State law requires certain professions to report suspected child abuse and neglect. The Children's Administration database sorts these mandated reporters into the following categories:

- Corrections personnel
- DSHS employees
- Medical professionals
- Law enforcement
- Mental health professionals
- Foster care providers
- Social service professionals
- Educators
- Child care providers

Reports are also received from non-mandated reporters who may be neighbors, relatives, or other citizens, including persons choosing to remain anonymous.

In 2008, the legislature required a study of the outcomes of these child abuse and neglect reports. Legislators wanted to know whether the source of the referral influenced the response by CPS at DSHS' Children's Administration.

The study found that educators and social services professionals make more reports to CPS than other types of reporters. This is true nationally as well as in Washington.

The study also found variations in the outcomes of referrals from the various types of reporters. The proportion of referrals accepted for investigation ranged from 47 percent for mental health professionals to 69 percent for law enforcement. Referrals from law enforcement were both more likely to be accepted for investigation, and result in removal of a child from his or her home.

The largest variation in outcomes, however, was not determined by reporter type. Rather, DSHS region and the history of the individual intake worker were the stronger predictors of the initial risk assigned to a referral. Intake workers with a history of assigning higher levels of risk than their peers (which results in investigation and intervention) were more likely to continue to assign higher levels of risk.

It is possible that this phenomenon may have changed since February 2009, when Children's Administration modified its intake procedures. Further analysis would be necessary to learn whether the new procedures have changed the worker and regional variations we observe here.
The study assignment is set out in 2SSB 6206:

The ombudsman shall analyze a random sampling of referrals made by mandated reporters during 2006 and 2007 and report to the appropriate committees of the legislature on the following: The number and types of referrals from mandated reporters; the disposition of the referrals by category of mandated reporters; how many referrals resulted in the filing of dependency actions; any patterns established by the department in how it dealt with such referrals; whether the history of fatalities in 2006 and 2007 showed referrals by mandated reporters; and any other information the ombudsman deems relevant. The ombudsman may contract for all or a portion of the tasks essential to completing the analysis and report required under this section. The report is due no later than June 30, 2009.

The Office of the Family and Children's Ombudsman contracted with the Washington State Institute for Public Policy (Institute) for this research and analysis. Because the Institute has the analytical capacity to do so, all referrals during the period of interest were studied rather than a random sample.

The analysis focused on referrals and subsequent outcomes. Exhibit 1 shows a generalized series of events that may ensue when a report is made to CPS. When a referral is made to CPS, the intake worker gathers information and, based on that information, referrals are placed in one of the following five decision categories:

1) **Third Party Report.** Referrals are assigned to this category if the alleged abuser is not the parent or legal guardian. Such cases must be referred to law enforcement by CPS.

2) **Information Only.** If the report does not meet the threshold for any intervention, the report is categorized as “information only.”

Referrals not categorized as Third Party or Information Only are assigned a risk tag, ranging from zero (no risk) to 5 (very high risk). Based on risk, a referral may be:

3) **Low risk.** In cases of low risk, caregivers generally receive a letter or phone call from the department that may state the concern about care giving, cite law, and/or provide referrals to contracted or community resources, if available.

4) **Referred to Alternative Response Services (ARS).** If a report indicates that there is a problem that can be solved outside the child protection system, it is referred to a community service provider that may provide public health services, counseling, or other family services, if available.

5) **Accepted.** If a report warrants CPS investigation, it is “accepted.”

Based on the CPS investigation, the social worker may have the child removed from home. If DSHS intends to keep the child out of the home, it must either obtain a voluntary placement agreement signed by the child’s parents or legal custodian, or obtain a court order supported by a dependency petition and other documentation alleging that the child is dependent and is at risk of imminent harm. A shelter care hearing must be held within three business days of removing the child to determine the ongoing need for state custody and out-of-home placement. In most cases, the child is declared dependent, which grants the state control, custody, and supervision of the child, until the parents can correct the conditions in the home that resulted in removal.

In this report, we focused on outcomes of the 96,000 referrals to CPS filed between January 2006 and February 2008. Filings for dependencies in Washington’s Superior Courts were examined, for referrals filed between January 2006 and November 2006. The following outcomes were examined:

- The intake decision (for example, was the referral accepted?)
- Was the child removed from home?
- Was a dependency petition filed in court?

