



Prepared for  
Texas Department of Family and Protective Services

# Preliminary Risk Assessment Fit Analysis of the SDM<sup>®</sup> Family Risk Assessment

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## EXECUTIVE SUMMARY

In 2014, the Texas Department of Family and Protective Services (DFPS) partnered with the NCCD Children's Research Center (CRC) to implement an actuarial risk assessment for child protective services (CPS). The actuarial risk assessment is used to identify families with the greatest likelihood of future child maltreatment. The goal of using such an assessment is to target agency resources to families at the highest risk of subsequent child maltreatment in order to reduce and prevent the occurrence of future harm. DFPS adopted a Structured Decision Making® (SDM) risk assessment that was originally developed for the California Department of Social Services (CDSS) in 1998. This version of the SDM® risk assessment was selected because of its robustness; it has been successfully implemented and validated in a number of jurisdictions throughout the United States, Canada, and Australia.

When adopting an SDM risk assessment originally designed for another jurisdiction, it is important to test how well the assessment fits the population to which it will be applied. For this reason, DFPS and CRC decided to conduct a preliminary risk assessment fit analysis to determine how well the California SDM risk assessment fits the population of families that DFPS serves. A risk assessment fit analysis tests whether the adopted assessment reasonably estimates the likelihood of subsequent child maltreatment. The analysis also provides an estimate of how many families will be classified as low, moderate, high, or very high risk; this, in turn, provides an estimate of the number of families who will be targeted for continued services.

The preliminary risk assessment fit analysis for DFPS involved five main steps.

1. CRC sampled a cohort of families investigated by DFPS between July 1, 2012, and June 30, 2013.
2. CRC estimated risk item scores from the California SDM risk assessment using DFPS administrative data. CRC was able to partially or completely estimate all 10 items from the neglect index and nine of the 10 items from the abuse index.
3. Neglect and abuse index item scores were summed, and risk-level cut points were applied to each index individually. Each family was assigned a risk level based on the higher of the neglect and abuse index risk levels (the process used to complete the risk assessment).
4. CRC examined outcomes for families classified in each risk level. Outcomes included rates of subsequent investigations, dispositions of "reason to believe" for abuse or neglect, and removal from the home. Both indices and the overall risk classification were tested for their relationships to these outcomes.
5. Finally, CRC tested the performance of the risk assessment across family race/ethnicity and investigation finding dispositions.

The risk fit analysis for DFPS resulted in several clear findings. First, the neglect index performed well when estimating the likelihood of subsequent neglect investigations, subsequent neglect investigations with a disposition of "reason to believe," and subsequent neglect investigations resulting in child removal. The data show an increase in neglect outcome rates for each increase in the

neglect risk level, and the high risk rates are at least three times the rates for low-risk families. The abuse index also performed well when estimating the likelihood of subsequent abuse investigations, subsequent abuse investigations with a disposition of “reason to believe,” and subsequent abuse investigations resulting in child removal. The proportion of families who experienced each abuse outcome (investigation, “reason to believe” disposition, and/or child removal) increased with each abuse risk classification increase. The proportion of high-risk families subsequently experiencing each abuse outcome was 2.5 times or more that of low-risk families.

The overall risk classification is the highest risk level reached by either the neglect risk index or the abuse risk index. Around one quarter (24.3%) of the sample families were classified as low risk, 51.1% were classified as moderate risk, 22.3% were classified as high risk, and 2.2% were classified as very high risk (see Table ES1). Each increase in the scored risk classification corresponded to an increase in the proportion of families with a subsequent investigation, a subsequent investigation with a disposition of “reason to believe,”<sup>1</sup> or a subsequent investigation resulting in child removal.

