THE TRANSFER OF RESPONSIBILITY FOR CHILD PROTECTIVE INVESTIGATIONS TO LAW ENFORCEMENT IN FLORIDA:

A SUPPLEMENTAL STUDY
FINAL REPORT

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EXECUTIVE SUMMARY

In May 1998, the Florida legislature mandated the transfer of responsibility for child protective investigations in Manatee, Pinellas, and Pasco Counties from the Department of Children and Families (DCF) to the Sheriff's Offices (SO) in those counties. Subsequently, Broward County Sheriff's Office voluntarily agreed to accept this responsibility as well. The Sheriff's Offices agreed on a common investigative protocol that teamed civilian Child Protective Investigators (CPIs) with Sheriff's Deputies or local law enforcement officers to investigate all reports of child maltreatment.

The National Institute of Justice, the Office of Juvenile Justice Delinquency and Prevention, and the Florida Department of Children and Families funded the Center for the Study of Youth Policy at the University of Pennsylvania School of Social Work (now known as the Center for Research on Youth and Social Policy) to evaluate the impact of this change in both experimental and comparison counties. Comparison counties were matched on selected demographic and caseload similarity. Lee was used as the comparison county for both Manatee and Pasco; Hillsborough was used as the comparison county for Pinellas; and Palm Beach was used as a comparison county for Broward.

The evaluation was completed in 2003. Findings from the study were inconclusive with regard to the impact of the law enforcement experiment. There were intermittent positive changes in measures of child safety; these changes, however, affected comparison as well as experimental counties. The relationship between investigations and service delivery was also explored, but percentages of children served relative to services mandated demonstrated no discernable connection to the law enforcement experiment. The available data yielded no findings on the relationship between child maltreatment and criminal sanctions for perpetrators, although aggregate data showed no major changes pre-post in arrest, incarceration, or probation patterns.

Interview and survey responses indicated that Child Protective Investigators were more satisfied with their jobs in the experimental counties. Child Protection Team members express satisfaction with improvements over time in working with the Sheriff's Offices, but also indicate a comparative preference for working with DCF. Judges, attorneys, and law enforcement officers are generally satisfied with the investigations being conducted by the Sheriff's Offices, but also agreed that it was too soon to tell if the experiment has had any lasting impact. Case file documentation improved in the experimental counties as well as the comparison counties; the lack of useable data on arrest, prosecution and family court proceedings made it impossible to assess the impact of documentation on disposition.

Overall, findings indicated that the law enforcement intervention has not proved as successful as its proponents had hoped. Furthermore, the answer to the question regarding the experiment's impact on criminal sanctions for perpetrators remained

unanswered. The current study is designed to supplement findings from the original study and is structured to accommodate changes in the Florida data system. The purpose of the current study is three-fold: 1) To create a larger and more comprehensive analytic dataset in order to conduct a series of more rigorous analyses on the data to answer the original research questions more definitively; 2) To create and implement a protocol for tracking outcomes for perpetrators through an exploration of the criminal court data and an attempted link between court and child welfare data; to analyze results; and to explore possibilities for institutionalizing data integration between the two systems; and 3) To examine the operation of the new Florida child welfare data system, Home Safe Net (HSN).

The design of the current study is primarily secondary data analysis of existing and supplemental administrative data with an emphasis on data integration within and between data systems. The quantitative analyses focus on outcome measures related to the law enforcement experiments, e.g. substantiation, severity, recidivism. The data integration protocol is exploratory, focusing on the theoretical possibilities for integration based on the implementation of a pilot protocol. For purposes of clarity, the following report is divided into three sections: 1) Criminal Court Data and the Link to Child Welfare; 2) Secondary Data Analyses of Child Welfare Data, 1996 - 2002; and 3) Performance of Sheriff's Offices in Child Maltreatment Investigations. Findings are summarized below.

Criminal Court Data and the Link to Child Welfare

Findings from Section 1 on the link between criminal court and child welfare data are limited because the court would not release names necessary for matching on cases that were either pending or dismissed; therefore, it is not possible to say if the match between the two datasets produced a sample that is representative of the whole. However, analysis of relevant variables – demographics, number and type of allegations, type of disposition, and time between offense, arrests, and disposition – found no significant differences between disposed cases in the whole sample and those matched with child welfare data. Likewise, no significant differences were found between reports that were matched and those that were not. It is at least possible, then, that the analytic sample is similar enough to the sample as a whole to make the findings contributory to the literature on criminalization of child abuse, although this section of the study must be viewed as exploratory rather than explanatory.

The court provided 235 reports with appropriate identifiers and the matching protocol yielded 128 reports for analysis. Within this sample, type of allegation and relationship to the child did not prove significantly different for disposed cases. The type and degree of charge were not related to disposition when analyzed separately, but were significantly related when collapsed and combined into a single variable. Disposed cases consisted primarily of substantiated allegations of physical abuse resulting in 3rd degree felony charges. Almost one-third of disposed cases resulted in either probation or a jail sentence, although only the relationship between probation and the degree of the charge proved significant. The most commonly reported relationship in the disposed cases was

between mother and child. None of the relationships, however, were significantly associated with specific probation or sentence time. Overall, only 35.9% of reports found through the tracking protocol received criminal sanctions.

Secondary Data Analyses of Child Welfare Data (1996-2002): County Pairs

Overall, the analyses of county pairs suggest that the impact of law enforcement experiment is negligible, with significant effects often applicable to both experimental and comparison counties, suggesting that the transfer alone did not account for the impact. The odds percentage of a report being substantiated increased in four of the five county pairs in the post experimental stage, but the impact was not large enough to be policy relevant. With regard to changes in maltreatment and disposition severity, the experiment seems to have little impact on either. With regard to duration of investigation and length of time to services, OLS estimates establish that neither variable was responsible for more than a small percentage of variance in their models. The findings on recurrence and recidivism are inconclusive, although recurring reports were more common than substantiated recurring reports. The findings were also difficult to interpret because an administrative change in the Florida Abuse Hotline directly influenced an increase in the number of reports received, making it difficult to attribute changes in reports to the law enforcement experiment.

Event History Analyses of Child Welfare Data (1996-2002)

The hazard function models illustrate an increased rate for all counties, but also illustrate an influence in the Sheriff counties on achieving a steady rate. Survival curves for recurrence are similar for all county pairs, with the post stage showing a more constant rate than the pre stage. The county pairs also share some significant predictors: maltreatment and disposition severity; family mobility; victim age; and mixed sex of caretaker. Survival curves for recidivism are similar to those for recurrence, although maltreatment severity's impact is not shared. Overall, it seems that all county pairs are experiencing steady survival rates after the transfer of responsibility to the Sheriff Offices, making it unlikely that there is an association between the two. All counties increased their median lifetime survival probabilities, thereby eliminating the possibility of an impact from the experiment.

Performance of Sheriff's Offices in Child Maltreatment Investigations

With regard to report substantiation, the Sheriff counties are performing better than the non-Sheriff counties. The investigative transfer seems to have had no significant impact on maltreatment or disposition severity and a negative impact on length of investigation and length of time until services are delivered. The Sheriff counties are also performing better in decreasing recurrence, although not as well as the non-Sheriff counties in decreasing recidivism. Event history analyses illustrate that the hazard for recidivism decreases gradually in the pre stage and increases slightly in the post stage for both Sheriff and non-Sheriff counties, making it unlikely that either hazard or survival are impacted by the transfer of investigative responsibility. Using Florida's statewide

performance indicators as a measure of success, the Sheriff counties consistently outperform the non-Sheriff counties on all 11 measures. Of the Sheriff counties, Broward outperforms all counties with the exception of Seminole, which is not part of this study.

Comparison Across Measures

When county pairs were compared across analytic measures, all counties shared a decrease in the percent of reports with high index level maltreatment severity; an increase survival rates for recurrence and recidivism; and increases in time to recurrence and recidivism. Although these measures are among the most desirable indicators of successful improvement in child safety, as all counties are improving on the measures simultaneously, they are not indicators of the success of the investigative transfer. When the Sheriff counties are compared with the non-Sheriff counties aggregated, the Sheriff counties outperform only on odds of substantiation, decrease in disposition severity, and 11 statewide indicators of performance.

Comparison of Findings from Original and Supplemental Study

The findings from this supplemental study support the original findings that the investigative transfer had little impact on recurrence and recidivism, although there seemed to be more convergence among all counties than had been previously revealed, i.e. all counties improved in discrete areas such as increased survival times. With regard to the original unanswered question regarding outcomes for perpetrators, this study was able to establish to some extent the percentage of perpetrators likely to experience criminal sanctions (35.9%) in Broward County, at least over the last year.

Conclusions

For now, it is fair to say that the secondary data analyses presented in this report indicate that the transfer of investigative responsibility to law enforcement has not had the desired or expected impact. It is important to remember, however, that the experiment with law enforcement is still new, although the difficulties associated with the new endeavor seem to have been overcome. Viewing the investigative transfer from the perspective of the state-identified performance indicators, it is clear the Sheriff's Offices are doing a uniformly good job in investigating child maltreatment.

Dissemination of Findings

Plans are being finalized for publishing the findings from the original and supplemental studies in a Special Issue of Children and Youth Services Review. Because the child welfare situation in Florida is unique, primarily due to its link with law enforcement, the researchers feel that the findings will be better understood is they are presented as a whole rather than disseminated over many months or years in various journals. The findings have been presented, and will continue to be presented, at appropriate regional and national child welfare and criminology conferences.

I. BACKGROUND AND SIGNIFICANCE

Official statistics of child maltreatment suggest increasing rates of child abuse and neglect. Several studies indicate that these statistics from state CPS agencies underestimate the true number of children actually abused and neglected (NCCAN, 1998). According to the U.S. Department of Health and Human Services, almost 1 million children were victims of substantiated or indicated abuse and neglect in 1996, an approximate 18 percent increase since 1990 (Child Maltreatment Report, 1996). In 1990, the U.S. Advisory Board on Child Abuse and Neglect stated that child abuse and neglect had become an emergency; they unequivocally cited system failure as the cause (Gelles, 1996).

The increase in the number of abuse and neglect reports has been matched by a decrease in the proportion of substantiated reports. Inquiries into the reason for this paradox often point to the investigative process itself as the culprit. All states have mandatory reporting laws and, over the last thirty years, the range of professionals required to report suspected child abuse and neglect, as well as the scope of reportable conditions, has expanded greatly. This expansion accounts, at least in part, for the increase in reports of child abuse and neglect. But the expansion also leaves the door open for inappropriate and even malicious reports that overtax an already burdened child welfare system. Besharov (1987) is convinced that unfounded reports weaken the system's ability to respond to children in real danger and actively discourage appropriate reports. He repeatedly calls for a restructuring of the reporting system.

Gelles (1996) points out that the manifest goals of mandatory reporting -- an increase in child safety, the breakdown of professional apathy and self-interest, the deconstruction of family privacy and the notion of children as property – are offset by the latent consequences – an increase in the number of reports, the inability of the child welfare system to handle that increase, and the corollary problem of unsubstantiated reports. Nationwide, at least 60% of all reports are unsubstantiated (NIS-3). Of substantiated cases, a full 50% never receive any services and are closed after investigation (National Research Council, 1998). Gelles suggests that better risk assessment of reported cases might solve part of the problem. Costin, Karger, & Stoesz (1996) agree with him and report that part of the problem in risk assessment is the failure of assessment techniques to distinguish between high- and low-risk cases.

Lindsey and Hawkins (1994) maintain that mandatory reporting has transformed the child welfare system from one that serves children to one that apprehends their parents. They believe that the coercive authority of child welfare workers undermines their ability to develop positive, helping relationships with their clients. In discussing the failure of the system to keep children safe, Lindsey questions the current policy of reporting child abuse cases to public child welfare agencies and calls for a separation of abuse and neglect cases (1996). Pelton (1998) also finds the system flawed in that it links a mandate to help and

support families in need with an equally compelling mandate to investigate families and remove children. He believes that divesting child welfare agencies of their investigative powers would allow agencies to devote their time to the integration and delivery of preventive and supportive services (Pelton, 1993).

Many experts in the child welfare field, who often do not agree with one another on other matters, agree with Pelton on the necessity for separating investigations and service delivery. Together they advocate for an expanded role for law enforcement in the investigation of child abuse and neglect cases. Besharov (1990) makes the case for joint investigations between law enforcement agencies and child protective service workers by emphasizing the expertise police bring "in collecting and preserving evidence, in examining the crime scene, and in taking statements and confessions" (p.23). Joint investigative teams can expedite treatment since they approach the problem as both social, from the social work point of view, and criminal, from the law enforcement point of view (Garrison, ed., 1994).

Orr (1999) recommends transferring responsibility for CPS investigations entirely to police because law enforcement officers are trained in such investigation and because child maltreatment is "criminal in nature." Orr points out that CPS is distinct from law enforcement in that the police focus on the perpetration whereas child protective workers focus on the victim. More directly criminalizing child maltreatment would shift attention to prosecuting the offender. Lindsey (1996) agrees that "child abuse, like all other forms of assault is a criminal act, its investigation and prosecution should be transferred to the police, who have the training and resources to appropriately respond" (p.173). Studies have long shown that reports of child abuse from law enforcement agencies are more likely to be substantiated than those from any other source (Groenevel & Giovannoni, 1977). But law enforcement officers are often perceived as insensitive to the needs of both victims and perpetrators of child abuse. Consequently, many efforts to promote joint investigations, which expand the role of law enforcement, concentrate on sensitivity training for police investigators. In 1997, the U.S. Department of Justice, convinced that the most effective approach to child abuse investigations is based on interagency coordination and planning, developed a training manual to help police respond more objectively and thoroughly to child abuse reports (NCJRS, 1997).

Social workers, on the other hand, are often perceived as too service-oriented, too soft on criminal abuse and negligence, and too likely to emphasize family preservation over child protection. This perception leads to the belief that joint investigative participants must be educated about the role of each profession, that communication and training are essential to good teamwork, but that treatment and prevention specialists should be separate from investigators in most cases (Grayson, ed., 1994). Social work has generated a large body of literature on the subject of child abuse and neglect. What is needed is a corollary body of literature generated by law enforcement (Maguire, 1993).

Reviews of the performance of police in investigations of abuse and neglect are scarce. In 1991 and 1992, the American Public Welfare Association and the Police Foundation conducted a study of law enforcement and child protective service agencies. The study concentrated on developing joint investigation models based on innovative cooperative programs in selected localities (Sheppard & Zangarillo, 1996). Findings indicate that 33 states require joint child protective service and law enforcement investigations; 30 states mandate multidisciplinary treatment teams; and 40 states require CPS agencies to notify the police in criminal child abuse cases. Reasons cited for collaboration between CPS and law enforcement are: 1) to minimize the number of people involved in interviewing victims and families; 2) to enhance the quality of evidence collected; and 3) to minimize the likelihood of interagency conflict.

The Center for the Study of Social Policy (2000) evaluated the transfer of responsibility for the child abuse and neglect hotline and investigation of abuse from the Division of Child and Family Services (DCFS) to the Family Protection Unit (FPU) of the state police (ASP) in Arkansas. This assessment found that with the new system there was confusion over the roles of DCFS, FPU, and local law enforcement, as well as strained relationships and poor communication between the units. There was tension between the local law enforcement and state police, who were treated as unwelcome outsiders in local jurisdictions. Furthermore, law enforcement officials resisted the new responsibilities as child protection work was seen as lacking prestige. The civilian investigators in the FPU, lacking full police powers, were considered of lower status therefore making this a position for which it was difficult to recruit and retain high quality staff. The Arkansas experiment also engendered community concern over a shift in focus to criminal process and priorities overriding child protection needs. It was felt that with the criminal investigation taking precedence, children and families might not receive necessary social services in a timely fashion. Furthermore, with more agencies and people involved in cases and lack of collaboration or coordination, the risk of children and families getting lost in the tangles of the complicated system increases (Center for the Study of Social Policy, 2000).

Although the above-reference findings are helpful in describing current efforts at and challenges of collaboration between child protective services and law enforcement, they tend not to evaluate outcomes from these efforts beyond participant satisfaction surveys. What is needed now is research that goes beyond the descriptive to determine whether collaboration between child protective services and law enforcement is an effective way to increase child safety, decrease unsubstantiated child abuse and neglect reports, and increase system performance.

Arguably, one of the most interesting experiments to occur in the last decade is the transfer of responsibility for child maltreatment investigations to law

enforcement, specifically the Sheriff's Offices, in five Florida counties. While the immediate impetus for the Florida law enforcement experiment was the concern of the Legislature for child safety, the decision to transfer responsibility to Sheriff's Offices was based, at least in part, on the theoretical arguments mentioned above regarding the separation of investigation and service provision in the child welfare system. One argument is that investigation is really a separate function and that it may be confusing to have the same agency investigating a case and then offering to provide service. It is also argued that investigations require special skills that are not typically found in public child welfare agencies, but are more often found in law enforcement agencies. A third argument is that investigations have overwhelmed public child welfare agencies and diverted their attention from their responsibilities in the areas of prevention and service delivery. Those opposing the transfer of responsibility for investigations to law enforcement have argued that police will be too insensitive to the needs of both child abuse victims and their caretakers, and that it would result in too many children being removed from their homes and fewer referrals for services. While many jurisdictions have experimented with multidisciplinary teams and expanded roles for police, Florida has gone further than any other state in the country in turning complete control of child maltreatment investigations over to a law enforcement agency.

The University of Pennsylvania's School of Social Work, through its Center for the Study of Youth Policy, now known as the Center for Research on Youth and Social Policy (CRYSP), evaluated this naturally occurring experiment in four of the five Florida counties (Manatee, Pinellas, Pasco and Broward) from 1990 to 2003. The study was funded by both the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Florida Department of Children and Families. Subsequent to filing a final report on the study, the National Institute of Justice funded a one-year follow-up intended to update the findings and provide a deeper level of anlaysis. Following is a brief history of both the experiment itself and findings from the original study.

II. OVERVIEW OF ORIGINAL STUDY[1]

History of the Sheriff's Office Experiment

Until recently, Florida has had a state administered child welfare system in which all child welfare investigations and services for its 67 counties were delivered by a single state agency through fifteen regions and county based offices. Each county in Florida also has an elected Sheriff who is responsible for law enforcement and criminal investigations (except where there is a local law enforcement agency), detention and corrections, and judicial and supportive services. In May 1998, the Florida State legislature passed a bill that called for the transfer of responsibility for child maltreatment investigations the Sheriff's Offices in Pinellas, Pasco, and Manatee Counties. Earlier legislation allowed for such transfers and the Department of Children and Families (DCF) had already begun to transfer investigations for high-risk cases to the Manatee County Sheriff in FY 1997-1998. The 1998 legislation formalized a process that required DCF to enter into a contract with each Sheriff's Office for the provision of investigative services, and to transfer funds for that purpose, by FY 1998-1999.

The Florida Department of Children and Families changed leadership in January 1999, followed by a related change in the administration of the Florida Abuse Hotline. A series of child deaths were attributed to the failure of DCF to protect the children in their charge, leaving the new administration the task of overhauling a child welfare system that had proved impervious to previous efforts at reform. The new Secretary, determined that no child should "fall through the cracks" of the investigative system, encouraged hotline counselors to accept more reports of maltreatment. The Kayla McKean Act, a piece of legislation that again responded to a highly visible child death, was implemented in July 1999. This tragic case further highlighted the difficulties DCF was having in handling child protective investigations. The legislation mandated that all calls from mandatory reporters be investigated, that a single caseworker be assigned to a case, that a master file be maintained by that caseworker, that local law enforcement be contacted on all abuse cases, that face-to-face interviews be conducted with all household members, and that child deaths be reviewed by committee under the auspices of the Department of Health.

The impetus for this shift in responsibility was the concern of members of the legislature about the safety of children who were the victims of abuse or neglect, and about the linking of findings of abuse with the ability to prosecute the perpetrators. In addition to the experiment that transferred investigations to the Sheriffs Offices, there were parallel efforts to privatize foster care and in-home services and to transfer the provision of legal services to either the Office of the

[1] Material in this section on Manatee, Pinellas and Pasco was culled, in part, from our initial NIJ report on this project (June 2003); material on Broward County was derived , in part, from our report to the Florida Department of Children and Families (January 2003).

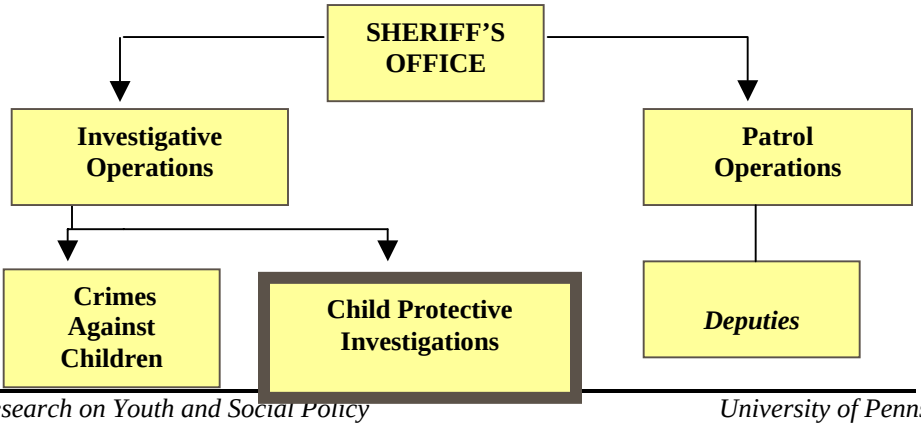
State Attorney or the Attorney General's Office. The 1998 legislation allowed individual Sheriffs to conduct the investigations themselves or to subcontract with other law enforcement or private agencies to conduct investigations related to neglect cases. DCF began transferring high-risk cases to Manatee County in July 1997 and completed the transfer of all cases by January 1998. Pinellas County accepted all cases in November 1999; Pasco accepted all cases in April 2000. Broward County, although not part of the original legislative mandate, agreed to participate in the transfer experiment and began accepting cases in July 1999; the transfer of all cases was completed in January 2000. The Sheriff's Offices agreed on a common investigative protocol that was substantially different from the protocol used by DCF. The new protocol required civilian investigators to be hired by the Sheriff's Offices as Child Protective Investigators (CPI's) and to work collaboratively with either Sheriff's Deputies, if the reported incident occurred within the Sheriff's Office jurisdiction or with local law enforcement officers if the incident occurred in a municipality with its own police force. Funding for the Sheriff's Offices would continue to be provided by the State and passed through DCF through contracts with each Office.

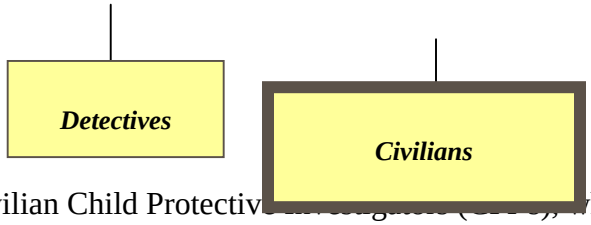
Implementation of the Experiment

Staffing and Organizational Structure

In order to carry out the new responsibilities, each of the three Sheriff's Offices created a Child Protective Investigations Section within its Operations Division, which is housed separately from the criminal investigations sections and the patrol operations (**Figure 1**). The primary function of these sections is to receive reports of abuse or neglect from the Florida Abuse Hotline, to conduct child protective investigations, and to make decisions regarding the allegations, either "verified," "some indicators," or "no indicators." The sections also arrange for the provision of some services and prepare cases for transfer to an ongoing provider of services, where appropriate. A sworn law enforcement officer initially directed all sections. This is still the case in Manatee and Pinellas Counties. However, in Pasco County, the current Director is a civilian who was previously a DCF Administrator in Marion County.

Figure 1. Organization of Sheriff's Offices





Civilian Child Protective Investigators (CPI's), who receive the same basic orientation training as CPI's employed by DCF, staff the Child Protective Investigations Sections of the Sheriff's Offices. The screening and selection process is more rigorous in the Sheriff's Offices than in DCF, consisting of background checks, polygraph tests, and psychological testing. The common training is provided by the Florida Professional Development Center and consists of an initial six-week phase followed by a second phase after cases have been assigned. The Sheriff's Offices augment this training with additional training that is also provided to law enforcement officers.

The number of CPI positions has increased in the Sheriff's Offices since each took responsibility for investigations. As of December 31, 2001, there were 71 CPI positions in Pinellas County, 28 in Pasco County, 23 in Manatee County, and 54 in Broward County. The CPI's are organized into squads of 5 or 6, which are supervised either by a sworn law enforcement officer (a Sergeant) or by a civilian supervisor. Each Child Protective Investigations Section contains an analytical unit or team that initially receives the report from the Hotline, and prepares a case file before the case is assigned to a CPI. The case file contains the abuse report, prior reports, criminal history checks, provider information, Department of Corrections background information, and Florida Department of Law Enforcement (FDLE) sexual offender information. Additional staff members may include a training officer, Assistant Program Directors, support staff, and aides.

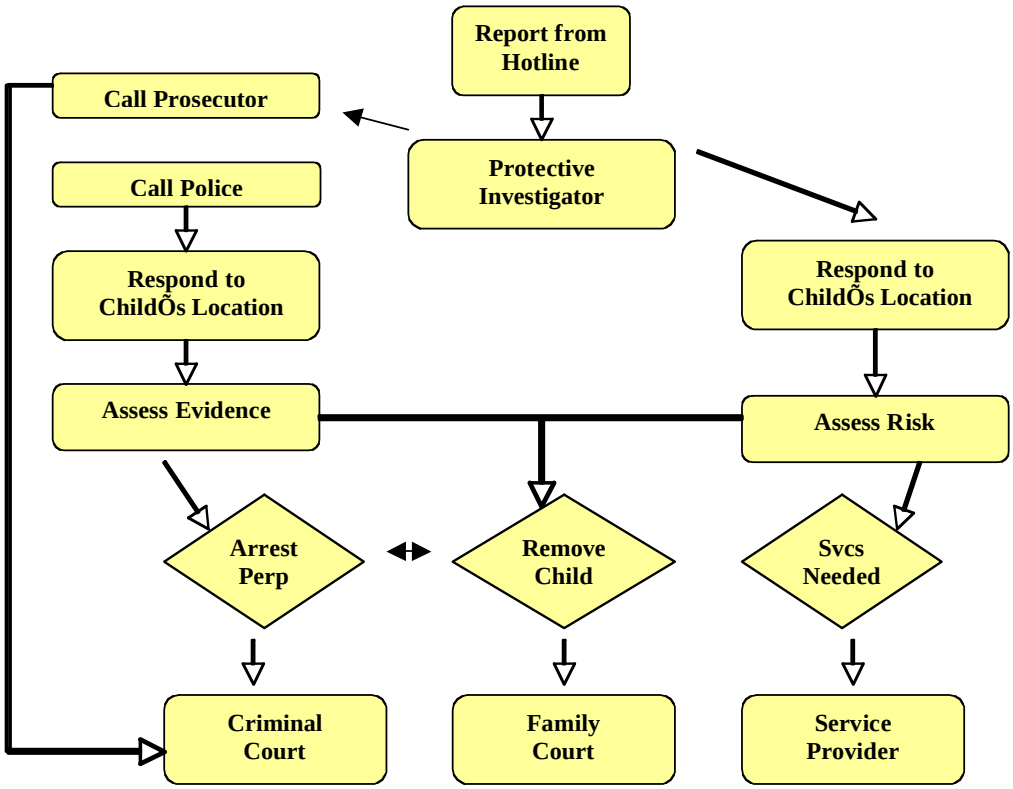
Operation

The initial intake process at the Florida Abuse Hotline is identical regardless of whether the investigation is conducted by DCF or by a Sheriff's Office. The Hotline is centralized; if a decision is made to take a report for investigations, the intake information is relayed to a district DCF or Sheriff's Office for assignment. Assignments are made on a rotating basis depending on investigator schedules. The day-to-day operation of the Child Protective Investigation Sections within the Sheriff's Offices is in many ways similar to the investigation process in the counties where DCF conducts child maltreatment investigations.

In the DCF counties, reports sent from the Florida Abuse Hotline in Tallahassee are routed to the unit on call and to a CPI who begins to do the background work. Before proceeding on initial visit to the home, the CPI may contact the local law enforcement agency that has jurisdiction and request that a

law enforcement officer be present to determine whether a criminal investigation is warranted. This call for assistance is at the discretion of the individual CPIs and therefore varies both within counties and from one county to another. The child abuse investigation and the criminal investigation typically proceed independently with little coordination. The CPI is responsible for responding in a timely fashion, assessing the risk to the child, initiating a removal or putting services in place if needed, and eventually making a determination of findings with respect to the allegations. **Figure 2** illustrates the traditional investigative process for the DCF comparison counties.

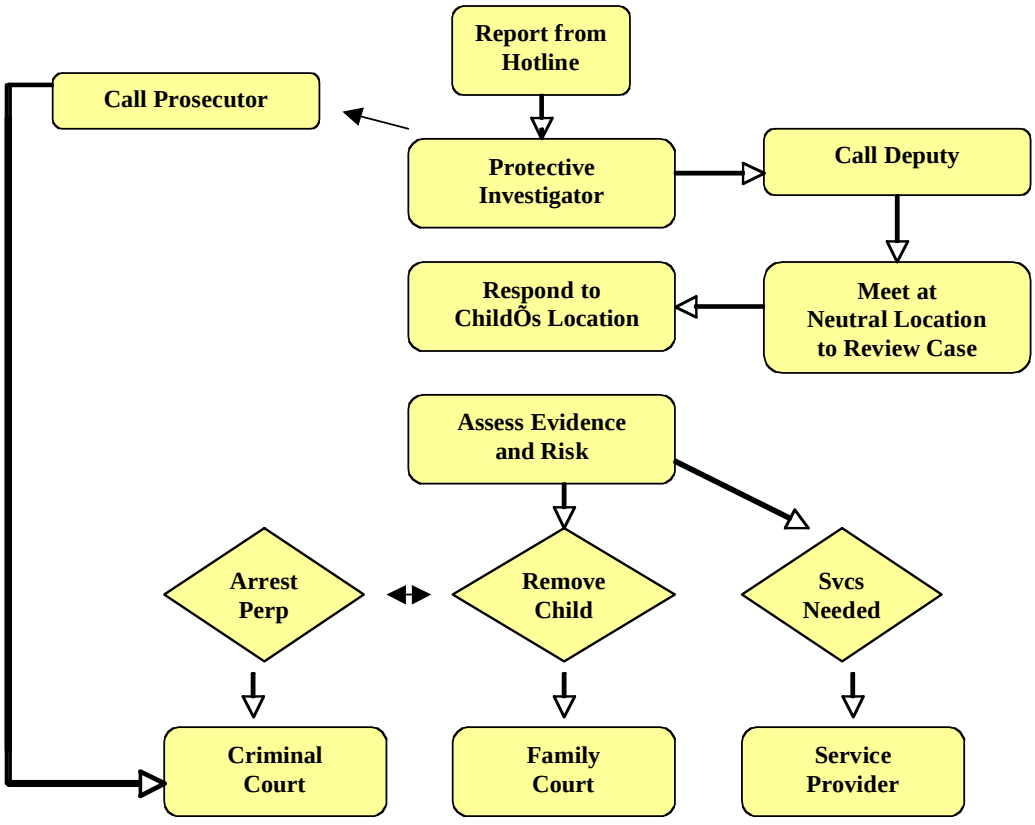
Figure 2. Traditional Investigative Process in DCF Counties



In the counties where the Sheriff's Office is responsible for child maltreatment there are two major differences (Figure 3) from the DCF counties. The first is that reports from the Hotline go first to the analytical team that does background checks and assembles a case file before the case is assigned to a CPI. The second difference is that CPI's routinely contact the law enforcement agency that has jurisdiction and arrange to meet with a law enforcement officer immediately prior to actually conducting the visit. Local law enforcement has jurisdiction within incorporated areas in each county, usually defined as city boundaries. The Sheriff's Offices have jurisdiction in all unincorporated areas.

At the joint meeting, the CPI and the law enforcement officer review the facts of the case and determine who will take the lead role in the initial joint interview. If the facts indicate the possibility of criminal activity being associated with the report, the law enforcement officer takes the lead. If the report indicates that the case will be primarily concerned with service needs, the CPI takes the lead. If the initial visit confirms criminal activity, the law enforcement officer gathers evidence to support a criminal case while the CPI assesses immediate service needs. The law enforcement officer then turns the criminal case over to detectives from the Sheriff's Offices. If the CPI discovers service needs for the non-perpetrating members of the family, he or she prepares the case for transfer to a service provider. On the other hand, it the initial visit confirms that there has been no criminal activity, the law enforcement officer signs off on the case, documenting the lack of criminality and effectively turning a follow-up investigation over to the CPI. As in the DCF counties, the CPI who works for a Sheriff's Office is responsible for removing the child from the home if necessary, or for putting services into place if warranted.

Figure 3. Investigative Process in Sheriff's Counties



III. SUMMARY OF FINDINGS FROM ORIGINAL STUDIES

The previous evaluations[2] of the Sheriff's Office Experiment utilized a quasi-experimental, pre-post design to assess changes, in both experimental and comparison counties, in the following areas:

- The safety of children who are reported for abuse or neglect
- The quality of the investigations
- The number of children who are removed from their homes
- The likelihood of arrest and prosecution of perpetrators of abuse
- The services provided to children
- The morale and credibility of the Child Protective Investigators
- The efficiency with which investigations are conducted
- Stakeholder support and ownership for child protective services
  The cost of conducting investigations
- The cost of conducting investigations

Comparison counties were selected for two reasons: 1) they were geographically close to the experimental counties, and 2) they were similar enough on selected demographic variables. The geographic proximity allowed researchers to use their funding more effectively as several counties could be visited in the course of one trip. Hillsborough was selected as a comparison county for Pinellas, Lee was selected as a comparison county for both Manatee and Pasco, and Palm Beach was selected as a comparison county for Broward because their populations were similar and they handled approximately the same number of investigations yearly (**Table 1**).

Table 1. Demographics of Experimental and Comparison Counties

EXPERIMENTAL	**Manatee**	**Pasco**	**Pinellas**	**Broward**
Total Pop.	239,682	325,824	878,231	1,255,488
% Urban	88%	59%	99%	99%
% White	90%	96%	91%	82%
Med. Household Income	$31,416	$26,998	$30,088	$30,571
Per Capita Income	$21,584	$16,176	$22,798	$16,833
# Children Under 18	40,813	50,204	150,820	256,272
# Investigations	2631	3327	8366	9615
COMPARISON	**Lee**		**Hillsborough**	**Palm Beach**
Total Pop.	392,895		925,277	1,131,184
% Urban	66%		83%	98%
% White	91%		83%	79%
Med. Household Income	$31,904		$32,650	$45,962
Per Capita Income	$20,907		$19,129	$25,405
# Children Under 18	65,585		191,190	215,277
# Investigations	3537		9707	7201

Source: Census 1996; Florida DCF Annual Report 1998-99

[2] Full reports can be accessed at: www.ssw.upenn.edu/crysp

The evaluation study conducted quantitative analyses of administrative data from the Florida Abuse Hotline Information System (FAHIS) from 1995 – 2000. These data were provided in five inter-related databases that required complex data transformations to supply answers to questions regarding substantiation, recurrence and recidivism, severity of maltreatment, severity of disposition, emergency and foster care placements, and duration of investigations. Pre-post analyses were conducted by experimental and comparison county pairs. **Table 2** demonstrates the size of the final family datasets in each county. The Child Information System provided limited data on service delivery and the Florida Departments of Law Enforcement and Corrections provided data on criminal arrest, prosecution, and disposition.

Table 2. Family Dataset Sizes

	Pre	Post
Manatee	2947	4001
Lee	4204	6112
Pasco	6901	1601
Lee	8565	2258
Pinellas	16,505	6308
Hillsborough	19,945	7686
Broward	20,117	7885
Palm Beach	14,079	6215

The quantitative analyses of administrative data were supplemented by analyses of primary data collected from Child Protective Investigators and Child Protection Team Directors, document file reviews, ride-along observations, and interviews with key stakeholders. The major findings from this report are summarized below.

Impacts on Child Safety

- Recurrence: The rate of recurrence increased in Broward County during the post-period, compared with no change in Palm Beach County. Recurrence rates increased for the Manatee-Lee county pair, but decreased for both the Pasco-Lee and Pinellas-Hillsborough county pairs.

- Substantiated Recurrence: Overall, substantiated recurrence decreased in other counties.

    - For the first year after the transfer of responsibility, Palm Beach County had a lower rate of recurrence within 30 days of the report date; both counties had the same recurrence rate within 60 days; and Broward County had a lower recurrence rate within 90 days.

Of the other experimental counties, Manatee demonstrated the largest decrease in substantiated recurrence at 30, 60 and 90 days.

- During the first year after the transfer, Broward County had a higher rate of recurrence prior to the lock date than Palm Beach County. Of the other experimental counties, only Pinellas showed a decrease in the rate of substantiated recurrence prior to the lock date, although this decrease was matched in Hillsborough as a comparison county.

- Broward County had a larger percent of families demonstrating a decrease in the severity of substantiated allegations and a smaller proportion of families who showed an increase. All other counties demonstrated approximately the same percentage decrease in the severity of the maltreatment allegations against families, with Pinellas demonstrating the smallest percentage increase. Overall, there was more decrease in severity among all counties than either increases or maintenance of the status quo.

<u>Impacts on Perpetrators</u>

- The quality of the administrative data and the lack of data integration among data systems made it impossible to assess whether outcomes for perpetrators of maltreatment differed due to the law enforcement experiment. There was no way to determine whether the responsible caretakers identified in the FAHIS administrative data were arrested, prosecuted, incarcerated, or on probation.

- Aggregate numbers did demonstrate that there are no major changes pre-post in arrest, incarceration, or probation patterns for offenses related to domestic violence involving children. There were also no significant changes in the number of offenders in prison or on probation for child maltreatment offenses. However, the aggregate data did not distinguish between criminal sanctions that resulted from investigations by DCF or the Sheriff's Office, and those that may have resulted from other types of abuse investigations involving children.

- The stakeholders that were interviewed did not believe that the number of perpetrators arrested or prosecuted had increased as a result of the transfer of responsibility.

- The connection between child maltreatment investigations and criminal sanctions remained unclear. The current supplemental evaluation study was designed to explore this connection in more depth.

Impacts on the Child Welfare System

- All county pairs increased the number of children reported as maltreated pre-and-post intervention.

- The substantiation rate for locked cases decreased in four of the five county-pairs, with on the Broward-Palm Beach pair demonstrating a slight increase.

- The average number of children placed in emergency shelters increased in all counties except Pasco, where there was a slight decrease. The average number of children in foster care placements increased for the Manatee-Lee pair, as well as the Broward-Palm Beach pair, but did not increase in either Pasco or Pinellas.

- Manatee, Pasco and Hillsborough decreased the average monthly voluntary services offered by rejected, while Pinellas remained stable and Lee (in comparison with Pasco) increased in this area. The average number of children for whom voluntary services were accepted increased more in Broward County than in Palm Beach County. The average number of children for whom voluntary services were rejected also rose in both counties.

The CPI Perspective

- CPI's in the Sheriff-Run counties had a more positive perception of their workload, their work environment, the training they receive, their work productivity, and the extent to which their organization shows concern for their health and safety.

- CPI's in the Sheriff-Run counties also indicated they perceived more career opportunities and expected job longevity.

- CPI's in the DCF-Run counties with longer employment times responded less favorably overall.

- CPI's in the Sheriff-Run counties saw their role as "counselor", while those in the DCF-Run counties saw it as "child protector".

- Almost half the DCF CPI's indicated they would support a transfer to law enforcement in their own counties.

Ride-Along Observations

- Ride-along observations with CPI's in all counties revealed that Broward, at least in this very small sample, did not perform as expected given the procedures originally established by the Broward County Sheriff's Office.

- Pinellas proved more compliant with proscribed protocol than the other experimental counties. There was no difference in law enforcement involvement in investigations between experimental and comparison counties, nor was there a difference in attitude toward the families involved in investigations.

Case File Reviews

- Improvements in case file completeness as well as the completeness of the forms themselves were evident in all counties at some point over the study period, but the improvements did not seem to be associated with the law enforcement intervention.

- The majority of cases declined for prosecution are labeled "lewd and lascivious", with the reasons to decline a case for prosecution are usually given as "no evidence," "no interview," or "no witnesses."

Implementation Issues

- The average duration of investigations increased for all maltreatment types in all counties, with the exception of a decrease in Lee (as compared with Manatee) in the duration of investigations for threatened harm cases.

- Staff turnover data were not available for Pasco County. However, data from Manatee and Pinellas show that the turnover rates were higher than their comparison counties in 2000, but lower than the comparison counties in 2001.

- Manatee outperformed all DCF counties on the cost of the investigation, but the figures from Pasco and Pinellas make a cost comparison difficult, as their interpretation is under dispute.

Other Stakeholder Perspectives

- Child Protection Teams in the experimental counties uniformly agreed that their relationship with the CPI's in the Sheriff's Offices had improved over time. Survey respondents, however, indicated a slight preference for working with DCF.

- Judges in the Pasco and Pinellas expressed satisfaction with the improvements in investigations after the law enforcement transfer. The judge in Manatee, who initially expressed concerns, was unavailable for

comment at the end of the study. One judge in Palm Beach County was concerned about the quality of investigations of more serious abuse and sexual abuse cases. Representatives from the Office of the Attorney General and the Palm Beach Sheriff's Office wanted to see more communication between their offices and DCF.