---

3 More than one child may be included on a referral to CPS. In this study, the referral was the unit of the analysis.

4 We excluded referrals after November 2006, because we found that legal data in the Children’s Administration data system were incomplete after that date.
Exhibit 1
Possible Outcomes of Referrals to Washington State Child Protective Services

Referral to CPS

Third Party
- Law Enforcement

Risk Tag Assigned (0 to 5)
- Low Risk
- Referral to Alternative Response Services
- Accepted
  - Investigation
    - Removal From Home
    - Referral to Services
      - Dependency Case Filed

Information Only
- No Further Action

Note: Shaded boxes indicate intake decisions.
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Findings

Who refers?

Exhibit 2 displays the number of reports from various categories of reporter types. More reports are received from non-mandated reporters than from any single class of mandated professionals. Educators and social service professional make more referrals than the other types of mandated reporters.
The pattern of CPS referrers in Washington is similar in most respects to what is observed nationally. Exhibit 3 shows the percentage of all referrals by type of reporter in Washington State and nationally. Washington has a higher percentage of reports from mandated reporters than most other states. This pattern may reflect differences between Washington’s reporting requirements and the majority of other states.

### Exhibit 3
CPS Referrals in Washington and Across the United States

<table>
<thead>
<tr>
<th>Type of Reporter</th>
<th>Washington</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educator</td>
<td>18.1%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>11.7%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Medical Professional</td>
<td>8.5%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Mental Health Professional</td>
<td>6.7%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Child Care Provider</td>
<td>2.5%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Foster Care Provider</td>
<td>0.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>All Mandated</td>
<td>67.4%</td>
<td>57.7%</td>
</tr>
<tr>
<td>Friend/Neighbor</td>
<td>8.6%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Other Relative</td>
<td>8.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Parent/Guardian</td>
<td>8.1%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Other</td>
<td>4.6%</td>
<td>15.7%</td>
</tr>
<tr>
<td>Anonymous</td>
<td>2.5%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Victim/Self</td>
<td>0.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Subject</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>All Non-Mandated</td>
<td>32.6%</td>
<td>42.5%</td>
</tr>
</tbody>
</table>

When do they refer?

A total of 20 percent of all referrals are made outside of regular business hours. A central, statewide phone service handles these calls. The Central Intake takes 94 percent of all after-hours calls.\(^6\)

\(^6\) In this analysis, calls were identified as after hours if they occurred before 8 a.m., after 5:00 p.m., on weekends, or on state holidays.
Who reports various types of child maltreatment?

Exhibit 5 shows the type of maltreatment reported. The most common alleged maltreatment, regardless of reporter type, is physical neglect. Educators, child care providers, and mental health professionals are more likely to report physical abuse than other reporters.
Do intake decisions vary by reporter type?

Sixty percent of all referrals are accepted for investigation. As shown in Exhibit 6, referrals from law enforcement are significantly more likely to be accepted than referrals from other reporters. This is probably because law enforcement officers are more likely to be involved in acute family crises.

Exhibit 6
Intake Decisions Vary by Type of Reporter

<table>
<thead>
<tr>
<th>Reporter Type</th>
<th>Accepted</th>
<th>Information Only</th>
<th>Low Risk</th>
<th>Referred to ARS</th>
<th>Third Party Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law Enforcement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Care Provider</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Prof</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Service Prof</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSHS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foster Care Provider</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health Prof</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Mandated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALL REPORTERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Do subsequent outcomes vary by reporter type?

After referrals are accepted, there continues to be variation in the reporter type and case outcomes. Referrals from law enforcement are the most likely to result in a child’s removal from the home, and educator referrals are the least likely to have this result. However, the initial difference in home removal is probably due to the crisis intervention nature of law enforcement involvement. While reporter-related differences persist after a child is removed from home, significantly fewer law enforcement referrals result in the filing of a dependency case.