<b>Table ES1</b>								
<b>Texas Department of Family and Protective Services Estimated Risk Classification by Overall Outcomes</b>								
<b>Estimated Scored Risk Level</b>	<b>Sample Distribution</b>		<b>Outcomes During the 12-Month Follow-Up Period</b>					
	<b>N</b>	<b>%</b>	<b>Investigation</b>		<b>Investigation Disposition: Reason to Believe</b>		<b>Investigation Resulting in Child Removal</b>	
			<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Low	2,734	24.3%	350	12.8%	62	2.3%	12	0.4%
Moderate	5,745	51.1%	1,280	22.3%	394	6.9%	97	1.7%
High	2,506	22.3%	898	35.8%	296	11.8%	104	4.2%
Very High	251	2.2%	112	44.6%	41	16.3%	18	7.2%
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,640</b>	<b>23.5%</b>	<b>793</b>	<b>7.1%</b>	<b>231</b>	<b>2.1%</b>

Based on the results of this analysis, the California SDM family risk assessment is likely to perform well when applied in Texas. However, every jurisdiction is unique; an assessment may require fine-tuning in order to work best for a particular agency. CRC recommends that a CPS risk validation study be conducted three to five years after the implementation of the SDM risk assessment in Texas. The validation process is a very important step that DFPS can take in the future to better classify families and target services more effectively.

<sup>1</sup> A “reason to believe” disposition is one in which there has been a finding that abuse or neglect has occurred, based on a preponderance of the evidence. This means that when all evidence is weighed, it is more likely than not that abuse or neglect occurred.

## **I. INTRODUCTION**

The Texas Department of Family and Protective Services (DFPS) partnered with the Children's Research Center (CRC), a center of the nonprofit National Council on Crime and Delinquency (NCCD), to implement a Structured Decision Making® (SDM) decision-support system. The decision-support system includes an actuarial risk assessment that classifies families by their likelihood of future involvement with the department for child maltreatment (i.e., abuse or neglect). In 2014, DFPS adopted a version of the risk assessment that was originally developed for the California Department of Social Services (CDSS) in 1998. Both CRC staff (Wagner & Johnson, 2003) and an independent researcher (Johnson, 2004) validated this California risk assessment and found that it accurately classified investigated families by their likelihood of future maltreatment. Prior research shows that many of the risk factors on the assessment are common across jurisdictions; a risk assessment validated in one jurisdiction is likely to work well in another jurisdiction (Johnson, Wagner, Scharenbroch, & Healy, 2006; Wood, 1997). Although this evidence suggests that the risk assessment developed in California will perform as intended for Texas's child protective services (CPS) population, DFPS wanted to ensure that the adopted risk assessment will result in an accurate classification of families and a useful and meaningful distribution of families across each risk level. This study estimates how accurately the risk assessment will perform when classifying Texas families by their likelihood of subsequent child maltreatment. See Appendix A for the SDM® family risk assessment adopted by DFPS.

## II. BACKGROUND

CPS agencies first began using actuarial risk assessment methods more than 25 years ago. Actuarial risk assessment evaluates the likelihood that a certain event, or outcome, will occur in the future based on a set of specific, observable characteristics of an individual or family. Individuals or families are classified into groups depending on the presence or absence of each characteristic. The assessment then estimates the likelihood of an outcome occurring for that particular individual or family, based on the outcomes observed for individuals or families with similar characteristics. It is important to note that actuarial risk assessment is a classification system and not a prediction system—it highlights the chances that an individual or family will experience a particular outcome in the future, but it does not determine that an outcome definitely will occur.

Constructing an actuarial CPS risk assessment requires a longitudinal study in which the characteristics of families and the alleged maltreatment are observed at the time of a sample investigation and examined relative to CPS involvement during a standardized follow-up period. Bivariate and multivariate analyses determine the combination of family and investigation characteristics that best assess the likelihood of future child maltreatment (see, for example, Silver, Smith, & Banks, 2000). CRC has conducted studies of large, random samples in several jurisdictions to construct actuarial risk assessments for CPS agencies. Workers complete a risk assessment at the close of each child maltreatment investigation to classify the family as low, moderate, or high risk. The risk assessment determines the risk classification level based on the characteristics of the family at the time of the investigation relative to subsequent outcomes for families with similar characteristics (i.e., outcomes for families in the same risk classification).

Evidence indicates that a simple, empirically validated risk assessment is superior to other forms of decision making, including consensus-based assessments and an individual caseworker's clinical assessment (Baird, Healy, Johnson, Bogie, Wicke Dankert, & Scharenbroch, 2013). A large body

of research evidence in experimental psychology, as well as in child welfare, supports the conclusion that actuarial instruments can estimate future behavior more accurately than individual decision makers, even those with extensive clinical training (Rossi, Schuerman, & Budde, 1996; Dawes, Faust, & Meehl, 1989; Dawes, 1979; and Meehl, 1954). Research also has shown actuarial assessments to be more reliable and valid than consensus-based risk assessments (Baird & Wagner, 2000; Baird, Wagner, Healy, & Johnson, 1999).