- Staff of the State Attorney's Office in both Pasco and Pinellas expressed the same satisfaction with the improved quality of investigations after the law enforcement transfer. The Manatee attorney, who was interviewed at the beginning of the study, felt it was too soon to tell if the transfer was successful. All attorneys believed it would have no impact on arrest and prosecution.

- Service providers were generally satisfied with their relationships with CPI investigators in the experimental counties, but the same is true of their relationships in the comparison counties.

- Law enforcement officials and legal service providers were satisfied with their working relationships in Manatee, Pasco and Pinellas.

Overall, our findings indicated that the law enforcement experiment has not proved as successful as its proponents had hoped. Changes in recurrence, substantiation, emergency shelters, and foster care placements proved to be negligible across counties. Comparisons between experimental and comparison county-pairs demonstrated that when change did occur, it usually occurred for both counties. The strongest evidence in support of the law enforcement intervention came from the other community stakeholders in all experimental counties and from the Child Protective Investigators (CPI's), even in the comparison counties.

Limitations of the Original Study

One of the study's limitations was the lack of data integration across systems, making it impossible to answer one of the primary research questions: Does treatment of perpetrators differ with regard to criminal sanctions as a result of law enforcement taking responsibility for investigations? The most that could be established is that in aggregate changes over time there seems to be no association with the intervention. A secondary problem was the complexity of the administrative data and the time needed to prepare the data for analysis. Preparation of the FAHIS data absorbed the much of study's time and resources, leaving little time to conduct the type of rigorous analyses capable of detecting significant change. A tertiary problem was the differential lengths of pre-post periods for the experimental-comparison county pairs, as well as the relatively short post periods for three of the four experimental counties. This problem made interpretation of findings particularly difficult.

IV. CURRENT SUPPLEMENTAL STUDY

The current study is designed to supplement findings from the original study and to further explore under-examined or unanswered questions from the original study.

Research Questions

The question of child safety was answered preliminarily by the first study, although the time and data limitations precluded certain types of rigorous analyses. The current study therefore proposed additional data collection and secondary analyses to answer the question with more certainty. These analyses will also be used to further determine the effect of the experiment on system performance.

A major research question that could not be adequately addressed in the previous study was "What happens to the perpetrator of serious child maltreatment?" The study wanted to find out whether in the counties where the Sheriff's Office conducts the investigations, perpetrators are more likely to be arrested or prosecuted. This seemed like a plausible hypothesis given the assumptions that in the experimental counties:

- Child Protective Investigator's would receive more training in investigative techniques and collecting evidence
- There would be closer coordination and communication between the Child Protective Investigators and those who conduct criminal investigations and the State Attorney's Office
- The organizational culture in the Sheriff's Offices might support the arrest and prosecution of serious child maltreatment offenders more than the DCF culture

The question of the extent to which the perpetrators of serious child maltreatment are arrested, prosecuted and incarcerated – and what the alternative outcomes are if they are not arrested, prosecuted and incarcerated -- remains an important one. The current study proposes to explore these questions in more depth with the Broward County Sheriff's Office and the Broward County State Attorney's Office.

Design

The current study is designed to supplement findings from the original study and is structured to accommodate changes in the Florida data system. There was a gap of approximately one year between the end of the original project and the start of the current supplementary project. In that year, Florida implemented a

new data system, Home Safe Net, an Access-based data management system, which replaced the FAHIS system. This change influenced the study design in two ways. First, the data needed to supplement our original data could be provided only for dates prior to the implementation of the new data system, as the older and newer systems were amenable to integration. Because the new system was implemented in September 2002, however, supplemental data could still be provided that would lengthen the post periods for the experimental counties, overcoming one of the limitations of the original study. Second, the new data system allowed for easier record review and facilitated the manual search necessary to create a data integration protocol between child welfare and criminal court data.

The purpose of the current study is to first create a larger and more comprehensive analytic dataset by: a) adding data from 2001 and 2002 to extend post-periods for the experimental counties; b) adding data from an additional comparison county (Sarasota) to increase comparative power; and c) merging data from the two previous studies with the additional data into one comprehensive dataset that can be subset for more discrete analyses. The additional data work is needed to answer some of the original research questions on a deeper level through more rigorous analyses of the administrative data. The second purpose of the study is to: a) create a protocol for tracking outcomes for perpetrators through an exploration of the criminal court data and an attempted link between court and child welfare data; b) implement the protocol and analyze results; and, c) explore possibilities for institutionalizing data integration between the two systems. The third purpose of the study is to examine the operation of the new Florida child welfare data system, Home Safe Net (HSN).

The design of the current study is primarily secondary data analysis of existing and supplemental administrative data with an emphasis on data integration within and between data systems. The quantitative analyses focus on outcome measures related to the law enforcement experiments, e.g. substantiation, severity, recidivism. The data integration protocol is exploratory, focusing on the theoretical possibilities for integration based on the implementation of a pilot protocol. This exploration will also provide a frequency distribution analysis of the court data and significance testing of associations between cases presented to the court and those accepted for prosecution. The examination of the new child welfare data system will address the strengths and limitations, and allow for a comparison of the performance of the Sheriff's counties with other districts across the state on outcome variables identified by the State.

Methods

To achieve the first study objective, it was necessary to first retrieve and integrate additional child welfare administrative data (FAHIS) to lengthen the post periods in the experimental counties. The Florida Department of Children and Families provided additional data through August 2002, although it became

necessary to drop the 1995 data due to slight but crucial differences in data maintenance at the State level. The final dataset therefore includes reports on child maltreatment from 1996 through August 2002, which did accomplish the objective of lengthening post periods while maintaining adequate pre periods. The additional data were provided, as in the original study, in five inter-related databases, requiring another set of complex transformations before integrating older and new data.

The attempt by the original study to integrate court data and child welfare data had proved unsuccessful, necessitating a new approach to accomplishing the second objective and third objectives. Being familiar with the new Home Safe Net (HSN) data system, the Broward County Sheriff's Office (BSO) suggested that it would be easier to track back from the criminal court data to their new system than forward from their system to the court data, and much easier than trying to use the old and new data systems simultaneously. The Broward County State Attorney's Office subsequently provided data on criminal prosecutions for child maltreatment from 2001 through 2003 and the BSO agreed to assist in searching for a random sample (N=25) of these cases in Home Safe Net. The purpose of the search was to estimate how many cases the two systems shared, how cumbersome and time-consuming the search is without unique identifiers, and how easy it would be adapt or modify one or both systems to make this information more readily available to child welfare workers. Everyone anecdotally agrees that it would be useful to know which dependency cases are accompanied by parallel criminal cases so that family interventions can be crafted appropriately.

To accomplish the fourth objective, the study reviewed a series of state-wide reports generated by the new data system to: a) describe the new child welfare data collection system from a strengths and limitations perspective; and b) compare the performance of the Sheriff's counties with other districts across the state on outcome variables identified by the State. This review presents a current impact picture to complement the retrospective impact picture provided by quantitative analyses.

For purposes of clarity, the following report is divided into three sections: 1) Criminal Court Data and the Link to Child Welfare; 2) Secondary Data Analyses of Child Welfare Data, 1996 - 2002; and 3) Performance of Sheriff's Offices in Child Maltreatment Investigations.

V. CRIMINAL COURT AND THE LINK TO CHILD WELFARE

A. OVERVIEW

As discussed in the introduction to this report, the previous evaluation of the impact of transferring child maltreatment investigations to the Sheriff's Offices was not able to determine whether perpetrators of child maltreatment were more likely to receive criminal sanctions as a result of the transfer. The reason for the inability to answer that particular research question was the lack of data integration between the criminal court and child welfare systems. The evaluation suggested that closing the gap between the two systems would be desirable. Both child welfare and court administrators, when questioned, agreed that such integration would be important in terms of family treatment options.

To examine the link between criminal court and child welfare, and to establish a protocol for institutionalizing the link, the current study first collected data on child maltreatment cases presented to the State Attorney's Office (SAO) in Broward County for prosecution in 2001 through 2003. These data were used to search the Broward Sheriff's Office (BSO) Home Safe Net records from the same time period to determine the degree to which the two datasets matched in terms of identified perpetrators. Following are the results of the initial SAO criminal court data collection process and outcomes, as well as process and results of the BSO search.

B. SAMPLE DESCRIPTION

The sample for the study consisted of 1127 cases presented to the SAO for prosecution consideration from 2001 through 2003. Of those cases, 143 were eventually accepted and disposed. To protect the privacy of the defendants, the SAO did not include defendant names in the sample if the case was still pending, if the case had been rejected for prosecution, or if the perpetrator was a juvenile. Defendant names were provided for 235 of the 1127 presented cases. Cases with names attached were subsequently used to search the BSO database. Of those cases with names, 111 were also disposed. Significance testing was done to assess whether there was a correlation between a name being present and a case being disposed, and whether there were any differences between disposed and non-disposed cases with respect to relevant variables.

Table 3 demonstrates that there is a significant correlation between names being attached and their dispositions status, which is to be expected and unavoidable given the exclusion criteria. With regard to differences between disposed and non-disposed cases, race and sex are not significant, although there are more white females in the disposed cases. The degree, type and class of the charge are significantly associated with disposition, which is not surprising. The majority of disposed and non-disposed cases fall into the category of third degree abuse felonies; percentages in the disposed cases are smaller and represent a

significant difference. Finally, the length of time between arrest and disposition is also significantly associated with disposition status.

Table 3. SAO Original Sample (N=1127)

	Presented/ Disposed	Percent	Presented/ Not Disposed	Percent	Significance Test	Significance Level
Number of Cases	143	12.7%	984	87.2%		
Names Attached	112	78.3%	124	12.6%	r=.533*	0.000
Age (mean years)	34.6		35.35			
Race (white)	52	59.1%	448	45.7%		
Sex (female)	68	53.5%	458	47.1%	**Impact on Being Disposed**	
Degree of Charge (3rd degree)	88	69.8%	826	83.9%	chi=18.68 (df=3)	0.000
Type of Charge (abuse, 3rd degree)	67	46.9%	600	61.0%	chi=40.90 (df=6)	0.000
Class of Charge (felony)	96	76.2%	908	92.3%	chi=33.46 (df=1)	0.000
Lag between Offense & Arrest						
Mean (months)	0.97		0.33		F=2.13	0.000
Category: 1 month or under	104	87.4%	459	46.6%	chi=13.46 (df=3)	0.004

The data sent to BSO for tracking back through their child welfare data included all cases from the original SAO data with names attached (N=235). **Table 4** describes the search sample, comparing significant differences between disposed and non-disposed cases. The search sample differs from the original sample in that age and race are significantly associated with disposition, while the type of charge and time between offense and arrest are not. The degree and class of the charge remain significant.

Table 4. BSO Search Sample (N=235)

	Disposed	Percent	Not Disposed	Percent	Significance Test	Significance Level
Number of Cases	111	47.2%	124	52.8%		
Age (mean years)	34.6		32.2		F=3.84	0.051
Race (white)	42	37.8%	64	51.6%	chi=4.49 (df=1)	0.023
Sex (female)	60	54.1%	69	55.6%		
Degree of Charge (3rd degree)	76	68.5%	91	73.4%	chi=31.12 (df=9)	0.000
Type of Charge (abuse, 3rd degree)	59	53.2%	41	33.1%		
Class of Charge (felony)	83	74.8%	109	87.9%	chi=6.7.5 (df=1)	0.007
Lag between Offense & Arrest						
Mean (months)	1.04		0.42			
Category: 1 month or under	93	86.9%	118	95.2%		

Table 5 compares the characteristics of the disposed cases in the SAO dataset (N=143) with the disposed cases in the BSO dataset (N=111) in terms of sanctions and length of time until sanctions are put in place. Over half the disposed cases in both sets resulted in a plea referred to as "nolo as charged", also known as "no contest."

A "nolo" plea means that the defendant does not admit the charge, but does not dispute it either. In putting forth such a plea, a defendant agrees that he or she may be found guilty by the court without ever admitting guilt to the charges as presented. Defendants are likely to use this plea when they feel they are going to be convicted and wish to avoid a jury trial. This plea also forestalls the possibility of civil prosecution while having the same effect on sentencing as a guilty plea.[3] The combination of this plea and guilty pleas accounts for over 80% of dispositions in the SAO data used for this study and for over 90% of dispositions in the BSO search data. Differences in percentages among other variables appear to be negligible.

Table 5. Outcomes for Disposed Cases (N=143)

DIPSOSED CASES	SAO Original	Percent	BSO Search	Percent
Number of Cases	143		111	
Disposition				
Pled Guilty as Charged	39	27.3%	36	32.4%
Pled Nolo to Charges	80	55.9%	75	67.6%
Probation	114		98	
Mean (years)	2.8		3	
Category: 2-4 years	61	53.5%	57	58.2%
Sentence	35		33	
Mean (months)	4.9		6	
Category: Under 6 months	15	42.9%	14	42.4%
Lag between Offense and Arrest				
Mean	1.2		1.0	
Category: 1 month or under	104	87.4%	93	86.9%
Lag between Offense & Disposition				
Mean (months)	9.5		9	
Category: 6 months or under	54	37.8%	46	41.4%
Lag between Arrest & Disposition				
Mean (months)	8.5		8	
Category: 6 months or under	61	43.9%	51	46.3%

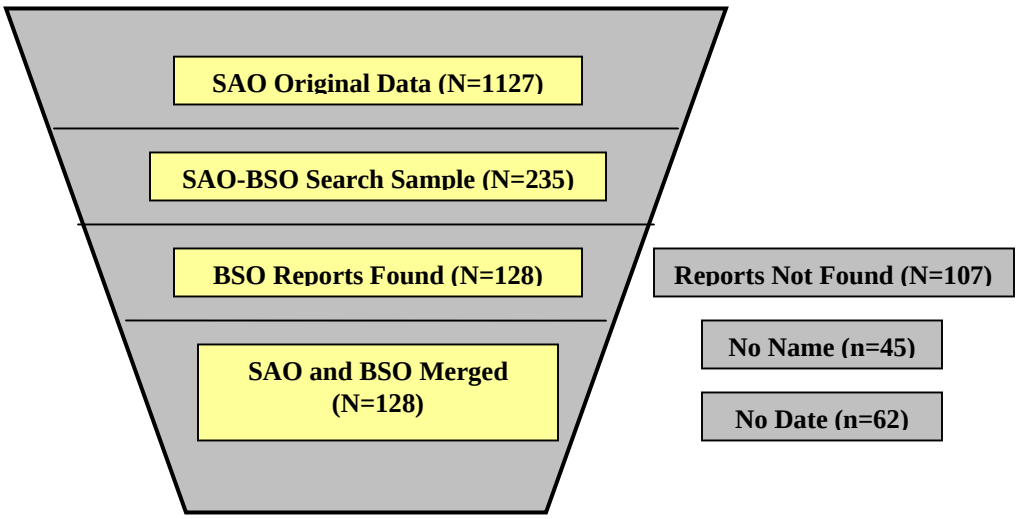
[3] http://www.wordiq.com/definition

C. RESULTS: TRACKING BACK FROM CRIMINAL DISPOSITION TO ORIGINAL REPORT

Constructing The Final Search Sample

Figure 4 illustrates the protocol used to construct a final dataset containing 128 cases of child maltreatment that resulted in criminal arrest, prosecution, and sanctions. BSO reports were found by matching names first, then by SAO offense date. If a BSO report with the same name had an offense date that was more than one month before or after the report date in the SAO data, it was not included as a match. Of the 235 names provided, BSO found 128 matching reports in their Home Safe Net database. Of the unmatched reports, 45 had no name match and 62 had no offense date match. Following is an analysis of the differences between the original sample and the search sample.

Figure 4. Data Tracking Protocol and Results



Analysis of Reports Found and Not Found

Table 6 compares characteristics of reports found (N=128) with those not found (N=107). Chi-square and means testing revealed no significant differences between to two groups of cases for any of the relevant variables. These results are encouraging because they indicate that an analysis of reports found may be representative overall of the entire search sample.

Table 6. Comparison of Reports Found and Reports Not Found

	Found	Percent	Not Found	Percent
Number of Cases	128	54.5%	107	45.5%
Cases Disposed	64		64	
Age (mean years)	33.8		32.7	
Race (white)	58	45.3%	48	44.9%
Sex (female)	64	50.0%	65	60.7%
Degree of Charge (3rd degree)	93	69.2%	74	72.7%
Type of Charge (abuse, 3rd degree)	60	46.9%	40	37.4%
Class of Charge (felony)	105	82.0%	87	81.3%
Lag between Offense & Arrest (mean months)	0.71		0.71	
Disposition				
Pled Guilty as Charged	19	29.7%	17	36.2%
Pled Nolo to Charges	45	70.3%	30	63.8%
Probation (mean years)	3.3		3	
Sentence (mean months)	7.1		5.2	
Lag between Offense & Disposition (mean months)	8.6		10.2	
Lag between Arrest & Disposition (mean months)	7.71		9.13	

Analysis of Reports Found by Disposition Status

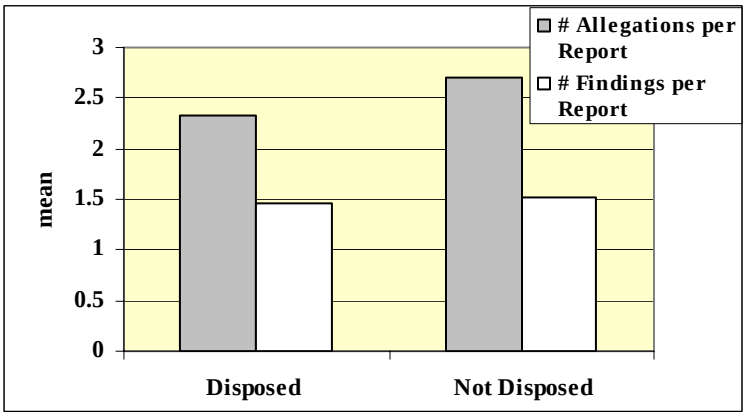
For the reports found, BSO provided information on allegations, findings, and relationship between perpetrator and child. When the SAO and BSO data were merged, a final sample (N=128) provided data from allegation through court disposition and sentencing. **Table 7** demonstrates the differences in the reports found by disposition status on demographics, aggregate allegations, and aggregate findings. Chi-square and means testing revealed no significant differences between the disposed and non-disposed cases, suggesting that these variables play no significant part in whether a case is accepted for prosecution. These results are also encouraging because they indicate that an analysis of disposed cases may apply to the non-disposed cases as well.

Table 7. Comparison of Disposed and Non-Disposed Cases in Found Reports

BSO Matched Data	Disposed	Not Disposed
Number of Cases	64	64
Age (mean)	34.1	33.5
Race		
White	26	32
Black	38	32
Sex		
Female	32	32
Male	32	32
Total Number Allegations	150	165
Mean # Allegations per Report	2.35	2.67
Total Number of Findings	90	98
Mean # Findings per Report	1.47	1.56

BSO also provided information on the number and type of initial allegations, the number and type of findings, the relationship between the perpetrator and the child involved in the maltreatment case, and perpetrators. Each BSO report indicated 1-5 types of allegations and 1-4 types of findings. Allegations and findings were aggregated to compare the relationship between the mean number of allegations per report and the mean number of findings per report **(Figure 5)**; the relationship proved significant (F=4.78, <.001). As intuitively expected, the allegations and findings are correlated.

Figure 5. Comparison of Mean Number of Allegations and Findings



Disposed, r=.483 <.01; Not Disposed, r=.256, <.05

Figure 6 illustrates the differences in type of allegations by disposition status. The majority of all cases involve an allegation of physical abuse; more of

those cases are disposed than not disposed. The same is true for allegations of family violence and hazardous conditions, while the distribution between disposed and non-disposed cases with other allegations -- substance related and inadequate supervision -- is relatively even. None of these differences proved to be significant.

Figure 6. Types of Allegations (N=323) by Disposition Status

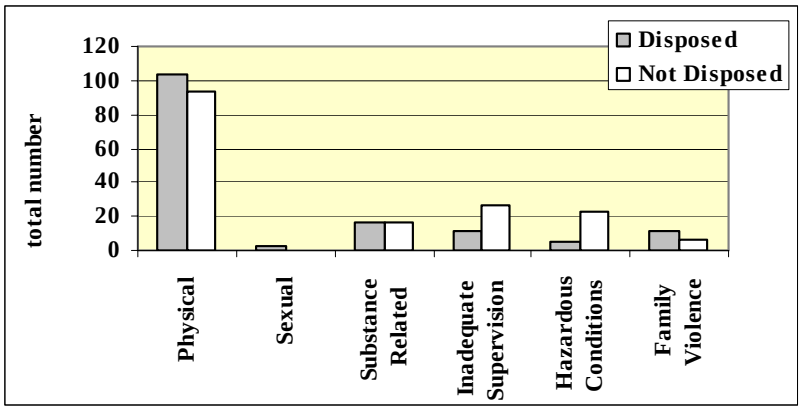
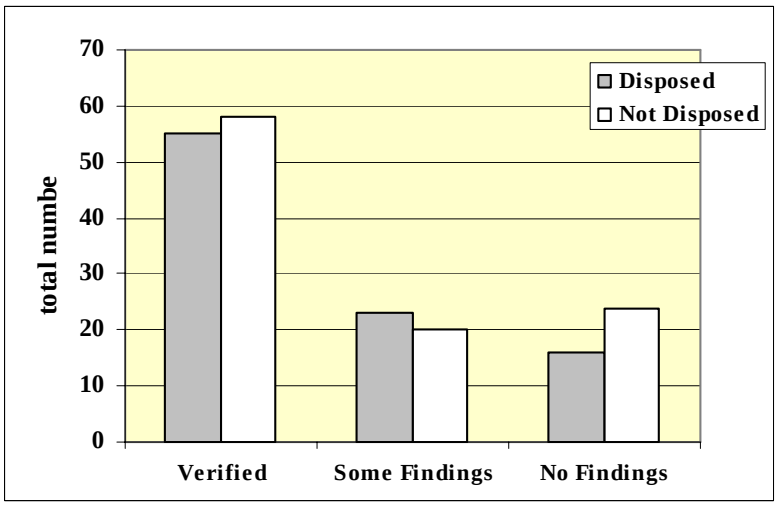


Figure 7 reports the distribution of types of findings by disposition status. The fact that a greater number of allegations with verified findings are not disposed than are disposed is surprising, as is the fact that there are so many cases with no findings that are disposed. This situation is complicated by the fact that some of the findings in a report may be verified, while others are not.

Figure 7. Findings (N=188) by Disposition Status



To further explore the situation, the findings were recoded dichotomously as substantiated or not substantiated, with “some findings” coded as substantiated. Each report was further coded with the total number of findings for the report and the number of the total findings that were substantiated. This recoding transposed

the total number of 188 findings to a report-based code that established the substantiation status for each of the 128 reports.

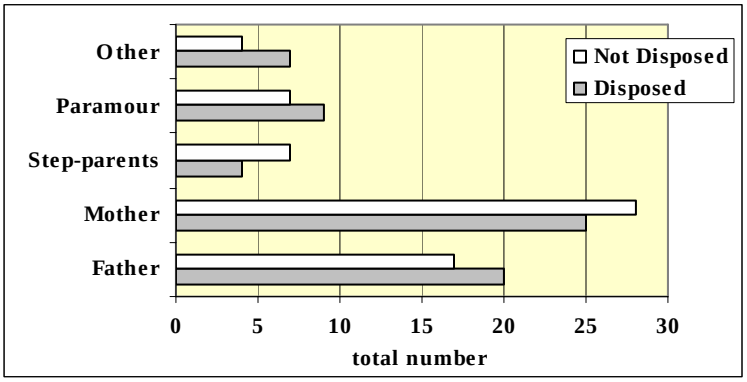
As **Table 8** demonstrates, 79.6% of all reports (N=102) substantiated all their findings. Of those reports with only substantiated findings (N=90), the majority (70.3%) consisted of one finding only. Of the reports with all substantiated findings (N=47), less than half of them (46.1%) were disposed. Conversely, 65.4% of cases with split findings (N= 26) were disposed. There was only one report with no substantiated findings; it was not disposed.

Table 8. Reports by Substantiation Status (N=128)

	Disposed		Not Disposed		% of Total
Reports w/All Sub Findings	**Number**	**Percent**	**Number**	**Percent**	
1	42	46.7%	48	46.7%	70.3%
2	3	50.0%	3	50.0%	4.7%
3	1	33.3%	2	66.7%	2.3%
4	1	33.3%	2	66.7%	2.3%
Total w/All Sub Findings	**47**	**46.1%**	**55**	**53.9%**	**79.7%**
Reports with Split Findings	**17**	**68.0%**	**8**	**32.0%**	**19.5%**
Reports with No Sub Findings	**0**	**0.00%**	**1**	**0.8%**	**0.8%**

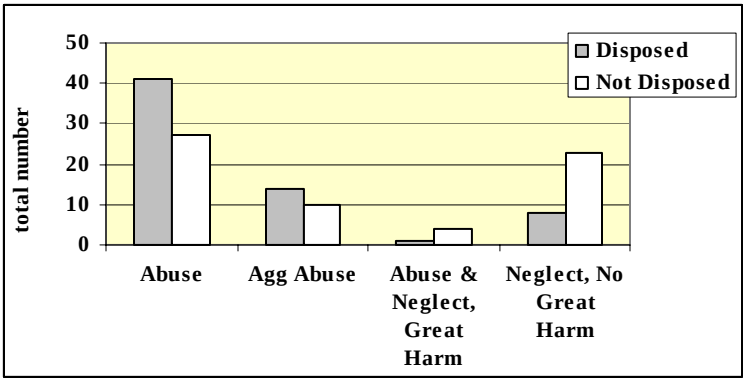
Finally, **Figure 8** illustrates the relationship between perpetrator and child in reports found. The majority of all cases involve mother as perpetrator. However, a smaller percentage of these cases are disposed than not disposed. Although there are fewer step-parents involved as perpetrators overall, fewer of them are disposed. Conversely, fathers and paramours, as well as other relative and non-relative caretakers, are represented more in disposed than non-disposed cases. None of the relationships are significant in their association with disposed and non-disposed cases.

Figure 8. Relationship between Perpetrator and Child



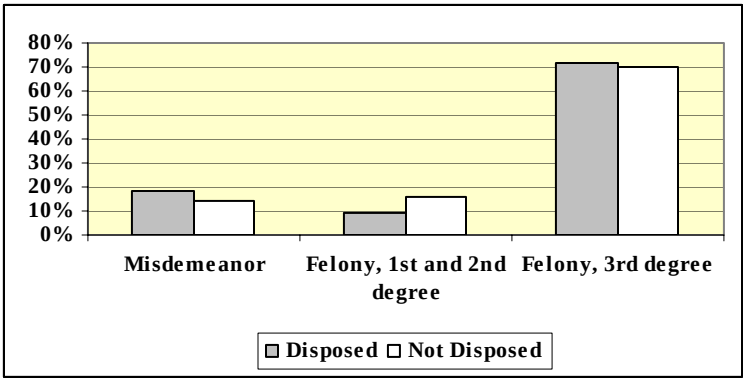
With regard to types of criminal charges **(Figure 9)**, over 50% of all cases involved simple abuse charges; 64.1% of all disposed cases involve this type of charge. The relationship between disposition and type of charge is statistically significant (<.006). The second highest percentage of cases involves neglect without great harm; only 12.5% of those cases are disposed. With regard to the degree of the charge, **Figure 10** reveals that in both disposed and non-disposed cases 70% of the charges are third degree felonies.

Figure 9. Type of Criminal Charge by Disposition Status



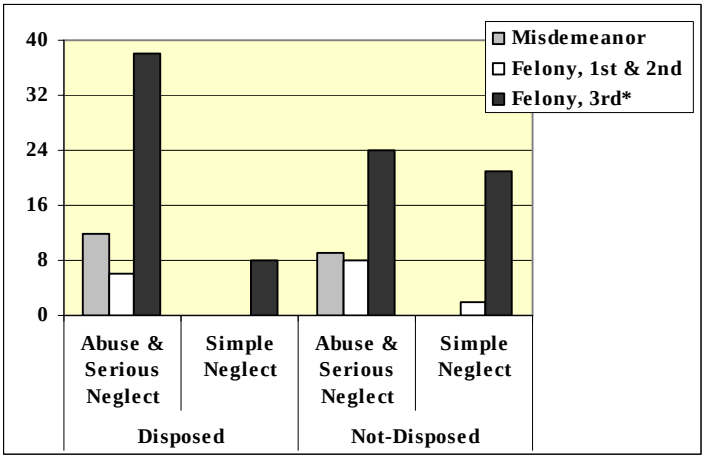
chi=12.71 (df=3) <.006

Figure 10. Degree of Criminal Charge by Disposition Status



To explore the association between charge type and degree, and their relationship to disposition, types of charges were dichotomized. The first three charge types were coded as abuse and serious neglect, and the fourth charge was coded as simple neglect. When tested, the relationship of the two to disposition proved significant only with regard to 3rd degree felony charges **(Figure 11)**.

Figure 11. Type and Degree of Charge by Disposition Status



chi=8.98 df=1 <.003

Analysis of Disposed Cases

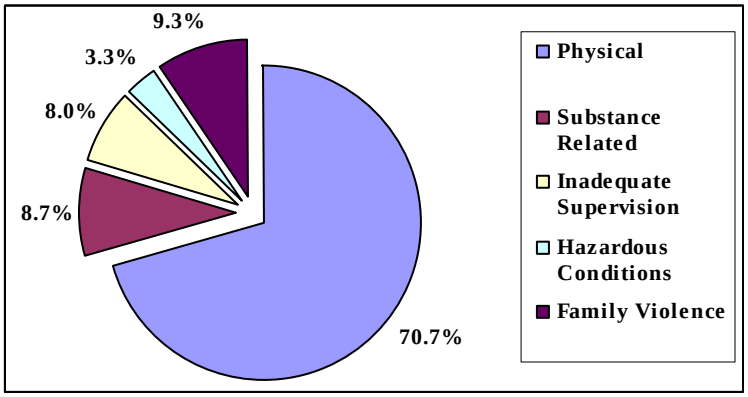
Ultimately, the study was able to track 64 cases from allegation through criminal prosecution outcome. **Table 9** provides a snapshot of the sample in terms of demographics and aggregate allegations, findings, charges, sanctions and case duration.

Table 9. Distribution of Relevant Variables in Disposed Cases

Number of Cases	64
Age (mean)	34.1
Race (white)	26
Sex (female0)	32
Total Number Allegations	150
Mean # Allegations per Report	2.35
Total Number of Findings	94
Mean # Findings per Report	1.47
% Charged w/Abuse & Serious Neglect	87.5
% Charge w/ 3rd Degree Felony	71.9
% Pleading Nolo	70.3
% Probation 2-4 years	54.5
% Sentenced over 1 year	47.4
Avg Time Between Offense & Arrest (mos)	1.03
Avg Time between Arrest & Disposition (mos)	7.71
Avg Time between Offense & Disposition (mos)	8.6

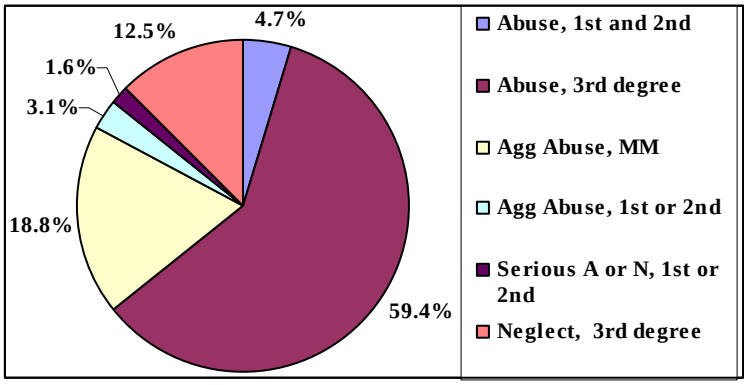
Figure 12 illustrates that the majority of cases (70.7%) prosecuted had original allegations involving physical abuse. Of all allegations, 52.2% were verified. **Figure 13** illustrates a comparable majority of cases (59.4%) being criminally charged with 3rd degree felony abuse. The relationship between the type of criminal charge and the degree of the charge proved significant (chi=67.04, df=6, <.000).

Figure 12. Distribution of Maltreatment Allegations* by Type



*** 52.2% of all allegations substantiated**

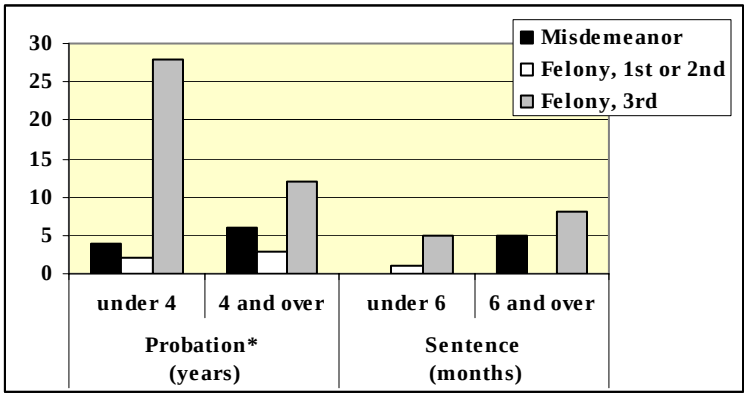
Figure 13. Distribution of Criminal Charges by Type and Degree



The merged data also allowed for an exploration of the types of criminal sanctions imposed on child maltreatment perpetrators. Of the 64 disposed cases, 55 received a probation sanction and 19 received a prison or jail sentence. Only 3 cases received no sanctions at all; 13 cases received both probation and sentence time. The relationship between probation and sentence was significant (chi=13.43, df=6, <.037).

When comparing the type of criminal sanctions imposed by the type of criminal charge, a relationship between the two proved significant in the case of probation (chi=14.74, df=6, <.022), but not significant in the case of sentencing **(Figure 14)**. It is clear that most prosecuted cases of child maltreatment result in 4 months or less of probation and/or more than six months of a jail sentence.

Figure 14. Relationship between Criminal Charge and Criminal Sanction



*** chi=14.74 (df=6) <.022**

To complete a picture of the link between criminal court and child welfare data, **Table 10** demonstrates the report distribution from allegation to substantiation to criminal charge to criminal sanction.

Table 10. Report Distribution from Allegation through Sanctions

Reports by Allegations (N=87)	**Number**
Physical Allegations	48
Inadequate Supervision & Substance-Related	21
Hazardous Conditions & Family Violence	18
Reports by Findings (N=64)	**Number**
All Sub Findings	47
Split Findings	17
No Sub Findings	0
Reports by Criminal Charges (N=64)	**Number**
Abuse, 1st or 2nd	3
Abuse, 3rd	38
Agg Abuse, MM	12
Agg Abuse, 1st or 2nd	2
Serious A or N, 1st or 2nd	1
Neglect, 3rd	8
Reports by Criminal Sanctions: Probation (N=40)	**Number**
Probation, under 4 years	28
Probation, 4 years and over	12
Reports by Criminal Sanctions: Sentence (N=19)	**Number**
Sentence, under 6 months	6
Sentence, 6 months and over	13

Figure 15 illustrates the distribution of perpetrator-child relationship in the disposed cases. Although the previous analysis of these relationships by disposition status demonstrated that a higher percentage of found reports with

fathers as perpetrators were disposed than those with mothers as perpetrators, this analysis of the relationships in the total disposed cases demonstrates that mother perpetrators are in the majority (39.1%). These relationships were not significantly associated with either probation or sentencing.

Figure 15. Distribution of Perpetrator-Child Relationships

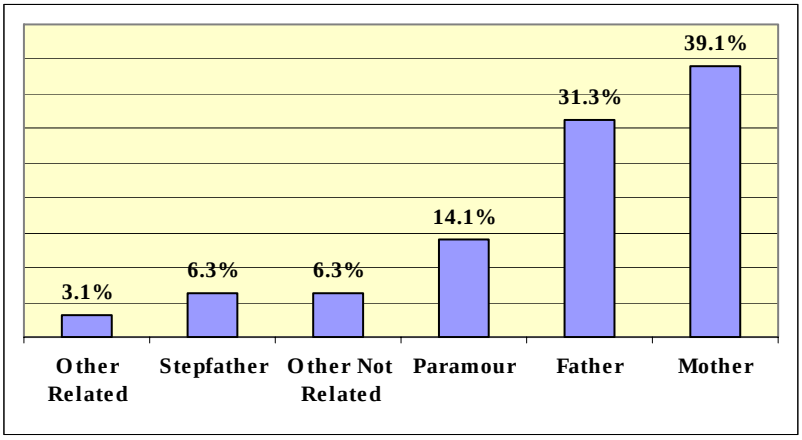
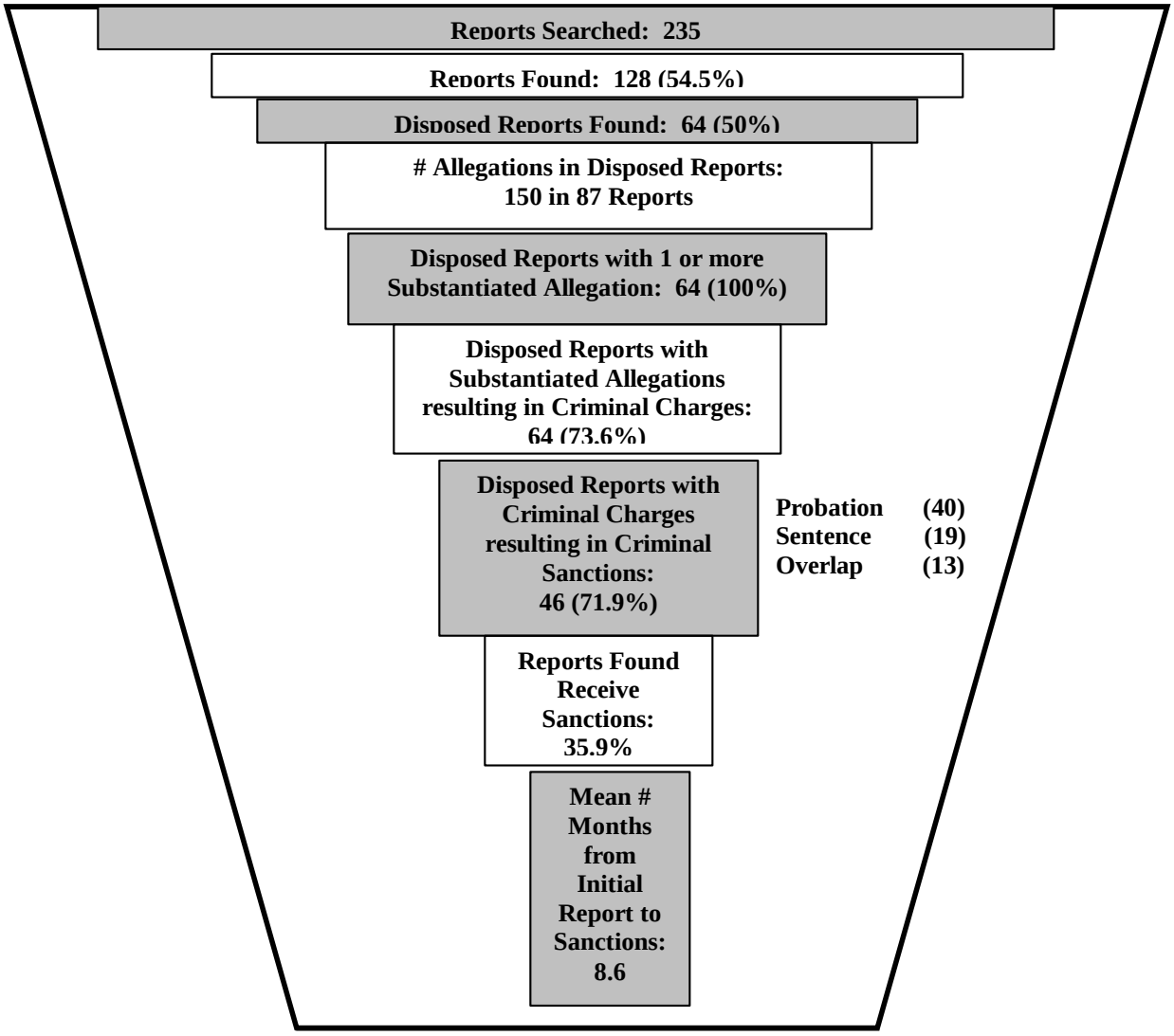


Figure 16 on the following page illustrates the results of the tracking protocol and makes clear that for the merged SAO/BSO sample tracked, a little over half of the reports were found. Of those that were found, half had been disposed and all had at least one substantiated allegation in the report. There were 87 allegations contained in the found reports and over 70% of them yielded charges in a criminal case. Over 70% of these cases ultimately received criminal sanctions.

Figure 16. From Child Welfare Report to Criminal Court Sanctions



D. SUMMARY OF FINDINGS ON THE LINK BETWEEN CHILD WELFARE AND CRIMINAL SANCTIONS

The findings from the tracking project are limited to some extent by the existence of significant differences between the SAO original and the BSO search sample, making the search sample less than representative of the whole. These differences are not easily explained because there were multiple criteria involved in the decision to exclude names from the original sample. It is impossible to determine how many of the cases without names would have been located in the

BSO search had names been provided and, if they had been, how they would have affected disposition and criminal sanctions.