**Exhibit 7**

Outcomes of Accepted Referrals

<table>
<thead>
<tr>
<th>Reporter Type</th>
<th>Investigated</th>
<th>Removed From Home</th>
<th>Dependency Filed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrections</td>
<td>97%</td>
<td>14%</td>
<td>6%</td>
</tr>
<tr>
<td>DSHS</td>
<td>97%</td>
<td>22%</td>
<td>15%</td>
</tr>
<tr>
<td>Medical Professional</td>
<td>98%</td>
<td>22%</td>
<td>14%</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>98%</td>
<td>28%</td>
<td>11%</td>
</tr>
<tr>
<td>Mental Health Professional</td>
<td>98%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Foster Care Provider</td>
<td>98%</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>Social Service Professional</td>
<td>98%</td>
<td>19%</td>
<td>11%</td>
</tr>
<tr>
<td>Educator</td>
<td>99%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Child Care Provider</td>
<td>99%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Non-Mandated</td>
<td>97%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>98%</strong></td>
<td><strong>14%</strong></td>
<td><strong>7%</strong></td>
</tr>
</tbody>
</table>

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These variations in outcomes are likely to be the result of differences in the role of various reporter types.

Law enforcement crisis intervention may result in prompt removal of a child, but following the child’s removal from home, issues with the family may be quickly resolved and the child returned home. This may explain that although children referred by law enforcement are removed from home at a relatively higher rate than those reported by others, the proportion of law enforcement-accepted referrals that result in filing of a dependency petition is about the same as referrals from social service professionals.

Medical professionals can also hold children, and call law enforcement and Child Protective Services to intervene. This too may result in interventions other than long-term out-of-home placement.

When a DSHS employee refers a family to CPS, the employee is likely to have information on prior family involvement with the child welfare system. DSHS referrals may also follow unsuccessful attempts to engage families in voluntary services. These factors would lead to a higher rate of out-of-home placement and dependency filings.

**Are there regional differences in rates of referral or outcomes?**

For administrative purposes, DSHS divides the state into six geographical regions, as shown in Exhibit 8, below.
Initial intake decisions vary markedly by region. Compared with referrals received in other regions and at Central Intake (statewide call center for after-hours calls), those in Region 6 are much less likely to be accepted and significantly more likely to be classified as Information Only.

Exhibit 9
Intake Decisions Vary by Region
To determine whether outcomes of accepted referrals vary by region, referrals to the statewide Central Intake were included in the geographic regions where the cases originated and were investigated see Exhibit 10).

The percentage of referrals accepted for investigation varies widely by region. In general, regions with higher referral rates tend to have the lowest rates of accepted referrals. In Region 6, where there are 80 referrals per 1,000 children, only 43 percent of referrals (including those through Central Intake) are accepted. By contrast, the referral rate is lowest in Region 4, where 69 percent of referrals are accepted.

Region 1 is an exception. Its referral rate of 64 per 1,000 puts it in the middle of the regions. However, this region has the highest percentage of accepted referrals—over 70 percent.

The variation in the percentage of referrals accepted by the six regions has the effect of decreasing the difference among regions in terms of accepted referrals per 1,000 children.
**Do differences among reporter types remain when we control for all known case characteristics?**

Up to this point, we have examined discrete aspects of referrals—type of reporter, alleged maltreatment, time of day when reports are made, etc. Because we know these factors all might relate to the outcome of a referral, we also conducted multivariate analyses to determine whether differences by reporter type can be explained by other case characteristics. Our analysis controlled for age, race, and gender of the youngest child on the referral, DSHS region, type of maltreatment, number of prior referrals the family has received, number of victims on the referral, after hours reports, and the intake worker.

Many of these characteristics affected the three outcomes we considered:

- Referral accepted
- Child removed from home
- Dependency case filed with the court

Even after controlling for these characteristics, we still see significant differences in outcomes, depending on the type of reporter. In particular, referrals from law enforcement are more likely to be accepted and associated with removal of the child from home. However, law enforcement referrals are significantly less likely to result in dependency cases of children removed from home than all other referrals.  

---

7 See Exhibit A4 in the Appendix.
Do intake workers differ in their assignment of risk?

When a report of suspected abuse or neglect is received that is not coded “Third Party Report” or “Information Only,” the intake worker assigns a “risk tag” based on the information she or he hears. This level of risk scale ranges from 0 to 5, with 5 being very high risk and 0 being no risk. Any report with a risk tag of 3 or above is accepted for investigation.

The risk tags assigned by individual intake workers were examined across all regions. As shown in Exhibit 11, the average risk assigned by workers varies by region. Workers in Region 1 assign the highest risk to referrals; workers in Region 6 assign the lowest risk.