A caseworker can, however, observe situations or characteristics of a family that an actuarial risk assessment may ignore or is unable to evaluate. Many human characteristics simply cannot be quantified empirically, and actuarial models cannot easily account for rare events. It is not the point of actuarial assessment in CPS case management to substitute an actuarial procedure for the discretionary judgment or skill of CPS workers, but rather to assess families more accurately and prioritize them for service more effectively by integrating an actuarial assessment into current case assessment procedures (Shlonsky & Wagner, 2005). This practice may prove more effective because the actuarial assessment model helps practitioners focus their initial assessment on the relatively small set of case characteristics that have demonstrated a strong statistical relationship to future child maltreatment. After making this objective assessment, workers may exercise discretionary judgment more effectively in each case.

### **III. METHODS**

#### **A. Sample Selection**

Texas DFPS provided CRC with data from their Statewide Automated Child Welfare Information System (SACWIS), Information Management Protecting Adults and Children in Texas (IMPACT), to complete the preliminary risk assessment fit analysis. These data included information on investigated child maltreatment reports closed by DFPS between January 2007 and September 2014; investigations and child removals resulting from these investigations; and information on the alleged victims and perpetrators associated with these reports. CRC used these data to select a cohort of unique families investigated by DFPS for alleged abuse and/or neglect during the sample period.<sup>2</sup>

CRC started with a pool of child abuse or neglect reports investigated by DFPS workers between July 1, 2012, and June 30, 2013, and identified the family associated with each investigation.<sup>3</sup> Investigations with a closure reason of “administrative closure” or “unable to complete” were excluded from this pool of investigations. Additionally, CRC excluded investigations involving only non-family alleged perpetrators, as the risk assessment is not required for non-household investigations. To reduce the chance of overcounting previous or follow-up CPS activity, CRC aggregated investigations that began within 10 days of a prior investigation start date and investigations that started during the first 60 days of an open investigation. If a family had more than one investigation during the sample year, CRC selected the first investigation as the sample investigation. Furthermore, the analysis excluded families who experienced the removal of all children from the home during the entire 12-month follow-up period, because those families were less likely to have subsequent DFPS

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<sup>2</sup> Investigations with a start date between July 1, 2012, and June 30, 2013.

<sup>3</sup> IMPACT data do not include a family identifier. For analysis purposes, CRC created families by identifying the alleged child victims on each investigation and combining groups of alleged victims with common members. For example, if Child A and Child B were alleged victims in one investigation, and Child B and Child C were alleged victims in another investigation, all three alleged victims were combined into one family.



involvement during that time due to the children being out of the home. The resulting cohort consisted of 11,236 families investigated by DFPS between July 1, 2012, and June 30, 2013.

CRC examined subsequent CPS involvement (i.e., subsequent investigations, subsequent dispositions of “reason to believe,” and subsequent investigations resulting in child removal) for these families during a 12-month standardized follow-up period following the close<sup>4</sup> of the sample investigation. Analysis focused on the relationships between available risk factors from the sample investigation and CPS outcomes, such as subsequent investigation, subsequent disposition of “reason to believe,” or subsequent investigation resulting in child removal. See Appendix B for a complete discussion of the sample selection methods.

## **B. Preliminary Risk Assessment Fit Analysis Methods**

The fit of the SDM family risk assessment is measured by how well the risk assessment distinguishes outcome rates for families at each risk classification level, or “discrimination” between outcome rates, as well as by the distribution of families across the risk continuum. In other words, risk assessment performance is acceptable when follow-up rates substantially increase with the risk classification levels, from low to moderate to high to very high risk, *and* each risk classification level has a meaningful number of families. CRC used administrative data from the IMPACT casework system to simulate the score on each neglect and abuse index risk item for the 11,236 families in the sample. Using these data, CRC was able to partially or completely estimate all 10 neglect index items and nine of the 10 abuse index items.