The lack of significant differences between the disposed cases in the SAO original sample and the BSO search sample indicate that the impact of being able to include the no names in the search would probably have been negligible. Therefore, the findings on criminal sanctions for child maltreatment perpetrators from the search sample may be considered representative of the larger sample. This statement is supported by the lack of significant differences on all relevant variables between the reports found and not found in the search sample.

Findings are limited as well by the fact that there is no way to determine that the match between criminal case and child welfare report is exact. However, the inclusion criteria for the match are stringent enough to feel confident the matches are accurate. Also, matching the multiple allegations and findings from the BSO child welfare data with the single case specific outcomes in the SAO data precludes exact matching of allegation, finding, charge, disposition and sanction. However, collapsing allegations and findings into dichotomous units allowed for an approximation of one-on-one matches with the corresponding criminal case. Although the matches remain somewhat less than precise, the analytic findings are robust for an essentially exploratory study of the link between child welfare and criminal sanctions.

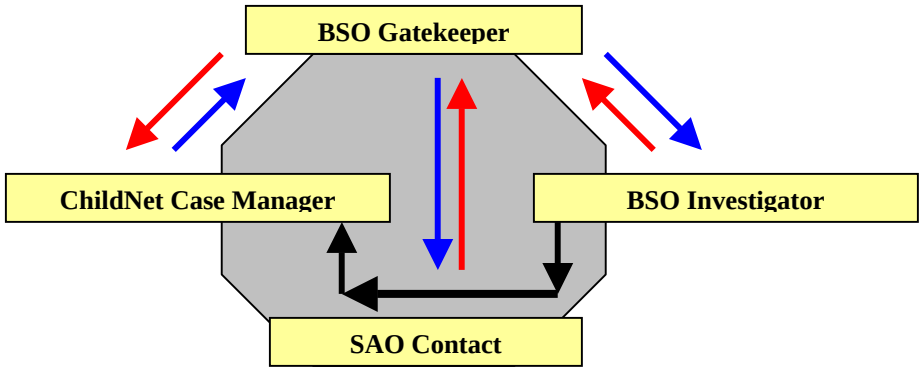
Within the search samples, type of allegation and relationship to the child did not prove significantly different for disposed cases. The type and degree of charge were not related to disposition when analyzed separately, but were significantly related when collapsed and combined into a single variable. Disposed cases consisted primarily of substantiated allegations of physical abuse resulting in 3rd degree felony charges. Almost one-third of disposed cases resulted in either probation or a jail sentence, although only the relationship between probation and the degree of the charge proved significant. The most commonly reported relationship in the disposed cases was between mother and child. None of the relationships, however, were significantly associated with specific probation or sentence time.

Discussion

Overall, only 35.9% of reports found through the tracking protocol received criminal sanctions. This low figure may be the result of reluctance on the part of prosecutors – and perhaps child welfare investigators as well – to treat child maltreatment as a criminal offense. If the child welfare and criminal systems were more interactive, this reluctance might be overcome. If there was more acknowledgement of the impact of perpetrators within the family dynamic, there might be alternative treatment plans developed for families with a co-occurrence of dependency and criminal cases.

Creating a feedback loop between the two systems would be the first step in what would optimally be a data integration process. Discussion with the Broward County Sheriff's Office (BSO) revealed that they are willing to participate in a pilot that would create the feedback loop between BSO and criminal court if the pilot were funded to the extent necessary to dedicate a staff member as gatekeeper on the issue. The BSO would instruct each investigator to note in the case file notes whether or not there were concurrent dependency and criminal cases under investigation and moving toward disposition. They would then inform the designated gatekeeper, who would have access to the BSO files, of the need to start tracking both dependency and criminal outcomes. The gatekeeper would not initially have access to the criminal files, as the State Attorney's Office (SAO) felt that this step should wait until the completion of the pilot. The State Attorney's Office, however, would work with the BSO gatekeeper to provide criminal outcomes when requested. This pilot would run for one year and include an evaluation component to monitor the process and analyze outcome data. The feedback loop would include the child welfare investigators initially and case managers once the investigative case is closed and transferred to the service provider. In Broward County, the private lead agency is ChildNet, which has been fully operational since April 2004. The Principal Investigator on the current study has an established relationship with ChildNet, as well as BSO and SAO, making the pilot project feasible from everyone's perspective. Figure 17 illustrates the anticipated feedback loop. The **BLACK** lines indicate the current state of one-way transfer of data from the investigator to the case manager on dependency cases. The **RED** lines indicate the direction of the initial flow of data and the **BLUE** lines indicate the feedback flow of data. Once the loop is established, it is expected that the flow through the gatekeeper will keep all parties informed as to the concurrent outcomes of dependency and criminal cases.

Figure 17. Pilot: Feedback Loop between BSO and SAO



VI. SECONDARY ANALYSES OF CHILD WELFARE DATA (Florida Abuse Hotline Information System, 1996 – 2002)

A. ANALYTIC PLAN

The following analyses are designed to supplement findings from the original evaluation of the transfer of responsibility for child maltreatment investigations to the Sheriff's Offices in four experimental counties. The analyses used data from the Florida Abuse Hotline Information System (FAHIS) that had been used in the original evaluation. Those data were supplemented by an additional 20 months of data to increase the number of cases in the post stage of the experiment. Analyses were conducted using a variety of significance tests, most of which compared 5 pairs of experimental and comparison counties. **Table 11** describes the county pairs used in the analyses, as well as the number of months in the pre and post stages of the study for each pair.

Table 11. County Pairs and Time Periods in Months[4]

		Pre	Post
PAIR 1	**Manatee**	18	56
	Lee 1		
PAIR 2	**Manatee**	18	56
	Sarasota		
PAIR 3	**Pinellas**	34	46
	Hillsborough		
PAIR 4	**Pasco**	39	41
	Lee 2		
PAIR 5	**Broward**	42	32
	Palm Beach		

Please note that there was a six-month transitional stage for two of the five experimental counties (Manatee and Broward); however, the reports from these months were eventually dropped from the analytic sample because it was impossible to determine which reports had been actually transferred to the Sheriff's Offices and which had been investigated by DCF. Theses reports were necessarily included in the longitudinal event history analyses. For those analyses, the transitional reports were combined with the pre-stage reports for graphical representation and for repeated event statistical analyses. A second set of analyses compared Sheriff and Non-Sheriff counties overall. In these instances, Pair 1 was dropped from the dataset to avoid double counting Manatee

[4] Census (2000) data on the population in the 8 counties is provided in Appendix A.

and Lee. These analyses therefore involved 4 experimental and 4 comparison counties.[5]

Table 12 clarifies operational definitions for outcome measures related to child safety and system performance. **Table 13** provides a schematic for the secondary analyses, reporting the significance or impact test used, the test results, statistics reported, outcome measures under analysis, and the unit of analysis.

Table 12. Outcome Measures and Operational Definitions

VARIABLE	MEASUREMENT	
	For Percent Change and Effect Size Comparisons	**For Regression and Event History Analyses**
Substantiation	Number of reports substantiated per county in pre, transitional, and post periods	Presence or absence (flag)
Severity: Maltreatment (indexed)	Scale from 1 to 4: 1 - Abuse 2 - Neglect 3 - Threatened Harm 4 - Special Conditions	1, 2, and 3 as dummy variables, with 4 as the default
Severity: Disposition (indexed)	Scale from 1 to 4: 1 - Judicial w/ Protective Svcs 2 - Judicial w/o Protective Svcs 3 - Voluntary/Community Svcs 4 - Dismissed/Closed	1, 2, and 3 as dummy variables, with 4 as the default
Recurrence	# of Reports per family, victim, or abuser that represent a second report during the time period	Presence or absence (flag)
Recidivism	# of Substantiated reports per family, victim or abuser that represent a second substantiated report during the time period	Presence or absence (flag)
Duration: Time to Investigative Finding	Time between report received date and investigative finding date	N/A
Duration: Time to Investigative Closing/Open Services	Time between report received date and investigation lock date, which coincides with service plan implementation	N/A
Duration: Time to Recurrence/Recidivism	N./A	Time between dates of reports and substantiated reports

[5] emographics on caretakers, number of victims per report, and number of other children per report in post-transfer cases provided in Appendix A.

Table 13. Analytic Plan

OUTCOME	SIGNIFICANCE OR IMPACT TEST	TEST OUTPUT	STATISTICS REPORTED	UNIT OF ANALYSIS
Substantiation	Logistic Regression	Estimates the probability of a report being substantiated	Pr > ChiSq % Change in Odds	Report
	Effect Size Comparison	Estimates the magnitude of difference between two groups	Cohen's *d*	
Severity: Maltreatment (indexed)	Effect Size Comparison	Estimates the magnitude of difference between two groups	Cohen's *d*	Report
Severity: Disposition (indexed)	Effect Size Comparison	Estimates the magnitude of difference between two groups	Cohen's *d*	Report
Recurrence	Event History/Survival	Estimates the cumulative hazard or survival rate	Hazard or Survival Curve Estimated % Change	Family
Recidivism	Event History/Survival	Estimates the cumulative hazard or survival rate	Hazard or Survival Curve Estimated % Change	Family
Duration: Time to Investigative Finding	Ordinary Least Squares (OLS)	Estimates the proportion of variance explained by the variables in the model	Adj R-Sq	Report
	Effect Size Comparison	Estimates the magnitude of difference between two groups	Cohen's *d*	
Duration: Time to Investigative Closing	Ordinary Least Squares (OLS)	Estimates the proportion of variance explained by the variables in the model	Adj R-Sq	Report
	Effect Size Comparison	Estimates the magnitude of difference between two groups	Cohen's *d*	

Logistic regression was used to estimate the effect of the law enforcement experiment on the likelihood of reports being substantiated because the outcome variable is dichotomous. Goodness-of-fit tests such as model chi-square act as indicators of model appropriateness and the Wald statistic tests the significance of individual independent variables.

As a secondary analysis, effect sizes were calculated to determine the impact of the transfer on substantiation, as well as the impact on maltreatment and disposition severity. Effect size (ES), broadly speaking, is the name given to a statistic that indicates the difference in outcome between an average participant in an experimental group and a participant in a control group. Unlike significance testing, ES measures the magnitude of an effect without being dependent on sample size. This quality makes it a particularly useful method for analyzing large datasets. The most commonly used statistic is Cohen's *d*, calculated as the difference in means between the experimental and control groups divided by the standard deviation of either group if the variances of the two groups are homogenous. Zaslow, McGroder, and Moore (2000) used an effect size of .3 or higher as "policy-relevant" in their analysis of child outcomes from welfare-to-work strategies. In commenting on this decision in a summary report to the Department of Health and Human Services, the researchers stated that:

> This threshold sets aside impact findings that are so small that, while they are reliable statistically and warrant continued monitoring over time, may at this point in time have limited importance in terms of children's development. At the same time, the threshold for policy relevance does not require that an impact be "large" in magnitude in order to meet the criterion. By setting the threshold in this way, we can be reasonably confident that we are being inclusive in identifying instances of possible harm as well as of possible beneficial effects on children, without focusing on effects that are so small as to be of limited importance … We also identify those impacts for which effect sizes substantially exceeded the threshold for policy relevance, that is, were .50 or larger…

Based on this research, the current study also uses .3 as the policy-relevant effect size as a measure of impact.

Event history analysis was used to examine recurrence and recidivism. Event history analysis (also called *survival analysis*, *hazard analysis*, and *failure-time analysis*) is a group of statistical techniques used with longitudinal data that contain both dates and events that may or may not happen for all units in the dataset (Allison, 1984). Event history analysis is useful in situations where an event might not happen for all cases and when cases are observed for differing periods of time. Measures of central tendency, such as a mean, do not work well unless there is complete data (the full survival time) for every unit in the set. If there is potential that an event could occur after the observation period, or that cases are excluded from the study without the event occurring, event history analysis is preferred because it can control for *censoring*, that is, when an event does not occur within the study period. For example, if a recurrence of child maltreatment occurs following the observation point, such information would not be reflected in the mean length of time to recurrence or data regarding incidence of recurrence. This is true, also, for cases that do not complete the study period

due to dropping out or other causes of attrition, such a moving outside of the county.

Event history analysis produces a *survival rate* and a *hazard rate*. The survival rate is an individual unit's likelihood of surviving past a particular time (t) without experiencing the event of interest. For example, the analysis estimates the likelihood that a particular family will not have a recurrence of child maltreatment by a six-month follow-up observation point. A survival curve demonstrates the proportion of the sample that "survives" (remains without a recurrence of child maltreatment) as a function of time. A reverse of the survival rate is the hazard rate, which indicates "the probability that an event will occur at a particular time to a particular individual" (Allison, 1984).

Additionally, regression was used to estimate the proportional influence of model variables on recurrence, recidivism, time to investigative finding, and time to investigative closing. The Cox Proportional Hazard Model was used for recurrence and recidivism. It is the most general of the regression models because it is not based on any assumptions concerning the nature or shape of the underlying survival distribution. The model assumes that the underlying hazard *rate* (rather than survival time) is a function of the independent variables (covariates); no assumptions are made about the nature or shape of the hazard function. Cox's regression model is considered a nonparametric method. Ordinary Least Squares (OLS) regression was used to estimate the effect of the transfer on the duration of investigations and the time between report and disposition.

B. ADMINISTRATIVE DATA

The study created two longitudinal analytic datasets suitable for Event History analyses: 1) A report-based *Family History Dataset*, which includes all reports associated with a family, and 2) a report-based *Family History Substantiated Report Dataset*, which includes all substantiated reports associated with a family. These analyses take into consideration issues such data censoring and varying durations of post-takeover stage for each of the three experimental counties. These datasets were transformed to accommodate all other types of analyses undertaken by the study.[6]

C. SAMPLE DESCRIPTION

The original sample for the study consisted of all reports submitted through Florida's centralized hotline to the counties involved in the study. This sample was stratified into three experimental stages: Pre, Transitional, and Post.

[6] Although we anticipated having a Caretaker-Abuser Career Dataset at the same time, we discovered that that many of the substantiated reports lack perpetrator identification, which mitigates against the usefulness of this dataset. Therefore, we will not submit the third dataset as originally proposed.

As mentioned previously, the problem with the reports in the transitional stage was three-fold: 1) there was no clear record of which reports were transferred to the Sheriff's Offices during that stage; 2) the number of reports per county was very small relative to the number in the other stages; and 3) the stage only applied to two of the four experimental counties. For all of these reasons, reports from that stage were not included in the pre-post analytic comparisons except for the event history analyses where they were flagged if they represented either recurrence or recidivism.[7]

Table 14 indicates the number of reports in the final sample by county and stage. All counties increased the number of reports they received, with the exception of Pinellas, Hillsborough and Pasco. However, Pasco's comparison county (Lee 2) radically increased the number of reports, resulting in an imbalance in that county pair during the post period. **Table 15** reports the number of families involved in the reports.

Table 14. Sample Description: Number of Reports [8]

		Pre	Post	Total
PAIR 1	**Manatee**	2835	9701	12536
	Lee 1	3823	14837	18660
PAIR 2	**Manatee**	2835	9701	12536
	Sarasota	2177	8375	10552
PAIR 3	**Pinellas**	23046	19368	42414
	Hillsborough	27327	24018	51345
PAIR 4	**Pasco**	10104	7732	17836
	Lee 2	11447	19872	31319
PAIR 5	**Broward**	23590	30103	53693
	Palm Beach	18177	22368	40545
TOTAL		122526	156375	278901

[7] Number of reports in transitional stage: Manatee=842; Lee 1=1053; Broward=4308; Palm Beach =3207

[8] Data on number of victims and other children per report is provided in Appendix A.

Table 15. Sample Description: Number of Families [9]

		Pre	Post	TOTAL
PAIR 1	**Manatee**	2245	6304	8549
	Lee 1	2926	8937	11863
PAIR 2	**Manatee**	2245	6304	8549
	Sarasota	1770	5489	7259
PAIR 3	**Pinellas**	14961	13558	28519
	Hillsborough	17852	16163	34015
PAIR 4	**Pasco**	6647	5615	12262
	Lee 2	7274	11206	18480
PAIR 5	**Broward**	17747	21445	39192
	Palm Beach	12503	15308	27811
TOTAL		83925	104025	187950

D. RESULTS: ANALYSES OF COUNTY PAIRS

I. REPORTS FILED FOR INVESTIGATION

As mentioned previously, the transfer of maltreatment investigations to the Sheriff's Office was motivated by a concern for child safety and a belief that more direct law enforcement involvement might act as a deterrent. Legislators hoped that the transfer would result in fewer incidents of child maltreatment and better investigations of the incidents themselves. The sample description above indicates that there was an increase rather than a decrease in incident reports to the Hotline in five of the eight counties involved in thee study. However, the impact of the post experimental stage on the number of reports per family differs by county pair.

An effect size comparison reveals **(Table 16)** that the impact is only significant (*d*=>.3) in the county pairs that involve Manatee, possibly due to the longer post periods in those county pairs (56 months). The fact that the significant effects apply to both experimental and comparison counties suggests that the transfer alone did not account for the impact. Although Lee 2 demonstrated a large increase in the number of reports during the post period, this increase did not have a significant impact.

[9] Demographics on caretakers is provided in Appendix A.

Table 16. Impact of Post Experimental Stage on Number of Reports

		Cohen's *d*	Sig Impact
PAIR 1	Manatee	0.28	X
	Lee 1	0.3	X
PAIR 2	Manatee	0.28	X
	Sarasota	0.3	X
PAIR 3	Pinellas	-0.11	
	Hillsborough	-0.04	
PAIR 4	Pasco	0.15	
	Lee 2	0.15	
PAIR 5	Broward	0.09	
	Palm Beach	0.01	

II. SUBSTANTIATION

The significance or impact of the transfer of investigations to law enforcement on substantiation in the county pairs was explored from three perspectives: 1) Differences in the percent of reports substantiated pre and post the transfer for Sheriff and non-Sheriff counties; 2) Odds ratio estimates of substantiation by county pair; and 3) Effect size comparison of the impact of the post period in both Sheriff and non-Sheriff counties.

Change in Percent of Substantiated Reports by County Pair

Table 17 reflects the difference pre and post in the percentage of reports substantiated. All counties, with the exception of Palm Beach, decreased the percentage. Pinellas and Lee1 exhibited the largest decrease; making it unlikely that law enforcement alone had any effect on substantiation in terms of straight percentage change.

Table 17. Pre-Post Difference in Percent of Substantiated Reports

		Pre		Post		Change in % Substantiated
		# Substantiated	% of Total	# Substantiated	% of Total	
PAIR 1	**Manatee**	1790	63.14	5486	56.55	-6.59
	Lee 1	1436	37.56	4049	27.29	-10.27
PAIR 2	**Manatee**	1790	63.14	5486	56.55	-6.59
	Sarasota	1186	54.48	3570	42.63	-11.85
PAIR 3	**Pinellas**	12240	53.11	9336	42.18	-10.93
	Hillsborough	16039	58.69	12525	52.15	-6.54
PAIR 4	**Pasco**	4567	45.2	3261	42.18	-3.02
	Lee 2	3902	34.09	5943	29.91	-4.18
PAIR 5	**Broward**	12068	51.16	15118	50.22	-0.94
	Palm Beach	9072	49.91	11224	50.18	0.27
TOTAL		62360	50.85	70512	45.09	-5.76

Odds Ratio Estimates by County Pairs

Logistic regression models were run for each county separately and the county pairs together to see whether the odds of a report being substantiated changed significantly in the experimental counties during the post transfer period. The models included demographic control variables on both victims and caretakers as well as the count variables most likely to impact on substantiation: number of allegations, number of victims, and number of other children. A preliminary analysis of families that moved from one report to the next indicated that the move might affect outcomes such as substantiation; therefore a variable was created to indicate whether reports reflected a family move. A breakdown of the significance of the chi-squares for each of the variables in the model for each county pair is provided in **Appendix B.**

As demonstrated by the interaction statistics in **Table 18**, the odds (expressed as a percentage) of a report being substantiated increased in Manatee, Pinellas and Pasco after the investigative transfer to law enforcement when compared with themselves pre-transfer and with their comparison counties pre and post. The exception is Broward, where the odds percentage decreased (-10.3). This finding supports one of the assumptions behind the legislative transfer – that the police will be more effective as investigators because they are more accustomed to pursuing investigations aggressively. It may be that Broward does not demonstrate the same increased odds as the other Sheriff counties because it had the shortest post period in which to yield results.

Table 18. Odds (percentage) of Substantiation by County Pair

	PAIR 1	PAIR 2	PAIR 3	PAIR 4	PAIR 5
VARIABLE	**Man-Lee**	**Man-Sar**	**Pin-Hills**	**Pas-Lee**	**Br-PB**
Post Period	-44.1	-43.9	-26.0	-41.5	-5.6
Experimental County	192.1	44.4	-15.8	75.2	8.1
Post * Exp. Interaction	29.9	26.7	5.3	45.8	-10.3

*** Percent changes in odds are significant (<.0001) except for the Pinellas-Hillsborough interaction.**

A full report on the contribution of all variables to the county pair models, including an analysis of the impact on each county, is included in **Appendix B.**

Effect Size Comparison by County Pair

The final perspective on substantiation is provided by an effect size comparison of the impact of the transfer by county pair. As demonstrated in **Table 19,** the impact of the transfer on substantiation appears to be negligible.

Table 19. Effect Size Impact of Transfer on Substantiation by County Pair

		Cohen's *d*	Sig Impact
PAIR 1	Manatee	-0.12	None
	Lee 1	-0.24	
PAIR 2	Manatee	-0.12	None
	Sarasota	-0.11	
PAIR 3	Pinellas	-0.11	None
	Hillsborough	-0.14	
PAIR 4	Pasco	-0.06	None
	Lee 2	-0.08	
PAIR 5	Broward	-0.02	None
	Palm Beach	0.00	

Summary of Findings on Substantiation

The impact of the transfer on the number of reports is difficult to interpret, however, because the post stage of the experiment was impacted by a change in the administration of the Hotline itself. The administrative change was motivated by a series of high-profile child deaths. Consequently, the new administration put pressure on Hotline intake workers to accept reports for investigation to avoid

missing a potentially lethal incident. Although the number of reports in Manatee, Lee and Sarasota was impacted significantly during the post experimental stage, it is unlikely that the transfer of investigations to the Sheriffs Office in Manatee was responsible for the impact.

Although most counties increased the number of reports they investigated, they did not increase the percentage of reports they substantiated, with the exception of Pasco, where the percentage increase (.27) was negligible. However, the odds percentage of being substantiated increased in all county pairs in the post experimental stage, with the exception of Pair 5 (Broward-Palm Beach). The decrease there (-10.3) may reflect the relatively short time period of the post experimental stage in that county pair. Overall, the odds percentage increased (7.7) for the Sheriff's Counties in the post experimental stage. These findings suggest that the Sheriff's Offices are yielding significantly different results than DCF in their ability to substantiate cases and that the difference is primarily one of increased odds. However, as the effect size comparison illustrates, this significance may not be strong enough to demonstrate a policy relevant impact.

III. SEVERITY

Maltreatment Severity

As noted previously, there was some expectation on the part of legislators that the transfer of responsibility for maltreatment investigations to the Sheriff's Offices would result in stronger investigations and, possibly, increase substantiation rates. There was also a belief that more direct law enforcement involvement in child welfare would act as a deterrent, possibly reducing not only the incidents of maltreatment, but also their severity. For purposes of analysis, maltreatment severity was first conceptualized as ranging on a 4-point index from abuse (most severe) to special conditions (least severe). Special conditions include custody issues, jurisdictional mistakes, etc., which do not indicate level of severity and result in dismissals or transfers.

Changes in severity were measured as the percentage of reports substantiated at the high level on the maltreatment index. **Table 20** compares the pre-post changes in those percentages by county pair. All counties decreased the percentage of substantiated high severity reports, making it unlikely that the transfer of investigations produced the decreases. As a second measure of changes in severity, effect sizes were calculated for the impact of the transfer on maltreatment severity, using the mean of the maltreatment index for each county (**Table 21**). In this comparative analysis of the difference in impact on the county pairs, only Broward and Palm Beach (Pair 5) yielded policy relevant effect sizes. However, as the impact was the same on both experimental and comparison counties, it is not likely that the impact can be attributed to the transfer alone.

Table 20. Pre-Post Difference in Percent of Reports Substantiated with High Index Maltreatment Severity

		Pre		Post		Change in Percent
		Number	Percent	Number	Percent	
PAIR 1	**Manatee**	756	42.23	1874	34.16	-8.07
	Lee 1	603	41.99	1358	33.54	-8.45
PAIR 2	**Manatee**	756	42.23	1874	34.16	-8.07
	Sarasota	535	45.11	1244	34.85	-10.26
PAIR 3	**Pinellas**	4873	39.81	3256	34.88	-4.93
	Hillsborough	5926	36.95	4366	34.86	-2.09
PAIR 4	**Pasco**	1838	40.25	1035	31.74	-8.51
	Lee 2	1440	36.90	681	33.37	-3.53
PAIR 5	**Broward**	4456	36.92	4233	28.00	-8.92
	Palm Beach	3269	36.03	3005	26.77	-9.26

Table 21. Effect Size Impact of Transfer on Maltreatment Severity by County Pair

		Cohen's *d*	Policy Relevant Impact
PAIR 1	Manatee	0.19	
	Lee 1	0.24	
PAIR 2	Manatee	0.19	
	Sarasota	0.21	
PAIR 3	Pinellas	0.12	
	Hillsborough	0.09	
PAIR 4	Pasco	0.09	
	Lee 2	-0.1	
PAIR 5	Broward	0.37	X
	Palm Beach	0.30	X

Disposition Severity

Although there was less expectation that the transfer of investigations would impact on court dispositions, dispositions can be viewed as one outcome of investigative work in the sense that effective investigations provide the court with better information with which to make a disposition determination. Because so many other variables are likely to influence dispositions apart from the quality of investigations, the study only conducted an effect size analysis on differences in the mean index between counties.

Disposition severity was conceptualized as ranging on a 4-point index from judicial dispositions with court supervision to cases dismissed or closed after assessment. Severity was first measured similarly to maltreatment severity, as a percentage of substantiated reports resulting in a high level on the disposition index. **Table 22** demonstrates that the counties increased the percent of reports yielding a high level disposition, with the exception of Broward, Palm Beach, and Lee 2. Lee County, in both Pair 1 and Pair 4, exhibits particularly large increases.

As a second measure, the comparative effect size analysis **(Table 23)** demonstrated that both Lee County in both Pair 1 and Pair 2, and Broward County in Pair 5, were impacted at a policy relevant level. Because the significance was split between experimental and comparison counties over three county pairs, it is impossible to attribute the changes in disposition severity to the investigative transfer alone.

Table 22. Pre-Post Difference in Percent of Reports Substantiated with High Index Disposition Severity

		Pre		Post		Change in Percent
		Number	Percent	Number	Percent	
PAIR 1	Manatee	212	11.84	712	12.98	1.14
	Lee 1	132	9.19	1039	25.66	16.47
PAIR 2	Manatee	212	11.84	712	12.98	1.14
	Sarasota	133	11.21	635	17.79	6.58
PAIR 3	Pinellas	1555	12.70	1765	18.91	6.21
	Hillsborough	2467	15.38	2409	19.23	3.85
PAIR 4	Pasco	576	12.61	344	10.55	-2.06
	Lee 2	565	14.48	656	32.14	17.66
PAIR 5	Broward	2091	17.33	1510	9.99	-7.34
	Palm Beach	1053	11.61	1040	9.27	-2.34

Table 23. Effect Size Impact on Disposition Severity by County Pair

		Cohen's *d*	Policy Relevant Impact
PAIR 1	Manatee	-0.05	
	Lee 1	0.30	X
PAIR 2	Manatee	-0.05	
	Sarasota	0.06	
PAIR 3	Pinellas	-0.17	
	Hillsborough	-0.07	
PAIR 4	Pasco	-0.10	
	Lee 2	0.30	X
PAIR 5	Broward	0.30	X
	Palm Beach	-0.25	

Summary of Findings on Severity

In brief, there did not seem to be any real impact of the transfer of investigations on either the severity of maltreatment or the severity of disposition as changes in these measures affected the experimental and comparison counties equally.

IV. DURATION

One of the identified concerns of child welfare analysts and advocates is the length of time children are involved in the system before attaining permanency. The data available for the current study did not allow analyses on permanency outcomes; however, it was possible to determine pre-post effects on the length of time between opening a case for investigation and rendering a finding for the investigation. It was also possible to determine pre-post effects on the time between opening and closing a case for investigation. As the case closing coincides with opening a case for services, the analysis is important in terms of impact on treatment for children and families. Of the two duration analyses, the length of investigation is more closely linked to a possible impact of transferring investigative responsibility to law enforcement. The second -- the time between opening a case and implementing a service plan -- is affected by the capacity of services providers, the willingness of their part to accept cases for service, and complexity of family needs addressed through service planning. The

study also measured the change in time between investigative finding and case closing/service opening.

Duration variables were analyzed using regression; frequency distribution of mean # of days; and effect size comparison of impact. A preliminary frequency distribution of duration variables revealed that findings were rendered on the same day the report was received for 3.4% of the cases; the case was closed and services opened the same day a report was received in 2.2% of the cases; and findings were rendered the same day the case was closed in 17.46% of the cases.

Ordinary Least Squares: Estimates for Duration Variables

OLS regression models were run on both duration variables, using the same variables as the logistic regression model for substantiation, with the adjusted R-Sq reported for county pairs **(Table 24)**. The estimates reveal that its respective model explained a very small proportion of the variance in either variable.

Table 24. OLS Estimates for Time to Investigative Finding and Time to Case Closing/Services Open

		Adj R-Sq	
		Time to Finding	Time to Closing
PAIR 1	Manatee Lee 1	0.110	0.013
PAIR 2	Manatee Sarasota	0.068	0.029
PAIR 3	Pinellas Hillsborough	0.076	0.027
PAIR 4	Pasco Lee 2	0.207	0.037
PAIR 5	Broward Palm Beach	0.040	0.038

Time to Investigative Finding

The length of time it takes for an investigator to render a finding on a reported incident of maltreatment varies, of course, by the complexity of the particular allegation or set of allegations. In cases where there is an abundance of clear evidence the finding may be rendered on the same day the report is filed. In

other cases, it may require multiple visits and/or multi-disciplinary consultations. One of the assumptions made by the legislature when the transfer to of investigative responsibility to the Sheriff's Offices was implemented was that law enforcement would be more efficient in gathering evidence, weighing its significance, and decided on a finding. This study measured the time to investigative findings as a mean number of days from report received to finding documented.

Table 25 reports the pre-post difference in mean number of days between report received and finding rendered by county pair. The length of time increased for all counties, with the largest increase in Pasco and the smallest in Hillsborough. Comparing experimental and comparison counties, the larger increases in time to investigative findings occurred in four of the five experimental counties.

Table 25. Pre-Post Change in Time to Investigative Finding (mean # days)

		Pre	Post	Difference	County Diff
PAIR 1	Manatee	48.40	73.80	25.40	
	Lee 1	15.43	46.18	30.75	5.35
PAIR 2	Manatee	48.40	73.80	25.40	8.70
	Sarasota	49.45	66.15	16.70	
PAIR 3	Pinellas	55.48	93.24	37.76	31.76
	Hillsborough	51.51	57.51	6.00	
PAIR 4	Pasco	63.33	149.26	85.93	51.84
	Lee 2	24.45	58.54	34.09	
PAIR 5	Broward	61.91	96.28	35.07	26.25
	Palm Beach	65.87	74.69	8.82	

Table 26 reports the actual impact of these increases in each county. All experimental counties were significantly impacted in terms of increased length of time between report received and finding rendered. The greatest impact in the experimental counties was in Pasco. Of the comparison counties, only Lee was significantly impacted and this impact revealed itself in both county pairs in which Lee participates.

Table 26. Effect Size Impact on Time to Investigative Finding by County Pair

		Cohen's *d*	Policy Relevant Impact
PAIR 1	Manatee	0.30	X
	Lee 1	0.64	X
PAIR 2	Manatee	0.30	X
	Sarasota	0.25	
PAIR 3	Pinellas	0.43	X
	Hillsborough	0.10	
PAIR 4	Pasco	0.69	X
	Lee 2	0.75	X
PAIR 5	Broward	0.34	X
	Palm Beach	0.11	

Time to Case Closing

Florida's child welfare system had been plagued with a huge backlog of open cases prior to the beginning of the law enforcement experiment; this backlog may have played a part in the legislative decision to transfer investigations to the Sheriff's Offices. There was a need for the investigating agencies to improve performance in the area of timely case closings and an expectation that the Sheriff's Offices would be more efficient in clearing up the backlog. As the investigative closing date corresponds to the service plan opening date, decreases in time to closing are desirable in terms of moving children and families into treatment as soon as possible after the maltreatment incident.

Table 27 reports the pre-post difference in mean number of days between report received and investigation closed/services opened. Again, all counties increased the length of time to investigative closing, with four of the five experimental counties experiencing larger increases than their comparison counties. The largest increase was again in Pasco, with the smallest increase in Hillsborough.

Table 27. Pre-Post Change in Time to Case Closing/Services Open (mean # days)

		Pre	Post	Change	County Diff
PAIR 1	Manatee	57.66	82.39	24.73	7.39
	Lee 1	28.69	60.81	32.12	
PAIR 2	Manatee	57.66	82.39	24.73	6.56
	Sarasota	67.50	85.67	18.17	
PAIR 3	Pinellas	74.11	115.60	41.49	36.25
	Hillsborough	59.57	64.81	5.24	
PAIR 4	Pasco	92.37	193.95	101.58	72.31
	Lee 2	40.64	69.91	29.27	
PAIR 5	Broward	95.31	108.15	12.84	11.66
	Palm Beach	90.19	91.37	1.18	

Table 28 compares the impact of the transfer county by county on the length of investigations. With the exception of Broward County, the transfer impacted all experimental counties significantly; the only comparison county significantly impacted was again Lee in relationship to both Manatee and Pasco. The largest impacts were in Pasco and Lee counties.

Table 28. Effect Size Impact on Time to Case Closing/Services Open by County Pair

		Cohen's *d*	Policy Relevant Impact
PAIR 1	Manatee	0.28	X
	Lee 1	0.58	X
PAIR 2	Manatee	0.28	X
	Sarasota	0.24	
PAIR 3	Pinellas	0.42	X
	Hillsborough	0.08	
PAIR 4	Pasco	0.78	X
	Lee 2	0.55	X
PAIR 5	Broward	0.12	
	Palm Beach	0.11	

Summary of Findings on Duration

In terms of time to duration, the desired decreases in duration were only forthcoming in the time between investigative findings and case closing/services open. As these decreases were split between experimental and comparison counties, it is unlikely they can be attributed to the impact of the investigative transfer.

Pasco seems to have been effected more negatively than any of the other counties. It is difficult to determine an exact reason for such disproportionately large increases in duration, although findings from the previous study indicate that Pasco was the most resistant of the Sheriff's Offices to the change. In fact, Pasco delayed accepting the transfer for 6 months after the mandated start date due to contract negotiation disputes that were difficult to resolve. It is possible that a least some of the increases in duration times are due to this resistance, which may have continued after they finally accepted the transfer and began investigations.

Of the comparison counties, Lee experienced the most negative effects on time to finding and closing. Again, findings from the previous study may shed light on the situation. That study discovered that Lee County had suffered a serious cutback in its service funding prior to the investigative transfer. The increases in duration may reflect the county's diminished capacity to provide services and have little to do with investigative change. Despite this setback, Lee was able to decrease the time between rendering an investigative finding and closing the case to open it for service.

IV. RECURRENCE AND RECIDIVISM

Possibly the most important indicator of child safety is a decrease in recurrence and/or recidivism. As defined in this report, recurrence is the presence of more than one report of maltreatment per family by county and pre-post stage. Recidivism is the presence of more than one substantiated report of maltreatment per family by county and pre-post stage.

Frequency of Recurrence and Recidivism: Percentage Change

A broad way to look at changes in recurrence and recidivism is through a comparative frequency distribution. **Table 29** reports on the percentage changes pre and post in the recurrence per family. Although Manatee in both Pair 1 and Pair 2 experienced a large increase in the percentage of reports that represent a recurrence in the post stage, the comparison counties in those pairs also experienced large increases. The size of the increase in Manatee, Lee and Sarasota may be related to the fact that the post stage in these counties was much

longer than in any of the other county pairs. This extended post stage gives families more time in which to recur, so that comparisons among counties and county pairs must be viewed in light of the differential length of their post stages. In the other three county pairs, Lee 2 experienced the largest increase in the percentage of families with recurrence.

Table 29: Pre-Post Change in Percentage in Families with Recurrence

		Pre		Post		Change in % Recurrence
		# Recurrence	% of Total	# Recurrence	% of Total	
PAIR 1	**Manatee**	590	20.81	3397	35.02	14.21
	Lee 1	897	23.46	5900	39.77	16.31
PAIR 2	**Manatee**	590	20.81	3397	35.02	14.21
	Sarasota	407	18.70	2886	34.46	15.76
PAIR 3	**Pinellas**	8085	35.08	5811	30.00	-5.08
	Hillsborough	9475	34.67	7855	32.70	-1.97
PAIR 4	**Pasco**	3457	34.21	2117	27.38	-6.83
	Lee 2	4173	36.45	8666	43.61	7.16
PAIR 5	**Broward**	5843	24.77	8658	28.76	3.99
	Palm Beach	5674	31.22	7060	31.56	0.34
TOTAL		38601	31.50	52350	33.48	1.98

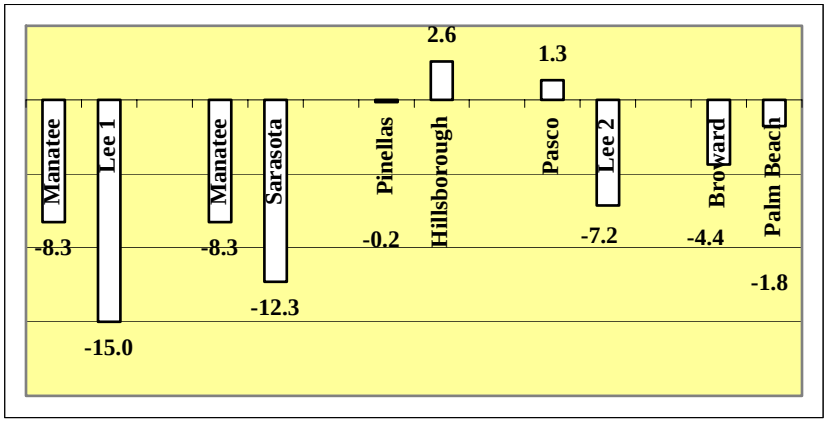
Table 30 demonstrates that the pattern for family recidivism is the same as for recurrence, although increases and decreases are much smaller. Comparing changes in percentages between recurrence and recidivism **(Figure 18**), it becomes clear that with the exception of Pasco and Hillsborough families recidivated much less than they recurred. As discussed previously, the increase in recurrence may be due to a change in the Hotline administration prior to the investigative transfer to the Sheriff's Offices. Hotline counselors and their screening procedures came under intense scrutiny, causing them to feel pressured into taking in more reports. A separate Hotline evaluation found that counselors began sending almost 90% of all calls out for investigation.[10] The difference between percent recurring and percent recidivating suggests that there may have been many spurious reports send to all counties

[10] Gelles, R., Cohen, B., Wilson-Spigner, C., Kinnevy, S. and Huang, V. (2000). *Evaluation of the Florida Child Abuse Hotline.* Report to the Florida Dept. of Children and Families, Tallahassed, FL

Table 30. Pre-Post Percentage Change in Families with Recidivism

		Pre		Post		Change in % Recidivism
		# Recidivism	% of Total	# Recidivism	% of Total	
PAIR 1	Manatee	368	12.98	1835	18.92	5.94
	Lee 1	360	9.42	1593	10.74	1.32
PAIR 2	Manatee	368	12.98	1835	18.92	5.94
	Sarasota	266	12.22	1313	15.68	3.46
PAIR 3	Pinellas	4382	19.01	2667	13.77	-5.24
	Hillsborough	5739	21.00	3947	16.43	-4.57
PAIR 4	Pasco	1621	16.04	816	10.55	-5.49
	Lee 2	1468	12.82	2550	12.83	0.01
PAIR 5	Broward	3206	13.59	3979	13.22	-0.37
	Palm Beach	2925	16.00	3260	14.57	-1.43
TOTAL		20335	16.60	21960	14.04	-2.56

Figure 18. Comparison between Percentage Changes in Recurrence and Recidivism



E. SUMMARY OF FINDINGS ON COUNTY PAIR ANALYSES

Overall, analyses of county pairs suggest that the impact of law enforcement experiment is negligible, with significant effects often applicable to both experimental and comparison counties, suggesting that the transfer alone did not account for the impact. Because the post stage of the experiment was

impacted by a change in the administration of the Hotline itself, the differential increases in number of reports in some counties is difficult to interpret, although there does not seem to be a pattern of increase in the experimental counties. The increase in the number of reports was not matched by an increase in substantiated reports. However, the odds percentage of a report being substantiated increased in four of the five county pairs in the post experimental stage, with the odds percentage increasing overall for the Sheriff's Counties in the post experimental stage. Although the odds of substantiation have seemingly increased due to the experiment, the effect size comparison demonstrates a small impact as a result of the odds change.

