



## Redirection Pilots Meet and Exceed Residential Commitment Outcomes; \$5.8 Million Saved

### *at a glance*

The Redirection Program has achieved a \$5.8 million cost avoidance for the state in its first two years of operation. Overall, the Redirection Program operates at a lower cost than residential delinquency programs and achieves similar outcomes. However, Redirection programs at two sites—Broward and Escambia counties—attained significantly stronger outcomes, as youth served by these programs were significantly less likely to be rearrested after treatment than similar youth released from residential commitment. These programs were rated as fully proficient in the treatment model by the provider.

Youth who received electronic monitoring during the first month of treatment had significantly more arrests after completing treatment than those who completed the program without electronic monitoring.

### Scope

This is the latest in a series of OPPAGA reports that examine the Redirection Program for juvenile offenders. These reports were directed by the Legislature.<sup>1, 2</sup>

<sup>1</sup> *More Youth Are Admitted for Less Serious Offenses, in Part to Meet Treatment Needs*, [OPPAGA Report No. 03-76](#), December 2003.

<sup>2</sup> *Redirection as Effective as Residential Delinquency Programs, Achieved Substantial Cost Avoidance*, [OPPAGA Report No. 06-34](#), March 2006.

### Background

The Legislature initially authorized the Redirection Program to address a growing trend of committing juvenile offenders to residential delinquency programs for non-law violations of probation. Non-law violations occur when a youth does not follow court-ordered probation requirements such as keeping a specified curfew or attending school. The Redirection Program diverts appropriate youth who would otherwise be committed for a non-law violation of probation from residential programs to less costly therapy-based community programs.<sup>3</sup> The 2006 Legislature expanded the program to serve 360 additional youth, including those with no prior violent felony adjudications who are being considered for commitment due to a misdemeanor offense.

The Legislature specified that Redirection provide Multisystemic Therapy and Functional Family Therapy.<sup>4</sup> These therapy models have been identified as Blueprint Programs for Violence Prevention by the U.S. Office of Juvenile Justice and Delinquency Prevention, meaning that they have the highest level of experimental research showing sustained reductions in recidivism for serious and

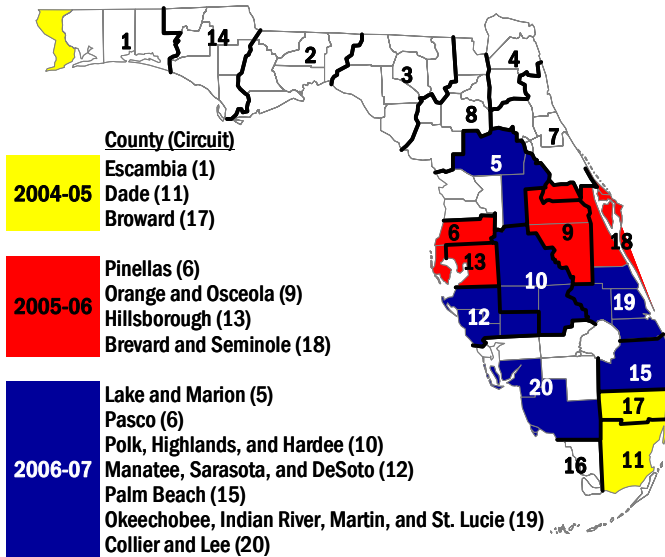
<sup>3</sup> Youth initially were not eligible for Redirection if they had been adjudicated or convicted of a prior violent crime or first-degree felony or otherwise had a criminal history of such offenses, or if they were before the court for any charge other than a violation of probation.

<sup>4</sup> Multisystemic Therapy is an intensive family-based treatment that addresses multiple causes of serious antisocial behavior in youth; it generally lasts four months. Functional Family Therapy is a family-based treatment that focuses on family dynamics and accountability; it generally lasts three months.

violent offenders compared to residential treatment programs. The programs provide therapy in the home and focus on helping parents implement more effective ways to communicate with, monitor, and discipline their adolescent children.

The Legislature has expanded the program over the past three years as shown in Exhibit 1.