CRC then applied risk-level cut points from the SDM risk assessment to the Texas sample, and each family was assigned a risk level corresponding to the higher of the two risk levels derived from the family’s scores on the neglect index and on the abuse index. Outcome measures included the

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<sup>4</sup> For the analysis, investigations were capped at 60 days. In other words, the 12-month follow-up period started on the last day of the investigation, or 60 days after the start of the investigation, whichever occurred first.

rates of subsequent investigations, investigations with a disposition of “reason to believe,” and investigations resulting in a child removal. Both indices, as well as the overall risk classification, were tested for their relationships to the outcomes. In addition, the performance of the risk assessment was tested across race/ethnicity groups and by sample investigation finding (reason to believe, unable to determine, or ruled out). See Appendix B for a complete description of the fit analysis methods.

#### **IV. FINDINGS**

##### **A. Sample Description**

Based on the race/ethnicity of the oldest child in the family, more than one third (39.7%) of the families in the sample were Hispanic (of any race), nearly one third (30.7%) were Anglo, and 16.3% were African American. One quarter (25.8%) of the families had a child under the age of 2 at the time of the sample investigation, and most families had either one (62.6%) or two children (21.7%) involved in the investigation. Most (82.5%) of the sampled investigations listed a parent as the alleged perpetrator (see Table 1).

<b>Table 1</b>		
<b>Texas Department of Family and Protective Services</b>		
<b>Characteristics of Families Investigated During Sample Period</b>		
<b>(N = 11,236 families)</b>		
<b>Investigation Characteristic</b>	<b>N</b>	<b>%</b>
<b>Oldest Child’s Race/Ethnicity</b>		
Hispanic (of any race)	4,458	39.7%
Anglo	3,444	30.7%
African American	1,829	16.3%
Asian	752	6.7%
Native American	125	1.1%
Other	628	5.6%

<b>Table 1</b> <b>Texas Department of Family and Protective Services</b> <b>Characteristics of Families Investigated During Sample Period</b> <b>(N = 11,236 families)</b>		
<b>Investigation Characteristic</b>	<b>N</b>	<b>%</b>
<b>Age of Youngest Child</b>		
Under 2	2,900	25.8%
2–4 years	2,706	24.1%
5–9 years	3,021	26.9%
10–14 years	1,792	15.9%
15 years or older	816	7.3%
Unknown	1	0.0%
<b>Number of Alleged Child Victims</b>		
One	7,033	62.6%
Two	2,434	21.7%
Three	1,113	9.9%
Four	436	3.9%
Five or more	220	2.0%
<b>Perpetrator’s Relationship to Alleged Victim(s) (may be more than one per investigation)</b>		
Parent (includes adoptive parent)	9,270	82.5%
Other family member	1,775	15.8%
Other non-family member	1,332	11.9%
Unknown	1,212	10.8%

More than one quarter of the sampled investigations occurred in Region 3. The majority (71.0%) of families investigated during the sample period had an investigation for neglect, and 55.2% of the sampled families had an investigation for abuse. Roughly one quarter of the sample investigations had a finding of “reason to believe” (see Table 2).

<b>Table 2</b>		
<b>Texas Department of Family and Protective Services</b>		
<b>Characteristics of Sample Investigations</b>		
<b>(N = 11,236 families)</b>		
<b>Investigation Characteristic</b>	<b>N</b>	<b>%</b>
<b>Region</b>		
Region 1	421	3.7%
Region 2	359	3.2%
Region 3	2,918	26.0%
Region 4	553	4.9%
Region 5	420	3.7%
Region 6	2,085	18.6%
Region 7	1,412	12.6%
Region 8	1,320	11.7%
Region 9	307	2.7%
Region 10	328	2.9%
Region 11	1,113	9.9%
<b>Allegation Type</b>		
Abuse	6,207	55.2%
Neglect	7,979	71.0%
<b>Investigation Finding</b>		
Reason to believe	3,104	27.6%
Unable to determine	1,434	12.8%
Ruled out	6,698	59.6%

Note: Investigations may include more than one allegation type.