With regard to changes in maltreatment and disposition severity, the experiment seems to have little impact on either. With regard to duration of investigation and length of time to services, OLS estimates establish that neither variable was responsible for more than a small percentage of variance in their models. Desirable decreases in duration were experienced by both experimental and comparison counties, with no indication that the decreases were effected by the experiment itself. Pasco and Lee seemed to experience more negative effects than the other counties, but this may be attributable to resistance to the experiment itself on the part of Pasco and funding cutbacks on services in Lee.

The findings on recurrence and recidivism are inconclusive as well. The same change in Hotline administration that impacted on the number of reports received may have impacted on recurrence increases as well. The fact that families tended to recur more than recidivate support this suggestion. Recurrence and recidivism will be further explored in the next section of the report.

VII. EVENT HISTORY ANALYSIS OF CHILD WELFARE DATA (1996-2002)

A more rigorous way to look at the effect of the investigative transfer on recurrence and recidivism is through event history analyses. These analyses are presented graphically, and summarized statistically, in three ways[11]:

1) As an assessment of the pre-post risk of a family experiencing at least one report subsequent to their first report (recurrence) or at least one substantiated report subsequent to their first substantiated report (recidivism) in either the pre or post stage, by county pairs. The results are expressed graphically by plotting the hazard rate against the duration between events, with summary statistics and tests for the hazard function.

2) As an assessment of the pre-post chance of a family not experiencing (surviving) recurring reports after their first report or substantiated reports after their first substantiated report (recidivism) in either the pre or post stage, by county pairs. The results are expressed graphically by plotting the survival rate against the duration between events while controlling for explanatory variables. Proportional hazard modeling (Cox regression) was used and summary statistics are presented.

3) As an assessment of the central tendency for family survival, expressed statistically as the *median lifetime*, which estimates the point in time by which half the families will have experienced recurrence, recidivism, or substantiated abuse.

A. HAZARD FUNCTION ANALYSES

The hazard function is defined as the conditional probability that an individual, or family, will experience an event in a given time period. The hazard function model in this report is designed to present an overview of trends in recurrence and recidivism among the families in the sample. It treats recurrence and recidivism dichotomously in that it looks at whether a family recurred or recidivated at least once after first entering the system in either the pre or post stage. The model also treats the event (report or substantiated report) as the only event impacting the hazard rate, without reference to any other co-variants.

[11] Operational definitions and interpretive possibilities were derived from Singer, J.D. and Willet, J.B. (2003). *Applied Longitudinal Data Analysis: Modeling Change and Event Occurrence.* Oxford Univeristy Press: New York, NY.

In the hazard function model each family is followed for a duration of 18 months, necessarily incurring a right-censoring situation for reports in the post stage. Censoring occurs in the pre stage because some families actually do not recur or recidivate within 18 months. In other words, if the family's first report is in the pre stage and they do not do recur or recidivate within 18 months, they are defined as censored for model estimates. Censoring in the post stage occurs for the same reason, but also occurs when first reports happen too late in post stage to allow for recurrence.

Table 31 reports on the number of families that experienced at least one recurring report during pre-post stages by county pair, as well as those that experienced at least one substantiated recurring report during those stages, for an 18-month duration.

Table 31. Number of Families with Reports for Recurrence and Substantiated Recurrence Hazard Function Model: 18 month Duration[12]

COUNTY PAIR	COUNTY	Recurred	Recidivated
	Manatee	705	2515
		3888	513
	Lee 1	890	421
PAIR 1		6031	2013
	Manatee	705	2515
		3888	513
	Sarasota	493	312
PAIR 2		3445	1824
	Pinellas	4263	2957
		10002	5598
	Hillsborough	4993	3672
PAIR 3		12250	7345
	Pasco	1854	1121
		4361	2123
	Lee 2	2094	1034
PAIR 4		4853	1365
	Broward	3969	2546
		16579	9442
	Palm Beach	3368	2225
PAIR 5		12147	7016

The hazard functions are estimated for four groups using two strata, county and stage, each applied to two events: new reports (recurrence) and new substantiated reports (recidivism). The question remains: Does the hazard rate

[12] Data on censoring provided in Appendix C for both 18 and 14 months duration.

differ between experimental and comparison counties before and after the transfer of investigative responsibility to the Sheriff's Offices.

The hazard function graphs presented on the following pages illustrate the pre-post hazard rates for recurrence and recidivism for each county pair in two ways. The first graph in each series presents the fluctuations of the hazard over time and illustrates more clearly the direction of changes pre and post. The second graph in each series presents the cumulative hazard with the hazard functions smoothed out over time to indicate the steadiness with which the rate increases or decreases. The second graph is actually more valuable in assessing the hazard because it demonstrates more clearly whether the rate is constant, increasing or decreasing over time.

Increases and decreases in the raw hazard rate may be unavoidable for reasons outside the control of the investigators. Achieving a steady rate of change, on the other hand, can be seen as stabilizing the system and adding an element of predictability to future events. If hazard decreases over time at a steady rate, the system can reinforce and sustain current practices. On the other hand, if the hazard increases over time at a steady rate, the system needs to adapt or modify its practices. If the rate is unsteady in either direction, it is difficult for the system to know whether to sustain or modify. Of course, the desired outcome for the law enforcement experiment would be a decrease in both recurrence and recidivism at a steady rate.

To facilitate the interpretation of the hazard graphs, their underlying statistics are presented. For both recurrence and recidivism, the interaction of county and stage is always significant, as is the combination of stages for each county individually. The differences between county pairs lie in the contribution of each county to each stage; these differences allow us to determine whether the experimental counties are exhibiting hazard rates that are different significantly than their comparison counties in terms of the direction of the hazard change (increase or decrease) or rate of that change (steady or variable).

County Pair 1: Manatee-Lee (Graphs on pp 59 -60)

The hazard for recurrence in County Pair 1 appears to decrease slightly after 100 or 200 days for both experimental and comparison counties during the pre stage. The hazard for recurrence remains constant in the post stage. The difference in the recidivism hazard is that the decrease in the pre stage is steadier and the counties converge by the end of the stage. During the post stage, the hazard remains constant as it did for recurrence, although the counties seem to move closer to convergence.

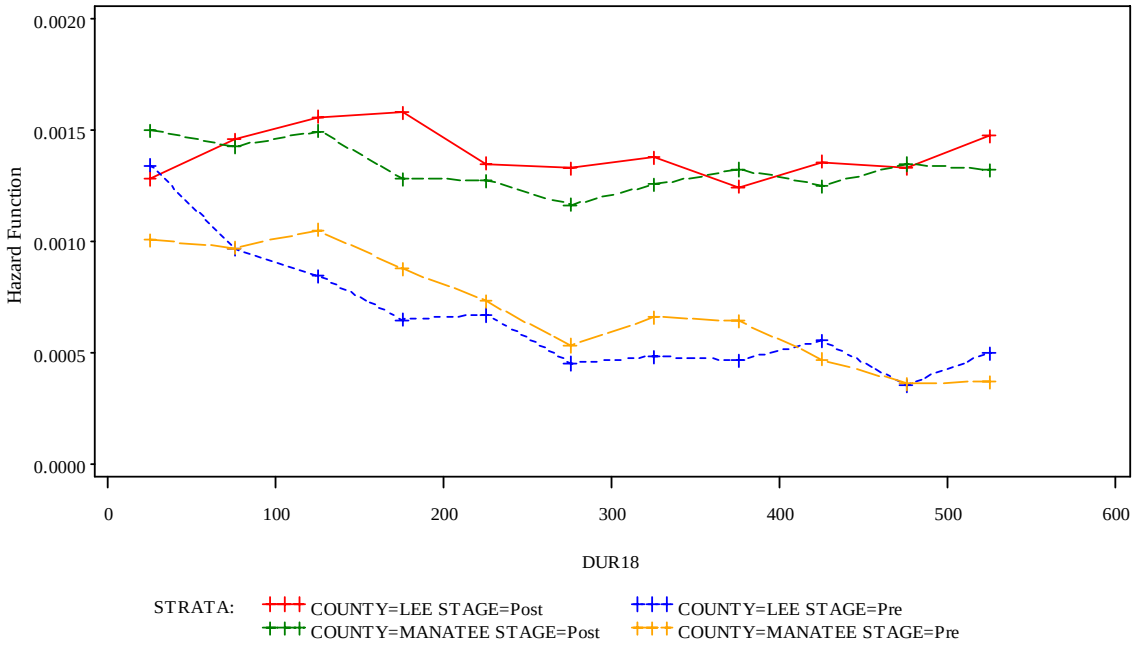
Table 32 reports the statistics that support the hazard function, clarifying the contributions of both county and stage to the model. The recurrence statistics demonstrate that the significance of county is not apparent in the pre stage, although the contribution of Manatee approaches significance in the post stage. The recidivism statistics demonstrate that county is not significant in either stage.

Table 32. Hazard Function Statistics for County Pair 1: Manatee-Lee

Event	Log-Rank Test of Equality over Strata				Sig
	Tested Strata	Chi-Square	DF	Pr >Chi-Square	
RECURRENCE	Manatee-Lee				
	County and Pre-Post	655.8258	3	<.0001	X
	County for Pre	0.8388	1	0.3597	
	County for Post	3.9922	1	0.0457	X
	Pre-Post for Manatee	237.7218	1	<.0001	X
	Pre-Post for Lee	413.1431	1	<.0001	X
RECIDIVISM	Manatee-Lee				
	County and Pre-Post	255.0666	3	<.0001	X
	County for Pre	0.0961	1	0.7566	
	County for Post	0.9276	1	0.3355	
	Pre-Post for Manatee	136.4934	1	<.0001	X
	Pre-Post for Lee	118.2129	1	<.0001	X

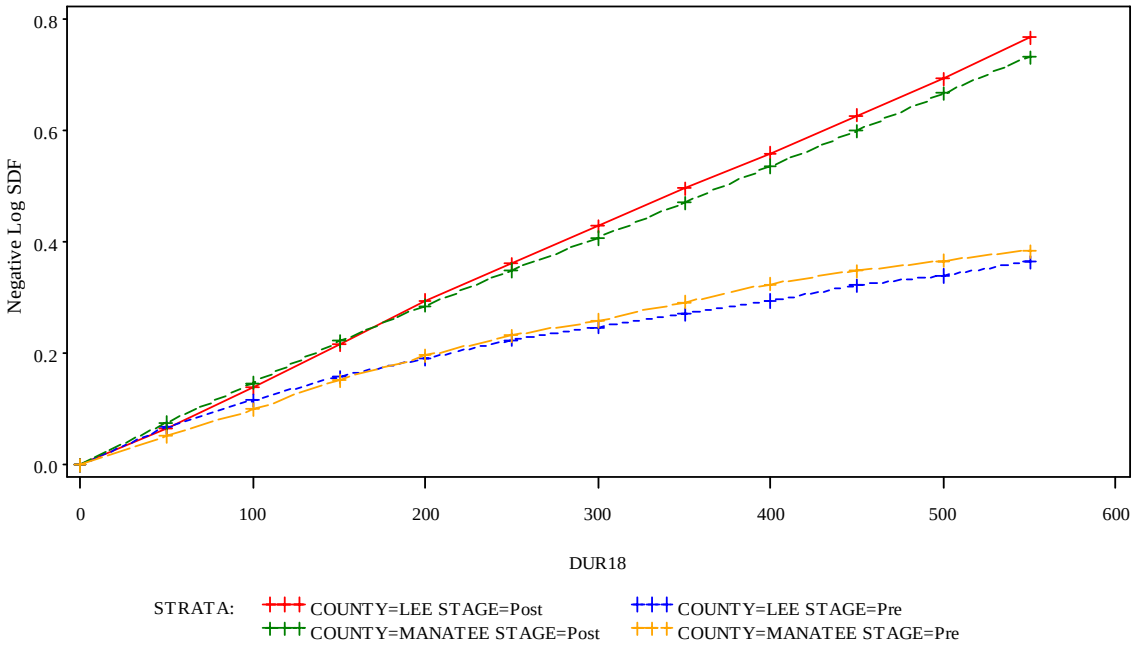
Manatee-Lee Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



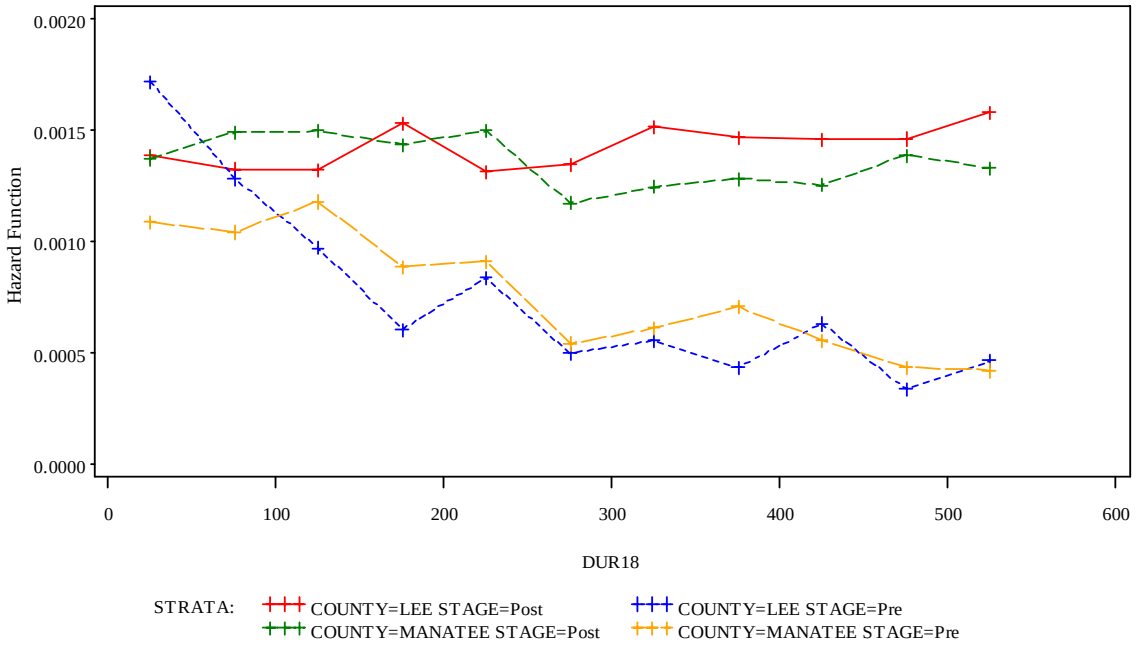
Manatee-Lee Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



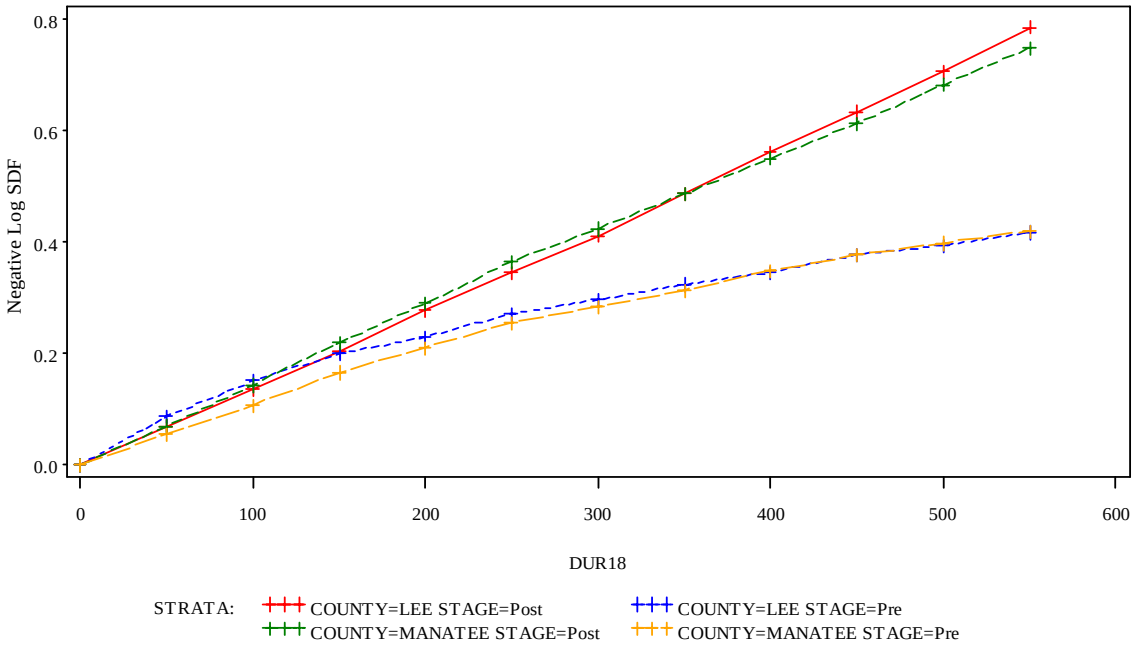
Manatee-Lee Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



Manatee-Lee Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



County Pair 2: Manatee-Sarasota (Graphs on pp 62-63)

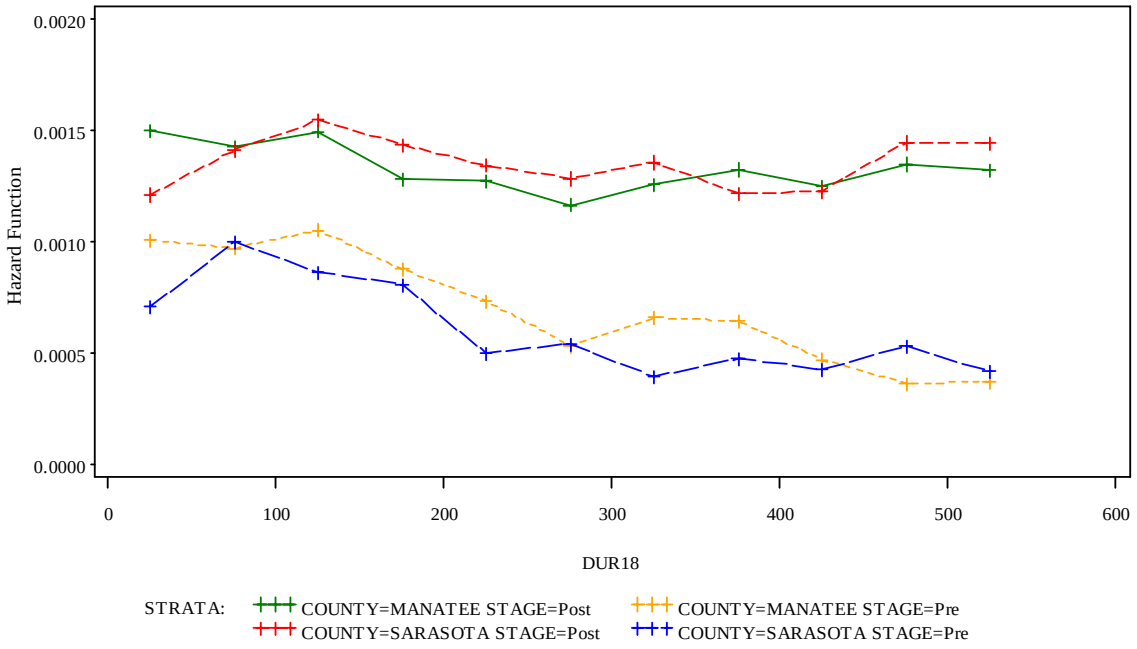
The hazard for recurrence in County Pair 2 also decreases after 200 days during the pre stage and remains constant during the post stage, where the two counties converge for most of the duration of that stage. The recidivism hazard mirrors the recurrence hazard in the pre stage, where the county influence is not significant. In the post stage, however, the recidivism hazard rate in Sarasota begins to increase, unlike the constant rate in Manatee; the county influence becomes statistically significant **(Table 33).** This finding may indicate that although the transfer of investigations in Manatee had no discernable effect on recurrence, it may have had a positive influence on the steadiness of the hazard rate.

Table 33. Hazard Function Statistics for County Pair 2: Manatee-Sarasota

Event	Log-Rank Test of Equality over Strata				Sig
	Tested Strata	Chi-Square	DF	Pr >Chi-Square	
RECURRENCE	Manatee-Sarasota				
	County and Pre-Post	515.1518	3	<.0001	X
	County for Pre	6.2695	1	0.0123	X
	County for Post	0.0799	1	0.7774	
	Pre-Post for Manatee	237.7218	1	<.0001	X
	Pre-Post for Sarasota	278.056	1	<.0001	X
RECIDIVISM	Manatee-Sarasota				
	County and Pre-Post	322.5618	3	<.0001	X
	County for Pre	1.7143	1	0.1904	
	County for Post	17.0102	1	<.0001	X
	Pre-Post for Manatee	136.4934	1	<.0001	X
	Pre-Post for Sarasota	173.7871	1	<.0001	X

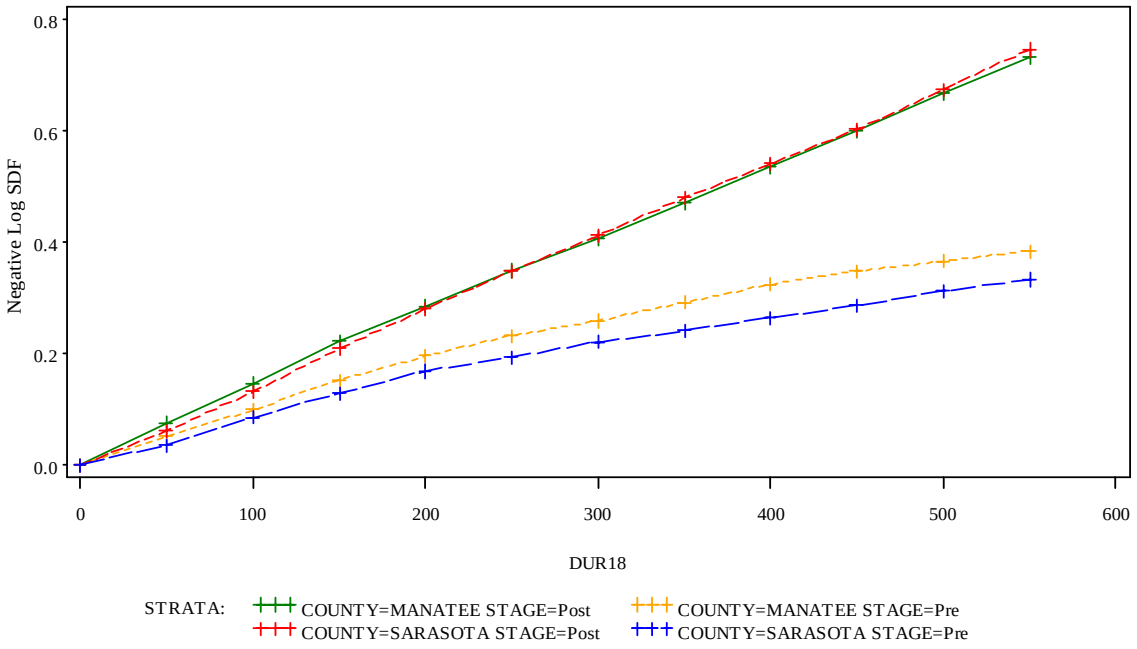
Manatee-Sarasota Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



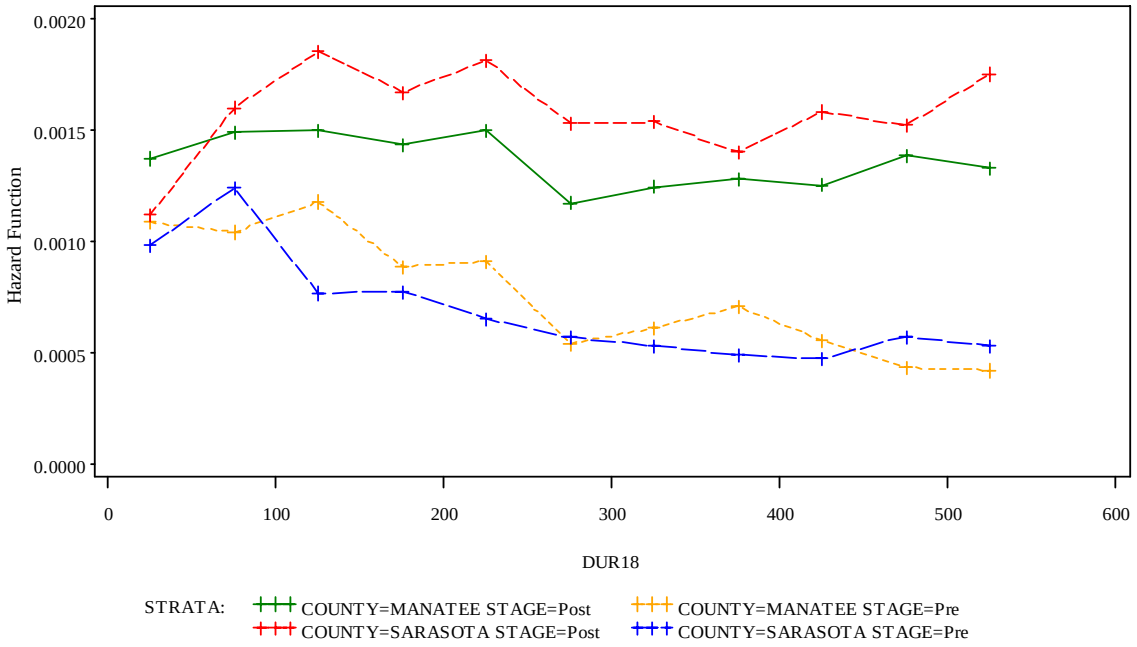
Manatee-Sarasota Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



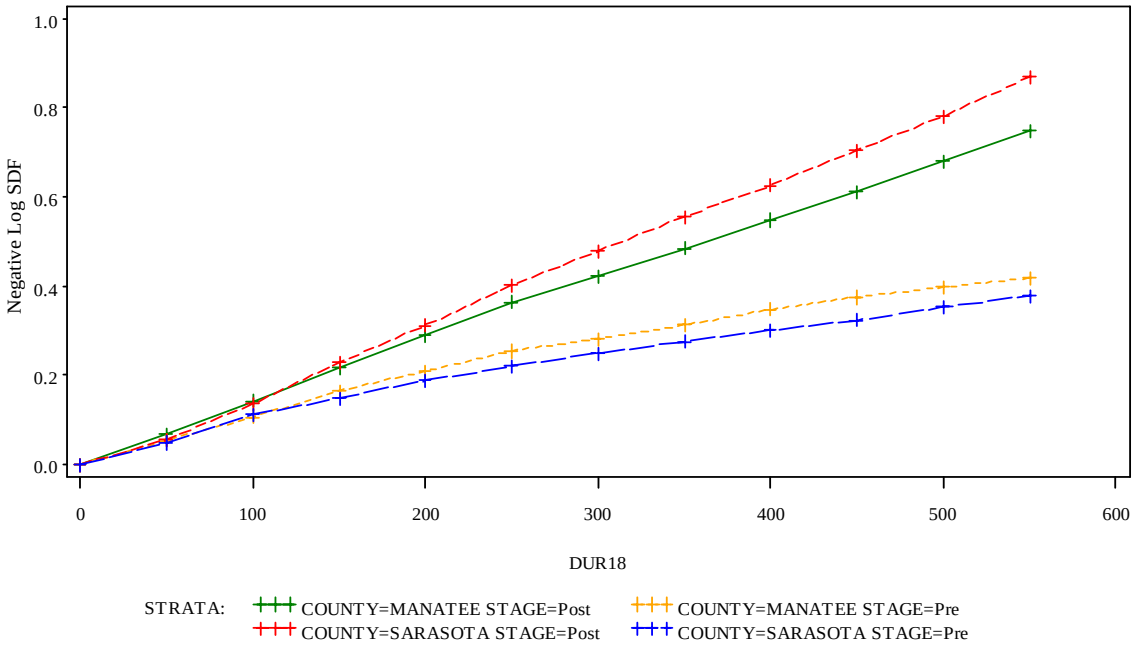
Manatee-Sarasota Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



Manatee-Sarasota Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



County Pair 3: Pinellas-Hillsborough (Graphs on pp 65-66)

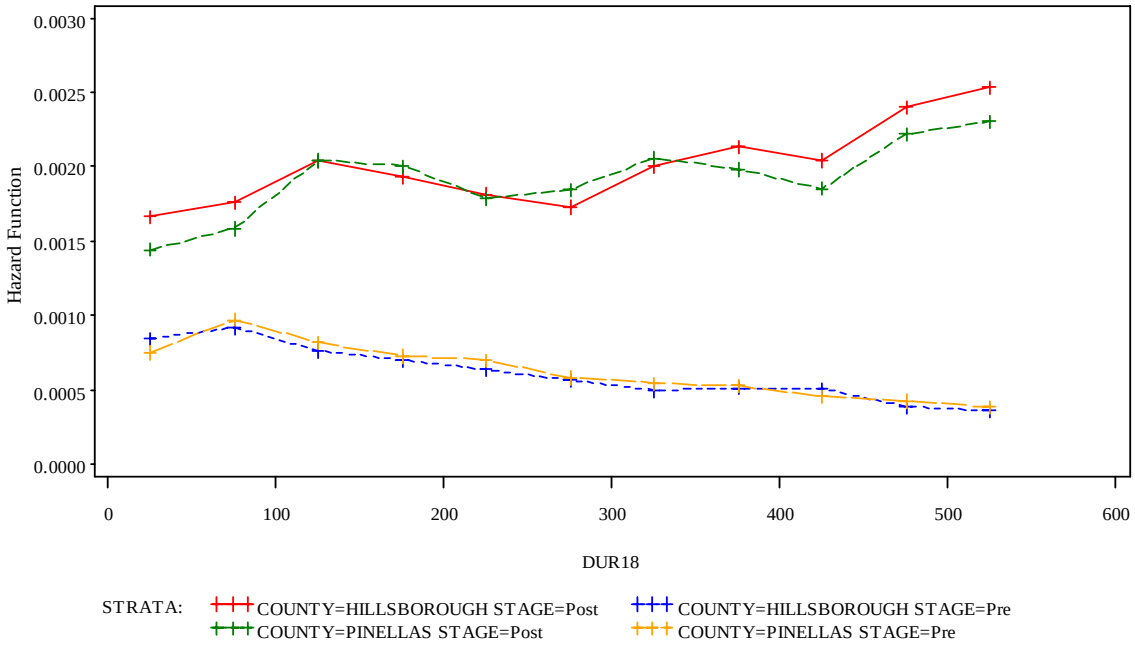
The hazard rates for both recurrence and recidivism appear to be different in County Pair 3 than in the Manatee county pairs. For one thing, the rates for both look very similar, in that slight decreases in hazard during the pre stage and increases in hazard in the post stage seem to be almost the same in both counties. The statistics indicate that the county is a significant influence on recurrence only in the post stage and has no significant influence on recidivism for either stage **(Table 34)**. Hazard rates between the two counties vary noticeably after day 400.

Table 34. Hazard Function Statistics for County Pair 3: Pinellas-Hillsborough

Event	Log-Rank Test of Equality over Strata				Sig
	Tested Strata	Chi-Square	DF	Pr >Chi-Square	
RECURRENCE	Pinellas-Hillsborough				
	County and Pre-Post	8787.4703	3	<.0001	X
	County for Pre	1.6782	1	0.1952	
	County for Post	10.9787	1	0.0009	X
	Pre-Post for Pinellas	3704.0701	1	<.0001	X
	Pre-Post for Hillsboroough	5076.4358	1	<.0001	X
RECIDIVISM	Pinellas-Hillsborough				
	County and Pre-Post	4686.9793	3	<.0001	X
	County for Pre	3.6503	1	0.0561	
	County for Post	2.4085	1	0.1207	
	Pre-Post for Pinellas	1877.458	1	<.0001	X
	Pre-Post for Hillsboroough	2809.2096	1	<.0001	X

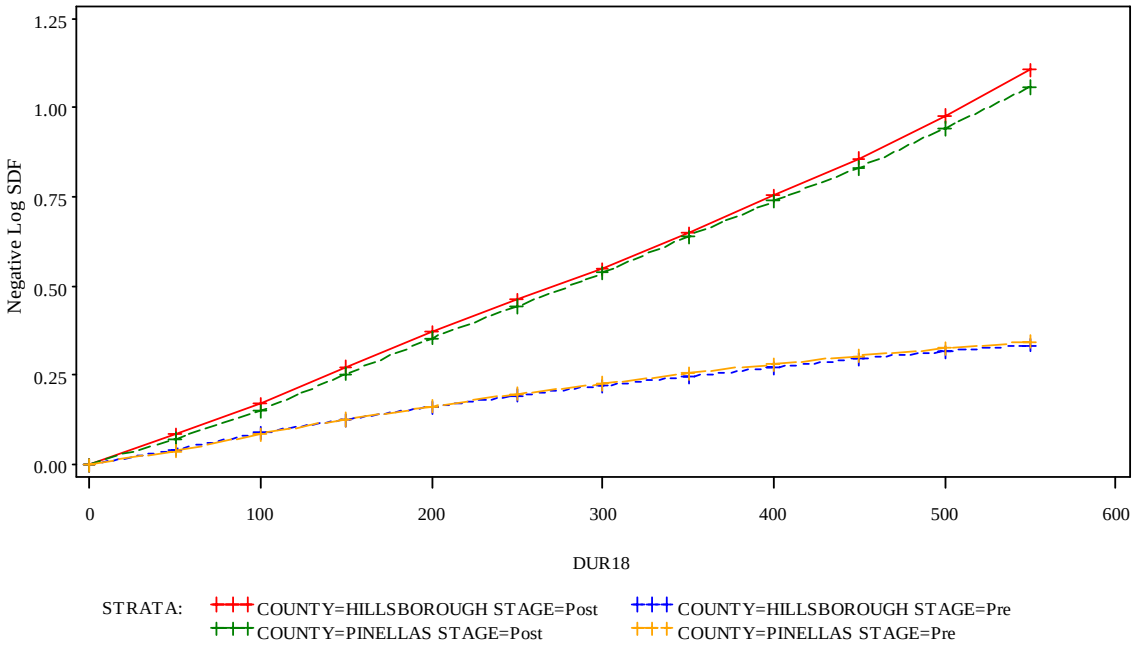
Pinellas-Hillsborough Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



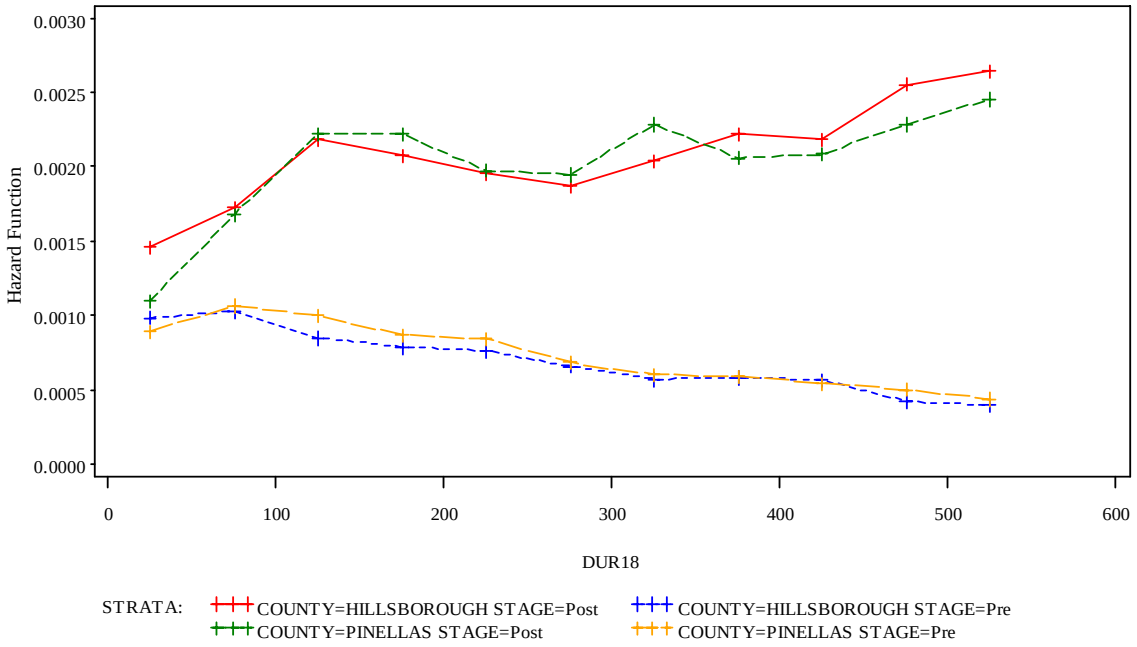
Pinellas-Hillsborough Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



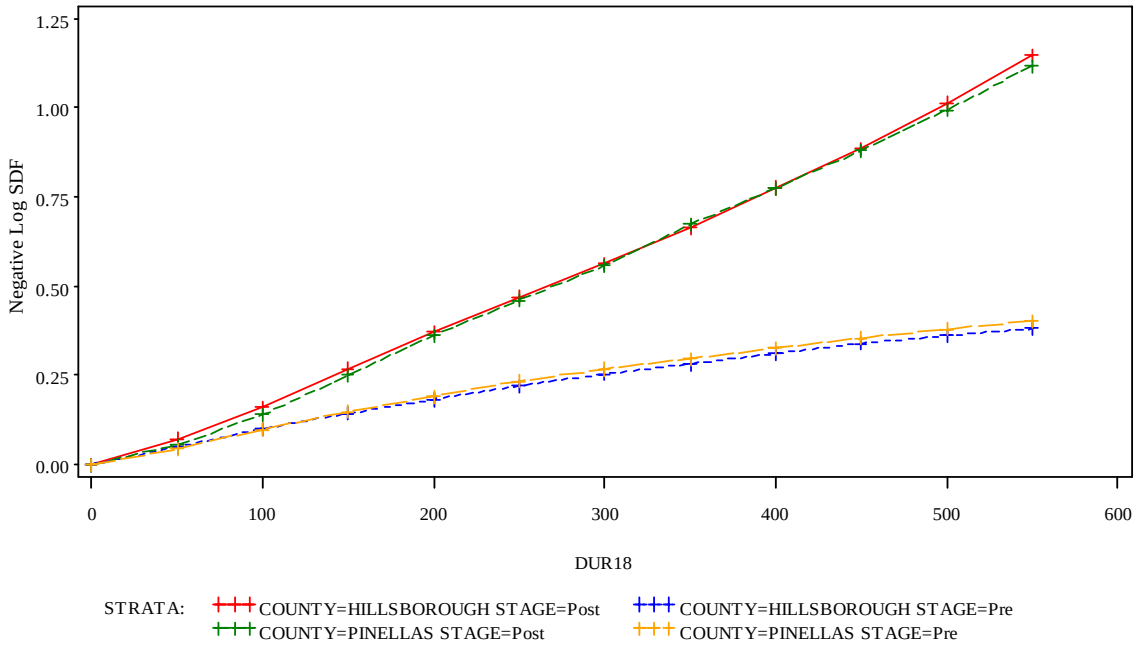
Pinellas-Hillsborough Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



Pinellas-Hillsborough Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



County Pair 4: Pasco-Lee 2 (Graphs on pp 68-69)

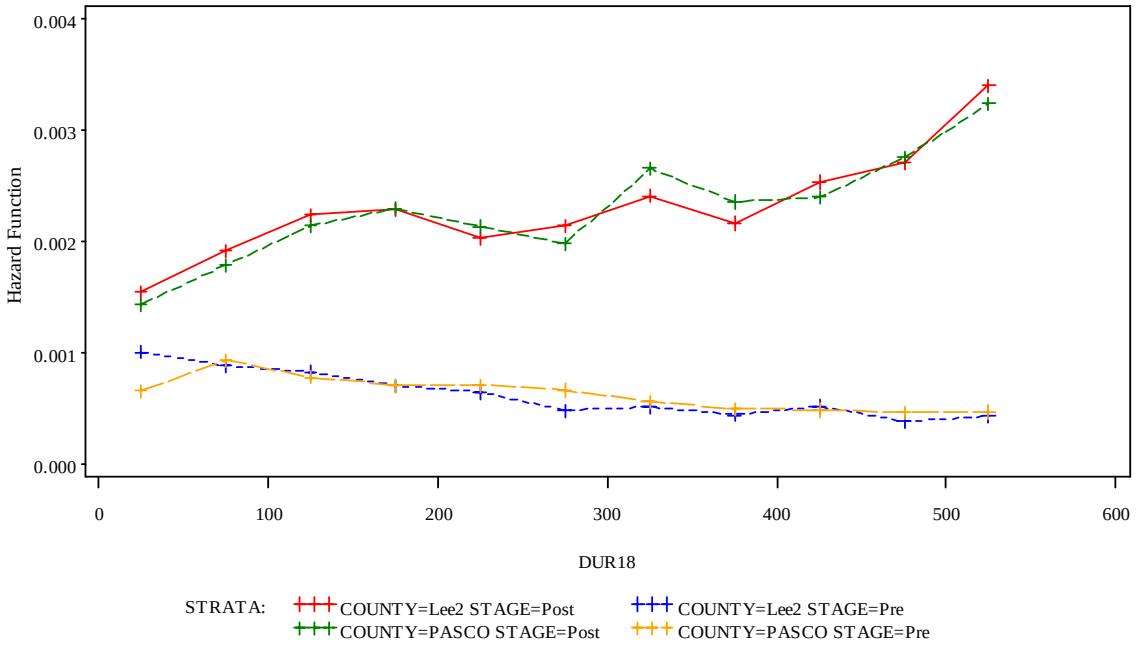
The hazard for both recurrence and recidivism in County Pair 4 decreases during the pre stage, but increases during the post stage. This more radical change between pre and post is the same for both counties, supported by the statistics that indicate no significance influence by county on the model in either stage for either recurrence or recidivism **(Table 35).** This analysis seems to indicate that changes in hazard are not connected with the transfer of investigations to law enforcement.

