

# PROGRAM ACCOUNTABILITY MEASURES

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The Florida Legislature mandates in Statute, s. 985.632 (4)(a)(b), that the Florida Department of Juvenile Justice (DJJ) evaluate the effectiveness of juvenile justice programs that provide care, custody, and treatment for committed youth. To meet this requirement, the Department publishes the annual Program Accountability Measures (PAM) Report. The desired outcome of juvenile justice programs is to reduce future offending in a cost-effective manner. However, by legislative mandate and program design, programs serve youth whose risk to reoffend varies widely. These factors affect the likelihood that youth will recidivate. A simple comparison of program recidivism rates does not take these factors into account. In fact, such a method would unfairly penalize programs that serve the most challenging youth. It is therefore important that outcome measurements take into consideration the risk factors that influence the likelihood of reoffending for the youth released from each program.

The Program Accountability Measures model takes into account the risk factors of the youth completing each program and estimates the probability of those youth recidivating. Before doing so, it is possible to calculate how well a program is expected to perform based on the risk of reoffending of the youth completing the program, and to compare this to how well those youth actually performed after release. This process ensures that programs serving more difficult youth are not held to inequitable standards due to the higher risk of reoffending of the youth they serve, and provides a realistic measure of program effectiveness for those programs serving less challenging youth.

Basic comparisons of program recidivism rates are often used to assess effectiveness. However, beginning in 1996, DJJ sought a more equitable and objective means of quantitatively evaluating programs that would examine differences in program costs, as well as, account for the fact that facilities serve youth whose risk for reoffending varies widely. The PAM model does this through two core measures: (1) recidivism effectiveness, which is measured as the difference between how well a program is expected to do given the risk for reoffending attributed to each youth completing the program (expected recidivism), and how well the program youth actually performed (observed recidivism); and (2) cost effectiveness, which is measured as the program's average cost per youth completing the program compared to the statewide program average cost per completion. The two measures are combined into a PAM score that can range from 1 to 100 for each residential facility.

Data for the PAM analysis were compiled from the DJJ Juvenile Justice Information System (JJIS), the Florida Department of Law Enforcement's Florida Criminal Information Center (FCIC), the Florida Department of Corrections (DC), the DJJ Office of Finance and Accounting, and the DJJ Bureau of Quality Assurance. The JJIS system was used to identify the youth who completed residential commitment programs during the one-year

period from July 1, 2008 to June 30, 2009. Demographic data for these youth, as well as their offense histories, were obtained from JJIS. Youth who subsequently reoffended were identified through both juvenile offense records in JJIS and through adult records in FDLE and DC, for those who reached 18 years of age during the follow-up period or had a case handled in adult court. For a number of years, many stakeholders have noted the need to incorporate additional risk factors in controlling for program differences in the relative risk of offenders served. To that end, the Department has been committed to incorporating other variables and determined that such data could be extracted from the Positive Achievement Change Tool (PACT). Data from PACT administrations completed prior to program admission were controlled for in comparing youth recidivism outcomes by program.

This year's PAM scores present recidivism and cost effectiveness results for the programs that completed at least 15 youth during the one-year period between July 1, 2008 and June 30, 2009. Risk factors are correlated at the bivariate level with the recidivism variable (Appendix A). Factors significantly related to the recidivism variable are selected for possible inclusion in the logistic regression equations. These significant factors are ranked from highest to lowest based on the level of correlation to the recidivism variable. The Age at Admission, Race, and Prior Adjudication Seriousness Index variables are placed at the top of the list regardless of the level of correlation and will always be included in the analyses.

Due to the small number of completions in some of the programs, it is necessary to limit the number of variables included in the analyses. Risk factors are correlated at the bivariate level. If two factors have a correlation of greater than .80, then the factor that is lower on the list is dropped from the analyses. The next step is to examine the correlation between factors within each program. If factors have a correlation greater than .80 in at least 10% of the programs, then the factor that is lower on the list is dropped from the analyses.