**Exhibit 1  
Redirection Has Been Expanded to 13 Judicial Circuits**



Source: Department of Juvenile Justice.

To update our 2006 outcome study, we analyzed a cohort of youth who successfully completed Redirection or residential commitment by April 30, 2006. We examined these youths’ subsequent juvenile and adult records to determine if they had been re-arrested for felonies, misdemeanors, and violations of probation; depending on when the youths completed Redirection, we tracked them for a minimum of 6 months and a maximum of 20 months. We compared these outcomes to those of a comparison group of youth who had been committed to residential programs for non-law violations of probation, and used statistical techniques to control for factors related to recidivism, including age, gender, race, criminal history, time out of the program, and region and county of residence. (See Appendix A for methodology details.)

## Findings

### *The program continues to reduce juvenile justice costs*

Redirection has been successful in reducing state costs. As of December 31, 2006, a total of 405 youth had successfully completed the Redirection Program at a cost of approximately \$3.1 million. In contrast, the state would have paid approximately \$8.9 million if these youth had instead been committed to residential delinquency programs. As a result, Redirection avoided \$5.8 million in state costs in its first two years of operation.

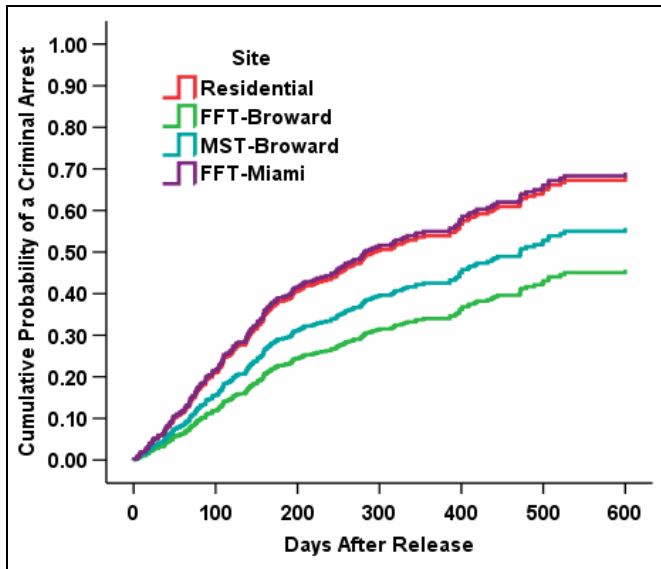
### *Some sites significantly reduced arrests compared to residential commitment; others were as effective*

Overall, program outcomes for Redirection were similar to those achieved by residential commitment programs, but Redirection programs in two counties—the Broward County Functional Family Therapy (FFT) program and the Escambia County Multisystemic Therapy (MST) program—achieved significantly more positive outcomes than residential commitment programs.

Exhibits 2 and 3 show, for all programs, the increasing probability of a criminal arrest over approximately 20 months after program completion. To appropriately compare programs, the probability curves for each program control for differences in factors related to the youths’ initial risk of recidivism, such as age and the number of prior referrals.

The overall probability of a criminal arrest over the time period was 45% lower for youth completing the Broward County FFT Program than for youth from southern or eastern Florida completing residential commitment, as shown by the gap between the upper and the lower lines in Exhibit 2. This is the only statistically significant difference in Exhibit 2. The upper two lines show that the probability of a youth being arrested for a crime after successfully completing the Miami FFT Program was virtually identical to the probability for youth completing a residential commitment program. The lower line in the graph shows the lower probability of criminal arrest for youth completing the Broward County FFT Program.

**Exhibit 2  
The Broward County FFT Program Significantly Reduced the Likelihood of a Criminal Arrest**



Note: The exhibit shows probabilities computed for the typical juvenile in the study population. Only the difference between the probability of a criminal arrest after program completion for residential and FFT-Broward is statistically significant at the 0.05 level. Youth from the Redirection programs in southern and eastern Florida are compared to youth from the same region released from residential commitment.