Table 35. Hazard Function Statistics for County Pair 4: Pasco-Lee 2

Event	Log-Rank Test of Equality over Strata				Sig
	Tested Strata	Chi-Square	DF	Pr >Chi-Square	
RECURRENCE	Pasco-Lee 2				
	County and Pre-Post	1466.4145	3	<.0001	X
	County for Pre	0.6277	1	0.4282	
	County for Post	1.4627	1	0.2265	
		868.6581	1	<.0001	X
		587.0674	1	<.0001	X
RECIDIVISM	Pasco-Lee 2				
	County and Pre-Post	1466.4145	3	<.0001	X
	County for Pre	0.6277	1	0.4282	
	County for Post	1.4627	1	0.2265	
	Pre-Post for Pasco	868.6581	1	<.0001	X
	Pre-Post for Lee 2	587.0674	1	<.0001	X

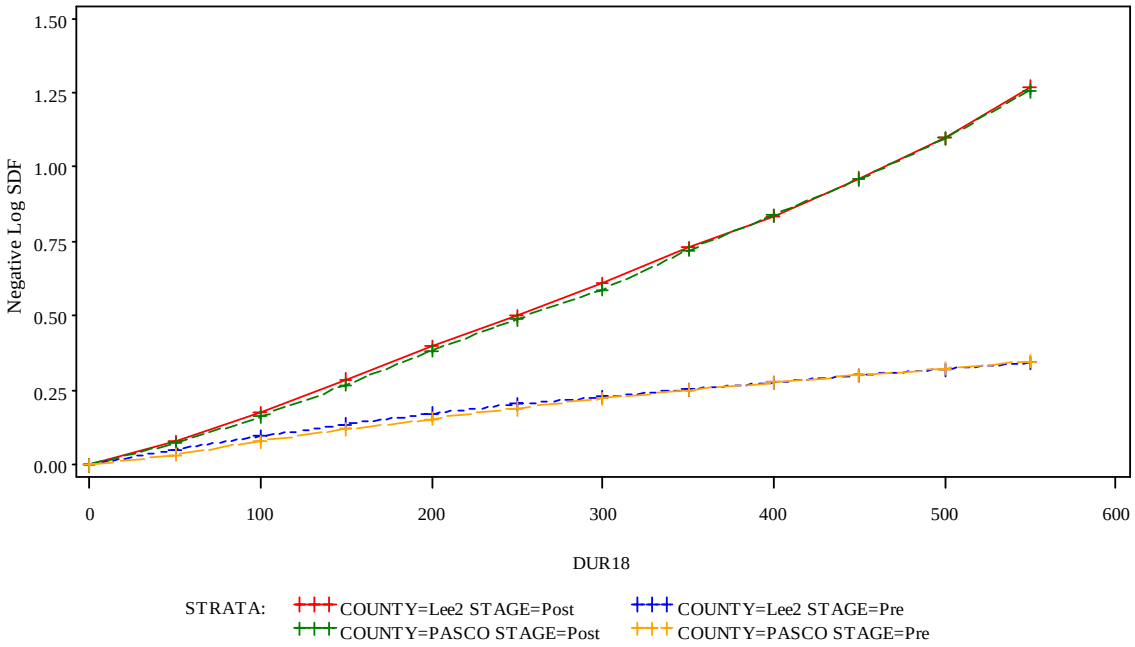
Pasco-Lee2 Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



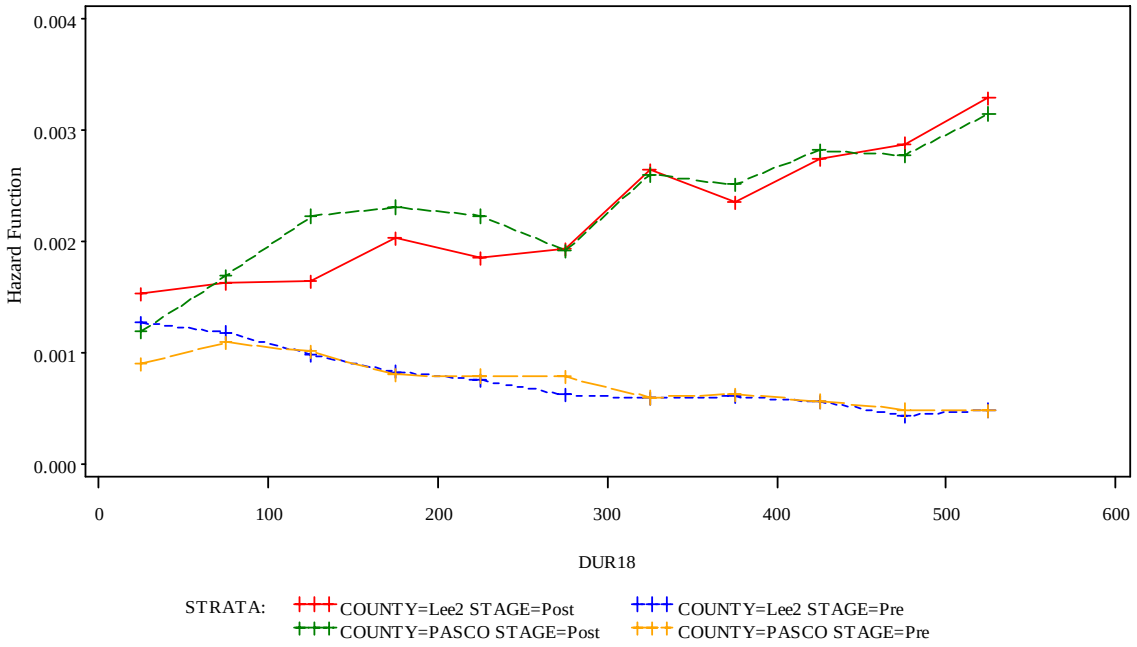
Pasco-Lee2 Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



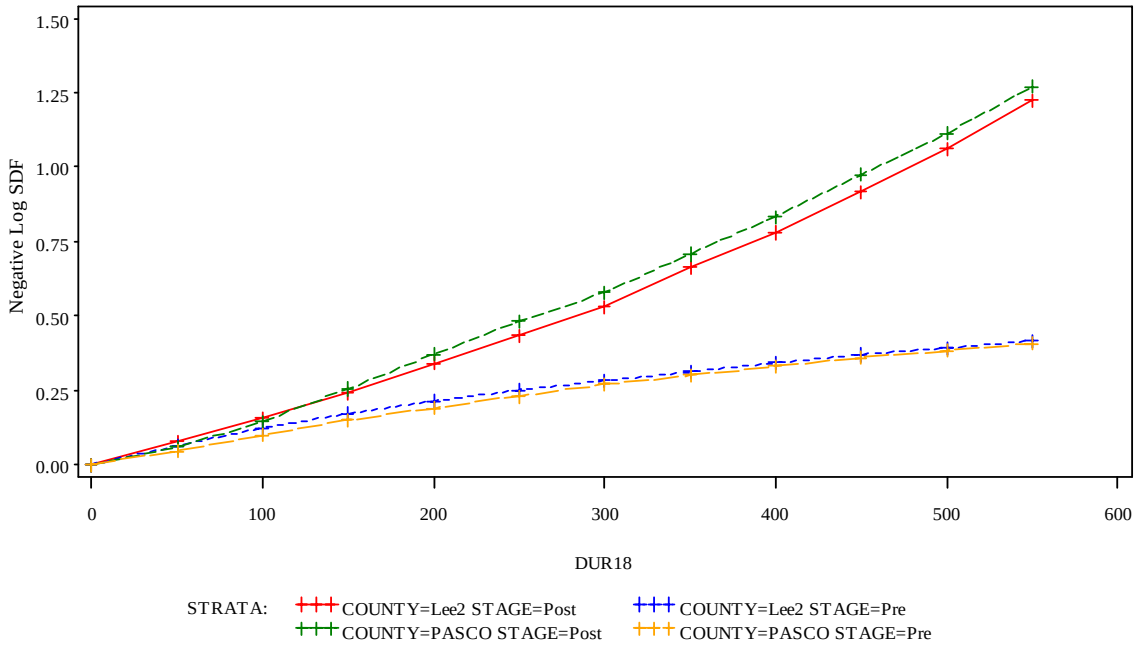
Pasco_Lee2 Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



Pasco_Lee2 Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



County Pair 5: Broward-Palm Beach (Graphs on pp 71-72)

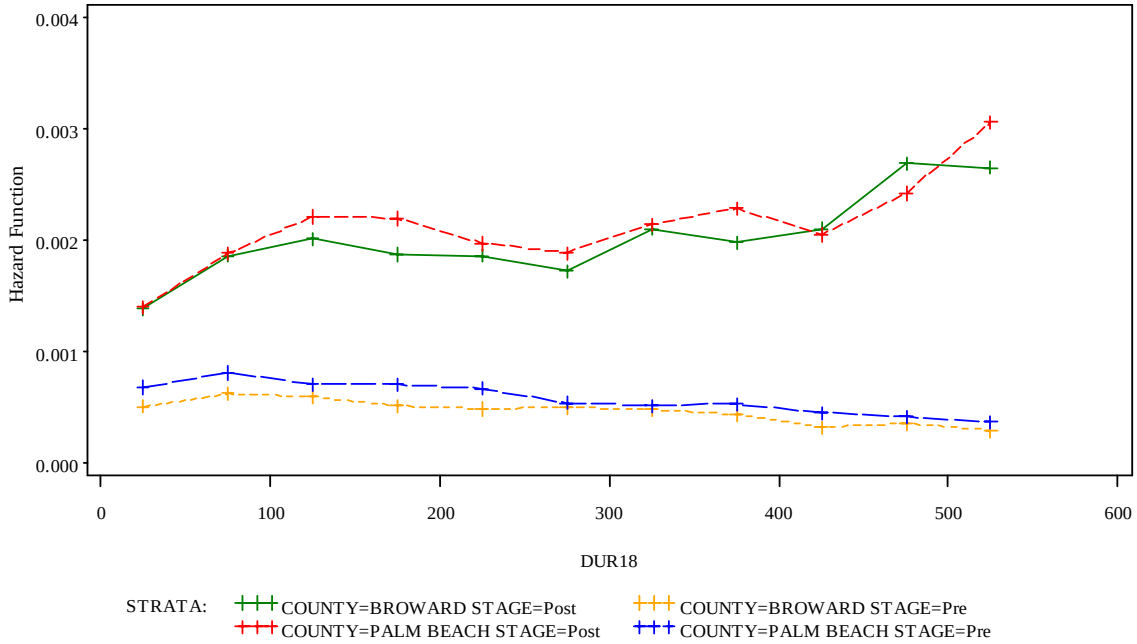
In County Pair 5, recurrence and recidivism hazard rates decrease slightly during the pre stage and increase during the post stage. **Table 36** supports the significance of both county and stage separately, as well as interactively. As with Pasco-Lee 2, this finding indicates that changes in hazard are not specifically attributable to the investigative transfer.

Table 36. Hazard Function Statistics for County Pair 5: Broward-Palm Beach

Event	Log-Rank Test of Equality over Strata				Sig
	Tested Strata	Chi-Square	DF	Pr >Chi-Square	
RECURRENCE	Broward-Palm Beach				
	County and Pre-Post	12537.7888	3	<.0001	X
	County for Pre	90.8911	1	<.0001	X
	County for Post	24.3943	1	<.0001	X
	Pre-Post for Broward	7745.163	1	<.0001	X
	Pre-Post for Palm Beach	4740.7747	1	<.0001	X
RECIDIVISM	Broward-Palm Beach				
	County and Pre-Post	6285.9179	3	<.0001	X
	County for Pre	90.2683	1	<.0001	X
	County for Post	6.0929	1	0.0136	X
	Pre-Post for Broward	4079.0895	1	<.0001	X
	Pre-Post for Palm Beach	2181.4199	1	<.0001	X

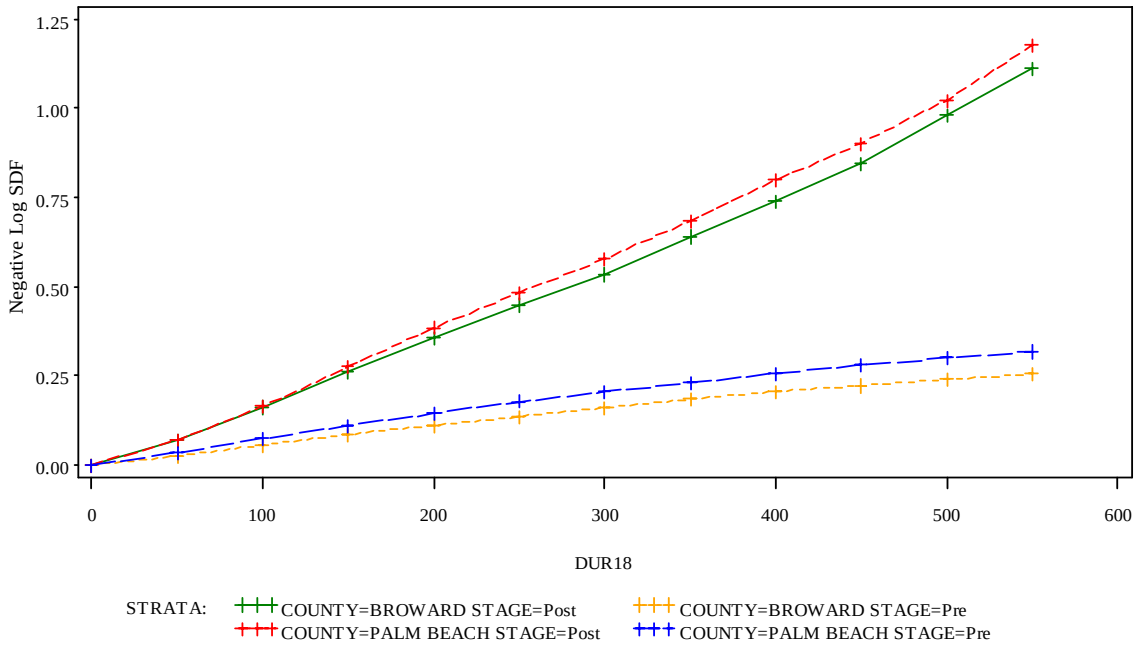
Broward-Palm Beach Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



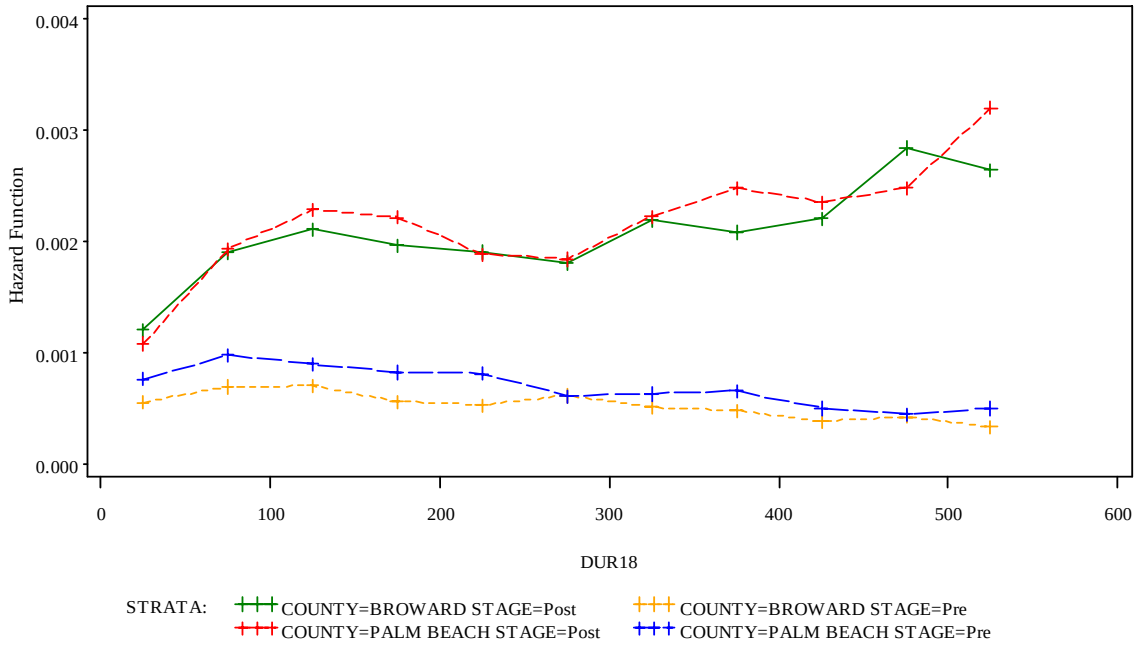
Broward-Palm Beach Recurrence Hazard

County and Stage Comparison: 18 Months Follow-up



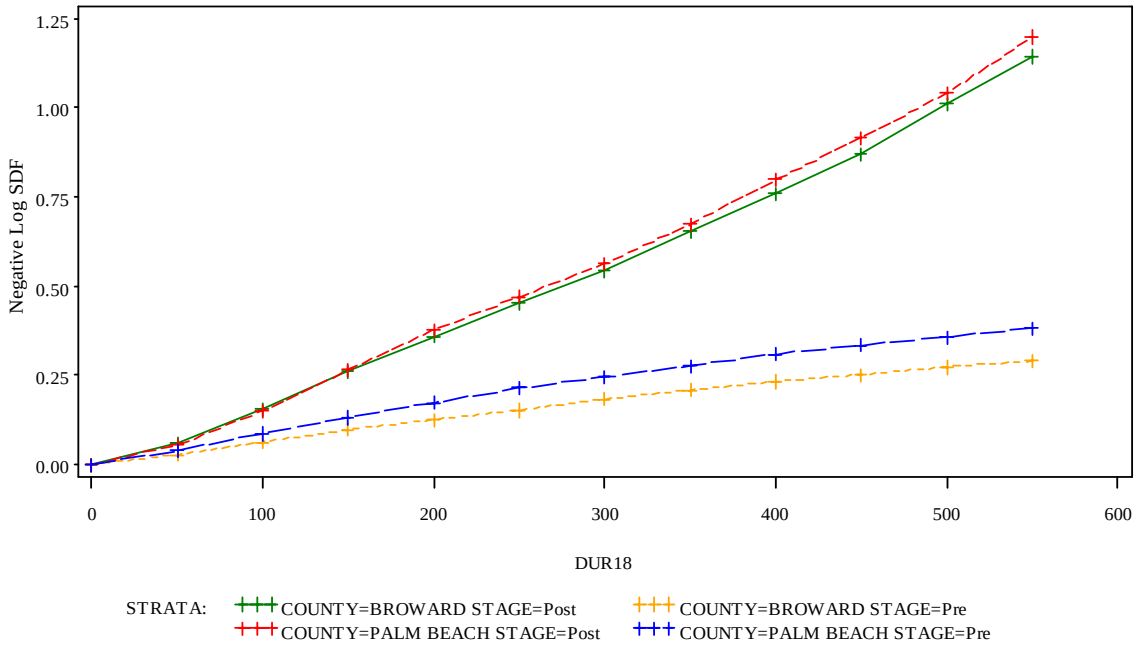
Broward-Palm Beach Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



Broward-Palm Beach Recidivism Hazard

County and Stage Comparison: 18 Months Follow-up



Hazard rates were also plotted for 24-month duration. Their underlying statistics are reported in **Appendix C.**

B. SURVIVAL ANALYSIS USING PROPORTIONAL HAZARD FUNCTIONS (COX REGRESSION)

The hazard function models discussed above provide a raw, or more descriptive, lifetime relationship between the occurrence of an event and time. With no clear indication on the underlying hazard distributions for each county pair and stage, a more general and less restrictive proportional hazard are adopted. The following set of Cox regression models examine the survival function of the same time and event, but treat recurrence and recidivism as repeatable events for each family. By not aggregating the events within a follow-up time frame, more information was available for model estimates. In addition, the explanatory variables included in the logistic regression were included, as well as three additional sets of variables, for a more comprehensive analysis.

The three additional variable sets included in the following survival functions are: 1) the effect of the previous report's maltreatment severity on the likelihood of a recurrence event; 2) the effect of the previous report's disposition severity on the likelihood of a recurrence event; and 3) the effect of the previous substantiated report on the likelihood of a recurrence event. Because recidivism always involves substantiated reports, the survival analysis on recidivism includes on the two severity variables.

Both severity variables are indexed on a 3-point scale of high, medium and low. For maltreatment, high is considered abuse, medium is considered neglect, and low is considered threatened harm. These categories are modeled relative to the default category, which consists of cases with special circumstances such as custody issues or alternate jurisdiction. For disposition, high is considered court-ordered services with supervision, medium is court-ordered services without supervision, and low is voluntary or community services. These categories are modeled relative to the default category, which consists of cases that are dismissed or closed without services.

The graphs on pages 75 through 79 represent survival curves for each model for each county pair by pre and post stages, plotting the log of survival estimates against time. The survival series graphs report on the cumulative risk of an event not occurring, or of family survival over time.

To facilitate interpretation of the graphs, statistics on significant predictors for recurrence and recidivism are provided for each county pair. The predictors are rank-ordered for both outcomes to explore differences between the county pairs. When the predictors are part of the severity indices on maltreatment and disposition, all three variables are included as a set because they are dichotomized presentations of categorical index variables. A full breakdown of survival estimates is available in **Appendix D.**

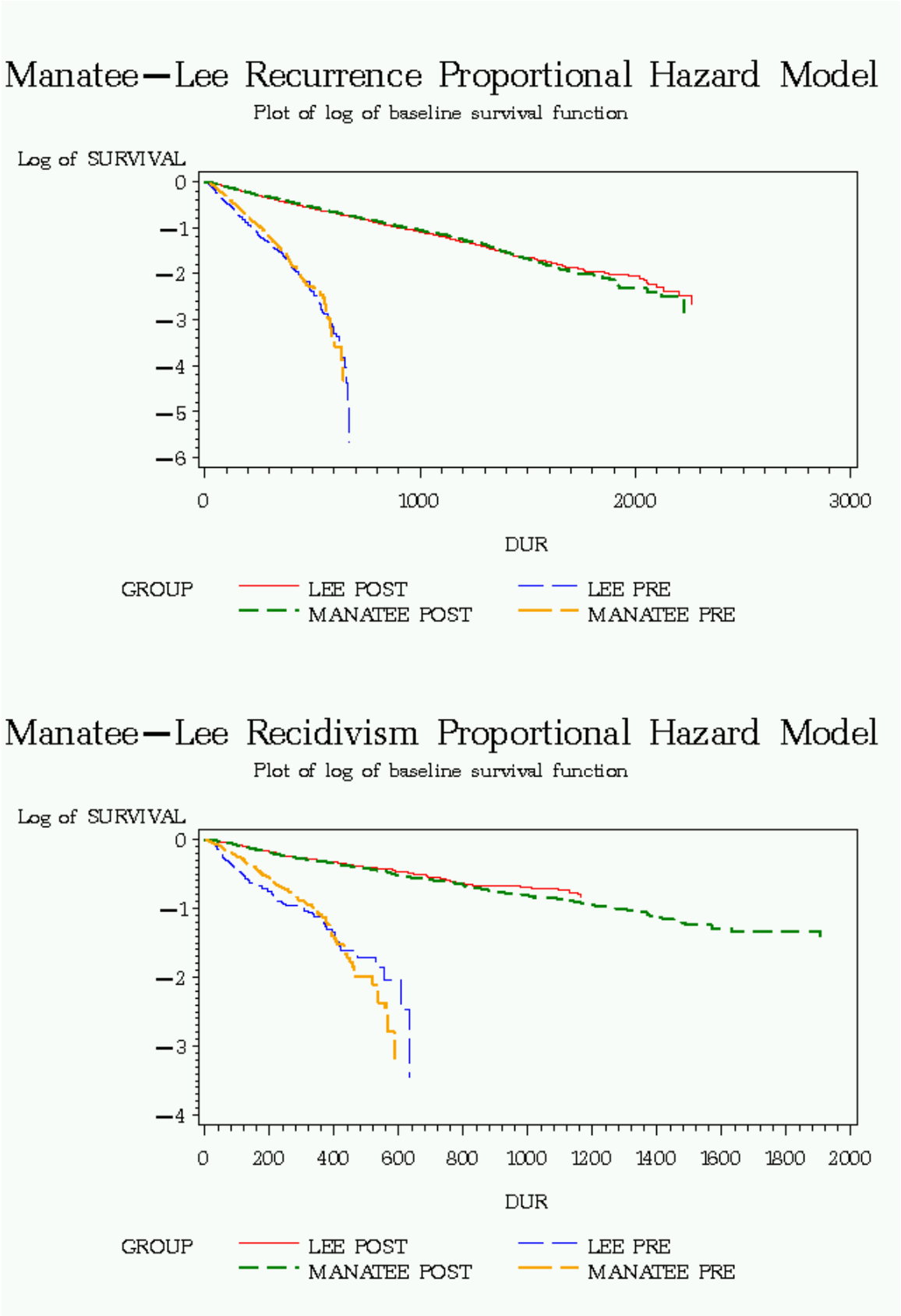
County Pair I: Manatee-Lee (Graphs on p. 76)

The survival rate for both counties remains constant and identical during the post stage for both recurrence and recidivism. The counties differ more in the recidivism model during the pre stage, with Lee appearing to be more erratic. After day 400, both counties experienced a drastic decrease in the survival rate. As **Table 37** indicates, however, the predictors are not necessarily the same for each outcome. Recurrence predictors are more numerous, with all Hispanic caretakers being the best predictor of recurrence. Interestingly, this variable is not significant at all as a predictor for recidivism, which could mean that Hispanics in this are more at risk for being reported for maltreatment than they are of being substantiated for maltreatment.

The three-category maltreatment severity variable is also a significant predictor in recurrence without being significant for recidivism. With regard to the three-category disposition severity variable, low severity impacts negatively on recurrence and medium severity impacts very negatively on recidivism. High severity disposition does not really impact either outcome. All severity categories are included in the table because they operate as parts of a singular variable, but those that are not significant are marked in yellow. Overall, disposition severity seems to act as a deterrent for both recurrence and recidivism.

Table 37. Significant Predictors from Proportional Hazard Model for Recurrence and Recidivism for County Pair 1: Manatee-Lee

RECURR	PAIR 1: Manatee- Lee		Estimated Change in Odds	RECID	PAIR 1: Manatee- Lee		Estimated Change in Odds
	Pr > Chi	Hazard Ratio			Pr > Chi	Hazard Ratio	
ALLHISPC	0.0181	0.771	22.9	MIXSEXC	0.0218	0.832	16.8
SBINDXMD	0.0029	0.776	22.4	AVGVAGE	<.0001	0.961	3.9
SBINDXHI	0.0072	0.800	20.0	CHCOUNT	0.043	1.075	-7.5
SBINDXLOW	0.0260	0.824	17.6	SEQ	<.0001	1.323	-32.3
MOVEFLAG	<.0001	0.831	16.9	DISPMD	<.0001	1.479	-47.9
MIXSEXC	0.0044	0.912	8.8	DISPHI	0.4607	0.928	7.2
AVGVAGE	<.0001	0.964	3.6	DISPLOW	0.0969	1.137	-13.7
CHCOUNT	0.0078	1.043	-4.3				
VCOUNT	0.0027	1.065	-6.5				
NEGLECT	0.0421	1.070	-7.0				
DISPLOW	0.0321	1.070	-7.0				
ABUSE	0.0166	1.097	-9.7				
MIXRACEC	0.0452	1.178	-17.8				
ALLMALEC	0.0148	1.178	-17.8				
SEQ	<.0001	1.207	-20.7				
DISPHI	0.9908	0.999	0.1				
DISPMD	<.0001	1.318	-31.8				



County Pair 2: Manatee-Sarasota (Graphs on p. 78)

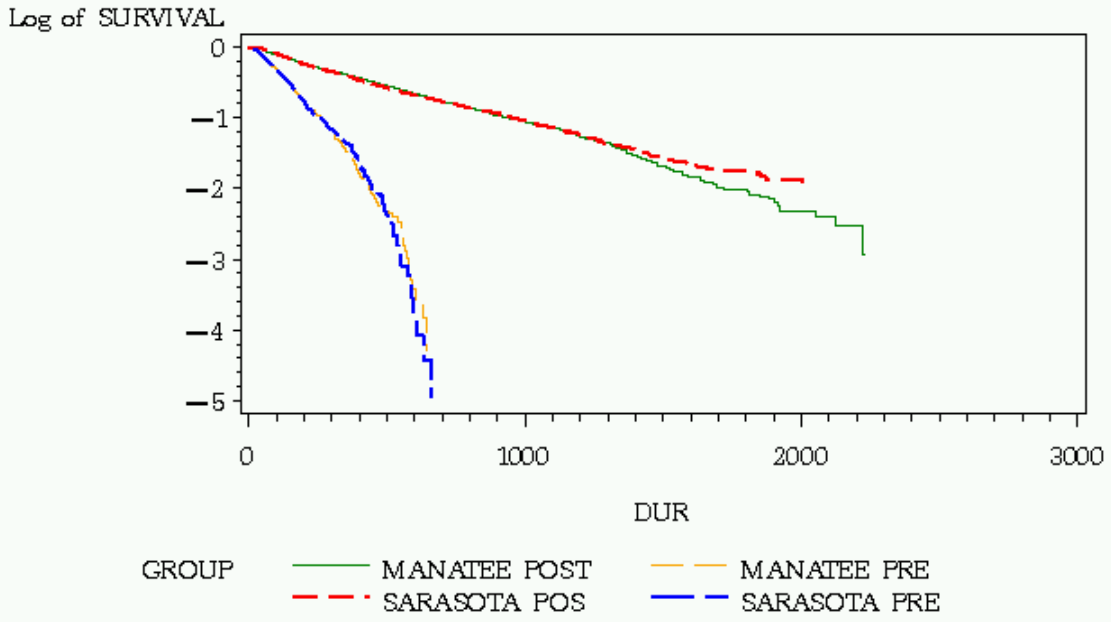
The survival rates for recurrence and recidivism are constant and indistinguishable for the first 39 months in the post stage in both counties. The most severe rate change is for recurrence in the pre stage in both counties. There is a decreasing survival rate after 700 days for recurrence and after 450 days for recidivism in the pre stage. In the post stage, Manatee decreases after day 1300 for recurrence and after day 1900 for recidivism. **Table 38** demonstrates that in County Pair 2, the medium maltreatment severity category of the index is the greatest predictor of recurrence, with high and low severity not impacting the outcome significantly at all. Both medium and low disposition severity impact recurrence negatively, while only medium disposition severity impacts negatively on recidivism. Ethnicity does not play a part in recurrence, but the presence of all Hispanic caretakers in a substantiated report is the best predictor of recidivism.

Table 38. Significant Predictors from Proportional Hazard Model for Recurrence and Recidivism for County Pair 2: Manatee-Sarasota

RECURR	PAIR 2: Manatee-Sarasota		Estimated Change in Odds	RECID	PAIR 2: Manatee-Sarasota		Estimated Change in Odds
	Pr > Chi	Hazard Ratio			Pr > Chiq	Hazard Ratio	
SBINDXMD	0.0091	0.772	22.8	ALLHISPV	0.0389	0.612	38.8
MOVEFLAG	<.0001	0.791	20.9	MIXSEXC	0.0171	0.837	16.3
MIXSEXC	<.0001	0.852	14.8	AVGVAGE	<.0001	0.955	4.5
AVGVAGE	<.0001	0.961	3.9	MALTOTAL	0.0075	1.022	-2.2
MALTOTAL	0.0093	1.015	-1.5	SEQ	<.0001	1.294	-29.4
CHCOUNT	0.0138	1.047	-4.7	DISPMD	0.0049	1.364	-36.4
DISPLOW	0.0104	1.098	-9.8	DISPHI	0.3056	0.904	9.6
ABUSE	0.0073	1.131	-13.1	DISPLOW	0.1405	1.117	-11.7
SEQ	<.0001	1.197	-19.7				
DISPMD	0.0002	1.304	-30.4				
SBINDXHI	0.0649	0.838	16.2				
SBINDXLOW	0.1723	0.874	12.6				
DISPHI	0.3589	0.949	5.1				

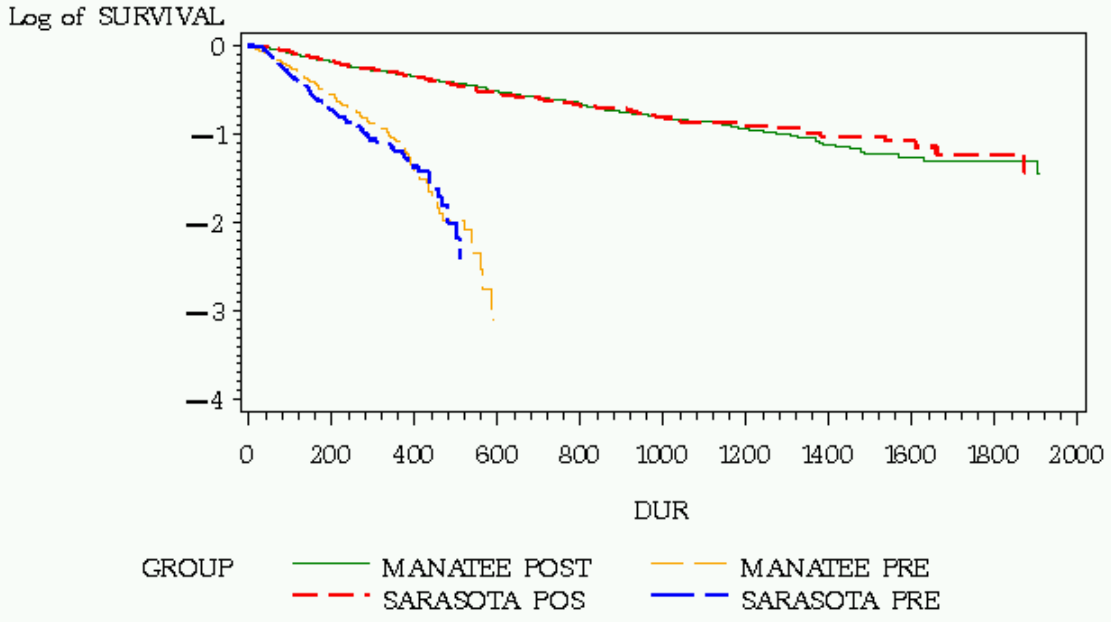
Manatee–Sarasota Recurrence Proportional Hazard Model

Plot of log of baseline survival function



Manatee–Sarasota Recidivism Proportional Hazard Model

Plot of log of baseline survival function



County Pair 3: Pinellas-Hillsborough (Graphs on p. 80)

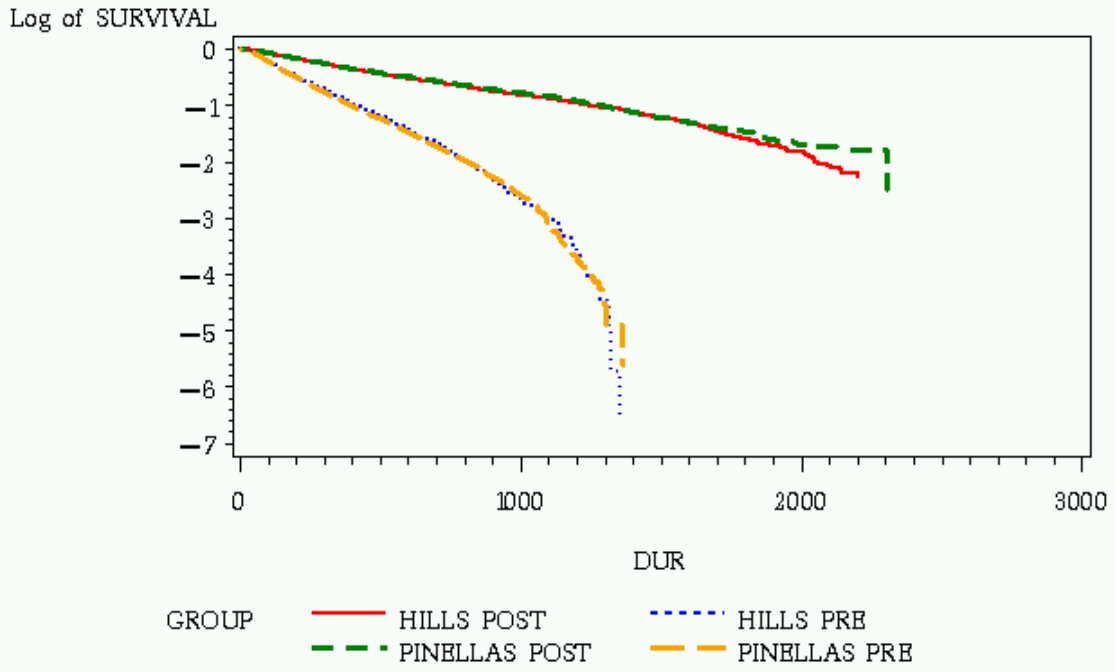
The survival rates follow the same pattern here as in the first two county pairs, with the post stage in both counties being steadier the pre stage. There is no discrepancy in survival rates between counties and the rates remain constant for all four strata. This county pair, however, exhibits smaller percent changes in the odds although both recurrence and recidivism have more significant predictors in this model **(Table 39)**. It is interesting that in this county pair, a family move is the best predictor of recurrence and the second best predictor of recidivism. Ethnicity also plays at role in both outcomes, with mixed ethnicity caretakers being the largest predictor of recidivism. Maltreatment severity, in all categories, impacts significantly on recurrence. Disposition severity, in all categories, impacts negatively on recurrence, while medium and low severity disposition impact negatively on recidivism. Family move, however, impacts only on recurrence.