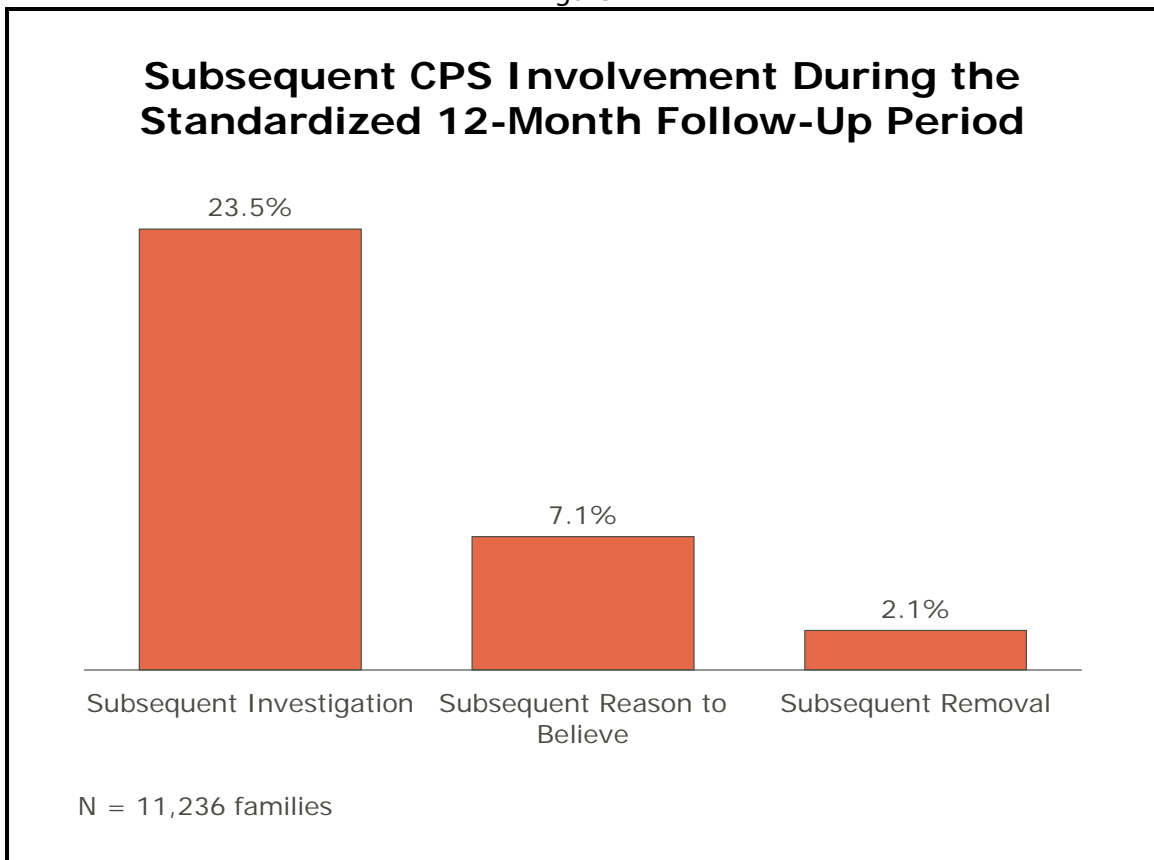
**B. Subsequent CPS Involvement of Sampled Families**

Outcomes included subsequent CPS involvement for each family during the 12 months following the close of the sampled investigation. Using a standardized follow-up period ensures that each family in the sample has the same opportunity for subsequent involvement with CPS.

“Subsequent involvement” consists of any investigations of abuse or neglect during the follow-up period, including investigations with a disposition of “reason to believe” for abuse or neglect and investigations of abuse or neglect resulting in child removal.

Of the sampled families, 23.5% had a subsequent investigation during the 12-month follow-up period, 7.1% of the sampled families had an investigation during the follow-up period with a disposition of “reason to believe,” and 2.1% of the sampled families had an investigation during that time period that resulted in child removal (see Figure 1).

Figure 1



When examined by the race/ethnicity of the oldest child, outcome rates varied slightly by race/ethnicity. Asian families had the lowest outcome rates, which were lower than the overall total sample rates, and outcome rates for Anglo families were slightly higher than the other two largest race/ethnicity subgroups (see Table 3).