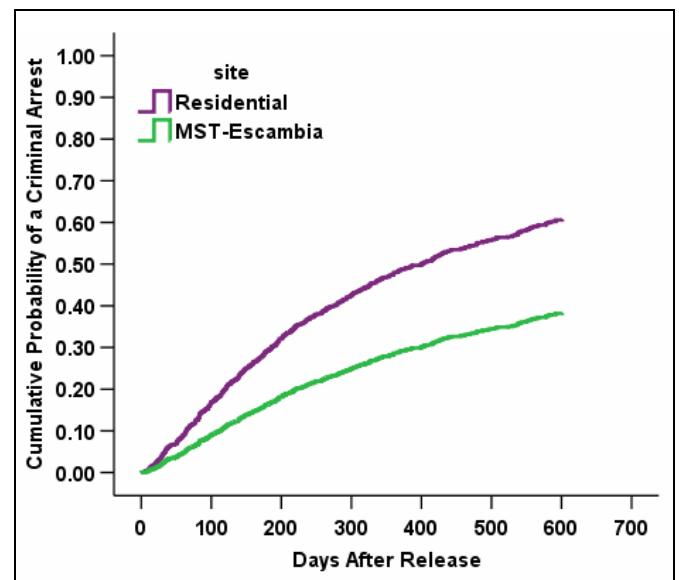
Source: OPPAGA analysis of data from the Department of Juvenile Justice and the Department of Law Enforcement.

Differences in outcomes between other Redirection sites in south Florida and residential commitment for were not statistically significant, either because there was no actual difference or because results were based on a small number of cases.

Exhibit 3 illustrates the reduced risk of rearrest for the youth completing the Escambia County MST program compared to youth from northern and western Florida released from residential commitment programs. The overall probability of being arrested for a crime over the time period was 48% lower for youth completing the Escambia County MST Program than for youth completing residential commitment, as illustrated by the gap between the upper and the lower line. The upper line in Exhibit 3 shows the probability over time of youth being arrested for a crime after successfully completing a residential commitment program. The lower line in the graph shows the probability of criminal arrest for youth completing the Escambia County MST Program.

An important outcome for the Escambia County MST Program was that, in addition to being less likely to commit any crime, as shown in the graph, youth were also significantly less likely to commit a felony. Youth who successfully completed the Escambia County MST Program were 64% less likely to be arrested for a felony after program completion than youth from northern and western Florida released from residential programs, controlling for factors related to the youth’s initial risk of recidivism.

**Exhibit 3  
The Escambia County MST Program Significantly Reduced the Likelihood of a Criminal Arrest**



Note: The exhibit shows probabilities computed for the typical juvenile in the study population. The difference between the probability of a criminal arrest after program completion for residential and MST-White in Escambia County is statistically significant at the 0.05 level. Youth from the White Foundation MST program in Escambia County are compared to youth from the northern and western half of Florida released from residential commitment programs.

Source: OPPAGA analysis of data from the Department of Juvenile Justice and the Department of Law Enforcement.

***The differences in outcomes by site were consistent with ratings of therapist competence at the sites***

The Broward and Escambia county programs with the best outcomes also were rated by the national consultants as fully proficient in the treatment model. In contrast, the Functional Family Therapy

Program in Miami, with 65 youth in the analysis, had virtually the same outcomes as residential treatment, but during the time of the study only one of this program’s three therapists was rated as fully adherent to the treatment model. To address these problems the statewide Redirection provider has recommended an increase in therapist pay and provided an in-state consultant, and the poorly performing therapists are no longer employed by the program. The site still has not achieved full adherence to the treatment model and the statewide provider has instituted a fidelity improvement plan to improve adherence to the treatment model at this site.

Improving therapist adherence to the treatment model is important to the programs’ effectiveness in helping youth avoid committing further crime. We recommend that the Department of Juvenile Justice (DJJ) and the statewide provider continue to closely monitor therapist adherence and implement corrective action plans for any sites that have not achieved full adherence to the treatment model within one year of opening, terminating contracts if improvements are not made expeditiously.