The final set of risk factors for the PAM analyses for FY 2008-09 completions includes:

- Age at admission
- Race
- Prior adjudication seriousness index
- Total number of misdemeanor charges prior to program admission
- Age at first arrest
- Prior detention stay (at least 48 hours)
- Most serious charge prior to program admission
- Prior residential commitment stay (at least 1 day)
- Anti-social peers
- Disruptive alcohol use
- Sex offense is most serious charge prior to program admission
- Drug offense is most serious charge prior to program admission

The final set of risk factors is then entered into a logistic regression equation for each program as independent variables with the recidivism variable as the dependent variable. Logistic regression is the proper statistical technique to use when the dependent variable is a dichotomous measure. The logistic regression analyses creates a predicted outcome for each of the completions. The predicted outcome variable is aggregated to create an expected recidivism rate for each program. The recidivism variable is also aggregated to create an observed recidivism rate for each program.

An expected recidivism range is established by creating a 10% confidence interval on either side of the expected recidivism rate. The percentage difference is the percentage point difference between the observed recidivism rate and the expected recidivism range. Observed recidivism rates within the expected recidivism range are assigned a value of 0. If the observed recidivism rate is higher than the expected recidivism range, then the percentage difference is the observed recidivism rate minus the upper value of the expected recidivism range. If the observed recidivism rate is lower than the expected recidivism range, then the percentage difference is the observed recidivism rate minus the lower value of the expected recidivism range. A recidivism z score is then created for the percentage difference. The recidivism z score is grouped into Effectiveness Categories: Highly Effective (less than -1), Effective (greater than or equal to -1 and less than 0), Average (equal to 0), Below Average (greater than 0 and less than or equal to 1), and Least Effective (greater than 1).

The PAM analysis also takes into account costs in addition to recidivism. The average cost per program completion is calculated by dividing the program's costs for the fiscal year of completion by the total number of program completions. Based on programs included in the PAM analysis, the statewide average cost per completion is \$39,427. The average cost per program completion varies by risk level: Low (\$15,560), Moderate (\$34,784), High (\$67,579), and Maximum (\$88,959). The average cost per program completion are grouped into Cost Categories: Low (lowest one-third of costs per completion), Moderate (middle one-third of costs per completion), and High (highest one-third of costs per completion). An average cost per program completion z score is also created based on the difference between the program's average cost per completion and the statewide average cost per completion.

To calculate the PAM score for each program, the recidivism z score and the average cost per completion z score are reversed by multiplying the z scores by -1 so that the lower recidivism rates and lower cost per completion have a higher z score. If either z score is less than -3, then it is recoded to -3. If either z score is greater than 3, then it is recoded to 3. Then, two-thirds of the recidivism z score and one-third of the average cost per completion z score are added together. The total z score is then standardized on a 1 to 100 scale with a mean of 70 and a standard deviation of 10.