Table 39. Significant Predictors from Proportional Hazard Model for Recurrence and Recidivism for County Pair 3: Pinellas-Hillsborough

RECURR	PAIR 3: Pinellas-Hillsborough		Estimated Change in Odds	RECID	PAIR 3: Pinellas-Hillsborough		Estimated Change in Odds
	Pr > Chi	Hazard Ratio			Pr > Chi	Hazard Ratio	
MOVEFLAG	<.0001	0.831	16.9	MIXETHC	0.0081	0.782	21.8
SBINDXMD	0.0006	0.847	15.3	MOVEFLAG	0.0002	0.860	14.0
MIXETHC	0.0155	0.879	12.1	MIXSEXC	0.0195	0.921	7.9
ALLHISPV	0.0525	0.891	10.9	AVGVAGE	<.0001	0.973	2.7
SBINDXHI	0.0124	0.891	10.9	MALTOTAL	<.0001	1.023	-2.3
SBINDXLOW	0.0405	0.906	9.4	CHCOUNT	<.0001	1.075	-7.5
MIXSEXC	<.0001	0.910	9.0	DISPLOW	0.0184	1.087	-8.7
AVGVAGE	<.0001	0.970	3.0	MIXSEXV	0.0126	1.118	-11.8
MALTOTAL	<.0001	1.019	-1.9	NEGLECT	<.0001	1.178	-17.8
VCOUNT	0.0002	1.042	-4.2	DISPMD	0.0011	1.212	-21.2
CHCOUNT	<.0001	1.053	-5.3	SEQ	<.0001	1.274	-27.4
ABUSE	0.0052	1.065	-6.5	DISPHI	0.0267	1.107	-10.7
NEGLECT	<.0001	1.095	-9.5				
ALLMALEC	0.0071	1.118	-11.8				
DISPLOW	<.0001	1.118	-11.8				
DISPHI	<.0001	1.119	-11.9				
MIXRACEC	0.0077	1.134	-13.4				
ALLWHITEV	0.0055	1.146	-14.6				
SEQ	<.0001	1.202	-20.2				
DISPMD	<.0001	1.240	-24.0				

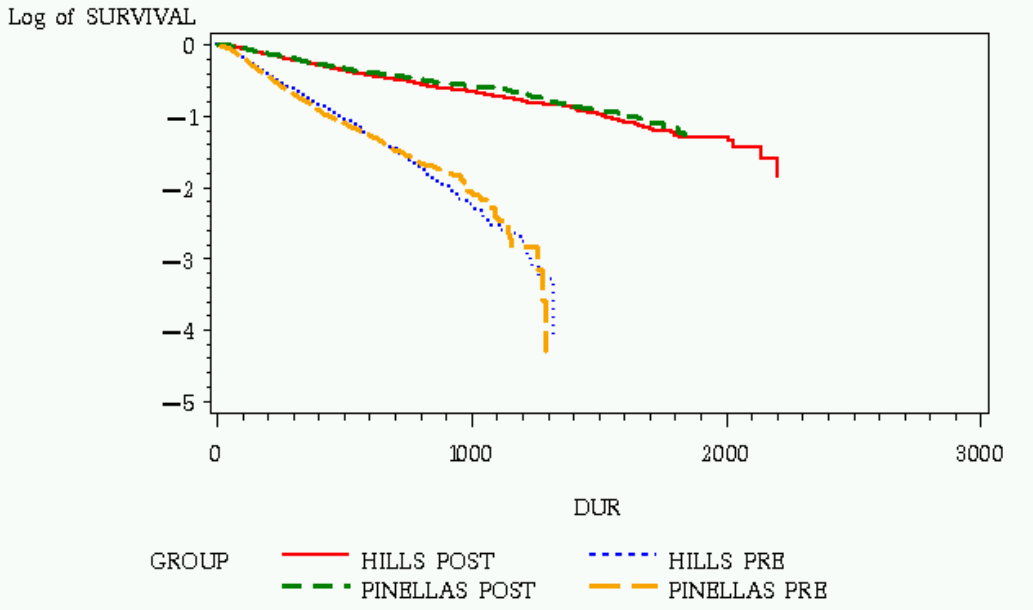
Pinellas–Hillsborough Recurrence Proportional Hazard Model

Plot of log of baseline survival function



Pinellas–Hillsborough Recidivism Proportional Hazard Model

Plot of log of baseline survival function



County Pair 4: Pasco-Lee 2 (Graphs on p. 82)

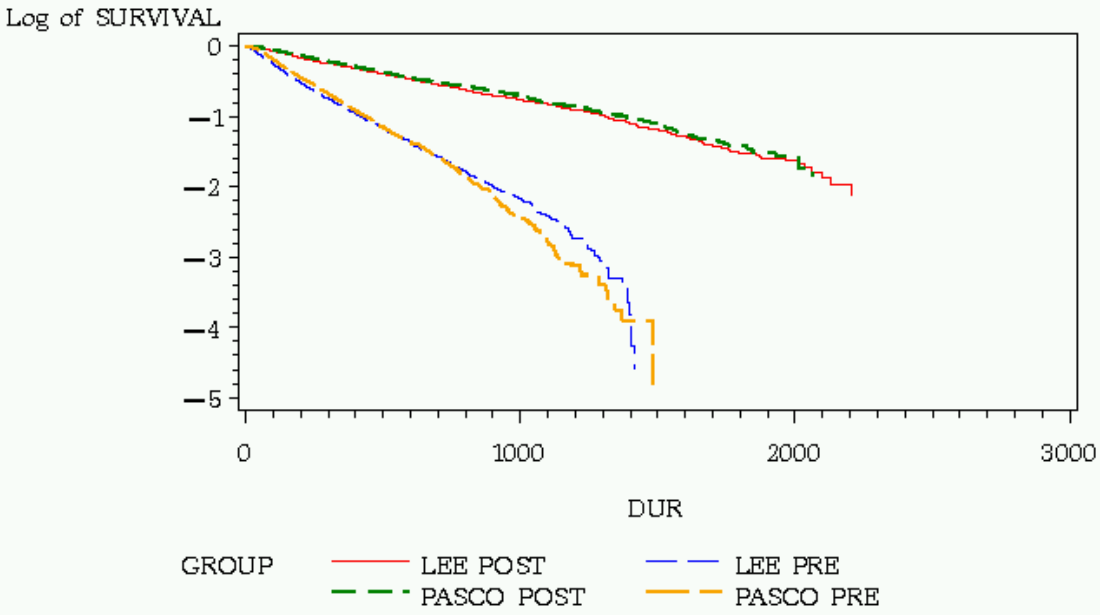
This county pair exhibits decreasing rates for recurrence, particularly in the pre stage. The rates are more constant for both counties in the post stage. As **Table 40** demonstrates, severity plays the largest role in predicting recurrence in this county pair; medium severity plays the largest role in predicting recidivism. Again, low and medium disposition severity impact negatively on both recurrence and recidivism. Unlike the first three county pairs, ethnicity plays no significant role in either outcome here. Unlike Pinellas-Hillsborough, family move significantly impacts on recidivism rather than recurrence. Again, the post stage in both counties exhibits steadier survival rates.

Table 40. Significant Predictors from Proportional Hazard Model for Recurrence and Recidivism for County Pair 4: Pasco-Lee 2

RECURR	PAIR 4: Pasco-Lee 2		Estimated Change in Odds	RECID	PAIR 4: Pasco-Lee 2		Estimated Change in Odds
	Pr > Chi	Hazard Ratio			Pr > Chi	Hazard Ratio	
SBINDXMD	0.0035	0.773	22.7	SBINDXMD	0.0322	0.735	26.5
SBINDXLOW	0.0070	0.786	21.4	MIXSEXC	0.0203	0.811	18.9
SBINDXHI	0.0299	0.832	16.8	AVGVAGE	<.0001	0.961	3.9
MIXSEXC	0.0001	0.886	11.4	MALTOTAL	0.0229	1.023	-2.3
MOVEFLAG	0.0040	0.894	10.6	DISPLOW	0.0024	1.282	-28.2
AVGVAGE	<.0001	0.965	3.5	DISPMD	0.0100	1.298	-29.8
VCOUNT	<.0001	1.092	-9.2	SEQ	<.0001	1.365	-36.5
NEGLECT	0.0023	1.104	-10.4	SBINDXLOW	0.0474	0.757	24.3
DISPLOW	0.0007	1.112	-11.2	SBINDXHI	0.0921	0.796	20.4
ABUSE	<.0001	1.176	-17.6	DISPHI	0.8682	0.981	1.9
SEQ	<.0001	1.232	-23.2				
DISPMD	<.0001	1.238	-23.8				
DISPHI	0.1646	1.072	-7.2				

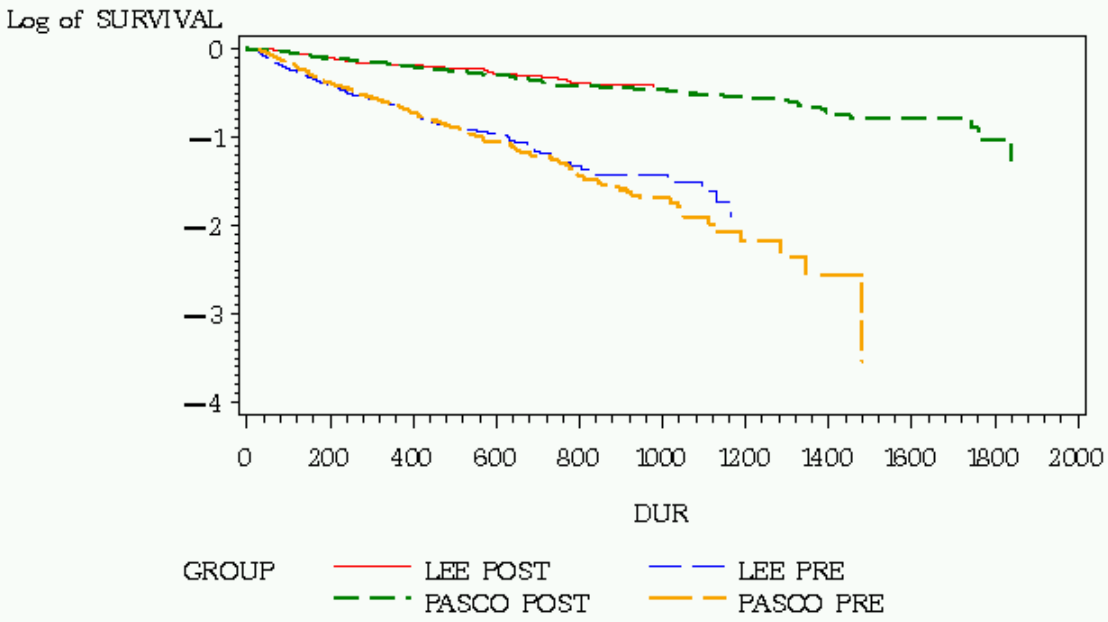
Pasco–Lee2 Recurrence Proportional Hazard Model

Plot of log of baseline survival function



Pasco–Lee2 Recidivism Proportional Hazard Model

Plot of log of baseline survival function



County Pair 5: Broward-Palm Beach (Graphs on p.83)

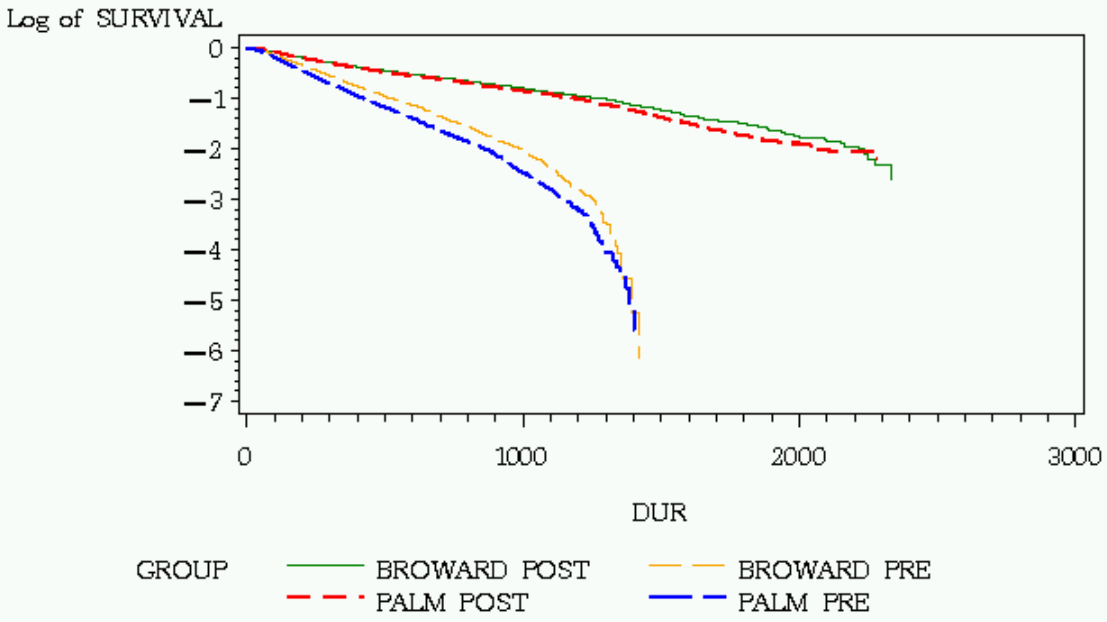
For this county pair (**Table 41**), all Hispanic victims are the best predictor for both recurrence and recidivism. Medium severity predicts recurrence, while medium and high severity predict to recidivism. Medium disposition severity impacts negatively on both outcomes. Family move is significant only for recurrence.

Table 41. Significant Predictors from Proportional Hazard Model for Recurrence and Recidivism for County Pair 5: Broward-Palm Beach

RECURR	PAIR 4: Pasco-Lee 2		Estimated Change in Odds	RECID	PAIR 4: Pasco-Lee 2		Estimated Change in Odds
	Pr > Chi	Hazard Ratio			Pr > Chi	Hazard Ratio	
ALLHISPV	<.0001	0.819	18.1	ALLHISPV	0.0014	0.740	26.0
MOVEFLAG	<.0001	0.86	14.0	SBINDXMD	0.0032	0.804	19.6
SBINDXMD	0.0151	0.875	12.5	SBINDXHI	0.0111	0.830	17.0
MIXSEXC	0.005	0.944	5.6	MIXSEXC	0.0170	0.903	9.7
AVGVAGE	<.0001	0.972	2.8	MOVEFLAG	0.0349	0.903	9.7
MALTOTAL	<.0001	1.018	-1.8	AVGVAGE	<.0001	0.972	2.8
VCOUNT	0.0004	1.043	-4.3	MALTOTAL	<.0001	1.027	-2.7
CHCOUNT	<.0001	1.055	-5.5	VCOUNT	0.0504	1.040	-4.0
NEGLECT	<.0001	1.118	-11.8	CHCOUNT	0.0011	1.062	-6.2
DISPMD	0.0014	1.131	-13.1	DISPMD	0.0064	1.183	-18.3
ABUSE	<.0001	1.149	-14.9	ALLMALEC	0.0355	1.238	-23.8
ALLMALEC	0.0006	1.175	-17.5	SEQ	<.0001	1.294	-29.4
SEQ	<.0001	1.244	-24.4	SBINDXLOW	0.4538	0.947	5.3
SBINDXHI	0.1145	0.919	8.1	DISPHI	0.9712	1.002	-0.2
DISPLOW	0.5822	1.011	-1.1	DISPLOW	0.6671	1.018	-1.8
SBINDXLOW	0.7378	1.018	-1.8				
DISPHI	0.8168	0.993	0.7				

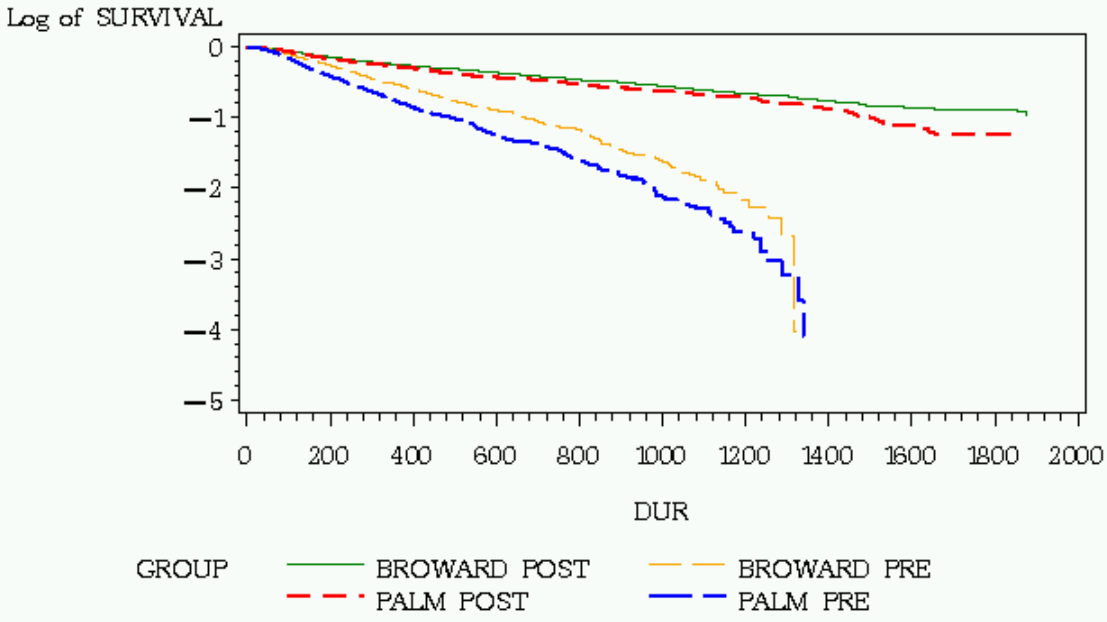
Broward–Palm Beach Recurrence Proportional Hazard Model

Plot of log of baseline survival function



Broward–Palm Beach Recidivism Proportional Hazard Model

Plot of log of baseline survival function



C. MEDIAN LIFETIME ANALYSIS

The median lifetime, which estimates the point in time by which half the families will have experienced recurrence or recidivism, is a useful way to look at county pairs because it provides a specific duration estimate to compare across strata. The estimates were derived from the statistical output for the Cox regression models, which calculates time between events as number of days. To present a clearer picture of the median lifetime, the durations provided by the Cox regression were recalculated as months. As the duration was always presented as a range of days, the months were calculated conservatively using the first day in the range. **Table 42** provides a breakdown of median times to survival in months for .50 of the population by county pair.

Table 42. Median Lifetimes Estimates of Survival Probability in Months (p=.50)

	Survival Probability	Event: New Report (Recurrence)		Event: New Substantiated Report (Recidivism)	
		Pre	Post	Pre	Post
PAIR 1	Manatee	6.0	20.9	7.8	26.8
	Lee	4.9	20.0	5.8	27.5
PAIR 2	Manatee	6.0	20.9	7.8	26.8
	Sarasota	5.9	20.0	6.3	30.8
PAIR 3	Pinellas	32.6	53.8	9.9	39.5
	Hillsborough	30.6	53.9	10.7	34.4
PAIR 4	Pasco	10.1	32.7	12.6	45.5
	Lee2	9.1	29.1	12.9	32.1
PAIR 5	Broward	11.9	27.6	15.1	42.1
	Palm Beach	9.7	25.9	10.8	36.4
	Sheriff Counties	9.8	27.4	11.7	39.2
	Non-Sheriff Counties	9.3	26.1	10.7	35.0

All counties increased median survival times for both recurrence and recidivism. The average median time to recurrence during the pre stage was 14.5 months and 33.0 during the post stage. For recidivism, the average median time was 10.7 in the pre stage and 35.9 in the post stage[13]. **Figure 18** illustrates the differences in increased time to recurrence among the county pairs and **Figure 19** illustrates the same for recidivism.

It appears that Pinellas and Hillsborough counties were most successful at increasing survival time to recurrence. Pasco and Broward demonstrates the largest increase in time to recidivism. When pre-post increases in median survival times are compared **(Figure 20**), the increases in time to recurrence are

[13] Pair 1 was left out of this average to avoid counting Manatee twice. The average refers to 8 counties, 4 experimental and 4 comparison.

larger for six of the ten counties than the increase in time to recidivism. However, the difference between the two outcomes occurs in both experimental and comparison counties, leaving little room to attribute the difference to the investigative transfer.

Figure 18. Estimated Time to Recurrence in Months (p=.50)

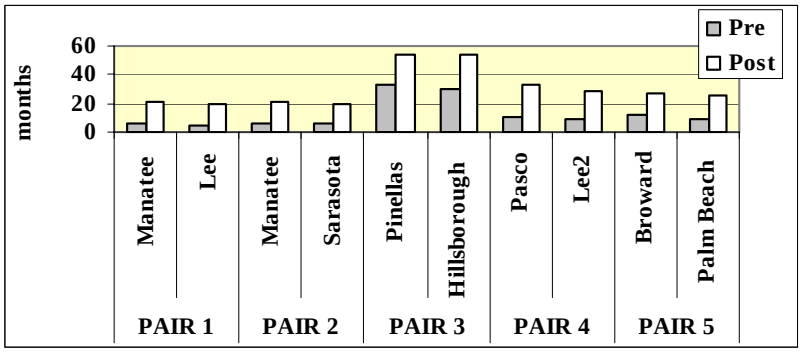


Figure 19. Estimated Time to Recidivism in Months (p=.50)

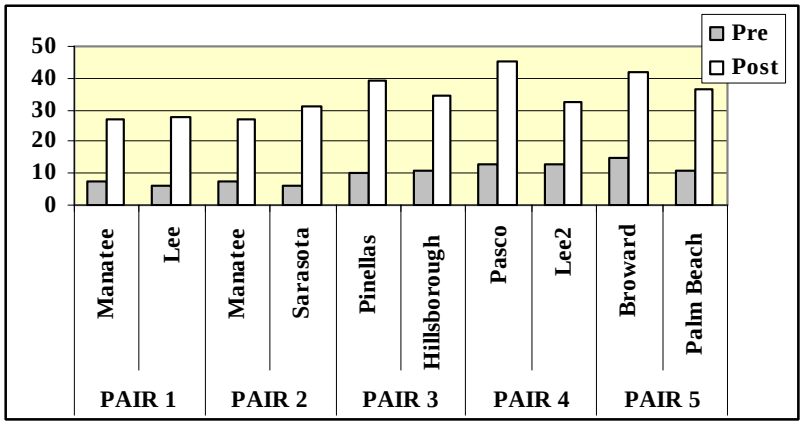


Figure 20. Pre-Post Increase in Survival Time in Months (p=.50)

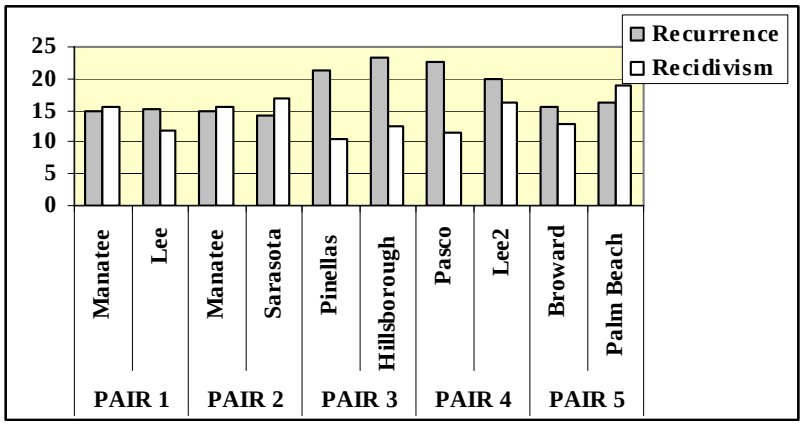
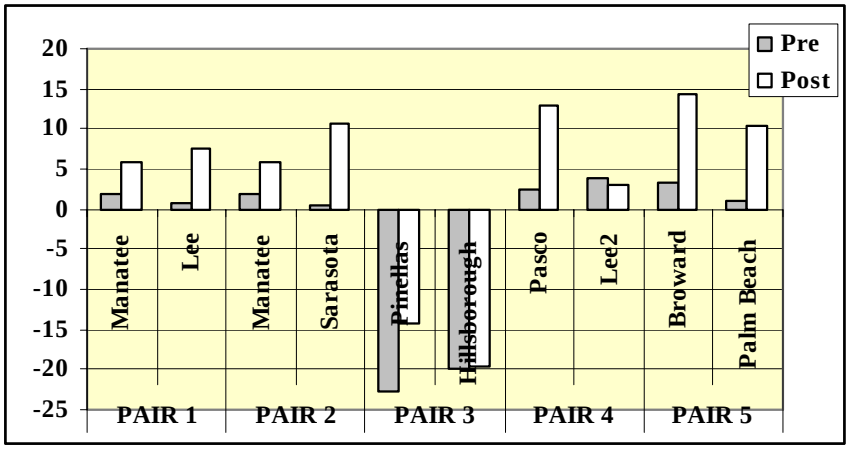


Figure 20 compares the pre-post difference between time to recurrence and time to recidivism for each county pair. With the exception of County Pair 3, all county pairs demonstrate increases in the time between recurrence and recidivism in the post stage. The Pinellas-Hillsborough pair is an anomaly in that their time between substantiated reports is shorter than their time between the reports themselves, yielding a negative difference pre and post. The data on this pair were checked repeatedly, but at the present time, there is no discernable explanation for this oddity.

Figure 21. Pre-Post Difference between Time to Recurrence and Time to Recidivism



Overall, the counties increased the median lifetime survival probabilities in the post stage and seem to have improved particularly with regard to recidivism. It is of course difficult to assess the situation in Pinellas-Hillsborough because of the unusual data associated with these counties. A full breakdown of survival probability estimates is available in **Appendix E.**

D. SUMMARY OF EVENT HISTORY ANALYSES

The hazard function models illustrate, in a broad way, that the Sheriff may be having an influence in some of the counties on achieving a steady hazard rate, although all counties exhibit increases in the rate itself.

Survival curves for recurrence are similar for all county pairs, with the post stage showing a more constant rate than the pre stage. The county pairs also share some significant predictors. Maltreatment and disposition severity are always significant, differing only in the level that is contributing an impact and the direction of the impact. Family move is shared, as is victim age and mixed sex of caretaker. Abuse as a type of maltreatment and the sequence of reports are also shared in the recurrence model, with both variables having a negative impact.

Survival curves for recidivism are similar to those for recurrence, although the predictors are not the same. Victim age and mixed caretaker sex are still significant for all county pairs, but maltreatment severity's impact is not shared. The negative impact of disposition severity is shared, however, and always at the medium level. Sequence is shared and again has a negative impact.

Overall, it seems that all county pairs are experiencing steady survival rates after the transfer of responsibility to the Sheriff's Offices, making it unlikely that there is an association between the two. In terms of predictors, however, there is quite a lot a variety among the county pairs, particularly in which predictor is most salient. The law enforcement experiment did not seem to have an effect on median lifetime survival probabilities, as all counties increased in this regard.

VIII. PERFORMANCE OF SHERIFF'S OFFICES IN CHILD MALTREATMENT INVESTIGATIONS

A. REPLICATION OF COUNTY PAIR ANALYSES FOR SHERIFF VS NON-SHERIFF COUNTIES

In concluding the quantitative data analyses for this report, the study replicated some of the county pair analyses as a two-way comparison between aggregated experimental and comparison counties. To avoid duplicate counts and uneven weights, this comparison uses only four experimental and four comparison counties. Manatee was counted only once, as part of Pair 2. Lee was counted only once, as part of Pair 4.

Odds Ratio Estimates: Substantiation

A regression model was constructed for substantiation and illustrated that although the odds percentage was -20 in the post period overall, the odds percentage was 6.5 greater in the Sheriff counties and 7.7 greater in the interaction between the Sheriff counties and the post period **(Table 43)**.

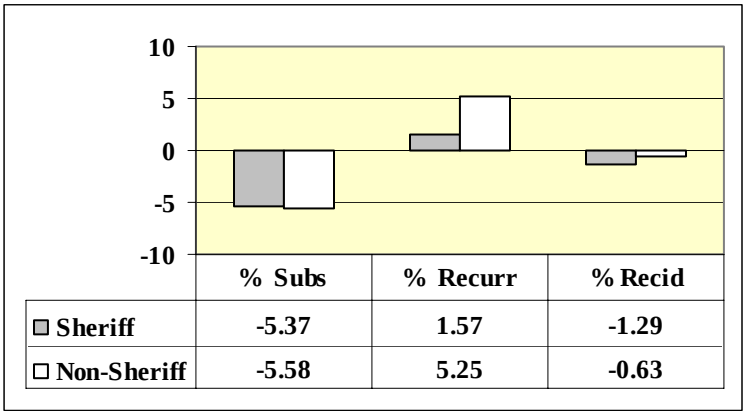
Table 43. Change in Odds Ratio for Substantiation, Sheriff vs Non-Sheriff Counties

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	**Estimate**	**Pr > ChiSq**	**Point Estimate**	**95 % Wald Confidence Intervals**		**% Change in Odds Ratio**
Post Period	-0.2232	<.0001	0.8	0.781	0.82	-20
Sheriff Counties	0.0633	<.0001	1.065	1.04	1.091	6.5
Interaction	0.0746	<.0001	1.077	1.042	1.114	7.7

Change in Percentage of Reports: Substantiation, Recurrence, and Recidivism

Looking at the situation from a change in percentage perspective **(Figure 22),** it seems that the Sheriff counties are experiencing less of a decrease in reports substantiated, less of an increase in reports representing recurrence, and less of a decrease in reports representing recidivism in the post stage. This indicates that they are performing better in substantiation and recurrence than the non-Sheriff counties, but not quite as well with regard to recidivism.

Figure 22. Change in Percentage of Reports: Substantiation, Recurrence, Recidivism, Sheriff vs Non-Sheriff Counties

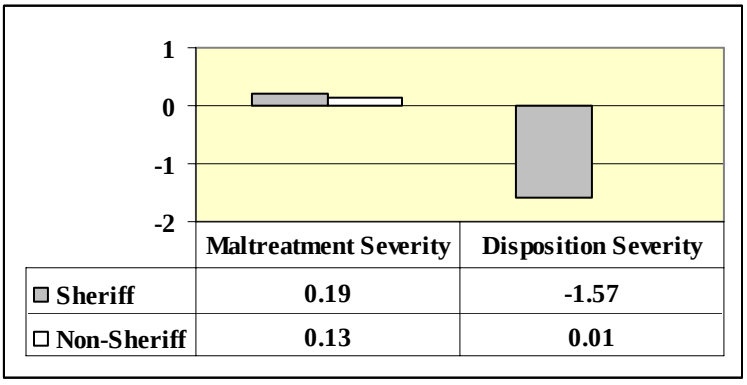


	% Subs	% Recurr	% Recid
Sheriff	-5.37	1.57	-1.29
Non-Sheriff	-5.58	5.25	-0.63

Effect Size Comparisons: Severity

Figure 23 demonstrates that the investigative transfer has had no policy relevant impact on maltreatment or disposition severity, although the Sheriff counties were more successful in decreasing the latter.

Figure 23: Effect Size Comparison: Maltreatment and Disposition Severity, Sheriff and Non- Sheriff Counties



	Maltreatment Severity	Disposition Severity
Sheriff	0.19	-1.57
Non-Sheriff	0.13	0.01

Effect size comparisons were calculated for duration as well as severity. **Figure 24** demonstrates the policy-relevant impact all counties on both time to finding and time to case closing and services opening, although the impact was not in the desired direction. **Figure 25** compares the Sheriff and non-Sheriff counties on the pre-post change in the mean number of days to finding and case closing. It appears that the Sheriff counties greatly increased the duration on both outcomes.

Figure 24. Effect Size Comparison: Time to Finding and Time to Closing/Open Service, Sheriff vs Non-Sheriff Counties

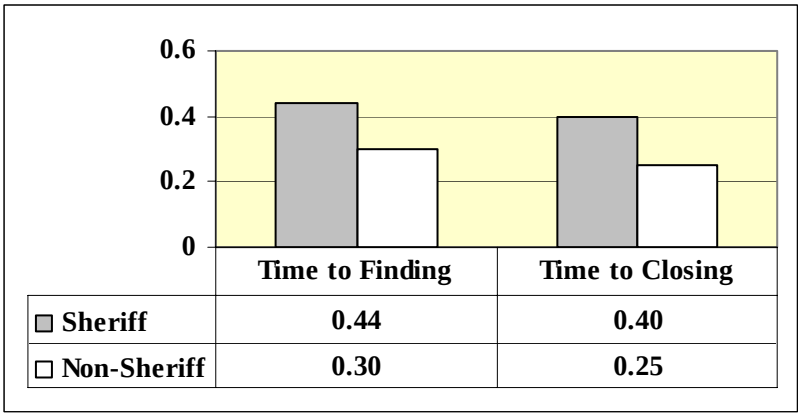
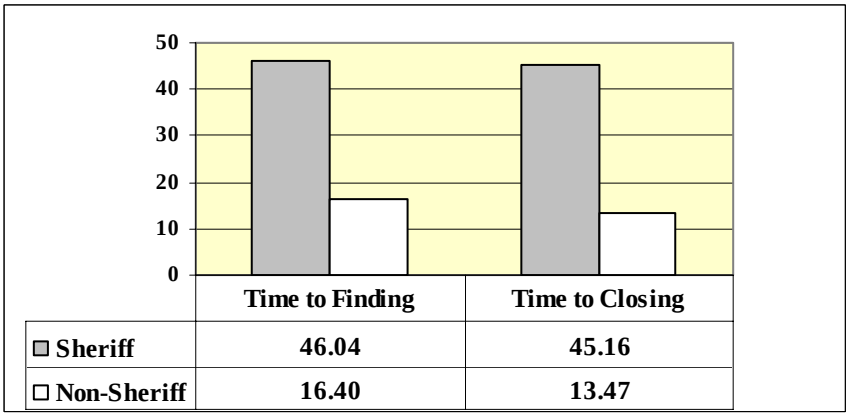


Figure 25. Mean # of Days to Finding and Closing/Open Service, Sheriff vs Non-Sheriff Counties

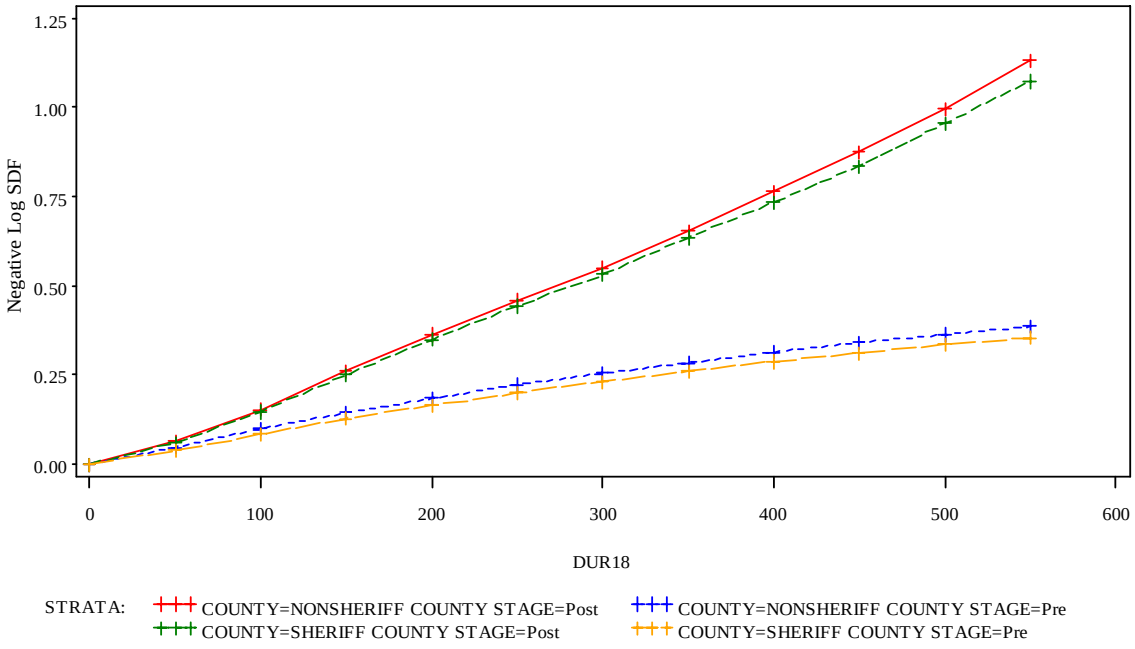


Hazard Function Analysis and Cox Regression

The recidivism graphs on page 92 can be viewed interpretively in the same manner as the county pair graphs. Only the smooth hazard graph is shown because it clearly indicates that the hazard decreases gradually in the pre stage and increases slightly in the post stage for both Sheriff and non-Sheriff counties. The survival curve confirms that the situation remains basically the same even when adding covariates and repeated measures, although the decrease is steeper pre stage.

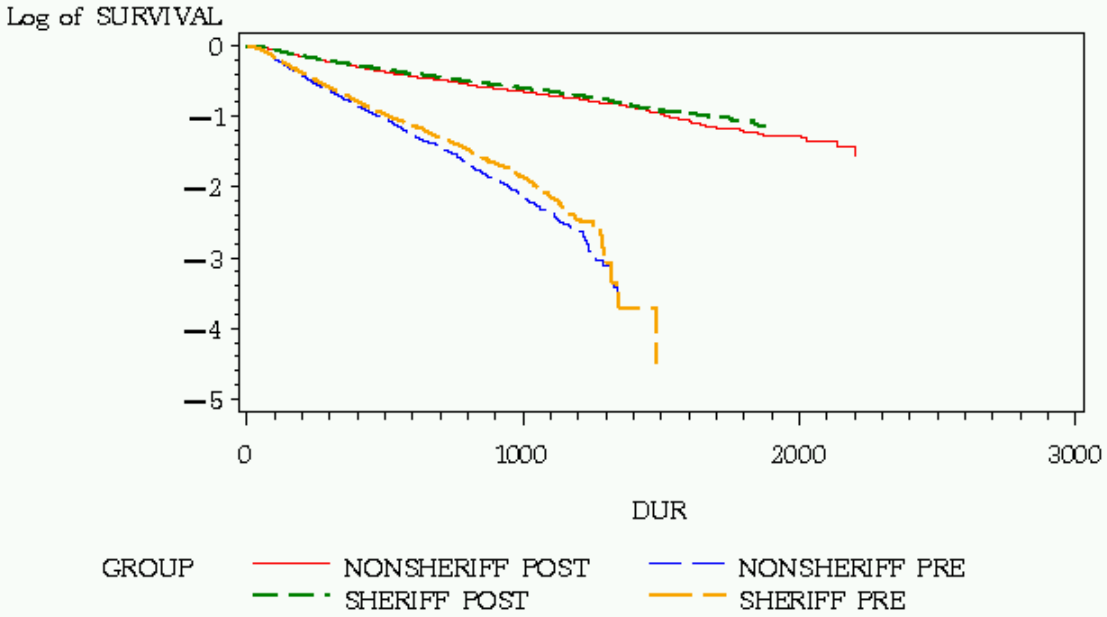
Sheriff vs Non-sheriff County Recidivism Hazard

18 Months Follow-up



Sheriff vs Non−sheriff Recidivism Proportional Hazard Model

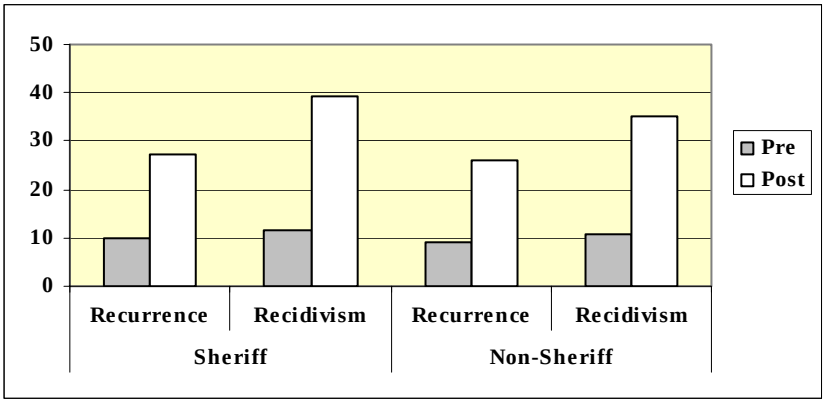
Plot of log of baseline survival function



Median Lifetime Analysis

Figure 27 provides the median lifetime survival probability estimates pre and post for the Sheriff and non-Sheriff counties. It is clear that both Sheriff and non-Sheriff counties experienced large increases in survival times for both recurrence and recidivism.

Figure 27. Median Lifetime Estimates for Survival Probably in Months (p=.50), Sheriff vs Non-Sheriff Counties.



Aggregating the Sheriff and non-Sheriff counties confirmed the picture presented by the county pair analyses. When there was improvement over time, the improvement usually occurred for all counties. It does not seem that any significant change can be attributed to the transfer of responsibility to the Sheriff's Offices. However, the State of Florida began measuring the performance of child protective investigation agencies statewide a year ago, using their new Home Safe Net data system. A summary of the results for year 2003-2004 follows.

B. FLORIDA'S STATEWIDE PERFORMANCE INDICATORS

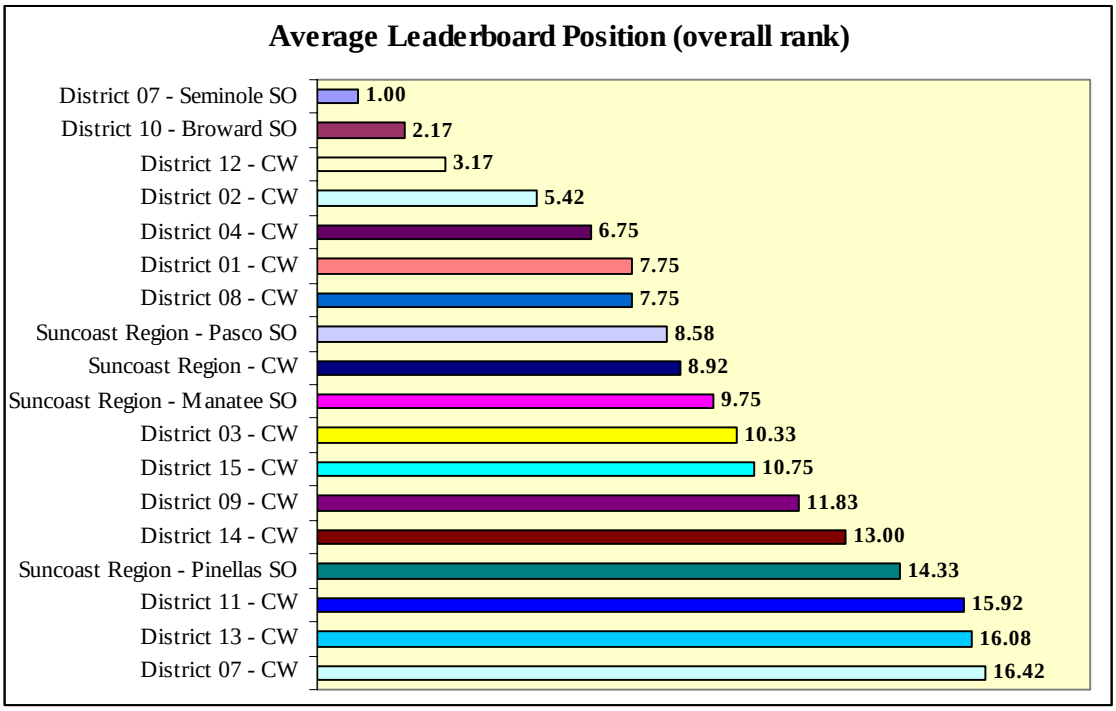
Each month, performance of the investigating agencies is tracked according to twelve indicators:

1. % of investigations commenced on time (within 24 hours)
2. of victims seen, % of victims seen within 24 hours
3. % of CSA (initial) submitted within 48 hours of receiving report
4. % of supervisor first review within 72 hours of CSA initial submitted
5. % of supervisor first review agreement with overall child safety assessment
6. % of second party first review within 72 hours of being referred
7. % of second party first review agreement with supervisor

8. Dispo submitted within 45 days of being received
9. % of supervisor first dispo review within 3 days
10. % of supervisor agreement with first submitted recommended dispo
11. % of investigations completed (closed) by supervisor in 60 days

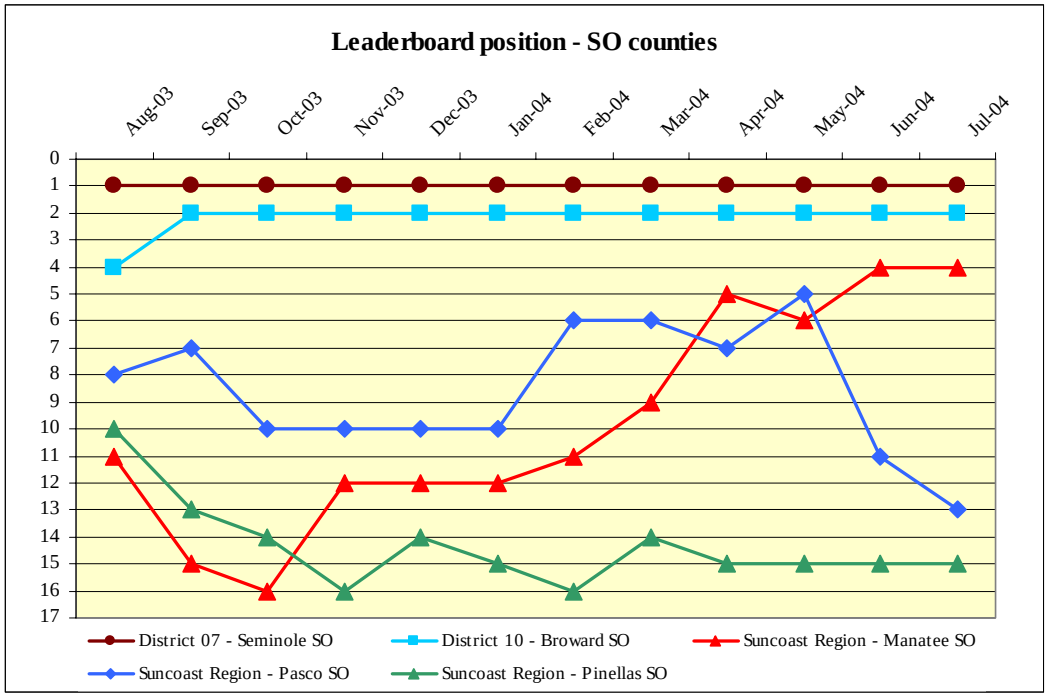
To evaluate the performance of the Sheriff's Offices by state standards, this study analyzed the state reported leaderboard statistics for the twelve month period from August, 2003, to July, 2004 for the leaderboard position (overall rank) and the indicators regarding opening and closing investigations on time. **Figure 28** indicates that when rankings on individual indicators are averaged over the twelve-month period, Seminole County (Sheriff's) ranked top with Broward (Sheriff's) second.