***Youth who received electronic monitoring were more likely to reoffend***

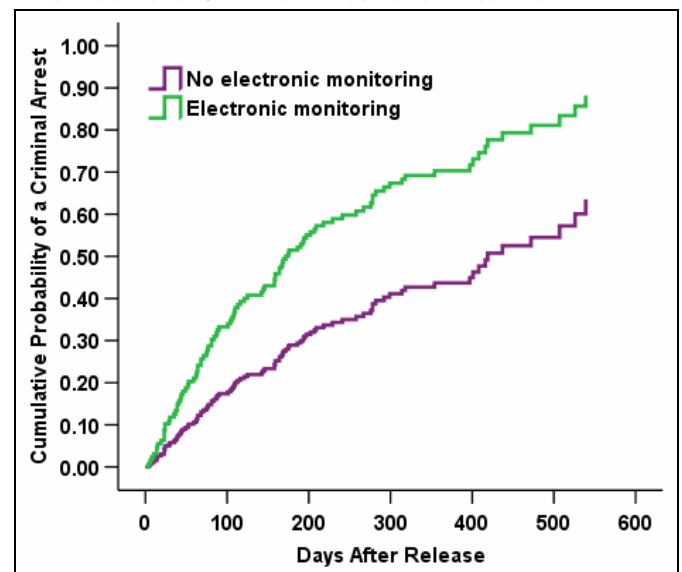
As directed by the Legislature, the program included some pilot youth who were placed on electronic monitoring for the first month after enrolling in the Redirection Program. The percentage of youth successfully completing the program was somewhat lower for youth receiving electronic monitoring than for those not receiving it, but the difference was not statistically significant.

Exhibit 4 illustrates outcomes for electronic monitoring. Youth who successfully completed Redirection after receiving electronic monitoring were twice as likely to be arrested for a misdemeanor or a felony compared to those who did not receive monitoring, a statistically significant difference.

The upper line in Exhibit 4 shows the probability over time of youth being arrested for a crime after successfully completing Redirection with electronic monitoring; the lower line in the graph shows the probability for youth who completed Redirection without electronic monitoring.

Therapists explained this outcome by reporting that electronic monitoring hindered the development of trust between the therapist, the family, and the youth, and made it more difficult to engage the youth and family in the treatment. Department staff and therapists also report that electronic monitoring encouraged families to depend on the department to monitor their youths’ behavior, and interfered with the treatment goal of helping families learn to provide effective monitoring themselves. Since youth who received electronic monitoring had significantly worse outcomes, it is likely that overall Redirection outcomes will improve as youth who are not receiving electronic monitoring become a larger part of the study population.

**Exhibit 4  
Electronic Monitoring During Treatment Increased the Likelihood of a Criminal Arrest after Treatment**



Note: The exhibit shows probabilities computed for the typical youth in Redirection. The difference in the probability of arrest after completing Redirection between youth who completed Redirection with and without electronic monitoring during the first month of treatment is statistically significant at the 0.05 level.

Source: OPPAGA analysis of data from the Department of Juvenile Justice and the Department of Law Enforcement.

***The Legislature may wish to consider expanding the Redirection Program***

Given the positive outcomes and cost savings attained by the Redirection Program, the Legislature may wish to consider further expanding the program. Expansion options include serving additional counties, revising eligibility requirements, or adding participants to sites that are fully adherent to the therapeutic model, as shown in Exhibit 5.

**Exhibit 5  
The Legislature Has Several Options for Expansion**

Potential for Expansion of Redirection	Number of Youth	Cost Avoidance in Millions
Expansion to Duval County to serve youth under existing criteria	150	\$ 1.5
Expansion to allow any youth with no adjudication for a violent felony, including non-violent felons, to be served in counties with existing programs	1,000	14.3
Expansion to allow any youth with no adjudication for a violent felony, including non-violent felons, to be served in counties with no existing programs	396	5.7
Expansion to serve additional youth at risk of commitment, without exclusions, in programs where staff is fully adherent to the treatment model	200	2.9

Source: OPPAGA analysis of DJJ admissions and cost data for 2005-06.