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Risk at Intake</th>
<th>Number of Referrals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 1</td>
<td>3.51</td>
<td>9,328</td>
</tr>
<tr>
<td>Region 2</td>
<td>3.10</td>
<td>7,228</td>
</tr>
<tr>
<td>Region 3</td>
<td>3.44</td>
<td>9,301</td>
</tr>
<tr>
<td>Region 4</td>
<td>3.27</td>
<td>12,493</td>
</tr>
<tr>
<td>Region 5</td>
<td>3.19</td>
<td>8,511</td>
</tr>
<tr>
<td>Region 6</td>
<td>2.86</td>
<td>10,320</td>
</tr>
<tr>
<td>Central Intake</td>
<td>3.44</td>
<td>17,251</td>
</tr>
</tbody>
</table>

Further, we observed that the individual intake workers vary in the risk level they assign to referrals. This variation among workers has a significant effect on outcomes. The screening decision history of the intake worker was the strongest predictor of the level of risk the worker would assign. That is, intake workers with a history of assigning higher than average risk tags continue to assign higher risk tags and, thus, have higher than average rates of accepting referrals. Thus, controlling for other known case characteristics, the historical average risk assigned by the intake worker has the greatest influence on the initial risk assigned, and hence, on whether the referral is accepted.

It is not known whether this variation is affected by workers’ level of tenure or experience.

Among the 190 intake workers who handled at least ten referrals, the average risk assigned was 3.27. Overall, the average risk assignment by individual intake workers ranged from 1.6 to 4.9.

This result is based on data collected between January 2006 and February 2008. Since then, the Children’s Administration has modified its intake procedures. Future analysis would be necessary to learn if the new procedures have affected the worker-to-worker variation in risk assessment and subsequent outcomes following referrals.

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8 See Exhibit A5 in the Appendix.
9 For this analysis, we excluded workers logging in using generic worker codes and workers with fewer than ten referrals.
Conclusions

Similar to national trends, this study found that Washington State educators and social service professionals make more referrals than other types of mandated reporters.

Further, outcomes following CPS referrals vary by reporter type. The variation can be largely explained by the nature of reporters’ professional contact with children and the circumstances in which they report. Referrals from law enforcement were more likely to be accepted for investigation and to result in removal of a child from home. The proportion of referrals accepted by DSHS ranged from 47 percent for mental health professionals to 69 percent for law enforcement. Further, after the referrals are accepted, those from law enforcement are more likely than other referrals to result in removing a child from home.

For the period of this study, the responses to reported child abuse and neglect, and the outcomes for children, varied as much by region and by screening decision history of individual intake workers as they did by type of reporter. These regional and worker differences may warrant further examination.
Regression Analyses. The exhibits in this section display statistics from logistic regression analyses described in the report. The regression analyses model the likelihood of a decision or outcome that retains a child in the child welfare system, controlling for reporter type and other factors. We include all the children with a CPS referral in modeling the likelihood that a referral will be accepted. We model placement (removal from home) and the filing of a dependency case only for children with an accepted referral. Thus, the number of children decreases as we model later points in the system.

How to read these tables. The first four tables provide the standardized logistic regression parameters for each reporter type and case characteristic. Except when factors are numbers, we omit the variable for one group to serve as a comparison. Then the standardized estimates in the table provide the magnitude and direction of an effect. For example, in these models, we omit the variable that codes for social service professionals. Looking at the results of the likelihood of an accepted referral, we see that referrals from corrections personnel are significantly more likely to result in an accepted referral than referrals from social service professionals. The standardized estimate is greatest for law enforcement. We also see that referrals from mental health professionals are significantly less likely to be accepted than those from social service professionals.

We also list the statistic, Area Under the Receiver Operating Characteristic (AUC). This statistic provides a measure of how well the model predicts an outcome. AUC can vary between 0 and 1. A value of 0.5 indicates the model does not predict the outcome. Values of 0.7 or greater indicate that the model does a good job of predicting the outcome.

The decision to accept a referral is made at the intake. For this reason, in the analysis of accepted referrals, we include the Central Intake Office.

Exhibit A.1 provides regression results for the population of children with a CPS referral between January 1, 2006 and March 1, 2008. Exhibit A.2 shows the regression results for the likelihood of placement, given an accepted referral. Exhibit A.3 provides information on the likelihood that an accepted referral results in the filing of a dependency case. For this last analysis, we restricted the referrals to those made prior to November 2006, because the legal data were incomplete for later filings. The fourth table, A.4, shows the likelihood of a dependency case after the child is removed from home.