Figure 28. Overall Ranking for Florida's Investigative Child Welfare Agencies*



Looking at the Sheriff's counties alone for each month **(Figure 29),** Seminole was ranked #1 and Broward #2 for eleven of the twelve months. Pasco, Manatee, and Pinellas were more variable ranging from a high ranking of 4 (Manatee in June and July 2004) to a low of 16 (Manatee October 2003, Pinellas November 2003 and February 2004). Pasco reached a peak of rank #5 in May 2004 and then dipped to 13 by July 2004.

Figure 29. Ranking for Sheriff Counties Only



Comparing the aggregate of Sheriff's Office (SO) and non-Sheriff's Office (child welfare; CW) counties **(Figure 30)**, SO counties ranked higher than CW counties every month. Looking more closely at particular indicators, **Figure 31** indicates that Seminole is again ranked number one for commencing investigations on time (within 24 hours). Broward and Manatee counties occupy ranks three and four, respectively, compared with the other counties.

For timely *completion* of investigations (within 60 days) **(Figure 32)**, Seminole drops to an average rank of 12.75. Pasco, which had an average rank of 9.67 for commencing investigations, also shares this rank. Broward County's rank for closing (4.50) was also lower than their rank for commencing investigations (2.92). Manatee and Pinellas counties performed better on timely closing of investigations (4.33 and 6.08, respectively) than for opening (6.08, 8.58).

Figure 30. Comparison of Average Ranking, Sheriff vs Non-Sheriff Counties

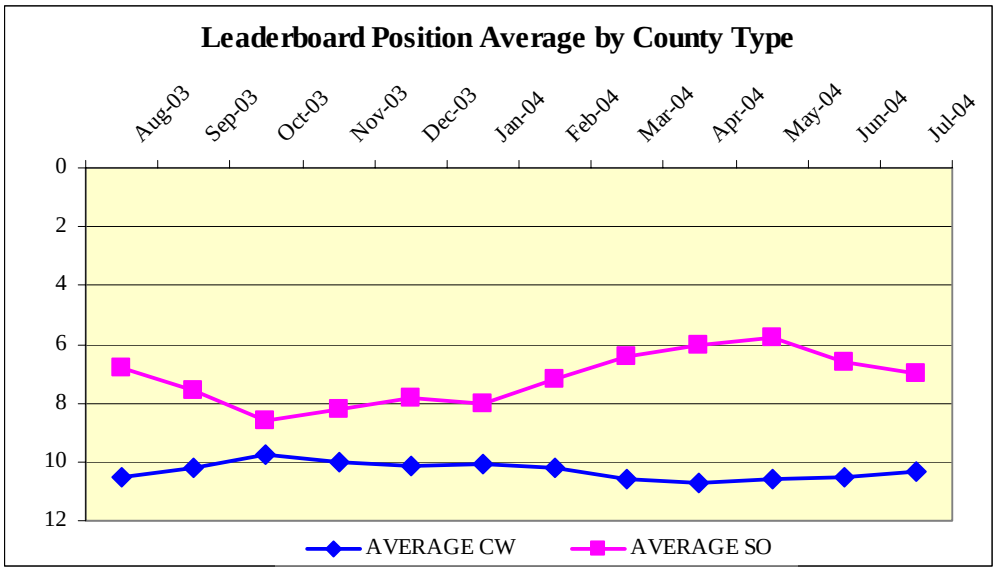


Figure 31. Average Rank for Investigations Commenced on Time

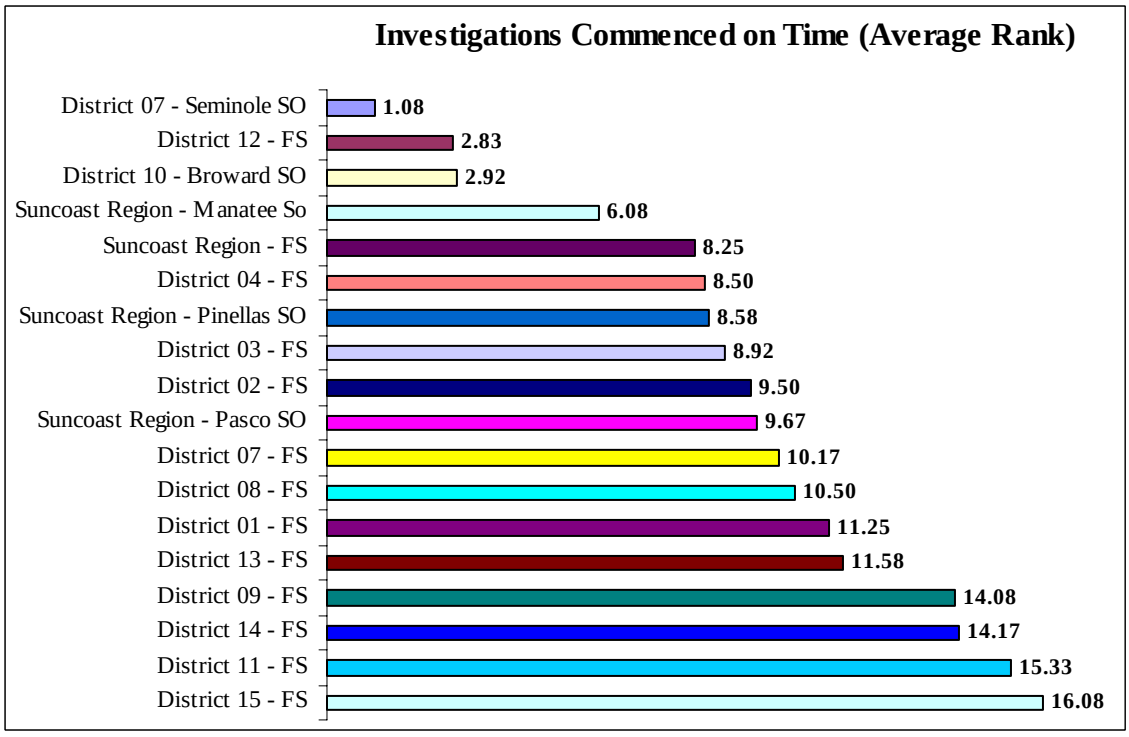
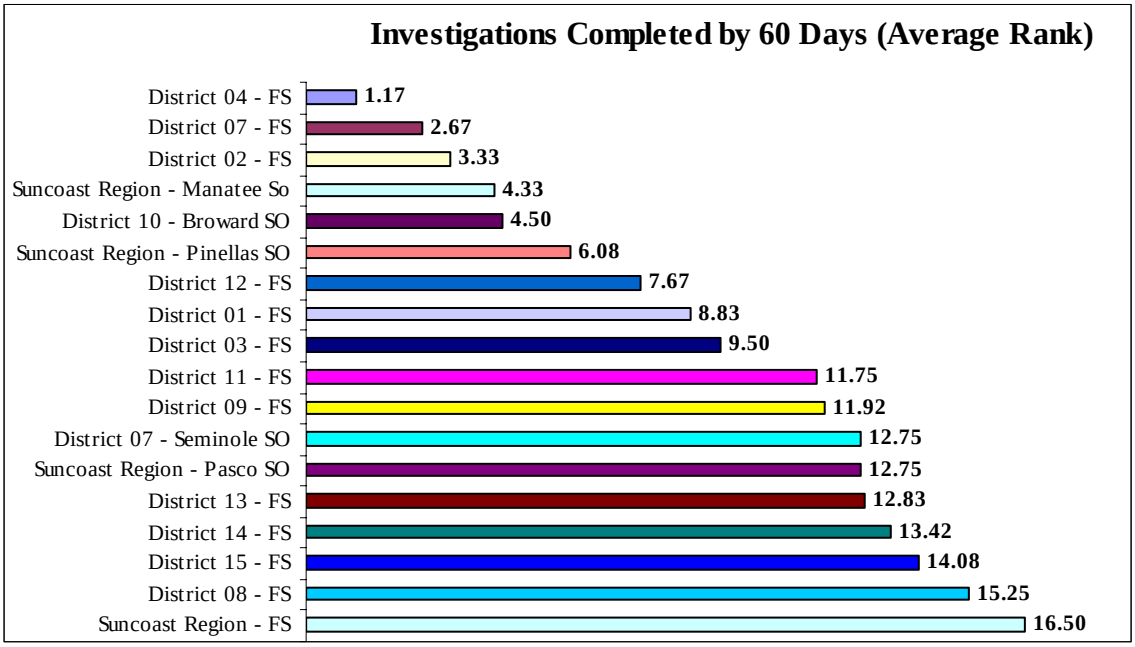


Figure 32. Average Rank for Investigations Completed in 60 Days



C. SUMMARY OF FINDINGS ON PERFORMANCE OF SHERIFF OFFICES

With regard to report substantiations, a regression model revealed that the odds percentage was 7.7 greater in the post-period in the Sheriff's counties. An analysis of percentage changes in substantiation, recurrence and recidivism indicated that the Sheriff counties are performing better in substantiation and recurrence than the non-Sheriff counties, but not quite as well with regard to recidivism. The investigative transfer has had no policy relevant impact on maltreatment or disposition severity, although the Sheriff counties were more successful in decreasing the latter. With regard to duration of investigation and length of time to case opening for service, all counties experienced a negative policy-relevant impact all counties on both time to finding and time to case closing and services opening. The Sheriff counties appear to be greatly increased the mean # of days on both outcomes.

Event history analyses illustrate that the hazard for recidivism decreases gradually in the pre stage and increases slightly in the post stage for both Sheriff and non-Sheriff counties. Both Sheriff and non-Sheriff counties experienced large increases in median survival times for both recurrence and recidivism, making it unlikely that either hazard or survival are impacted by the transfer of investigative responsibility. Using Florida's statewide performance indicators as a measure of success, the Sheriff counties consistently outperform the non-Sheriff counties on all 11 measures. Overall, Broward outperforms all counties in this

study (**Table 44**). However, with the exception of Broward, the comparison counties outperform the other experimental counties.

Table 44. Ranking for Experimental and Comparison Counties

1	**Broward**
2	**Lee (District 8)**
3	**Pasco**
4	**Sarasota, Hillsborough (Suncoast CW)**
5	**Manatee**
6	**Palm Beach (District 9)**
7	**Pinellas**

IX. SUMMARY COMPARISON ACROSS MEASURES

A. County Comparison Across Analytic Measures

Table 45 compares the county pairs across analytic measures and identifies those counties that succeeded in achieving a statistically significant or policy-relevant desired outcome. All counties shared three of these measures: 1) a decrease in the percent of reports with high index level maltreatment severity; 2) an increase in survival rates for recurrence and time to recurrence; and 3) an increase in survival rates for recidivism and time to recidivism. Most of the counties decreased the time between a report being received and a case being closed for investigations and simultaneously opened for service. The most desirable indicator of successful improvement in child safety, as noted earlier, is a decrease in recurrence and recidivism, so in that sense, the safety situation seems to be improving in the post stage. However, as it is improving in all counties, it is not an indicator of the success of the investigative transfer.

Table 45. County Pair Comparison Across Analytic Measures

Desired Outcome	Pair 1		Pair 2		Pair 3		Pair 4		Pair 5	
	M	L	M	S	Pin	H	Pas	L2	B	PB
Increase in % Substantiated										**X**
Increase in Odds Percentage of Substantiation	X		X				X			
Impact on Substantiation (ES)										
Decrease in % High Index Maltreatment Severity	X	X	X	X	X	X	X	X	X	**X**
Impact on Maltreatment Severity (ES)									X	**X**
Decrease in % High Index Disposition Severity							X		X	**X**
Impact on Disposition Severity (ES)		X						X	X	
Decrease Time to Finding (ES)	X	X	X		X		X	X	X	
Decrease Time to Close/Open Svc (ES)	X	X	X		X		X	X		

Decrease in % Recurrence					X	X	X			
Decrease in % Recidivism					X	X	X			
Decrease in Hazard for Recurrence										
Decrease in Hazard for Recidivism										
Increase in Survival Rate for Recurrence	X	X	X	X	X	X	X	X	X	**X**
Increase in Survival Rate for Recidivism	X	X	X	X	X	X	X	X	X	**X**
Increase Survival Time to Recurrence (months)	X	X	X	X	Questionable Data		X	X	X	**X**
Increase Survival Time to Recidivism (months)	X	X	X	X			X	X	X	**X**

B. Sheriff vs Non-Sheriff Across All Measures

Table 46 compares the Sheriff and Non-Sheriff counties across analytic measures and statewide performance indicators. The Sheriff counties outperform all non-Sheriff counties only in odds of a report being substantiated, impact on disposition severity, and statewide indicators. However, when the counties in this study are ranked, the non-Sheriff counties outperform the Sheriff counties, with the exception of Broward. Otherwise, the significance and/or impact of the transfer of investigative responsibility appears be negligible.

Table 46. County Pair Comparison Across Analytic Measures

Desired Outcome	Sheriff	Non-Sheriff
Increase in Odds Percentage of Substantiation	X	
Increase in % Substantiation		
Impact on Maltreatment Severity (ES)		
Impact on Disposition Severity (ES)	X	
Decrease Time to Finding (ES)	X	X
Decrease Time to Close/Open Svc (ES)	X	X
Decrease in % Recurrence		
Decrease in % Recidivism	X	X
Decrease in Hazard for Recidivism	X	X

Increase in Survival Rate for Recidivism	X	X
Increase Survival Time to Recurrence (months)	X	X
Increase Survival Time to Recidivism (months)	X	X
Overall Ranking on Florida Statewide Indicators (all counties)	X	
Overall Ranking on Florida Statewide Indicators (experimental and comparison counties)		X

C. COMPARISON OF FINDINGS FROM ORIGINAL AND SUPPLEMENTAL STUDIES

The findings from this supplemental study confirm, to some extent, the findings of the original study. More rigorous analyses supported the original findings that the investigative transfer had little impact on recurrence and recidivism, although the analyses did clarify that that there was more convergence among all counties than had been previously revealed, i.e. all counties improved in discrete areas such as increased survival times. With regard to the original unanswered question regarding outcomes for perpetrators, this study was able to establish to some extent the percentage of perpetrators likely to experience criminal sanctions (35.9%) in Broward County, at least over the last year. Unfortunately, due to the change in data collection procedures at the state level, it was not possible to ascertain whether this represented a difference due to the transfer of investigative responsibility. This study was able to determine, however, that a pilot study monitoring the link between child welfare and criminal outcomes was feasible given appropriate funding. This study also found that the Sheriff counties consistently outperformed the DCF counties on a series of 11 performance indicators tracked regularly by the state if compared statewide. If only the counties in this study are compared, the non-Sheriff counties outperformed with the exception of Broward. As this study did not cover other issues evaluated in the original study such as implementation fidelity and investigator perspectives, there are no supplemental findings in these areas.

X. CONCLUSION

For now, it is fair to say that the secondary data analyses presented in this report indicate that the transfer of investigative responsibility to law enforcement has not had the desired or expected impact. It is important to remember, however, that the experiment with law enforcement is still new, although the difficulties associated with the new endeavor seem to have been overcome. Viewing the investigative transfer from the perspective of the state-identified performance indicators, it is clear the Sheriff's Offices are doing a uniformly good job in investigating child maltreatment. The initial fears of stakeholders that law enforcement would have a detrimental effect on the system, that police would not be sensitive to the complexity of the issues affecting families in the system, that

there would be radical increases in emergency shelter and foster care remain unrealized. Site visits to Broward County revealed that the BSO is firmly entrenched in the Child Protective Supervision system, committed to improving wherever possible, and open to participating in a pilot study linking their work with the work of the criminal court. For a researcher who has been trying to generate interest in linking the two systems and to convince agencies of its importance, the BSO is easier to work with on this issue, possibly because law enforcement usually deals with criminal matters and has only lately become intimately involved with child welfare. The researchers and BSO, as well as the court itself, seem to agree that institutionalizing a feedback loop would be beneficial to all concerned in terms of policy and practice.

With regard to policy and practice, both studies indicate that it may make no difference which agency conducts child maltreatment investigations. It may make a difference, however, that the agency conducting investigations is not the same agency that delivers services. Broward County, along with most counties in Florida, recently privatized child welfare services and transferred all court-ordered service cases to a lead agency, ChildNet. The relationship between BSO and ChildNet appears to be healthy, although the relationship is still new and may need time to reach peak efficiency. The Principal Investigator for this study has established a working relationship with ChildNet, as well as an ongoing relationship with BSO, so that she is well suited to monitor the link between investigative and service outcomes, as well as the link between investigations and criminal sanctions. Ideally, the well-being of the children and families in the child welfare system would be enhanced if care were taken to view their well-being from such an ecological perspective.

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APPENDIX A

Population Census (2000) Data for 8 Counties
County Pair Data on Caretakers, Victims and Children

Population Characteristics for 8 counties

	Pinellas	Hillsborough	Broward	Palm Beach
	Experimental	Comparison	Experimental	Comparison
Total Pop.	921,482	998,948	1,623,018	1,131,184
% White	85.9%	75.2%	70.6%	79.1%
Med. Household Income	$37,111	$40,663	$41,691	$45,062
Children Under 18	19.3%	25.3%	23.6%	23.2%
% Persons below Poverty	10.0%	12.5%	11.5%	9.9%
# Maltreatment Reports	7725	9632	12376	8988

Census 2000
Florida DCF Annual 2000-2001 Report

Caretaker and Children Data on County Pairs

	SHERIFF			
	Broward	**Manatee**	**Pinellas**	**Pasco**
CARETAKERS				
Age (26-35)	39.9	42.47	40.63	42.81
Race (all white)	55.52	76.91	75.15	94.32
Ethnicity (all non-Hispanic)	89.24	91.92	97.26	95.77
Family Composition				
Single Caretaker	16.68	17.10	17.39	13.58
Female Single Caretaker	81.91	76.15	83.5	80.29
	DCF			
	Palm Beach	**Lee**	**Hills**	**Lee**
Age (26-35)	40.29	42.35	41.84	41.81
Race (all white)	62.55	73.29	67.74	73.7
Ethnicity (all non-Hispanic)	85.86	88.83	88.19	88.41
Family Composition				
Single Caretaker	13.94	16.29	20.52	15.13
Female Single Caretaker	82.49	81.1	84.33	81.91
	SHERIFF			
	Broward	**Manatee**	**Pinellas**	**Pasco**
Mean # per Report				
victims	1.6	1.6	1.6	1.7
other children	0.3	0.4	0.4	0.4
	DCF			
	Palm Beach	**Lee**	**Hills**	**Lee**
Mean # per Report				
victims	1.7	1.7	1.7	1.7
other children	0.4	0.5	0.4	0.4
***Sarasota data not able to be processed for this report.**				

APPENDIX B

Odds Ratio for Substantiation by County and County Pairs

PAIR 1: Manatee County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.6036	<.0001				
MALTOTAL	0.1562	<.0001	1.169	1.145	1.193	16.9
ABUSE	-0.1826	0.0008	0.833	0.749	0.927	-16.7
NEGLECT	-0.2077	<.0001	0.812	0.734	0.900	-18.8
AVGCTAGE	-0.00349	0.1598	0.997	0.992	1.001	-0.3
AVG_VAGE	-0.011	0.0178	0.989	0.98	0.998	-1.1
ALLWHITEC	-0.2031	0.0486	0.816	0.667	0.999	-18.4
MIXRACEC	0.037	0.7549	1.038	0.823	1.309	3.8
ALLWHITEV	0.0599	0.553	1.062	0.871	1.294	6.2
MIXRACEV	0.1663	0.4224	1.181	0.787	1.773	18.1
ALLHISPC	0.182	0.1823	1.200	0.918	1.568	20
MIXETHC	0.1988	0.1198	1.220	0.95	1.567	22
ALLHISPV	-0.1148	0.3235	0.892	0.71	1.120	-10.8
MIXETHV	-0.0407	0.8421	0.960	0.643	1.433	-4
ALLMALEC	-0.0817	0.3794	0.922	0.768	1.106	-7.8
MIXSEXC	0.382	<.0001	1.465	1.331	1.613	46.5
ALLFEMV	-0.0162	0.7172	0.984	0.901	1.074	-1.6
MIXSEXV	0.085	0.2139	1.089	0.952	1.245	8.9
CHCOUNT	-0.069	0.0028	0.933	0.892	0.976	-6.7
VCOUNT	-0.2459	<.0001	0.782	0.731	0.837	-21.8
MOVEFLAG	0.1979	0.0207	1.219	1.031	1.441	21.9
POST	-0.346	<.0001	0.708	0.646	0.775	-29.2

PAIR 1: Lee County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limites		Odds (percentage)
Intercept	-0.4486	<.0001				
MALTOTAL	0.0564	<.0001	1.058	1.043	1.073	5.8
ABUSE	0.0113	0.8141	1.011	0.92	1.111	1.1
NEGLECT	-0.1217	0.0092	0.885	0.808	0.97	-11.5
AVGCTAGE	0.00241	0.3002	1.002	0.998	1.007	0.2
AVG_VAGE	-0.0203	<.0001	0.980	0.972	0.988	-2
ALLWHITEC	-0.261	0.0159	0.770	0.623	0.952	-23
MIXRACEC	0.0697	0.5124	1.072	0.870	1.321	7.2
ALLWHITEV	-0.2567	0.0142	0.774	0.630	0.950	-22.6
MIXRACEV	-0.1656	0.3744	0.847	0.588	1.221	-15.3
ALLHISPC	0.2781	0.013	1.321	1.060	1.645	32.1
MIXETHC	0.1343	0.1824	1.144	0.939	1.393	14.4
ALLHISPV	-0.0341	0.7366	0.967	0.793	1.179	-3.3
MIXETHV	0.1239	0.4388	1.132	0.827	1.549	13.2
ALLMALEC	0.1603	0.0912	1.174	0.975	1.414	17.4
MIXSEXC	0.509	<.0001	1.664	1.522	1.818	66.4
ALLFEMV	0.0433	0.2892	1.044	0.964	1.131	4.4
MIXSEXV	0.0793	0.1827	1.083	0.963	1.217	8.3
CHCOUNT	-0.0553	0.0076	0.946	0.909	0.985	-5.4
VCOUNT	-0.1287	<.0001	0.879	0.830	0.931	-12.1
MOVEFLAG	0.266	0.0006	1.305	1.120	1.519	30.5
POST	-0.5587	<.0001	0.572	0.527	0.62	-42.8

PAIR 1: Manatee-Lee Interaction

Maximum Likelihood Estimates			Odds Ratio Estimates			
	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	-0.4427	<.0001				
MALTOTAL	0.0903	<.0001	1.094	1.082	1.107	9.4
ABUSE	-0.0732	0.0414	0.929	0.866	0.997	-7.1
NEGLECT	-0.1548	<.0001	0.857	0.800	0.917	-14.3
AVGCTAGE	-0.00028	0.8708	1.000	0.996	1.003	0
AVG_VAGE	-0.0164	<.0001	0.984	0.978	0.99	-1.6
ALLWHITEC	-0.2363	0.0016	0.790	0.682	0.914	-21
MIXRACEC	0.0622	0.4354	1.064	0.910	1.244	6.4
ALLWHITEV	-0.1146	0.1162	0.892	0.773	1.029	-10.8
MIXRACEV	-0.00617	0.9638	0.994	0.761	1.298	-0.6
ALLHISPC	0.2441	0.0047	1.276	1.078	1.512	27.6
MIXETHC	0.1648	0.0358	1.179	1.011	1.375	17.9
ALLHISPV	-0.0601	0.4306	0.942	0.811	1.094	-5.8
MIXETHV	0.0468	0.7071	1.048	0.821	1.338	4.8
ALLMALEC	0.0237	0.7219	1.024	0.899	1.167	2.4
MIXSEXC	0.4559	<.0001	1.578	1.479	1.683	57.8
ALLFEMV	0.0193	0.5241	1.019	0.961	1.082	1.9
MIXSEXV	0.0965	0.0297	1.101	1.01	1.201	10.1
CHCOUNT	-0.0629	<.0001	0.939	0.911	0.968	-6.1
VCOUNT	-0.1741	<.0001	0.84	0.805	0.877	-16
MOVEFLAG	0.2311	<.0001	1.260	1.126	1.410	26
POST	-0.5819	<.0001	0.559	0.516	0.606	-44.1
MANATEE	1.0718	<.0001	2.921	2.629	3.244	192.1
MANAPOST	0.2612	<.0001	1.299	1.151	1.465	29.9

PAIR 2: Sarasota County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.2698	0.0387				
MALTOTAL	0.1509	<.0001	1.163	1.138	1.189	16.3
ABUSE	-0.0687	0.244	0.934	0.832	1.048	-6.6
NEGLECT	-0.0176	0.7599	0.983	0.878	1.100	-1.7
AVGCTAGE	-0.00439	0.1055	0.996	0.99	1.001	-0.4
AVG_VAGE	-0.0125	0.0146	0.988	0.978	0.998	-1.2
ALLWHITEC	-0.0551	0.7077	0.946	0.709	1.262	-5.4
MIXRACEC	0.254	0.0912	1.289	0.96	1.731	28.9
ALLWHITEV	-0.162	0.2525	0.850	0.644	1.122	-15
MIXRACEV	0.0387	0.8799	1.039	0.629	1.716	3.9
ALLHISPC	0.3486	0.0786	1.417	0.961	2.090	41.7
MIXETHC	0.5556	0.0053	1.743	1.179	2.576	74.3
ALLHISPV	-0.3788	0.0332	0.685	0.483	0.970	-31.5
MIXETHV	-0.3375	0.2876	0.714	0.383	1.329	-28.6
ALLMALEC	-0.0641	0.5702	0.938	0.752	1.170	-6.2
MIXSEXC	0.3446	<.0001	1.411	1.272	1.566	41.1
ALLFEMV	0.092	0.0564	1.096	0.998	1.205	9.6
MIXSEXV	0.1841	0.0166	1.202	1.034	1.397	20.2
CHCOUNT	-0.1218	<.0001	0.885	0.837	0.937	-11.5
VCOUNT	-0.2824	<.0001	0.754	0.694	0.819	-24.6
MOVEFLAG	0.2355	0.0192	1.266	1.039	1.541	26.6
POST	-0.5683	<.0001	0.566	0.512	0.627	-43.4

PAIR 2: Manatee-Sarasota Interaction

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.2489	0.0079				
MALTOTAL	0.1538	<.0001	1.166	1.149	1.184	16.6
ABUSE	-0.1321	0.0009	0.876	0.811	0.947	-12.4
NEGLECT	-0.1209	0.0017	0.886	0.822	0.956	-11.4
AVGCTAGE	-0.00393	0.0314	0.996	0.993	1.000	-0.4
AVG_VAGE	-0.0118	0.0006	0.988	0.982	0.995	-1.2
ALLWHITEC	-0.1606	0.0555	0.852	0.723	1.004	-14.8
MIXRACEC	0.1157	0.2121	1.123	0.936	1.346	12.3
ALLWHITEV	-0.0159	0.8463	0.984	0.838	1.156	-1.6
MIXRACEV	0.134	0.404	1.143	0.835	1.567	14.3
ALLHISPC	0.235	0.0358	1.265	1.016	1.575	26.5
MIXETHC	0.3096	0.004	1.363	1.104	1.683	36.3
ALLHISPV	-0.1863	0.0545	0.830	0.686	1.004	-17
MIXETHV	-0.1281	0.4514	0.880	0.630	1.228	-12
ALLMALEC	-0.0727	0.3082	0.930	0.809	1.069	-7
MIXSEXC	0.366	<.0001	1.442	1.344	1.547	44.2
ALLFEMV	0.0355	0.2784	1.036	0.972	1.105	3.6
MIXSEXV	0.1261	0.0133	1.134	1.027	1.254	13.4
CHCOUNT	-0.0915	<.0001	0.913	0.881	0.945	-8.7
VCOUNT	-0.2593	<.0001	0.772	0.733	0.813	-22.8
MOVEFLAG	0.2149	0.001	1.24	1.091	1.409	24
POST	-0.5775	<.0001	0.561	0.507	0.621	-43.9
MANATEE	0.3671	<.0001	1.444	1.281	1.627	44.4
MANAPOST	0.2369	0.0006	1.267	1.107	1.451	26.7

PAIR 3: Pinellas County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.0397	0.5091				
MALTOTAL	0.1184	<.0001	1.126	1.114	1.138	12.6
ABUSE	-0.0368	0.2064	0.964	0.91	1.021	-3.6
NEGLECT	0.0115	0.6835	1.012	0.957	1.069	1.2
AVGCTAGE	-0.00139	0.3104	0.999	0.996	1.001	-0.1
AVG_VAGE	-0.0213	<.0001	0.979	0.974	0.984	-2.1
ALLWHITEC	-0.0569	0.358	0.945	0.837	1.067	-5.5
MIXRACEC	0.1684	0.0083	1.183	1.044	1.341	18.3
ALLWHITEV	-0.1	0.0951	0.905	0.805	1.018	-9.5
MIXRACEV	-0.3066	0.0125	0.736	0.579	0.936	-26.4
ALLHISPC	0.0928	0.4336	1.097	0.87	1.384	9.7
MIXETHC	0.2345	0.0178	1.264	1.041	1.535	26.4
ALLHISPV	-0.1608	0.104	0.851	0.701	1.034	-14.9
MIXETHV	0.133	0.4465	1.142	0.811	1.609	14.2
ALLMALEC	-0.1372	0.0069	0.872	0.789	0.963	-12.8
MIXSEXC	0.41	<.0001	1.507	1.435	1.583	50.7
ALLFEMV	0.0302	0.1994	1.031	0.984	1.079	3.1
MIXSEXV	0.1106	0.0024	1.117	1.04	1.200	11.7
CHCOUNT	-0.0708	<.0001	0.932	0.908	0.956	-6.8
VCOUNT	-0.1823	<.0001	0.833	0.804	0.864	-16.7
MOVEFLAG	0.1792	<.0001	1.196	1.099	1.302	19.6
POST	-0.2571	<.0001	0.773	0.742	0.806	-22.7

PAIR 3: Hillsborough County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.2501	<.0001				
MALTOTAL	0.1073	<.0001	1.113	1.103	1.123	11.3
ABUSE	-0.0436	0.1081	0.957	0.908	1.000	-4.3
NEGLECT	0.053	0.0409	1.054	1.002	1.109	5.4
AVGCTAGE	-0.00205	0.0908	0.998	0.996	1.000	-0.2
AVG_VAGE	-0.00415	0.0732	0.996	0.991	1.000	-0.4
ALLWHITEC	-0.0131	0.7956	0.987	0.894	1.09	-1.3
MIXRACEC	0.1087	0.0509	1.115	1.000	1.243	11.5
ALLWHITEV	-0.2302	<.0001	0.794	0.721	0.875	-20.6
MIXRACEV	-0.1526	0.1007	0.858	0.716	1.03	-14.2
ALLHISPC	0.1229	0.0288	1.131	1.013	1.262	13.1
MIXETHC	0.16	0.0024	1.174	1.058	1.301	17.4
ALLHISPV	-0.0538	0.2836	0.948	0.859	1.046	-5.2
MIXETHV	0.3029	0.0003	1.354	1.147	1.598	35.4
ALLMALEC	-0.2823	<.0001	0.754	0.686	0.829	-24.6
MIXSEXC	0.3586	<.0001	1.431	1.369	1.497	43.1
ALLFEMV	0.0388	0.0823	1.04	0.995	1.086	4
MIXSEXV	0.0636	0.0509	1.066	1.000	1.136	6.6
CHCOUNT	-0.0183	0.086	0.982	0.962	1.003	-1.8
VCOUNT	-0.1993	<.0001	0.819	0.795	0.845	-18.1
MOVEFLAG	0.0736	0.0591	1.076	0.997	1.162	7.6
POST	-0.2995	<.0001	0.741	0.714	0.770	-25.9

PAIR 3: Pinellas-Hillsborough Interaction

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.2374	<.0001				
MALTOTAL	0.1118	<.0001	1.118	1.111	1.126	11.8
ABUSE	-0.043	0.0303	0.958	0.921	0.996	-4.2
NEGLECT	0.0338	0.0762	1.034	0.996	1.074	3.4
AVGCTAGE	-0.0017	0.0614	0.998	0.997	1.000	-0.2
AVG_VAGE	-0.0125	<.0001	0.988	0.984	0.991	-1.2
ALLWHITEC	-0.0306	0.4335	0.97	0.898	1.047	-3
MIXRACEC	0.1322	0.0016	1.141	1.051	1.239	14.1
ALLWHITEV	-0.1743	<.0001	0.84	0.78	0.905	-16
MIXRACEV	-0.2046	0.0056	0.815	0.705	0.942	-18.5
ALLHISPC	0.123	0.0151	1.131	1.024	1.249	13.1
MIXETHC	0.1703	0.0002	1.186	1.082	1.299	18.6
ALLHISPV	-0.0788	0.0777	0.924	0.847	1.009	-7.6
MIXETHV	0.2448	0.0013	1.277	1.101	1.482	27.7
ALLMALEC	-0.2104	<.0001	0.81	0.757	0.868	-19
MIXSEXC	0.3823	<.0001	1.466	1.418	1.515	46.6
ALLFEMV	0.0341	0.035	1.035	1.002	1.068	3.5
MIXSEXV	0.0854	0.0004	1.089	1.039	1.142	8.9
CHCOUNT	-0.0373	<.0001	0.963	0.948	0.979	-3.7
VCOUNT	-0.193	<.0001	0.825	0.805	0.844	-17.5
MOVEFLAG	0.1197	<.0001	1.127	1.065	1.193	12.7
POST	-0.3017	<.0001	0.74	0.712	0.768	-26
PINELLAS	-0.1714	<.0001	0.842	0.811	0.875	-15.8
PINEPOST	0.0515	0.0693	1.053	0.996	1.113	5.3

PAIR 4: Pasco County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	-0.2055	0.1071				
MALTOTAL	0.0821	<.0001	1.086	1.070	1.101	8.6
ABUSE	-0.1157	0.0095	0.891	0.816	0.972	-10.9
NEGLECT	-0.1371	0.0017	0.872	0.800	0.950	-12.8
AVGCTAGE	-0.00217	0.3266	0.998	0.994	1.002	-0.2
AVG_VAGE	-0.00714	0.0721	0.993	0.985	1.001	-0.7
ALLWHITEC	-0.0619	0.6751	0.940	0.704	1.255	-6
MIXRACEC	-0.174	0.2703	0.840	0.617	1.145	-16
ALLWHITEV	-0.252	0.0531	0.777	0.602	1.003	-22.3
MIXRACEV	0.1332	0.6201	1.142	0.675	1.934	14.2
ALLHISPC	-0.039	0.8059	0.962	0.705	1.313	-3.8
MIXETHC	0.1432	0.2943	1.154	0.883	1.508	15.4
ALLHISPV	0.0281	0.8322	1.029	0.793	1.334	2.9
MIXETHV	0.4896	0.044	1.632	1.013	2.628	63.2
ALLMALEC	-0.1262	0.1451	0.881	0.744	1.045	-11.9
MIXSEXC	0.5459	<.0001	1.726	1.589	1.876	72.6
ALLFEMV	0.0295	0.43	1.030	0.957	1.108	3
MIXSEXV	0.0493	0.3722	1.050	0.943	1.171	5
CHCOUNT	-0.0927	<.0001	0.911	0.873	0.951	-8.9
VCOUNT	-0.1307	<.0001	0.877	0.828	0.93	-12.3
MOVEFLAG	0.2081	0.003	1.231	1.073	1.413	23.1
POST	-0.1701	<.0001	0.844	0.790	0.900	-15.6

PAIR 4: Lee 2 County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	-0.6691	<.0001				
MALTOTAL	0.0581	<.0001	1.060	1.045	1.075	6
ABUSE	0.0226	0.6258	1.023	0.934	1.120	2.3
NEGLECT	-0.0943	0.0362	0.910	0.833	0.994	-9
AVGCTAGE	0.00268	0.2305	1.003	0.998	1.007	0.3
AVG_VAGE	-0.0194	<.0001	0.981	0.973	0.989	-1.9
ALLWHITEC	-0.2541	0.0155	0.776	0.631	0.953	-22.4
MIXRACEC	0.0819	0.4256	1.085	0.887	1.328	8.5
ALLWHITEV	-0.2617	0.0099	0.770	0.631	0.939	-23
MIXRACEV	-0.204	0.268	0.815	0.568	1.170	-18.5
ALLHISPC	0.2955	0.0065	1.344	1.086	1.663	34.4
MIXETHC	0.1008	0.3013	1.106	0.914	1.339	10.6
ALLHISPV	-0.0189	0.8481	0.981	0.809	1.191	-1.9
MIXETHV	0.1735	0.2598	1.189	0.88	1.609	18.9
ALLMALEC	0.1318	0.149	1.141	0.954	1.365	14.1
MIXSEXC	0.5163	<.0001	1.676	1.539	1.824	67.6
ALLFEMV	0.0388	0.3236	1.04	0.962	1.123	4
MIXSEXV	0.0762	0.1844	1.079	0.964	1.208	7.9
CHCOUNT	-0.0638	0.0014	0.938	0.902	0.976	-6.2
VCOUNT	-0.1349	<.0001	0.874	0.826	0.924	-12.6
MOVEFLAG	0.2364	0.0018	1.267	1.092	1.469	26.7
POST	-0.5228	<.0001	0.593	0.553	0.636	-40.7

PAIR 4: Pasco-Lee 2 Interaction

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	-0.6497	<.0001				
MALTOTAL	0.0704	<.0001	1.073	1.062	1.084	7.3
ABUSE	-0.053	0.0987	0.948	0.891	1.010	-5.2
NEGLECT	-0.118	0.0002	0.889	0.836	0.945	-11.1
AVGCTAGE	0.000184	0.9068	1.000	0.997	1.003	0
AVG_VAGE	-0.0133	<.0001	0.987	0.981	0.992	-1.3
ALLWHITEC	-0.2057	0.0148	0.814	0.69	0.961	-18.6
MIXRACEC	-0.0345	0.686	0.966	0.817	1.142	-3.4
ALLWHITEV	-0.2671	0.0009	0.766	0.654	0.896	-23.4
MIXRACEV	-0.114	0.4477	0.892	0.665	1.198	-10.8
ALLHISPC	0.1954	0.0287	1.216	1.021	1.449	21.6
MIXETHC	0.1122	0.1555	1.119	0.958	1.306	11.9
ALLHISPV	0.00232	0.9766	1.002	0.858	1.171	0.2
MIXETHV	0.2338	0.0676	1.263	0.983	1.624	26.3
ALLMALEC	-0.0162	0.7975	0.984	0.869	1.113	-1.6
MIXSEXC	0.5306	<.0001	1.700	1.602	1.804	70
ALLFEMV	0.0359	0.185	1.037	0.983	1.093	3.7
MIXSEXV	0.0687	0.0832	1.071	0.991	1.158	7.1
CHCOUNT	-0.0756	<.0001	0.927	0.901	0.954	-7.3
VCOUNT	-0.1355	<.0001	0.873	0.839	0.909	-12.7
MOVEFLAG	0.2226	<.0001	1.249	1.129	1.382	24.9
POST	-0.5361	<.0001	0.585	0.546	0.627	-41.5
PASCO	0.5606	<.0001	1.752	1.649	1.861	75.2
PASCOPOST	0.3774	<.0001	1.458	1.327	1.602	45.8