Geographic expansion. Using current eligibility requirements, expanding Redirection to Duval County appears viable, but other counties do not have enough youth to support a local program. The department has not contracted for a Redirection Program in Duval County because the county has a certified Multisystemic Therapy program and other services for delinquent youth. However, this program is not affiliated with Redirection and has been underutilized, and youth who might qualify for Redirection have been committed or sent to adult court. Accordingly, we recommend that the department work with stakeholders in Duval County to develop more effective alternatives, such as Redirection, to committing youth for misdemeanors and non-law violations of probation. We estimate that 150 youth in Duval County could potentially be served in

Redirection.<sup>5</sup> The net cost avoidance of serving these youth in Redirection would be an estimated \$1.5 million.<sup>6</sup>

Our analysis of Fiscal Year 2005-06 admissions to residential commitment programs indicated that, under current criteria, none of the remaining 41 counties met the provider’s minimum threshold of 50 cases needed to sustain a Multisystemic Therapy treatment team, or 130 cases to sustain a Functional Family Therapy team, in the Redirection program. For example, 31 of the 41 remaining counties had 10 or fewer youth admitted to residential programs in Fiscal Year 2005-06 who would have been eligible for Redirection under current criteria.

Eligibility expansion. Revising program eligibility requirements would increase the number of potential participants in counties with existing programs and make it possible to expand the program to additional counties. Current eligibility criteria exclude youth who are at risk of commitment for a felony, but allow youth who have previous felonies to be served. The Legislature could consider expanding eligibility criteria to include youth at risk of commitment for a non-violent felony. Expanding the criteria in this way would allow a sizable expansion in counties that currently have Redirection programs. We estimate 1,000 additional youth would be eligible in these counties if non-violent felons could be served; this could potentially avoid \$14.3 million in costs for residential commitment programs.

<sup>5</sup> Based on DJJ and provider data, we estimate that roughly 60% of those legally eligible for the program would actually be enrolled in Redirection. Roughly 25% of youth who meet eligibility standards were not referred because the family refused to participate or because of age, mental health exclusions, or public safety concerns. Provider data shows that approximately 15% of those referred are not approved by the judge or do not follow through to begin treatment.

<sup>6</sup> Redirection has historically met its goal of a 70% successful completion rate. At that rate, an expansion to serve 150 youth in Duval County could be expected to produce 105 successful completions, which would produce a net cost avoidance of \$1.5 million for residential commitment programs, based on cost savings per youth to date.

In the remaining counties that do not currently have Redirection, we estimate that a total of 396 additional youth could be potentially served by this expansion of eligibility.<sup>7</sup> Coupled with youth that are already eligible but were too few per county to warrant a program, Alachua and Leon counties would have the minimum number required to sustain a Multisystemic Therapy program. If the provider implements a program model with multi-county teams, and eligibility criteria are expanded, 12 additional counties could be served. This could be accomplished by combining them with existing or proposed programs, as shown in Exhibit 6.

**Exhibit 6  
With an Expansion to 14 Additional Counties,  
All 20 Judicial Circuits Would Be Served**

Counties That Might Be Added	Counties with Sufficient Numbers, or Existing or Proposed Programs Nearby		Additional Non-Violent Youth
		Circuit(s)	
Okaloosa, Santa Rosa	Escambia	1	89
Leon, Bay	Proposed program	2 and 14	87
Nassau, Clay, St. Johns	Proposed program for Duval County	4 and 7	63
Citrus, Sumter	Lake and Marion	5	54
Alachua, Columbia	Proposed program	3 and 8	52
Martin	St. Lucie, Okeechobee, Indian River	19	22
Charlotte	Sarasota, DeSoto, Lee	20	19
Monroe	Dade, Collier	16	10
<b>14 Counties</b>		<b>20 Total</b>	<b>396</b>

Source: OPPAGA analysis of Department of Juvenile Justice admissions data for 2005-06.

The remaining counties have too few youth to sustain a program and are not located close enough to other counties that have programs. Since therapists work with families in the home, programs must serve a limited geographic area so that therapists are readily available and driving time does not reduce treatment time.

The expansion outlined in Exhibit 6, combined with existing programs, would establish a Redirection program in each judicial circuit. This expansion option could serve 396 youth in new programs in each judicial circuit, and avoid \$5.7 million in costs for residential commitment programs.