Exhibit A.5 displays the results of a linear regression model predicting the initial risk tag assigned at intake. For this analysis, we eliminate those worker codes that allow numerous workers to log in to the computer, and we exclude workers who handled fewer than ten referrals. Controlling for other variables, we observe that the variable with the strongest influence on the initial risk tag assigned to a referral is the historical worker risk; that is, the average of the risk tags assigned by the individual intake workers over the 26-month period of this study.
### Exhibit A1
**Referral Accepted**
N=96,656   AUC=0.738

<table>
<thead>
<tr>
<th>Type of Reporter (Compare to Soc Svc Prof)</th>
<th>Standardized Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrections</td>
<td>ns</td>
</tr>
<tr>
<td>Anonymous</td>
<td>0.0095</td>
</tr>
<tr>
<td>DSHS Personnel</td>
<td>ns</td>
</tr>
<tr>
<td>Medical Professional</td>
<td>0.0277</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>0.0920</td>
</tr>
<tr>
<td>Mental Health Prof</td>
<td>-0.0427</td>
</tr>
<tr>
<td>Friend/Neighbor</td>
<td>0.0746</td>
</tr>
<tr>
<td>Educator</td>
<td>0.0356</td>
</tr>
<tr>
<td>Other Relative</td>
<td>0.0309</td>
</tr>
<tr>
<td>Parent/Guardian</td>
<td>-0.0642</td>
</tr>
<tr>
<td>Foster Care</td>
<td>-0.0200</td>
</tr>
<tr>
<td>Victim</td>
<td>0.0227</td>
</tr>
<tr>
<td>Child Care Provider</td>
<td>ns</td>
</tr>
<tr>
<td>Other</td>
<td>0.0155</td>
</tr>
<tr>
<td>Alleged Abuser</td>
<td>ns</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Maltreatment (Compare to Neglect)</th>
<th>Standardized Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex abuse</td>
<td>0.1824</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>0.2713</td>
</tr>
<tr>
<td>Abandon</td>
<td>0.0488</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Child's Age (Compare to Ages 3 to 5)</th>
<th>Standardized Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant</td>
<td>0.1645</td>
</tr>
<tr>
<td>Ages 1 to 2</td>
<td>0.0784</td>
</tr>
<tr>
<td>Ages 6 to 9</td>
<td>-0.0674</td>
</tr>
<tr>
<td>Ages 10 to 13</td>
<td>-0.0888</td>
</tr>
<tr>
<td>Ages 14 and older</td>
<td>-0.1639</td>
</tr>
</tbody>
</table>

| Number Prior Referrals                   | 0.1375                |
| Number of Victims                        | 0.0596                |
| After Hours Call                         | ns                    |
| Male                                     | 0.0309                |

<table>
<thead>
<tr>
<th>Race (Compare to White)</th>
<th>Standardized Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>0.0269</td>
</tr>
<tr>
<td>Black</td>
<td>0.0183</td>
</tr>
<tr>
<td>Asian</td>
<td>0.0090</td>
</tr>
<tr>
<td>Hispanic</td>
<td>ns</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DSHS Region (Compare to Region Central Intake)</th>
<th>Standardized Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake Region 1</td>
<td>0.0387</td>
</tr>
<tr>
<td>Intake Region 2</td>
<td>-0.0956</td>
</tr>
<tr>
<td>Intake Region 3</td>
<td>-0.0646</td>
</tr>
<tr>
<td>Intake Region 4</td>
<td>0.0344</td>
</tr>
<tr>
<td>Intake Region 5</td>
<td>ns</td>
</tr>
<tr>
<td>Intake Region 6</td>
<td>-0.2352</td>
</tr>
</tbody>
</table>