Race/Ethnicity of Youngest Child	Sample Distribution		Outcomes During the 12-Month Follow-Up Period					
	N	%	Investigation		Disposition: Reason to Believe		Investigation with Removal	
			N	%	N	%	N	%
African American	1,829	16.3%	436	23.8%	112	6.1%	35	1.9%
Anglo	3,444	30.7%	920	26.7%	308	8.9%	103	3.0%
Asian	752	6.7%	95	12.6%	21	2.8%	5	0.7%
Hispanic (of any race)	4,458	39.7%	1,012	22.7%	295	6.6%	70	1.6%
Native American	125	1.1%	27	21.6%	7	5.6%	1	0.8%
Other	628	5.6%	150	23.9%	50	8.0%	17	2.7%
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,640</b>	<b>23.5%</b>	<b>793</b>	<b>7.1%</b>	<b>231</b>	<b>2.1%</b>

### C. Preliminary Risk Assessment Fit Analysis

The SDM risk assessment adopted by DFPS includes items, or risk factors, with strong, statistically significant relationships to subsequent CPS involvement. The assessment includes separate scores for abuse and neglect because prior research indicates that the family risk characteristics associated with abuse outcomes differ from those related to neglect outcomes. The purpose of the risk assessment is to help workers observe specific characteristics of families and children involved in investigations of child abuse or neglect and objectively assess the risk of future maltreatment of a child.

As mentioned previously, research shows that this version of the SDM family risk assessment accurately and equitably classifies families investigated in California and other states by their likelihood of subsequent CPS involvement. The assessment features 10 risk factors related to neglect outcomes and 10 risk factors related to abuse outcomes. At the end of an investigation, the investigating worker scores each item, then sums the items on the neglect and abuse scales separately to determine an initial risk classification for abuse and an initial risk classification for neglect. The scored risk level assigned to the family at the close of the investigation is the higher of the risk levels reached by either the abuse or the neglect risk index. For example, a family that scores low risk for future abuse and high risk for future neglect would have a scored risk level of high risk.

Risk assessment cannot address all aspects of an individual family case, and it is not intended to replace worker judgment. Therefore, investigating workers and supervisors can exercise a discretionary override that increases the scored risk level by one level. Whether or not a worker exercises a discretionary override, his/her decisions are informed by a scored actuarial risk assessment that has a strong empirical relationship to the incidence of future maltreatment.

The IMPACT casework system includes information relating to a number of the risk factors from California's risk assessment, such as a family's prior CPS history, allegations associated with the sample incident, number of alleged victims, and age of the youngest child. These items are often easier to score than other, more subjective risk factors (e.g., the mental health or substance use of the caregiver); therefore, they tend to be the most reliable items.

Using available information, CRC estimated scores for all 10 neglect index items and nine of the 10 abuse index items.<sup>5</sup> After scoring the items, analysts summed the scores on each index to arrive at the scored neglect risk level and the scored abuse risk level for the family and compared these risk levels to the outcomes (i.e., subsequent investigation within 12 months, subsequent investigation

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<sup>5</sup> See Appendix C for the relationship that each risk assessment item had with the outcomes.

with a “reason to believe” disposition within 12 months, and subsequent investigation resulting in child removal within 12 months). The following sections review findings for the neglect index, the abuse index, and the scored risk level (i.e., the highest risk level reached by either the neglect index or the abuse index).

#### 1. Neglect Outcomes by Neglect Index Classification

CRC analysts were able to partially or completely estimate scores for all 10 neglect items<sup>6</sup> (see Table 4). The sample investigation included allegations of neglect for 71.1% of families in the sample. Two thirds of families (66.2%) had no prior investigations, though 3.6% had prior abuse investigations only, 22.3% had one or two prior neglect investigations, and 7.9% had three or more prior neglect investigations. Only 15.4% of the families in the sample had previously been involved with CPS. Most families (94.2%) had fewer than four children, and one quarter (25.8%) of families had a child under the age of 2 in the home.

CRC estimated the score for item R11 by using perpetrator characteristics related to mental health diagnoses, although there was no way to identify whether the perpetrator was the primary caregiver, a secondary caregiver, or someone else in the home. Roughly 7% of households had a perpetrator with a diagnosed mental health issue, but CRC could not determine if that person was the primary caregiver. Item R12, primary caregiver alcohol/drug use, was estimated similarly, using perpetrator characteristics but without linking them directly to a primary caregiver. Using this method, approximately 15% of households had a perpetrator with an identified drug or alcohol issue. The score for item R16 was estimated using results from the sample investigation’s existing risk assessment item related to hazardous living conditions. Just 5% of households had hazardous living conditions.