If the Legislature wishes to expand the program to serve these additional counties statewide, we recommend that the expansion be phased in over a multi-year period. This would make the task of contracting for additional programs and training new staff more manageable and enable the provider to develop expertise in implementing and managing multi-county teams.

Expanding eligibility for fully adherent programs. Outcomes for youth in programs where the national organizations rated the Multisystemic Therapy and Functional Family Therapy team as fully adherent to the treatment models were significantly better than outcomes for youth committed to residential programs. Considering these outcomes, another option the Legislature might wish to consider would be to allow programs that have met adherence standards for at least six months to serve a broader range of youth. Fully adherent programs could be allowed to serve any youth at risk of commitment considered appropriate for Redirection by the department, judges, and prosecutors, regardless of previous criminal history or presenting offense.

If this option were implemented, we recommend that programs be required to be rated as fully adherent to the treatment model for a period of at least six months before being authorized to serve a wider population. Implementing new Redirection programs requires initial and ongoing training and consultation for therapists to become proficient in delivering the treatment model, and local programs need a varying period of time to achieve full adherence. The statewide provider believes that program outcomes will be optimized when a program has established a track record of being fully adherent for at least six consecutive months.

<sup>7</sup> We estimated, based on DJJ and provider data, that roughly 60% of those legally eligible for the program would actually be enrolled in Redirection. See footnote 5 for details.

Prosecutors and judges in counties with Redirection, including Pinellas, Pasco, Dade, and Broward counties, report that the exclusion of youth with prior adjudications for violent felonies has limited the referrals that they feel would be appropriate for the program, particularly youth involved in past domestic violence cases whose families might benefit from the program. Research on the program models has shown them to be effective with serious and violent offenders. If the Legislature wishes to allow Redirection to serve any youth at risk of commitment in the three programs that currently would meet this standard, and half of these youth were considered appropriate for Redirection, an additional 200 youth could potentially be served, avoiding \$2.9 million in costs for residential commitment programs. Fully adherent programs have demonstrated significant reductions in recidivism to date, and additional costs are avoided for law enforcement, the judiciary, juvenile programs, and adult jails and prisons for each youth prevented from recidivating. If these results are maintained, the additional cost avoidance will be substantial.

Expanding eligibility criteria would also allow new programs to serve additional youth after they have established a record of full adherence to the treatment model. In combination with multi-county teams, this could make expansion into additional counties more viable on a long-term basis.

## Agency Response

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In accordance with the provisions of s. 11.51(5), *Florida Statutes*, a draft of our report was submitted to the Secretary of the Department of Juvenile Justice for review and response. The Department of Juvenile Justice provided a written response to our report stating that they agree with each of our findings and support our recommendations. This response is not reprinted herein but is available in its entirety on our website.

## Appendix A

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# Analysis of Redirection and Residential Outcomes

To assess the success of the Redirection Program, we analyzed records of two cohorts of juvenile offenders—those that successfully completed the Redirection Program and those who completed residential commitment programs. We compared these youths' juvenile and adult arrest records through October 31, 2006, a minimum period of 6 months and a maximum of 20 months after they had completed treatment.

**Data.** The Department of Juvenile Justice provided data on the youths' demographics, school attendance, drug use, prior delinquency and commitment history, and delinquency referrals after release. The Department of Law Enforcement provided data on adult arrests.

**Study population.** The treatment group youth in our study successfully completed the Redirection Program between March 7, 2005, and April 30, 2006. These youth had been referred to the Redirection Program while being evaluated for commitment to a residential program for a non-law violation of probation. There were 200 youth in this population, of whom all but 12 were served at the five original Redirection Program sites in Broward, Dade and Escambia counties. Of this group, 65 received Functional Family Therapy (FFT) that was provided by The Children's Psychiatric Center in Dade County, and 61 received this therapy by two programs with shared teams in Broward County -- Camelot Community Care and The Starting Place. Multisystemic Therapy (MST) was provided to 32 youth by Henderson Mental Health Clinic in Broward County, and 30 youth received this therapy at The Henry and Rilla White Foundation in Escambia County. The remaining 12 youth were served by Vision Quest or Community Solutions in new programs in four central Florida counties.