## Program Accountability Measures (PAM) Performance Youth Completions FY 2008-09 by Risk Level

Program Type/Program Name	N <sup>1</sup>	Observed Recidivism		Expected Recidivism Range	Cost per Completion <sup>2</sup>	Effectiveness Category	Cost Category	PAM Score
		Rate	Difference					
<b>Female Low-Risk Residential Programs</b>								
STEP II - Female	38	32%	11.5%	16.8% - 20.0%	\$8,817	Least Effective	Low	63
Vision Quest - Low <sup>3</sup>	59	27%	15.9%	9.2% - 11.2%	\$19,685	Least Effective	Low	55
<b>Male Low-Risk Residential Programs</b>								
Blackwater Short Term Offender <sup>3</sup>	58	52%	-5.2%	57.0% - 60.3%	\$14,286	Effective	Low	84
Brevard Group Treatment Home	48	79%	-11.5%	90.6% - 92.7%	\$29,671	Highly Effective	Moderate	90
Eckerd Academy <sup>3</sup>	67	60%	-4.5%	64.2% - 67.2%	\$16,774	Effective	Low	83
Eckerd Youth Challenge Program - Low	30	40%	0.0%	37.7% - 42.3%	\$29,434	Average	Moderate	74
Peace River Outward Bound <sup>3</sup>	34	35%	3.9%	27.4% - 31.4%	\$5,612	Below Average	Low	73
Peace River Youth Academy	67	42%	13.5%	25.5% - 28.3%	\$13,175	Least Effective	Low	59
Red Road Academy - Low Risk <sup>3</sup>	19	74%	0.0%	71.0% - 76.3%	\$25,712	Average	Low	75
STEP I - Male	109	47%	2.5%	41.9% - 44.3%	\$8,379	Below Average	Low	75
<b>Female Moderate-Risk Residential Programs</b>								
Bowling Green Youth Academy - JRF <sup>3</sup>	45	40%	0.4%	35.9% - 39.6%	\$30,276	Below Average	Moderate	74
Camp E-Nini-Hassee	47	32%	4.7%	23.9% - 27.2%	\$51,170	Below Average	High	64
Dove Academy	62	19%	13.8%	4.1% - 5.5%	\$49,791	Least Effective	High	52
Joann Bridges Academy	46	43%	0.0%	41.6% - 45.4%	\$33,062	Average	Moderate	74
Pines Juvenile Residential Facility <sup>3</sup>	57	37%	5.5%	28.3% - 31.4%	\$19,337	Below Average	Low	69
Vision Quest - Moderate <sup>3</sup>	51	27%	2.4%	22.0% - 25.1%	\$25,654	Below Average	Low	72
Wilson Youth Academy <sup>3</sup>	42	24%	0.7%	19.8% - 23.1%	\$34,994	Below Average	Moderate	72
WINGS <sup>4</sup>	16	0%	N/A	N/A - N/A	\$64,842	Highly Effective	High	94
YMCA Character Halfway House <sup>3</sup>	24	17%	0.0%	14.7% - 18.6%	\$32,971	Average	Moderate	74
<b>Male Moderate-Risk Residential Programs</b>								
ARC Halfway House	104	58%	-8.4%	66.1% - 68.5%	\$43,353	Highly Effective	Moderate	83
Avon Park Youth Academy	176	40%	9.9%	28.1% - 29.9%	\$30,588	Least Effective	Moderate	61
Bay Point Schools - North <sup>3</sup>	31	55%	-4.2%	59.0% - 63.6%	\$29,544	Effective	Moderate	80
Bay Point Schools - West Kennedy <sup>3</sup>	146	37%	19.8%	15.7% - 17.2%	\$21,982	Least Effective	Low	50
Big Cypress Wilderness Institute	48	44%	0.2%	39.8% - 43.5%	\$28,633	Below Average	Low	74
Bristol Youth Academy	77	42%	5.1%	33.7% - 36.5%	\$39,414	Below Average	Moderate	66
Britt Halfway House	49	65%	-6.5%	71.8% - 75.1%	\$30,365	Highly Effective	Moderate	83