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<sup>6</sup> Partial estimation of an item includes instances where part of the item had no similar data element in the IMPACT casework system or where the data stored in IMPACT compared to SDM risk assessment item definitions differ significantly.



Available data elements did not measure whether or not a family was homeless, thus that component of the risk factor was not estimated.

<b>Table 4</b>		
<b>Texas Department of Family and Protective Services Prevalence of Neglect Risk Factors Obtained from IMPACT</b>		
<b>Neglect Risk Factor<sup>7</sup></b>	<b>All Families Investigated During Sample Period (N = 11,236 families)</b>	
	<b>N</b>	<b>%</b>
<b>R1. Current referral is for neglect</b>		
No	3,246	28.9%
Yes	7,990	71.1%
<b>R2. Prior investigations</b>		
None	7,440	66.2%
One or more, abuse only	399	3.6%
One or two for neglect	2,505	22.3%
Three or more for neglect	892	7.9%
<b>R3. Household has previously been referred for ongoing child protective services</b>		
No	9,510	84.6%
Yes	1,726	15.4%
<b>R4. Number of children involved in the allegation(s)/incident(s)</b>		
One, two, or three	10,580	94.2%
Four or more	656	5.8%
<b>R6. Age of youngest child in the home</b>		
2 or older	8,336	74.2%
Under 2	2,900	25.8%
<b>R7. Current or historic characteristics of children in household</b>		
None apply	9,769	86.9%
Medically fragile/failure to thrive	38	0.3%
Developmental, physical, or learning disability	761	6.8%
Positive toxicology screen at birth	741	6.6%

<sup>7</sup> The risk item stems presented in this report are based on language modifications to the adopted assessment during preliminary Texas risk workgroup meetings; the language that appears on the final version of the assessment may differ slightly if more updates are made.

<b>Table 4</b>		
<b>Texas Department of Family and Protective Services Prevalence of Neglect Risk Factors Obtained from IMPACT</b>		
<b>Neglect Risk Factor<sup>7</sup></b>	<b>All Families Investigated During Sample Period (N = 11,236 families)</b>	
	<b>N</b>	<b>%</b>
<b>R9. Primary parent/caregiver provides physical care consistent with child needs</b>		
Yes	10,728	95.5%
No	508	4.5%
<b>R11. Primary caregiver has a historic or current mental health issue</b>		
No	10,497	93.4%
Yes	739	6.6%
<b>R12. Primary parent/caregiver has a historic or current alcohol or drug issue</b>		
No	9,604	85.5%
Alcohol	507	4.5%
Drugs	1,404	12.5%
<b>R16. Housing</b>		
Neither apply	10,655	94.8%
Current housing is physically unsafe	581	5.2%
Homeless	could not estimate	could not estimate

After summing the scores of these items for the sampled families and calculating the corresponding neglect risk levels, CRC determined that the neglect index performed well in classifying families by the likelihood of subsequent CPS involvement regardless of measure (subsequent neglect investigations, neglect investigations with a finding of reason to believe, and neglect investigations resulting in child removal). Each increase in neglect risk level corresponded to an increase in the proportion of families with each outcome within the standardized 12-month follow-up period (see Table 5). For example, the proportion of high-risk families with another neglect investigation was almost three and a half times greater than the proportion of low-risk families with another neglect investigation.

<b>Table 5</b>								
<b>Texas Department of Family and Protective Services</b>								
<b>Risk of Neglect Classification by Neglect Outcomes</b>								
<b>Neglect Risk Level</b>	<b>Sample Distribution</b>		<b>Outcomes During the 12-Month Follow-Up Period</b>					
	<b>N</b>	<b>%</b>	<b>Neglect Investigation</b>		<b>Neglect Disposition: Reason to Believe</b>		<b>Neglect Investigation Resulting in Removal</b>	
			<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Low	4,627	41.2%	479	10.4%	101	2.2%	24	0.5%
Moderate	4,904	43.6%	1,036	21.1%	355	7.2%	103	2.1%
High	1,650	14.7%	577	35.0%	224	13.6%	89	5.4%
Very High	55	0.5%	23	41.8%	10	18.2%	7	12.7%
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,115</b>	<b>18.8%</b>	<b>690</b>	<b>6.1%</b>	<b>223</b>	<b>2.0%</b>