### Exhibit A2
**Placement Given an Accepted Referral**
N=57,906   AUC=0.771

<table>
<thead>
<tr>
<th>Type of Reporter (Compare to Soc Svc Prof)</th>
<th>Standardized Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrections</td>
<td>ns</td>
</tr>
<tr>
<td>Anonymous</td>
<td>-0.0948</td>
</tr>
<tr>
<td>DSHS Personnel</td>
<td>0.0256</td>
</tr>
<tr>
<td>Medical Professional</td>
<td>-0.0233</td>
</tr>
<tr>
<td>Law Enforcement</td>
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<td>Other Relative</td>
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<td>Victim</td>
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</tr>
<tr>
<td>Child Care Provider</td>
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<tr>
<td>Other</td>
<td>-0.0525</td>
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<tr>
<td>Alleged Abuser</td>
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<table>
<thead>
<tr>
<th>Type of Maltreatment (Compare to Neglect)</th>
<th>Standardized Estimate</th>
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<tbody>
<tr>
<td>Sex abuse</td>
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<td>Physical abuse</td>
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<tr>
<td>Abandon</td>
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<table>
<thead>
<tr>
<th>Child's Age (Compare to Ages 3 to 5)</th>
<th>Standardized Estimate</th>
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<tbody>
<tr>
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<td>Ages 6 to 9</td>
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<tr>
<td>Ages 10 to 13</td>
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<tr>
<td>Ages 14 and older</td>
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| Number Prior Referrals                   | 0.1451                |
| Number of Victims                        | 0.019                 |
| Male                                     | -0.0174               |

<table>
<thead>
<tr>
<th>Race (Compare to White)</th>
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<tr>
<td>Indian</td>
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<td>Black</td>
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<td>Hispanic</td>
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<table>
<thead>
<tr>
<th>DSHS Region (Compare to Region 4)</th>
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<td>Region 1</td>
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| Risk Tag at Intake                       | 0.3004                |
### Exhibit A3
Likelihood that a Dependency Case Is Filed
Given an Accepted Referral
Prior to November 2006
N=22,395   AUC=0.786

<table>
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<th>Standardized Estimate</th>
<th>Type of Reporter (Compare to Soc Svc Prof)</th>
<th>Type of Maltreatment (Compare to Neglect)</th>
<th>Child's Age (Compare to Ages 3 to 5)</th>
<th>Number Prior Referrals</th>
<th>Number of Victims</th>
<th>Male</th>
<th>Race (Compare to White)</th>
<th>DSHS Region (Compare to Region 4)</th>
<th>Risk Tag at Intake</th>
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<td>DSHS Personnel 0.0293</td>
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### Exhibit A4
Likelihood that a Dependency Case Is Filed
After Removal From Home
Referrals Prior to November 2006
N=3,404   AUC=0.666

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<th>Standardized Estimate</th>
<th>Type of Reporter (Compare to Soc Svc Prof)</th>
<th>Type of Maltreatment (Compare to Neglect)</th>
<th>Child's Age (Compare to Ages 3 to 5)</th>
<th>Number Prior Referrals</th>
<th>Number of Victims</th>
<th>Male</th>
<th>Race (Compare to White)</th>
<th>DSHS Region (Compare to Region 4)</th>
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<td>Anonymous ns</td>
<td>Physical abuse ns</td>
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Exhibit A5
Predicting Initial Risk of Referrals
N= 61,352   R-Square=0.3748

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<td>Mental Health Prof</td>
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<td>Friend/Neighbor</td>
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<td>Parent/Guardian</td>
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<td>Victim</td>
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<td>Child Care Provider</td>
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<td>Other</td>
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<tr>
<td>Alleged Abuser</td>
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<tr>
<td><strong>Type of Maltreatment (Compare to Neglect)</strong></td>
</tr>
<tr>
<td>Sex abuse</td>
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<tr>
<td>Physical abuse</td>
</tr>
<tr>
<td>Abandon</td>
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<tr>
<td><strong>Child's Age (Compare to Ages 3 to 5)</strong></td>
</tr>
<tr>
<td>Infant</td>
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<tr>
<td>Ages 1 to 2</td>
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<td>Ages 6 to 9</td>
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<td>Ages 10 to 13</td>
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<td>Ages 14 and older</td>
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<td><strong>Number Prior Referrals</strong></td>
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<td><strong>Number of Victims</strong></td>
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<td><strong>After Hours Call</strong></td>
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<tr>
<td><strong>Race (Compare to White)</strong></td>
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</tr>
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<tr>
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<td><strong>DSHS Region (Compare to Region Central Intake)</strong></td>
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<tr>
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Acknowledgements

We would like to thank those who provided assistance on this project.

Three individuals at Children’s Administration helped the Institute obtain the data necessary for this analysis. We are grateful to Jean Croisant, who helped us arrange a data sharing agreement, and Cindy Ellingson, who provided us the data. Chris Robinson read the report and provided information on CPS procedures.

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