Camp E-Kel-Etu <sup>3</sup>	36	31%	15.2%	12.4% - 15.4%	\$65,384	Least Effective	High	48
Camp E-Ma-Chamee <sup>5</sup>	42	45%	0.0%	43.3% - 47.2%	\$43,430	Average	Moderate	72
Crossroads Wilderness Institute	50	48%	-2.2%	50.2% - 53.8%	\$23,842	Effective	Low	78
Duval Halfway House	43	44%	0.0%	42.2% - 46.1%	\$36,217	Average	Moderate	73
Eckerd Intensive Halfway House <sup>3</sup>	31	52%	0.0%	49.3% - 53.9%	\$47,133	Average	High	71
Eckerd Youth Challenge Program - Moderate	67	48%	0.0%	47.7% - 50.8%	\$27,504	Average	Low	75
Falkenberg Academy	133	47%	3.4%	41.8% - 44.0%	\$30,921	Below Average	Moderate	70
Florida Environmental Institute	31	32%	14.4%	14.4% - 17.8%	\$36,016	Least Effective	Moderate	54
Graceville Vocational Youth Center <sup>3</sup>	62	40%	1.6%	35.5% - 38.7%	\$28,439	Below Average	Low	72
Gulf Coast Youth Academy	138	62%	-7.0%	69.3% - 71.3%	\$32,716	Highly Effective	Moderate	83
Hastings Youth Academy - Moderate	127	60%	-12.4%	72.2% - 74.2%	\$35,739	Highly Effective	Moderate	90
MATS - Halfway House <sup>3</sup>	52	40%	8.0%	29.1% - 32.4%	\$43,475	Least Effective	Moderate	61
Nassau Juvenile Residential Facility - Moderate Risk	50	36%	20.7%	12.7% - 15.3%	\$18,592	Least Effective	Low	50
Oaks Juvenile Residential Facility	36	61%	-6.3%	67.5% - 71.4%	\$27,062	Effective	Low	83
Okaloosa Youth Academy <sup>5</sup>	143	57%	-6.7%	64.0% - 66.1%	\$30,955	Highly Effective	Moderate	83
Panther Success Center	107	64%	-10.1%	73.7% - 75.8%	\$20,822	Highly Effective	Low	90
Pensacola Boys Base	45	58%	-0.3%	58.1% - 61.9%	\$33,033	Effective	Moderate	74
Polk Halfway House - Sunshine Youth Services <sup>3</sup>	26	69%	1.4%	63.0% - 67.8%	\$32,274	Below Average	Moderate	72
Price Halfway House <sup>3</sup>	23	52%	0.0%	49.5% - 54.9%	\$4,087	Average	Low	79
Red Road Academy - Moderate Risk <sup>3</sup>	68	49%	4.3%	41.1% - 44.2%	\$17,963	Below Average	Low	71
San Antonio Boys Village <sup>3</sup>	40	50%	0.0%	48.0% - 52.0%	\$25,507	Average	Low	75
Santa Rosa Juvenile Residential Facility <sup>3</sup>	48	48%	0.2%	44.0% - 47.7%	\$22,864	Below Average	Low	75
Space Coast Marine Institute	48	48%	-0.2%	48.1% - 51.9%	\$25,335	Effective	Low	75
Thompson Academy	155	43%	5.5%	35.1% - 37.1%	\$24,420	Below Average	Low	68
Twin Oaks Vocational Academy II & Twin Oaks Academy 14-18	161	58%	-4.0%	62.4% - 64.3%	\$30,849	Effective	Moderate	80
Volusia Halfway House	41	51%	2.9%	44.3% - 48.4%	\$27,460	Below Average	Low	71
West Florida Wilderness Institute	74	54%	0.0%	53.9% - 56.9%	\$18,153	Average	Low	76
Youth Environmental Services (YES)	40	35%	3.1%	28.1% - 31.9%	\$30,125	Below Average	Moderate	70
<b>Developmentally Disabled Moderate-Risk Residential Programs</b>								
Residential Alternative For The Mentally Challenged	52	56%	0.1%	52.1% - 55.6%	\$50,092	Below Average	High	71