Our comparison group consisted of 1,259 youth who had been committed for a violation of probation, successfully completed their residential program after an average stay of eight months, and were released from residential commitment between July 1, 2004, and April 30, 2006. Since some comparison group youth were released before Redirection youth, we cut off the study period at 603 days after release (approximately 20 months), the maximum time after release for Redirection youth, and did not consider any arrests that occurred after that point.

**Methods of analysis.** We used three outcome measures combining juvenile and adult arrest for this study.

- Arrests for any offense, including violations of probation
- Arrests for a crime, including misdemeanors and felonies
- Arrests for a felony

A survival analysis calculates the probability of an event, such as an arrest after program completion, given the number of days during which the event could happen, such as the number of days after the youth's release. Using Cox Regression to conduct a survival analysis, we compared the probability of a youth being re-arrested given the number of days from release until re-arrest or to the end of the study period.

**Control variables.** Survival analysis allowed us to control for differences between the treatment and comparison group on factors related to recidivism, including age, gender, race, number of prior referrals, whether the youth had a prior commitment, whether the youth was from a county that is part of an urbanized area with a population over 500,000, and time out of the program. We also used a variable for region that was a significant predictor of recidivism in the Department of Juvenile Justice Program Accountability Measures (PAM) report. This variable

divides the state into two regions; the southern and eastern region begins in the south with Monroe and Dade counties and includes all circuits on the east coast of Florida as far north as Brevard County. The northern and western region includes the northern half of the state and the remaining counties in the central and western part of the state, including Collier County at its southern end. Although the southern and eastern region is more urbanized than the northern and western region, we found that both urban residence and region significantly predicted rearrest; accordingly, we ran the analysis for youth from the southern and eastern region separately from the analysis for youth from the northern and western region of Florida, as defined by this variable, and controlled for residence in a highly urbanized county.

We also tested variables from the department’s Supervision Risk Classification Instrument that identified problems with school attendance and drug use; these variables did not significantly correlate with recidivism for this population. For all statistical techniques, we used a 0.05 confidence level, the most commonly accepted standard for statistical significance, in determining statistically significant differences.

Statistical results. Results for sites with statistically significant findings are reported below in Table A-1. The risk of recidivism is calculated in the survival analysis for treatment youth compared to residential commitment youth with a similar initial risk of recidivism. For the Broward Functional Family Therapy program, a relative risk of rearrest for any reason, including a violation of probation, of 0.625 means that the risk that youth who successfully completed Redirection will be rearrested for any reason after program completion is 63% of the risk for youth who complete residential commitment, controlling for factors related to recidivism. Likewise, a relative risk of rearrest for a crime of 0.55 means that the risk that a Redirection Program completer will be rearrested for a crime after program completion is 55% of the risk for a youth who completes residential commitment. In other words, Broward County FFT program completers are 37% less likely to be arrested for any reason and 45% less likely to be rearrested for a crime than similar youth who complete residential commitment.

**Table A-1**  
**Redirection Programs in Broward and Escambia Counties Showed**  
**Significant Reductions in Arrests After Program Completion**

Program	Measure	Relative Risk of Rearrest <sup>1</sup>	Reduced Likelihood of Rearrest <sup>1</sup>	Statistical Significance	Number of Youth
Broward FFT	Any arrest <sup>2</sup>	0.63	37%	0.038	61
	Arrest for a crime <sup>2</sup>	0.55	45%	0.012	
	Arrest for a felony	0.56	44%	0.055	
Escambia MST	Any arrest	0.82	18%	0.439 (not significant)	30
	Arrest for a crime <sup>2</sup>	0.52	48%	0.045	
	Arrest for a felony <sup>2</sup>	0.36	64%	0.028	

<sup>1</sup> Compared to youth who successfully completed residential commitment programs, controlling for age, gender, race, number of prior referrals, prior commitments, time out of the program, region of Florida, and whether the youth was from a county that is part of an urbanized area with a population over 500,000.

<sup>2</sup> Statistically significant at the 0.05 level of confidence.