PAIR 5: Broward County

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.2429	<.0001				
MALTOTAL	0.0663	<.0001	1.069	1.059	1.078	6.9
ABUSE	-0.4736	<.0001	0.623	0.593	0.654	-37.7
NEGLECT	-0.4011	<.0001	0.67	0.638	0.703	-33.0
AVGCTAGE	-0.00064	0.6047	0.999	0.997	1.002	-0.1
AVG_VAGE	-0.0133	<.0001	0.987	0.982	0.991	-1.3
ALLWHITEC	-0.252	<.0001	0.777	0.702	0.861	-22.3
MIXRACEC	-0.1012	0.056	0.904	0.815	1.003	-9.6
ALLWHITEV	-0.0373	0.4636	0.963	0.872	1.065	-3.7
MIXRACEV	-0.1668	0.0775	0.846	0.703	1.019	-15.4
ALLHISPC	0.0866	0.0868	1.090	0.988	1.204	9.0
MIXETHC	0.1825	0.0006	1.200	1.082	1.332	20.0
ALLHISPV	-0.0225	0.6283	0.978	0.893	1.071	-2.2
MIXETHV	-0.0235	0.7962	0.977	0.817	1.168	-2.3
ALLMALEC	0.00976	0.8324	1.010	0.923	1.105	1.0
MIXSEXC	0.473	<.0001	1.605	1.536	1.677	60.5
ALLFEMV	0.0497	0.0182	1.051	1.008	1.095	5.1
MIXSEXV	0.0507	0.1108	1.052	0.988	1.120	5.2
CHCOUNT	-0.0277	0.0196	0.973	0.95	0.996	-2.7
VCOUNT	-0.0983	<.0001	0.906	0.878	0.935	-9.4
MOVEFLAG	0.1113	0.0088	1.118	1.028	1.215	11.8
POST	-0.1625	<.0001	0.850	0.819	0.882	-15.0

PAIR 5: Palm Beach County

Maximum Likelihood Estimates			Odds Ratio Estimate			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.2047	0.0007				
MALTOTAL	0.0694	<.0001	1.072	1.061	1.083	7.2
ABUSE	-0.5179	<.0001	0.596	0.562	0.631	-40.4
NEGLECT	-0.4582	<.0001	0.632	0.598	0.669	-36.8
AVGCTAGE	-0.00164	0.2395	0.998	0.996	1.001	-0.2
AVG_VAGE	-0.025	<.0001	0.975	0.970	0.980	-2.5
ALLWHITEC	-0.1118	0.064	0.894	0.794	1.007	-10.6
MIXRACEC	0.0803	0.2073	1.084	0.956	1.228	8.4
ALLWHITEV	-0.0459	0.4392	0.955	0.850	1.073	-4.5
MIXRACEV	-0.0302	0.7846	0.970	0.781	1.205	-3
ALLHISPC	0.2131	0.0001	1.238	1.111	1.379	23.8
MIXETHC	0.0482	0.399	1.049	0.938	1.174	4.9
ALLHISPV	-0.0169	0.7432	0.983	0.888	1.088	-1.7
MIXETHV	-0.0873	0.3689	0.916	0.757	1.109	-8.4
ALLMALEC	-0.2504	<.0001	0.778	0.696	0.871	-22.2
MIXSEXC	0.5044	<.0001	1.656	1.572	1.745	65.6
ALLFEMV	0.0267	0.2794	1.027	0.979	1.078	2.7
MIXSEXV	0.1129	0.0021	1.120	1.042	1.203	12
CHCOUNT	-0.0378	0.0014	0.963	0.941	0.985	-3.7
VCOUNT	-0.0921	<.0001	0.912	0.881	0.944	-8.8
MOVEFLAG	0.115	0.0156	1.122	1.022	1.231	12.2
POST	-0.0685	0.0017	0.934	0.895	0.975	-6.6

PAIR 5: Broward-Palm Beach Interaction

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.1762	<.0001				
MALTOTAL	0.0673	<.0001	1.07	1.062	1.077	7.0
ABUSE	-0.4898	<.0001	0.613	0.59	0.636	-38.7
NEGLECT	-0.4239	<.0001	0.655	0.631	0.679	-34.5
AVGCTAGE	-0.00095	0.3044	0.999	0.997	1.001	-0.1
AVG_VAGE	-0.0185	<.0001	0.982	0.978	0.985	-1.8
ALLWHITEC	-0.1859	<.0001	0.83	0.769	0.897	-17.0
MIXRACEC	-0.0247	0.5436	0.976	0.901	1.057	-2.4
ALLWHITEV	-0.0473	0.2202	0.954	0.884	1.029	-4.6
MIXRACEV	-0.112	0.1182	0.894	0.777	1.029	-10.6
ALLHISPC	0.1415	0.0001	1.152	1.071	1.239	15.2
MIXETHC	0.1197	0.002	1.127	1.045	1.216	12.7
ALLHISPV	-0.0194	0.573	0.981	0.917	1.049	-1.9
MIXETHV	-0.0454	0.4933	0.956	0.839	1.088	-4.4
ALLHISPV	-0.0992	0.0056	0.906	0.844	0.971	-9.4
MIXSEXC	0.4863	<.0001	1.626	1.573	1.682	62.6
ALLFEMV	0.042	0.0086	1.043	1.011	1.076	4.3
MIXSEXV	0.0789	0.001	1.082	1.032	1.134	8.2
CHCOUNT	-0.0336	<.0001	0.967	0.951	0.983	-3.3
VCOUNT	-0.0937	<.0001	0.911	0.890	0.932	-8.90
MOVEFLAG	0.1133	0.0003	1.120	1.053	1.192	12.00
POST	-0.058	0.0069	0.944	0.905	0.984	-5.60
BROWARD	0.0776	0.0002	1.081	1.037	1.126	8.10
BROWPOST	-0.1082	0.0001	0.897	0.849	0.949	-10.30

Significance and Shared Significance of Variables

VARIABLE		PAIR 1	PAIR 2	PAIR 3	PAIR 4	PAIR 5
		Man-Lee1	Man-Sar	Pin-Hills	Pasco-Lee2	Man-Lee2
Allegations	**# per Report**	<.0001	<.0001	<.0001	<.0001	<.0001
Allegations	**Abuse**	0.0414	0.0009	0.0303	0.0987	<.0001
Allegations	**Neglect**	<.0001	0.0017	0.0762	0.0002	<.0001
Caretaker	**Avg Age**	0.8708	0.0314	0.0614	0.9068	0.3044
Victim	**Avg Age**	<.0001	0.0006	<.0001	<.0001	<.0001
Caretaker	**All White**	0.0016	0.0555	0.4335	0.0148	<.0001
Caretaker	**Mixed Race**	0.4354	0.2121	0.0016	0.6860	0.5436
Vicitm	**All White**	0.1162	0.8463	<.0001	0.0009	0.2202
Vicitm	**Mixed Race**	0.9638	0.4040	0.0056	0.4477	0.1182
Caretaker	**All Hispanic**	0.0047	0.0358	0.0151	0.0287	0.0001
Caretaker	**Mixed Ethnicity**	0.0358	0.0040	0.0002	0.1555	0.0020
Victim	**All Hispanic**	0.4306	0.0545	0.0777	0.9766	0.5730
Vicitm	**Mixed Ethnicity**	0.7071	0.4514	0.0013	0.0676	0.4933
Caretaker	**All Male**	0.7219	0.3082	<.0001	0.7975	0.0056
Caretaker	**Mixed**	<.0001	<.0001	<.0001	<.0001	<.0001
Victim	**All Female**	0.5241	0.2784	0.0350	0.1850	0.0086
Vicitm	**Mixed**	0.0297	0.0133	0.0004	0.0832	0.0010
Other Children	**# per Report**	<.0001	<.0001	<.0001	<.0001	<.0001
Victims	**# per Report**	<.0001	<.0001	<.0001	<.0001	<.0001
Family Move	**Moved in Post Period**	<.0001	0.0010	<.0001	<.0001	0.0003
POST PERIOD		<.0001	<.0001	<.0001	<.0001	0.0069
EXPERIMENTAL COUNTY		<.0001	<.0001	<.0001	<.0001	0.0002
INTERACTION		<.0001	0.0006	0.0693	<.0001	0.0001

The most interesting of the significant variables shared by all county pairs in the model is Caretaker Ethnicity, which plays a significant role in the model for all county pairs even in counties where Hispanics are a smaller percentage of the population, e.g. Sarasota and Lee. The original variable was individual and dichotomous, coded for Hispanic or Non-Hispanic. That variable was converted into a series of three dummy variables-- All Hispanic, All Non-Hispanic, and Mixed Hispanic/Non-Hispanic – to determine ethnicity on a family level. A In a county-by-county breakdown, it seems that the significance in each county pair is driven by the significance in the non-Sheriff

counties. The odds percentage of substantiating reports with All Hispanic Caretakers is not significant in any of the Sheriff counties; however, with the exception of Sarasota, it is significant in all of the comparison counties. Mixed ethnicity is also significant in most of the county pairs, although in this situation the significance does not seem driven by individual counties as much as their combination.

VARIABLE		Manatee	Lee1	PAIR 1
Caretaker	**All Hispanic**		X	X
Caretaker	**Mixed Hispanic/Non**			X
		Manatee	**Sarasota**	**PAIR 2**
Caretaker	**All Hispanic**			X
Caretaker	**Mixed Hispanic/Non**		X	X
		Pinellas	**Hills**	**PAIR 2**
Caretaker	**All Hispanic**		X	X
Caretaker	**Mixed Hispanic/Non**	X	X	X
		Pasco	**Lee2**	**PAIR 4**
Caretaker	**All Hispanic**		X	X
Caretaker	**Mixed Hispanic/Non**			
		Broward	**PB**	**PAIR 5**
Caretaker	**All Hispanic**		X	X
Caretaker	**Mixed Hispanic/Non**	X		X

It is interesting to note that although caretaker ethnicity may not always register as significant in individual counties, it may still register as significant in the county pair. That this variable is significant at all is surprising because the Hispanic population in five of the counties and four of the county pairs is relatively small, although the difference between the average percentage of the population that is Hispanic in the Sheriff counties (9.08%) and average in non-Sheriff counties (8.84%) is also small.[1]

[1] http://quickfacts.census.gov

APPENDIX C

Hazard Function Graphs and Statistical Support: 18 and 24 month Duration

Number of Families for Recurrence Hazard Function Runs: 18 month duration						
COUNTY PAIR	**COUNTY**	**STAGE**	**TOTAL**	**Recurred**	**Censored***	**Percent Censored**
PAIR 1	Manatee	Pre	2200	705	1495	67.95
		Post	7397	3888	3509	47.44
	Lee 1	Pre	2900	890	2010	69.31
		Post	11111	6031	5080	45.72
PAIR 2	Manatee	Pre	2200	705	1495	67.95
		Post	7397	3888	3509	47.44
	Sarasota	Pre	1729	493	1236	71.49
		Post	6493	3445	3048	46.94
PAIR 3	Pinellas	Pre	14500	4263	10237	70.6
		Post	15179	10002	5177	34.11
	Hillsborough	Pre	17404	4993	12411	71.31
		Post	18111	12250	5861	32.36
PAIR 4	Pasco	Pre	6280	1854	4426	70.48
		Post	6030	4361	1669	27.68
	Lee 2	Pre	7171	2094	5077	70.8
		Post	6648	4853	1795	27
PAIR 5	Broward	Pre	17429	3969	13460	77.23
		Post	24392	16579	7813	32.03
	Palm Beach	Pre	12238	3368	8870	72.48
		Post	17335	12147	5188	29.93

*** Includes families with no recurrence over the 18 month duration and families with first reports occurring too late in the 18 month duration to allow for recurrence**

Number of Families for Recidivism Hazard Function Runs: 18 month duration						
COUNTY PAIR	**COUNTY**	**STAGE**	**TOTAL**	**Recurred**	**Censored***	**Percent Censored**
PAIR 1	Manatee	Pre	1498	2515	2194	65.75
		Post	4709	513	985	46.59
	Lee 1	Pre	1228	421	807	65.72
		Post	3662	2013	1649	45.03
PAIR 2	Manatee	Pre	1498	2515	2194	46.59
		Post	4709	513	985	65.75
	Sarasota	Pre	980	312	668	68.16
		Post	3125	1824	1301	41.63
PAIR 3	Pinellas	Pre	8880	2957	5923	66.7
		Post	8243	5598	2645	32.09
	Hillsborough	Pre	11484	3672	7812	68.03
		Post	10651	7345	3306	31.04
PAIR 4	Pasco	Pre	3327	1121	2206	66.31
		Post	2925	2123	802	27.42
	Lee 2	Pre	3013	1034	1979	65.68
		Post	1907	1365	542	28.42
PAIR 5	Broward	Pre	9998	2546	7452	74.53
		Post	13659	9442	4217	30.87
	Palm Beach	Pre	6959	2225	4734	68.03
		Post	9919	7016	2903	29.27

*** Includes families with no recurrence over the 18 month duration and families with first reports occuring too late in the 18 month duration to allow for recurrence**

Number of Families for Recurrence Hazard Function Runs: 24 month duration						
COUNTY PAIR	**COUNTY**	**STAGE**	**TOTAL**	**Recurred**	**Censored***	**Percent Censored**
PAIR 1	Manatee	Pre	2200	783	1417	64.41
		Post	7397	4665	2732	36.93
	Lee 1	Pre	2900	986	1914	66
		Post	11111	7172	3939	35.45
PAIR 2	Manatee	Pre	2200	783	1417	64.41
		Post	7397	4665	2732	36.93
	Sarasota	Pre	1729	550	1179	68.19
		Post	6493	4123	2370	36.5
PAIR 3	Pinellas	Pre	14500	4865	9635	66.45
		Post	15179	11949	3230	21.28
	Hillsborough	Pre	17404	5685	11719	67.34
		Post	18111	14529	3582	19.78
PAIR 4	Pasco	Pre	6280	2120	4160	66.24
		Post	6030	5298	732	12.14
	Lee 2	Pre	7171	2375	4796	66.88
		Post	6648	5843	805	12.11
PAIR 5	Broward	Pre	17429	4633	12796	73.42
		Post	24392	19938	4454	18.26
	Palm Beach	Pre	12238	3882	8356	68.28
		Post	17335	14450	2885	16.64

*** Includes families with no recurrence over the 24 month duration and families with first reports occurring too late in the 24 month duration to allow for recurrence**

Number of Families with Substantiated Reports for Recidivism Hazard Function Runs: 24 month duration						
COUNTY PAIR	**COUNTY**	**STAGE**	**TOTAL**	**Recurred**	**Censored***	**Percent Censored**
PAIR 1	Manatee	Pre	1498	568	930	62.08
		Post	4709	3033	1676	35.59
	Lee 1	Pre	1228	465	763	62.13
		Post	3662	2398	1264	34.52
PAIR 2	Manatee	Pre	1498	568	930	62.08
		Post	4709	3033	1676	35.59
	Sarasota	Pre	980	343	637	65
		Post	3125	2118	1007	32.22
PAIR 3	Pinellas	Pre	8880	3358	5522	62.18
		Post	8243	6633	1610	19.53
	Hillsborough	Pre	11484	4161	7323	63.77
		Post	10651	8689	1962	18.42
PAIR 4	Pasco	Pre	3327	1279	2048	61.56
		Post	2925	2599	326	11.15
	Lee 2	Pre	3013	1159	1854	61.53
		Post	1907	1671	236	12.38
PAIR 5	Broward	Pre	9998	2954	7044	70.45
		Post	13659	11227	2432	17.81
	Palm Beach	Pre	6959	2522	4437	63.76
		Post	9919	8285	1634	16.47

*** Includes families with no recidivism over the 24 month duration and families with first reports occurirng too late in the 24 month duration to allow for recidivism**

Recurrence Hazard Function Statistics: 24 month duration					
	Log-Rank Test of Equality over Strata				Sig
County Pair	Tested Strata	Chi-Square	DF	Pr > Chi-Square	
PAIR 1	**Manatee-Lee**				
	County and Pre-Post	1064.5544	3	<.0001	X
	County for Pre	1.1361	1	0.2865	
	County for Post	3.8884	1	0.0486	X
	Pre-Post for Manatee	398.4084	1	<.0001	X
	Pre-Post for Lee	660.8201	1	<.0001	X
PAIR 2	**Manatee-Sarasota**				
	County and Pre-Post	833.0608	3	<.0001	X
	County for Pre	6.8295	1	0.009	X
	County for Post	0.0844	1	0.7714	
	Pre-Post for Manatee	398.4084	1	<.0001	X
	Pre-Post for Sarasota	435.3567	1	<.0001	X
PAIR 3	**Pinellas-Hillsborough**				
	County and Pre-Post	13365.704	3	<.0001	X
	County for Pre	2.4442	1	0.118	
	County for Post	12.8869	1	0.0003	X
	Pre-Post for Pinellas	5695.1916	1	<.0001	X
	Pre-Post for Hillsborough	7662.9324	1	<.0001	X
PAIR 4	**Pasco-Lee2**				
	County and Pre-Post	7758.1369	3	<.0001	X
	County for Pre	0.1514	1	0.6972	
	County for Post	0.3887	1	0.533	
	Pre-Post for Pasco	3638.4116	1	<.0001	X
	Pre-Post for Lee2	4116.87	1	<.0001	X
PAIR 5	**Broward-Palm Beach**				
	County and Pre-Post	19040.1487	3	<.0001	X
	County for Pre	98.0469	1	<.0001	X
	County for Post	26.8643	1	<.0001	X
	Pre-Post for Broward	11745.7966	1	<.0001	X
	Pre-Post for Palm Beach	7245.109	1	<.0001	X

Recidivism Hazard Function Statistics: 24 month duration					
	Log-Rank Test of Equality over Strata				
County Pair	Tested Strata	Chi-Square	DF	Pr > Chi-Square	Sig
PAIR 1	**Manatee-Lee 1**				
	County and Pre-Post	450.0507	3	<.0001	X
	County for Pre	0.06	1	0.8065	
	County for Post	0.6825	1	0.4087	
	Pre-Post for Manatee	243.8317	1	<.0001	X
	Pre-Post for Lee	206.1376	1	<.0001	X
PAIR 2	**Manatee-Sarasota**				
	County and Pre-Post	510.0148	3	<.0001	X
	County for Pre	2.2878	1	0.1304	
	County for Post	12.6509	1	0.0004	X
	Pre-Post for Manatee	243.8317	1	<.0001	X
	Pre-Post for Sarasota	257.0851	1	<.0001	X
PAIR 3	**Pinellas-Hillsborough**				
	County and Pre-Post	7232.1626	3	<.0001	X
	County for Pre	4.8983	1	0.0269	
	County for Post	3.4458	1	0.0634	X
	Pre-Post for Pinellas	2911.8938	1	<.0001	X
	Pre-Post for Hillsborough	4320.5186	1	<.0001	X
PAIR 4	**Pasco-Lee 2**				
	County and Pre-Post	2634.0596	3	<.0001	X
	County for Pre	0.1376	1	0.7107	
	County for Post	2.6696	1	0.1023	
	Pre-Post for Pasco	1549.2658	1	<.0001	X
	Pre-Post for Lee2	1063.6623	1	<.0001	X
PAIR 5	**Broward-Palm Beach**				
	County and Pre-Post	9515.2841	3	<.0001	X
	County for Pre	90.6585	1	<.0001	X
	County for Post	8.05	1	0.0046	X
	Pre-Post for Broward	6092.9486	1	<.0001	X
	Pre-Post for Palm Beach	3396.4662	1	<.0001	X

APPENDIX D

Survival Estimates for Recurrence and Recidivism by County Pair

SURVIVAL ESTIMATES FOR RECURRENCE

	PAIR 1: Manatee- Lee		Estimated Change in Odds	PAIR 2: Manatee-Sarasota		Estimated Change in Odds
	Pr > ChiSq	Hazard Ratio		Pr > ChiSq	Hazard Ratio	
MALTOTAL	0.2759	1.005	-0.5	0.0093	1.015	-1.5
ABUSE	0.0166	1.097	-9.7	0.0073	1.131	-13.1
NEGLECT	0.0421	1.070	-7.0	0.0915	1.072	-7.2
AVGCTAGE	0.9311	1.000	0.0	0.1607	0.997	0.3
AVGVAGE	<.0001	0.964	3.6	<.0001	0.961	3.9
ALLWHITEC	0.8936	0.989	1.1	0.5196	0.941	5.9
MIXRACEC	0.0452	1.178	-17.8	0.4319	1.081	-8.1
ALLWHITEV	0.5251	1.054	-5.4	0.2222	1.118	-11.8
MIXRACEV	0.6266	0.943	5.7	0.4464	1.108	-10.8
ALLHISPC	0.0181	0.771	22.9	0.0346	0.705	29.5
MIXETHC	0.5108	1.056	-5.6	0.7317	1.047	-4.7
ALLHISPV	0.3982	0.922	7.8	0.0894	0.790	21.0
MIXETHV	0.9342	1.009	-0.9	0.5378	0.910	9.0
ALLMALEC	0.0148	1.178	-17.8	0.0574	1.172	-17.2
MIXSEXC	0.0044	0.912	8.8	<.0001	0.852	14.8
ALLFEMV	0.7549	1.010	-1.0	0.1376	1.061	-6.1
MIXSEXV	0.5624	1.025	-2.5	0.0755	1.096	-9.6
CHCOUNT	0.0078	1.043	-4.3	0.0138	1.047	-4.7
VCOUNT	0.0027	1.065	-6.5	0.3475	1.025	-2.5
SBINDXHI	0.0072	0.800	20.0	0.0649	0.838	16.2
SBINDXMD	0.0029	0.776	22.4	0.0091	0.772	22.8
SBINDXLOW	0.0260	0.824	17.6	0.1723	0.874	12.6
DISPHI	0.9908	0.999	0.1	0.3589	0.949	5.1
DISPMD	<.0001	1.318	-31.8	0.0002	1.304	-30.4
DISPLOW	0.0321	1.070	-7.0	0.0104	1.098	-9.8
MOVEFLAG	<.0001	0.831	16.9	<.0001	0.791	20.9
SEQ	<.0001	1.207	-20.7	<.0001	1.197	-19.7
PRIORSUB	0.0762	1.149	-14.9	0.2107	1.124	-12.4

SURVIVAL ESTIMATES FOR RECURRENCE

	PAIR 3: Pinellas-Hillsborough		Estimated Change in Odds	PAIR 4: Pasco-Lee 2		Estimated Change in Odds
	Pr > ChiSq	Hazard Ratio		Pr > ChiSq	Hazard Ratio	
MALTOTAL	<.0001	1.019	-1.9	0.0831	1.008	-0.8
ABUSE	0.0052	1.065	-6.5	<.0001	1.176	-17.6
NEGLECT	<.0001	1.095	-9.5	0.0023	1.104	-10.4
AVGCTAGE	0.3635	0.999	0.1	0.2642	0.998	0.2
AVGVAGE	<.0001	0.970	3.0	<.0001	0.965	3.5
ALLWHITEC	0.4997	0.967	3.3	0.7378	1.033	-3.3
MIXRACEC	0.0077	1.134	-13.4	0.2375	1.106	-10.6
ALLWHITEV	0.0055	1.146	-14.6	0.9580	1.005	-0.5
MIXRACEV	0.3933	1.062	-6.2	0.0952	0.790	21.0
ALLHISPC	0.6669	0.971	2.9	0.1123	0.839	16.1
MIXETHC	0.0155	0.879	12.1	0.5414	1.050	-5.0
ALLHISPV	0.0525	0.891	10.9	0.8559	1.017	-1.7
MIXETHV	0.5105	1.051	-5.1	0.1915	1.162	-16.2
ALLMALEC	0.0071	1.118	-11.8	0.8457	0.987	1.3
MIXSEXC	<.0001	0.910	9.0	0.0001	0.886	11.4
ALLFEMV	0.2200	1.025	-2.5	0.0930	1.053	-5.3
MIXSEXV	0.8540	1.005	-0.5	0.5540	1.024	-2.4
CHCOUNT	<.0001	1.053	-5.3	0.2840	1.016	-1.6
VCOUNT	0.0002	1.042	-4.2	<.0001	1.092	-9.2
SBINDXHI	0.0124	0.891	10.9	0.0299	0.832	16.8
SBINDXMD	0.0006	0.847	15.3	0.0035	0.773	22.7
SBINDXLOW	0.0405	0.906	9.4	0.0070	0.786	21.4
DISPHI	<.0001	1.119	-11.9	0.1646	1.072	-7.2
DISPMD	<.0001	1.240	-24.0	<.0001	1.238	-23.8
DISPLOW	<.0001	1.118	-11.8	0.0007	1.112	-11.2
MOVEFLAG	<.0001	0.831	16.9	0.0040	0.894	10.6
SEQ	<.0001	1.202	-20.2	<.0001	1.232	-23.2
PRIORSUB	0.0565	1.090	-9.0	0.2599	1.093	-9.3

SURVIVAL ESTIMATES FOR RECURRENCE

	PAIR 5: Broward-Palm Beach		Estimated Change in Odds
	Pr > ChiSq	Hazard Ratio	
MALTOTAL	<.0001	1.018	-1.8
ABUSE	<.0001	1.149	-14.9
NEGLECT	<.0001	1.118	-11.8
AVGCTAGE	0.0967	0.998	0.2
AVGVAGE	<.0001	0.972	2.8
ALLWHITEC	0.2344	1.065	-6.5
MIXRACEC	0.2418	1.061	-6.1
ALLWHITEV	0.2986	1.056	-5.6
MIXRACEV	0.5482	0.951	4.9
ALLHISPC	0.8767	0.992	0.8
MIXETHC	0.4072	1.040	-4
ALLHISPV	<.0001	0.819	18.1
MIXETHV	0.7329	1.022	-2.2
ALLMALEC	0.0006	1.175	-17.5
MIXSEXC	0.0050	0.944	5.6
ALLFEMV	0.8180	0.995	0.5
MIXSEXV	0.7689	0.992	0.8
CHCOUNT	<.0001	1.055	-5.5
VCOUNT	0.0004	1.043	-4.3
SBINDXHI	0.1145	0.919	8.1
SBINDXMD	0.0151	0.875	12.5
SBINDXLOW	0.7378	1.018	-1.8
DISPHI	0.8168	0.993	0.7
DISPMD	0.0014	1.131	-13.1
DISPLOW	0.5822	1.011	-1.1
MOVEFLAG	<.0001	0.860	14
SEQ	<.0001	1.244	-24.4
PRIORSUB	0.3115	1.053	-5.3

SURVIVAL ESTIMATES FOR RECIDIVISM

	PAIR 1: Manatee- Lee		% Change in Odds	PAIR 2: Manatee-Sarasota		% Change in Odds
	Pr > ChiSq	Hazard Ratio		Pr > ChiSq	Hazard Ratio	
MALTOTAL	0.1948	1.012	-1.2	0.0075	1.022	-2.2
ABUSE	0.179	1.128	-12.8	0.4373	1.070	-7.0
NEGLECT	0.2391	1.100	-10.0	0.9672	0.997	0.3
AVGCTAGE	0.9724	1.000	0.0	0.4795	0.997	0.3
AVGVAGE	<.0001	0.961	3.9	<.0001	0.955	4.5
ALLWHITEC	0.9773	1.005	-0.5	0.2873	0.827	17.3
MIXRACEC	0.2186	1.227	-22.7	0.7859	1.048	-4.8
ALLWHITEV	0.3022	1.199	-19.9	0.1053	1.323	-32.3
MIXRACEV	0.6193	1.128	-12.8	0.6345	1.113	-11.3
ALLHISPC	0.5237	0.841	15.9	0.2179	0.691	30.9
MIXETHC	0.1378	1.309	-30.9	0.9098	1.024	-2.4
ALLHISPV	0.2102	0.755	24.5	0.0389	0.612	38.8
MIXETHV	0.3515	0.809	19.1	0.4578	0.827	17.3
ALLMALEC	0.282	1.205	-20.5	0.9270	1.016	-1.6
MIXSEXC	0.0218	0.832	16.8	0.0171	0.837	16.3
ALLFEMV	0.0673	0.864	13.6	0.7719	0.978	2.2
MIXSEXV	0.8216	1.022	-2.2	0.9893	0.999	0.1
CHCOUNT	0.043	1.075	-7.5	0.0742	1.068	-6.8
VCOUNT	0.1707	1.057	-5.7	0.2317	1.053	-5.3
SBINDXHI	0.6306	0.937	6.3	0.6457	0.934	6.6
SBINDXMD	0.4635	0.902	9.8	0.2716	0.841	15.9
SBINDXLOW	0.6849	0.945	5.5	0.7408	0.951	4.9
DISPHI	0.4607	0.928	7.2	0.3056	0.904	9.6
DISPMD	<.0001	1.479	-47.9	0.0049	1.364	-36.4
DISPLOW	0.0969	1.137	-13.7	0.1405	1.117	-11.7
MOVEFLAG	0.0594	0.853	14.7	0.3924	0.933	6.7
SEQ	<.0001	1.323	-32.3	<.0001	1.294	-29.4

SURVIVAL ESTIMATES FOR RECIDIVISM

	PAIR 3: Pinellas-Hillsborough		% Change in Odds	PAIR 4: Pasco-Lee 2		% Change in Odds
	Pr > ChiSq	Hazard Ratio		Pr > ChiSq	Hazard Ratio	
MALTOTAL	<.0001	1.023	-2.3	0.0229	1.023	-2.3
ABUSE	0.6752	1.018	-1.8	0.0413	1.220	-22.0
NEGLECT	<.0001	1.178	-17.8	0.0137	1.244	-24.4
AVGCTAGE	0.3413	0.998	0.2	0.9576	1.000	0.0
AVGVAGE	<.0001	0.973	2.7	<.0001	0.961	3.9
ALLWHITEC	0.2131	1.122	-12.2	0.5983	1.157	-15.7
MIXRACEC	0.0745	1.160	-16.0	0.5183	1.186	-18.6
ALLWHITEV	0.2218	1.117	-11.7	0.9839	0.995	0.5
MIXRACEV	0.5621	1.077	-7.7	0.1490	0.467	53.3
ALLHISPC	0.1381	0.825	17.5	0.4323	1.269	-26.9
MIXETHC	0.0081	0.782	21.8	0.4042	1.208	-20.8
ALLHISPV	0.2991	0.889	11.1	0.5383	0.849	15.1
MIXETHV	0.7071	1.047	-4.7	0.3993	0.759	24.1
ALLMALEC	0.5735	1.056	-5.6	0.5881	0.903	9.7
MIXSEXC	0.0195	0.921	7.9	0.0203	0.811	18.9
ALLFEMV	0.0839	1.066	-6.6	0.6166	0.960	4.0
MIXSEXV	0.0126	1.118	-11.8	0.7736	1.029	-2.9
CHCOUNT	<.0001	1.075	-7.5	0.7472	1.015	-1.5
VCOUNT	0.0375	1.038	-3.8	0.7516	1.016	-1.6
SBINDXHI	0.1813	0.918	8.2	0.0921	0.796	20.4
SBINDXMD	0.4590	0.953	4.7	0.0322	0.735	26.5
SBINDXLOW	0.6927	0.974	2.6	0.0474	0.757	24.3
DISPHI	0.0267	1.107	-10.7	0.8682	0.981	1.9
DISPMD	0.0011	1.212	-21.2	0.0100	1.298	-29.8
DISPLOW	0.0184	1.087	-8.7	0.0024	1.282	-28.2
MOVEFLAG	0.0002	0.860	14.0	0.2829	0.901	9.9
SEQ	<.0001	1.274	-27.4	<.0001	1.365	-36.5

SURVIVAL ESTIMATES FOR RECIDIVISM

	PAIR 5: Broward-Palm Beach		% Change in Odds
	Pr > ChiSq	Hazard Ratio	
MALTOTAL	<.0001	1.027	-2.7
ABUSE	0.0370	1.107	-10.7
NEGLECT	0.1313	1.069	-6.9
AVGCTAGE	0.6884	1.001	-0.1
AVGVAGE	<.0001	0.972	2.8
ALLWHITEC	0.1257	1.167	-16.7
MIXRACEC	0.0375	1.201	-20.1
ALLWHITEV	0.8972	1.013	-1.3
MIXRACEV	0.9535	0.991	0.9
ALLHISPC	0.6936	0.961	3.9
MIXETHC	0.2166	1.115	-11.5
ALLHISPV	0.0014	0.740	26
MIXETHV	0.4612	0.909	9.1
ALLMALEC	0.0355	1.238	-23.8
MIXSEXC	0.0170	0.903	9.7
ALLFEMV	0.5911	1.024	-2.4
MIXSEXV	0.1755	1.075	-7.5
CHCOUNT	0.0011	1.062	-6.2
VCOUNT	0.0504	1.040	-4
SBINDXHI	0.0111	0.830	17
SBINDXMD	0.0032	0.804	19.6
SBINDXLOW	0.4538	0.947	5.3
DISPHI	0.9712	1.002	-0.2
DISPMD	0.0064	1.183	-18.3
DISPLOW	0.6671	1.018	-1.8
MOVEFLAG	0.0349	0.903	9.7
SEQ	<.0001	1.294	-29.4

APPENDIX E

Estimated Survival Probabilities for Recurrence and Recidivism: Median Lifetime Duration in Days

Survival Probability	Event: New Report (Recurrence)		Event: New Substantiated Report (Recidivism)	
	Pre	Post	Pre	Post
Broward				
0.75	172-173	294-295	213-214	433-435
0.50	362-263	839-841	460-461	1279-1305
Palm Beach				
0.75	135-136	289-290	143-144	378-379
0.50	294-295	788-792	327-328	1106-1131
Manatee				
0.75	92-93	251-252	118-119	312-313
0.50	181-182	636-637	236-244	816-833
Lee				
0.75	62-62	233-234	62-63	343-344
0.50	149-150	608-609	175-176	835-976
Sarasota				
0.75	90-92	238-239	92-93	336-338
0.50	179-182	609-611	190-193	835-875
Pasco				
0.75	135-136	398-399	151-153	564-571
0.50	306-307	994-996	383-387	1383-1394
Lee2				
0.75	111-112	362-363	135-138	590-648
0.50	277-278	885-889	391-393	976 days for lowest S=.65
Pinellas				
0.75	439-441	832-834	137-138	428-429
0.50	990-996	1637-1640	302-303	1200-1217
Hillsborough				
0.75	430-431	794-795	148-149	396-397
0.50	930-936	1639-1645	325-326	1045-1050

APPENDIX F

Statistical Support for Sheriff vs Non-Sheriff

ODDS RATIO ESTIMATES FOR SUBSTANTIATION: Sheriff Counties

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.1699	<.0001				
MALTOTAL	0.0913	<.0001	1.096	1.089	1.102	9.6
ABUSE	-0.2533	<.0001	0.776	0.752	0.802	-22.4
NEGLECT	-0.2061	<.0001	0.814	0.788	0.84	-18.6
AVGCTAGE	-0.00187	0.0191	0.998	0.997	1.000	-0.2
AVG_VAGE	-0.0145	<.0001	0.986	0.983	0.988	-1.4
ALLWHITEC	-0.2024	<.0001	0.817	0.762	0.876	-18.3
MIXRACEC	-0.0145	0.6936	0.986	0.917	1.059	-1.4
ALLWHITEV	-0.0684	0.0485	0.934	0.873	1.000	-6.6
MIXRACEV	-0.1281	0.0575	0.88	0.771	1.004	-12
ALLHISPC	0.0968	0.0212	1.102	1.015	1.196	10.2
MIXETHC	0.2006	<.0001	1.222	1.127	1.325	22.2
ALLHISPV	-0.0395	0.2932	0.961	0.893	1.035	-3.9
MIXETHV	0.0691	0.3311	1.072	0.932	1.232	7.2
ALLMALEC	-0.0571	0.0554	0.944	0.891	1.001	-5.6
MIXSEXC	0.4601	<.0001	1.584	1.539	1.631	58.4
ALLFEMV	0.0289	0.0349	1.029	1.002	1.057	2.9
MIXSEXV	0.0739	0.0004	1.077	1.034	1.121	7.7
CHCOUNT	-0.0576	<.0001	0.944	0.930	0.958	-5.6
VCOUNT	-0.1426	<.0001	0.867	0.849	0.885	-13.3
MOVEFLAG	0.158	<.0001	1.171	1.112	1.233	17.1
POST	-0.1532	<.0001	0.858	0.838	0.879	-14.2

ODDS RATIO ESTIMATES FOR SUBSTANTIATION: Non-Sheriff Counties

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.1074	0.0019				
MALTOTAL	0.0837	<.0001	1.087	1.081	1.093	8.7
ABUSE	-0.2059	<.0001	0.814	0.787	0.842	-18.6
NEGLECT	-0.157	<.0001	0.855	0.828	0.883	-14.5
AVGCTAGE	-0.00108	0.1726	0.999	0.997	1.000	-0.1
AVG_VAGE	-0.0135	<.0001	0.987	0.984	0.99	-1.3
ALLWHITEC	-0.1315	0.0002	0.877	0.819	0.938	-12.3
MIXRACEC	0.0913	0.0133	1.096	1.019	1.178	9.6
ALLWHITEV	-0.1774	<.0001	0.837	0.783	0.895	-16.3
MIXRACEV	-0.0808	0.1991	0.922	0.815	1.043	-7.8
ALLHISPC	0.2008	<.0001	1.222	1.140	1.311	22.2
MIXETHC	0.1627	<.0001	1.177	1.100	1.259	17.7
ALLHISPV	-0.0371	0.2557	0.964	0.904	1.027	-3.6
MIXETHV	0.1513	0.0072	1.163	1.042	1.299	16.3
ALLMALEC	-0.2065	<.0001	0.813	0.764	0.867	-18.7
MIXSEXC	0.4253	<.0001	1.53	1.486	1.576	53
ALLFEMV	0.0342	0.0165	1.035	1.006	1.064	3.5
MIXSEXV	0.1003	<.0001	1.105	1.061	1.152	10.5
CHCOUNT	-0.0454	<.0001	0.956	0.943	0.969	-4.4
VCOUNT	-0.15	<.0001	0.861	0.844	0.878	-13.9
MOVEFLAG	0.1413	<.0001	1.152	1.093	1.213	15.2
POST	-0.2188	<.0001	0.804	0.784	0.823	-19.6

ODDS RATIO ESTIMATES FOR SUBSTANTIATION: Post * Sheriff Interaction

Maximum Likelihood Estimates			Odds Ratio Estimates			
Parameter	Estimate	Pr > ChiSq	Point Estimate	95% Wald Confidence Limits		Odds (percentage)
Intercept	0.1064	<.0001				
MALTOTAL	0.0875	<.0001	1.091	1.087	1.096	9.1
ABUSE	-0.231	<.0001	0.794	0.776	0.812	-20.6
NEGLECT	-0.1821	<.0001	0.834	0.815	0.852	-16.6
AVGCTAGE	-0.00145	0.0098	0.999	0.997	1.000	-0.1
AVG_VAGE	-0.0141	<.0001	0.986	0.984	0.988	-1.4
ALLWHITEC	-0.1664	<.0001	0.847	0.807	0.889	-15.3
MIXRACEC	0.0383	0.1421	1.039	0.987	1.094	3.9
ALLWHITEV	-0.1226	<.0001	0.885	0.844	0.928	-11.5
MIXRACEV	-0.099	0.0314	0.906	0.828	0.991	-9.4
ALLHISPC	0.1591	<.0001	1.172	1.112	1.237	17.2
MIXETHC	0.1776	<.0001	1.194	1.134	1.258	19.4
ALLHISPV	-0.0386	0.1176	0.962	0.917	1.010	-3.8
MIXETHV	0.1163	0.0083	1.123	1.030	1.225	12.3
ALLMALEC	-0.1263	<.0001	0.881	0.844	0.920	-11.9
MIXSEXC	0.4431	<.0001	1.558	1.526	1.59	55.8
ALLFEMV	0.0318	0.0013	1.032	1.013	1.052	3.2
MIXSEXV	0.0877	<.0001	1.092	1.061	1.124	9.2
CHCOUNT	-0.0498	<.0001	0.951	0.942	0.961	-4.9
VCOUNT	-0.1466	<.0001	0.864	0.851	0.876	-13.6
MOVEFLAG	0.1496	<.0001	1.161	1.120	1.205	16.1
POST	-0.2232	<.0001	0.8	0.781	0.820	-20
SHRFCNTY	0.0633	<.0001	1.065	1.040	1.091	6.5
SHRFPOST	0.0746	<.0001	1.077	1.042	1.114	7.7