## Program Accountability Measures (PAM) Performance Youth Completions FY 2008-09 by Risk Level (continued)

Program Type/Program Name	N <sup>1</sup>	Observed Recidivism		Expected Recidivism Range	Cost per Completion <sup>2</sup>	Effectiveness Category	Cost Category	PAM Score
		Rate	Difference					
<b>Female Mental Health Moderate-Risk Residential Programs</b>								
DeSoto Juvenile Residential Facility - Female	32	28%	20.8%	5.1% - 7.4%	\$71,231	Least Effective	High	41
HOPE <sup>3</sup>	35	43%	0.0%	40.7% - 45.0%	\$53,291	Average	High	70
Lake Academy - Sunshine Youth Services/G4S Youth Services, LLC.	67	27%	7.8%	16.7% - 19.1%	\$46,424	Least Effective	High	61
Lighthouse Juvenile Residential Facility <sup>3</sup>	36	28%	6.6%	17.7% - 21.2%	\$43,161	Least Effective	Moderate	63
Milton Juvenile Residential Facility	77	26%	8.0%	15.8% - 18.0%	\$45,349	Least Effective	Moderate	61
<b>Male Mental Health Moderate-Risk Residential Programs</b>								
ARC Low Function	28	64%	0.0%	61.9% - 66.6%	\$20,376	Average	Low	76
Dade Juvenile Residential Facility	77	40%	6.4%	31.1% - 33.8%	\$50,681	Below Average	High	62
DeSoto Juvenile Residential Facility - Male	115	52%	-7.5%	59.7% - 62.0%	\$81,218	Highly Effective	High	75
Gulf Academy - Sunshine Youth Services/G4S Youth Services, LLC.	58	57%	3.5%	50.0% - 53.4%	\$46,083	Below Average	Moderate	67
Hastings Specialized & Intensive M H Treatment	71	55%	-7.0%	61.9% - 64.8%	\$46,689	Highly Effective	High	81
Juvenile Unit For Specialized Treatment	34	44%	0.8%	39.0% - 43.4%	\$62,521	Below Average	High	68
Mandala Adolescent Treatment Center	38	55%	-0.6%	55.8% - 60.0%	\$37,805	Effective	Moderate	74
<b>Male Sex Offender Moderate-Risk Residential Programs</b>								
Columbus Juvenile Residential Facility - Sunshine Youth Services <sup>3</sup>	29	14%	0.0%	12.1% - 15.5%	\$70,425	Average	High	67
MATS - Manatee Juvenile Residential Facility <sup>3</sup>	26	31%	5.5%	20.9% - 25.2%	\$64,211	Below Average	High	61
Union Juvenile Residential Facility <sup>3,6</sup>	18	22%	0.0%	19.7% - 24.8%	\$81,419	Average	High	65
<b>Female Substance Abuse Moderate-Risk Residential Programs</b>								
Bowling Green Youth Academy - New Beginnings <sup>3</sup>	26	31%	5.5%	20.9% - 25.2%	\$27,537	Below Average	Low	67
Francis Walker Halfway House	47	17%	0.8%	13.6% - 16.2%	\$30,772	Below Average	Moderate	73
<b>Male Substance Abuse Moderate-Risk Residential Programs</b>								
Collier Academy <sup>3</sup>	54	33%	0.2%	29.9% - 33.1%	\$23,402	Below Average	Low	75
Ft. Walton Adolescent Substance Abuse Program	64	45%	7.8%	34.4% - 37.5%	\$27,259	Least Effective	Low	64
Impact Halfway House	51	55%	-8.1%	63.0% - 66.4%	\$23,213	Highly Effective	Low	86
Les Peters Halfway House	45	40%	4.9%	31.5% - 35.1%	\$41,343	Below Average	Moderate	66
Miami Halfway House	34	47%	0.7%	41.9% - 46.3%	\$24,059	Below Average	Low	74
Riverside Academy - Sunshine Youth Services <sup>3</sup>	218	52%	-0.1%	52.3% - 54.1%	\$27,686	Effective	Low	75
Thompson Academy Choices	80	46%	-2.3%	48.6% - 51.4%	\$28,709	Effective	Low	78
<b>Female High-Risk Residential Programs</b>								
DeSoto - Female	23	13%	0.0%	11.2% - 14.9%	\$103,334	Average	High	61
Monticello New Life	37	35%	3.5%	27.8% - 31.7%	\$51,497	Below Average	High	66
<b>Male High-Risk Residential Programs</b>								
Broward Intensive Halfway House <sup>3</sup>	20	40%	-2.1%	42.1% - 47.9%	\$57,455	Effective	High	72
Cypress Creek Juvenile Offender Correctional Center - High	42	60%	-0.4%	60.0% - 63.8%	\$39,382	Effective	Moderate	73
Dozier Training School <sup>3,5</sup>	130	60%	-9.0%	69.0% - 71.0%	\$82,845	Highly Effective	High	77
Eckerd Youth Development Center <sup>3</sup>	126	44%	11.6%	29.9% - 32.0%	\$76,981	Least Effective	High	50
Hillsborough Intensive Residential Treatment - Sunshine Youth Services <sup>3</sup>	18	61%	2.5%	52.5% - 58.6%	\$51,285	Below Average	High	67
Marion Juvenile Correctional Facility <sup>3</sup>	47	51%	-0.3%	51.3% - 55.1%	\$41,894	Effective	Moderate	73
NAFI Intensive Halfway House <sup>3</sup>	19	47%	0.0%	44.4% - 50.4%	\$43,790	Average	Moderate	72
NAFI Serious Habitual Offender Program <sup>3</sup>	21	57%	0.0%	54.3% - 60.0%	\$38,283	Average	Moderate	73
Okaloosa Intensive Halfway House - Three Springs, Inc. <sup>3</sup>	28	54%	-1.1%	54.7% - 59.6%	\$47,865	Effective	High	73
Orange Youth Academy	53	62%	-2.1%	64.4% - 67.7%	\$49,804	Effective	High	74
Palm Beach Juvenile Correctional Facility	112	55%	-2.4%	57.7% - 60.1%	\$46,614	Effective	High	75
Tiger Serious Habitual Offender Program	27	56%	-1.2%	56.8% - 61.7%	\$45,406	Effective	Moderate	73
<b>Female Mental Health High-Risk Residential Programs</b>								
DeSoto Dual Diagnosis Correctional Facility - Female	24	33%	0.0%	30.8% - 35.8%	\$90,604	Average	High	64
<b>Male Mental Health High-Risk Residential Programs</b>								
DeSoto Dual Diagnosis Correctional Facility - Male <sup>7</sup>	71	45%	9.8%	32.4% - 35.2%	\$99,439	Least Effective	High	49
Desoto Juvenile Correctional Facility - Mental Health	38	55%	0.0%	53.2% - 57.3%	\$75,302	Average	High	66
<b>Male Sex Offender High-Risk Residential Programs</b>								
Dozier Sex Offender Program <sup>3,7</sup>	45	29%	0.0%	27.1% - 30.6%	\$70,643	Average	High	67
Kissimmee Juvenile Correctional Facility <sup>3,7</sup>	29	28%	8.5%	15.4% - 19.1%	\$93,526	Least Effective	High	52
Okeechobee Juvenile Offender Correctional Center - SOP <sup>7</sup>	24	13%	0.0%	10.7% - 14.3%	\$106,365	Average	High	61
Three Springs Sex Offender Program <sup>3</sup>	19	37%	0.0%	33.9% - 39.7%	\$131,181	Average	High	60
<b>Male Substance Abuse High-Risk Residential Programs</b>								
Palmetto Youth Academy	64	48%	0.0%	46.8% - 50.0%	\$41,931	Average	Moderate	72

