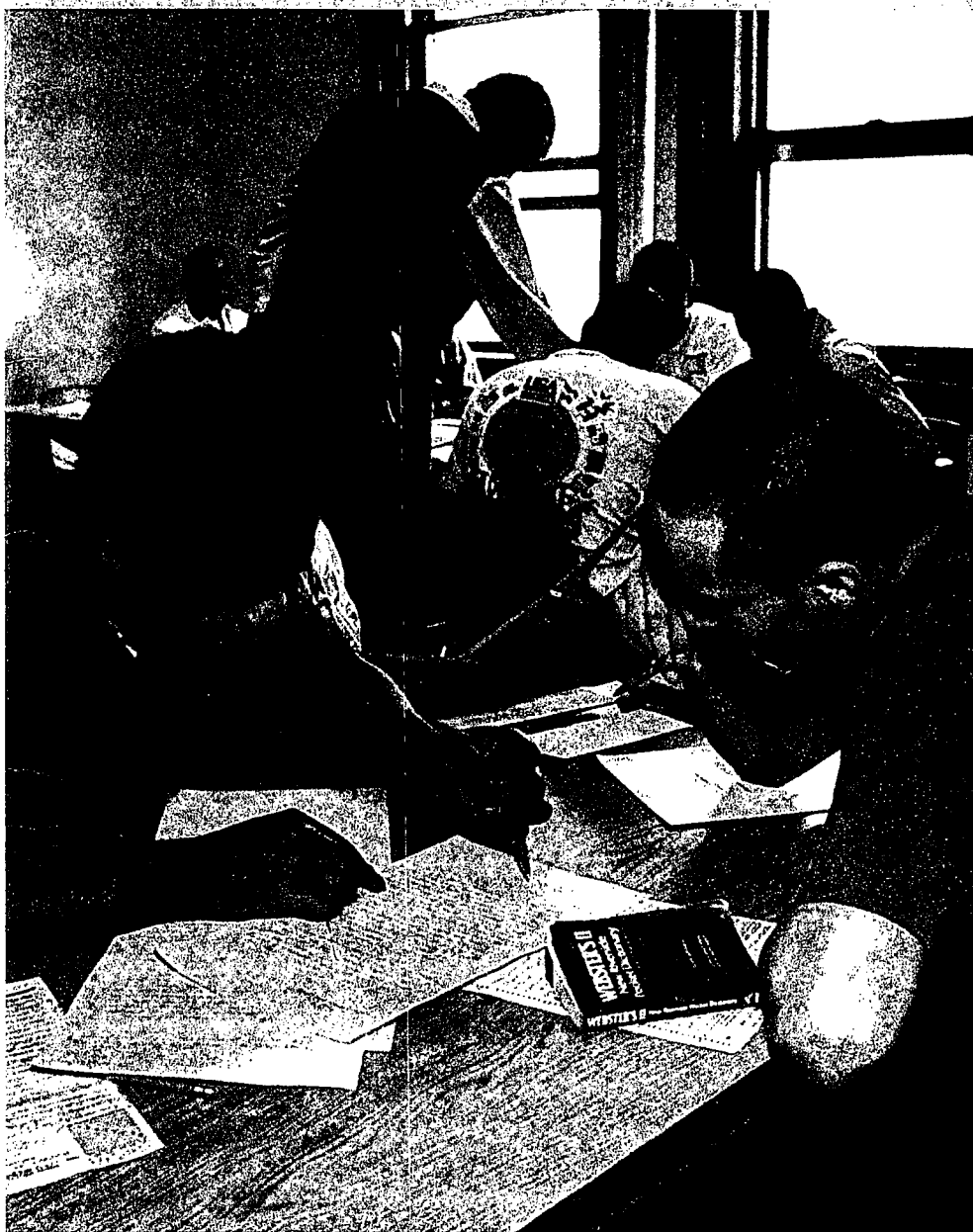
Publications have not been scanned in their entirety for the purpose of digitization. To see the full publication please search online or visit the Clinton Presidential Library's Research Room.



JULY 1999

NATIONAL INSTITUTE OF JUSTICE

JOURNAL



Putting Ex-offenders Back to Work

by Peter Finn

A New Role for Courts?

by David Rottman and Pamela Casey

Foundation Funding: Some Issues to Consider

by Kate Chieco

and

At-A-Glance:

- Law Enforcement Stress
- Comparing U.S. and U.K. Arrestee Drug Use