The risk of rearrest for a felony among youth completing the Escambia Multisystemic Therapy program is 36% of the risk for similar youth who complete residential treatment. After program completion, they are 48% less likely to be arrested for a crime and 64% less likely to be arrested for a felony than youth who complete residential commitment. Both the Broward and Escambia programs reduce the risk of arrest when compared to residential commitment.

Graphs presented in the report (Exhibits 2 – 4) represent the cumulative probability of a criminal arrest estimated by the model at the mean of the covariates.

## Appendix B

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# Analysis of Outcomes for Electronic Monitoring

We compared juvenile and adult arrests after treatment through October 31, 2006, for two groups of youth who successfully completed the Redirection Program—one composed of 25 youth who received electronic monitoring during the first month of treatment and the other of 175 youth who did not receive electronic monitoring. All youth were followed for a minimum of six months after program completion; youth who received electronic monitoring were followed for a maximum of 11 months, and those who did not for a maximum of 20 months.

**Data.** The Department of Juvenile Justice provided the youths' demographic and risk factor information, prior delinquency and commitment history, and delinquency referrals after release. The Department of Law Enforcement provided data on adult arrests.

**Study population.** Youth in the electronic monitoring group successfully completed Redirection between November 28, 2005, and April 26, 2006, while those in the group that did not receive electronic monitoring completed the program between March 7, 2005, and April 28, 2006. Electronic monitoring during the first month of Redirection was provided to 51 youth, and 25 of them successfully completed the program. Among youth receiving electronic monitoring, a lower percentage of successfully completed Redirection than among those not receiving it, primarily because a higher percentage was committed during treatment and a higher percentage of families moved, but the differences were not statistically significant.

The 25 youth who received electronic monitoring and successfully completed Redirection were served at the three original Redirection program sites in Broward and Dade counties. The Children's Psychiatric Center in Dade County had 11 successful completions in the electronic monitoring study; two programs with shared teams in Broward County, Camelot Community Care and The Starting Place, had 9; and the Multisystemic Therapy program at Henderson Mental Health Clinic in Broward County had 5. For details concerning the non-electronic monitoring group, see the discussion of the treatment group for the study population under 'Analysis of Redirection and Residential Outcomes' above.

**Methods of analysis.** Outcome measures in the electronic monitoring study were the same as those we used for comparing Redirection youth to residential commitment youth, and included juvenile and adult arrest rates for felonies, misdemeanors, and violations of probation. We used Cox Regression Analysis to conduct the statistical technique of survival analysis.

**Statistical results.** Table B-1 shows the statistically significant findings on electronic monitoring. The risk of recidivism is calculated in the survival analysis for Redirection youth who received electronic monitoring compared to Redirection youth who did not, controlling for factors related to their initial risk of recidivism. Youth who received electronic monitoring had a relative risk of arrest of 1.795, which means that they were 1.8 times more likely to be arrested for any reason after program completion than those who completed Redirection without electronic monitoring, controlling for factors related to recidivism. These youth were 2.1 times more likely to be arrested for a crime as youth who completed Redirection without electronic monitoring. In other words, electronic monitoring in conjunction with Redirection treatment doubled the risk of arrest for a crime when compared to Redirection treatment without electronic monitoring.

**Table B-1**  
**Youth who Received Electronic Monitoring During Redirection Had a Significantly Higher Risk of Arrest After Program Completion**

Program	Measure	Relative Risk of Recidivism <sup>1</sup>	Times More Likely to Recidivate <sup>1</sup>	Statistical Significance	Number of Youth
Redirection with electronic monitoring	Any arrest <sup>2</sup>	1.795	1.8	0.044	25
	Arrest for a crime <sup>2</sup>	2.116	2.1	0.011	
	Arrest for a felony	1.962	2.0	0.063	

<sup>1</sup> Compared to youth who successfully completed Redirection without electronic monitoring, controlling for age, gender, race, number of prior referrals, prior commitments, time out of the program, region of Florida, and whether the youth was from a county that is part of an urbanized area with a population over 500,000.

<sup>2</sup> Statistically significant at the 0.05 level of confidence.

## *The Florida Legislature*

# *Office of Program Policy Analysis and Government Accountability*



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