## Program Accountability Measures (PAM) Performance Youth Completions FY 2008-09 by Risk Level (continued)

Program Type/Program Name	N <sup>1</sup>	Observed Recidivism		Expected Recidivism Range	Cost per Completion <sup>2</sup>	Effectiveness Category	Cost Category	PAM Score
		Rate	Difference					
<b>Male Maximum-Risk Residential Programs</b>								
Cypress Creek Juvenile Offender Correctional Center - Maximum <sup>7</sup>	28	39%	12.2%	22.9% - 27.1%	\$81,607	Least Effective	High	49
Jackson JOCC <sup>3</sup>	24	46%	0.0%	43.2% - 48.5%	\$105,848	Average	High	61
Okeechobee Juvenile Offender Correctional Center <sup>6,7</sup>	15	53%	0.0%	49.9% - 56.7%	\$79,809	Average	High	66

<sup>1</sup> N = number of cases.

<sup>2</sup> High cost may be attributed to intensive level clinical treatment costs included in the program.

<sup>3</sup> These programs have closed, changed providers, or have had a structural programmatic change since the time period of the evaluation.

<sup>4</sup> Due to the 0% recidivism rate for this program, predicted recidivism variable could not be determined. The program was classified as Highly Effective for the Effectiveness Category and was assigned a z score of 3.

<sup>5</sup> These programs had completions that were excluded from the analyses because following completion of a residential program, the youth were transferred to another residential commitment facility.

<sup>6</sup> Due to the low number of completions, variables were dropped from the analyses to acquire the predicted recidivism variable for these programs.

<sup>7</sup> Due to missing data, some completions were excluded from these programs.

**Appendix A: Risk Factors**

- Age at admission
- Race (white, non-white)
- Prior Adjudication Seriousness Index
- Age at first arrest
- Prior Referral Seriousness Index
- Total number of charges prior to program admission
- Total number of adjudicated charges prior to program admission
- Total number of felony charges prior to program admission
- Total number of misdemeanor charges prior to program admission
- Total number of felony adjudicated charges prior to program admission
- Total number of misdemeanor adjudicated charges prior to program admission
- Most serious charge prior to program admission
- Person offense is most serious charge prior to program admission (no, yes)
- Property offense is most serious charge prior to program admission (no, yes)
- Drug offense is most serious charge prior to program admission (no, yes)
- Sex offense is most serious charge prior to program admission (no, yes)
- Referral received during supervision (no, yes)
- Length of Stay
- Escape (Adjudicated) (no, yes)
- Prior detention stay (at least 48 hours) (no, yes)
- Prior residential commitment (at least 1 day) (no, yes)
- School involvement (other, enrolled and attending or graduated/GED)
- Anti-social peers (no anti-social peers, anti-social peers)
- Disruptive alcohol use (no alcohol use/alcohol use is not disruptive, alcohol use is disruptive)
- Disruptive drug use (no drug use/drug use is not disruptive, drug use is disruptive)