## 2. Abuse Outcomes by Abuse Index Classification

CRC analysts were able to partially or completely estimate scores for nine of the 10 abuse items (see Table 6). The sample investigation included allegations of abuse for 55.4% of families in the sample. About three quarters of the families had no prior investigations for abuse, though 14.6% had one prior abuse investigation, and 9.9% had two or more prior abuse investigations. Only 15.4% of the families in the sample had previously been involved with CPS. CRC was able to estimate item R5 by examining whether the family had a prior completed risk assessment indicating physical harm to a child.

The domestic violence item (R15) was estimated using an item from the sample investigation's existing risk assessment, and 36% had domestic violence indicated. Because the family violence item includes violence between anyone in the household, it may overestimate domestic violence between adult significant others. Risk factor R10 is also estimated and consists of three sub-items approximated from DFPS information. For example, if according to the risk assessment the caregiver lacks empathy for or shows lack of attachment to a child or if the caregiver scapegoats, rejects, humiliates, or treats a child differently, CRC identified those items as examples of the caregiver providing insufficient emotional or psychological support. Employing excessive and/or inappropriate discipline was estimated using risk assessment items related to harsh and violent discipline. CRC was unable to estimate the overcontrolling/bullying sub-item. Item R14 was estimated using the sample investigation risk assessment item related to caregiver abuse/neglect as a child; this item is an estimate because it includes *any* caregiver rather than just the primary caregiver. In almost 14% of households, one or both caregivers had a history of maltreatment as a child. Similarly, item R13 is an estimate based on alcohol and drug use of any caregiver, rather than just the secondary caregiver. Nearly 15% of households had a caregiver with a drug or alcohol issue. Based on the data available in the IMPACT system, CRC could not estimate a score for item R8, caregiver assessment of the incident.

<b>Table 6</b>		
<b>Texas Department of Family and Protective Services Prevalence of Abuse Risk Factors Obtained From IMPACT</b>		
<b>Abuse Risk Factor<sup>8</sup></b>	<b>All Families Investigated During Sample Period (N = 11,236 families)</b>	
	<b>N</b>	<b>%</b>
<b>R1. Current referral is for abuse</b>		
No	5,011	44.6%
Yes	6,225	55.4%
<b>R2. Number of prior investigations for abuse</b>		
None	8,484	75.5%
One	1,635	14.6%
Two or more	1,117	9.9%
<b>R3. Household has previously been referred for ongoing child protection services</b>		
No	9,510	84.6%
Yes	1,726	15.4%
<b>R5. Prior injury to a child resulting from child abuse/neglect</b>		
No	10,434	92.9%
Yes	802	7.1%
<b>R7. Current or historic characteristics of children in household</b>		
None	10,157	90.4%
Child or youth in conflict with law	351	3.1%
Developmental or learning disability	691	6.1%
Mental health or behavioral problem	316	2.8%
<b>R8. Primary parent/caregiver's assessment of incident</b>		
None	could not estimate	could not estimate
Blames child for maltreatment	could not estimate	could not estimate
Justifies maltreatment	could not estimate	could not estimate
<b>R10. Primary parent/caregiver characteristics</b>		
None	8,641	76.9%
Provides insufficient emotional/psychological support	716	6.4%
Employs excessive/inappropriate discipline	2,315	20.6%
Overcontrolling/bullying	could not estimate	could not estimate

<sup>8</sup> The risk item stems presented in this report are based on language modifications to the adopted assessment during preliminary Texas risk workgroup meetings; the language that appears on the final version of the assessment may differ slightly if more updates are made.

<b>Table 6</b>		
<b>Texas Department of Family and Protective Services Prevalence of Abuse Risk Factors Obtained From IMPACT</b>		
<b>Abuse Risk Factor<sup>8</sup></b>	<b>All Families Investigated During Sample Period (N = 11,236 families)</b>	
	<b>N</b>	<b>%</b>
<b>R13. Secondary parent/caregiver has historic or current alcohol or drug issue</b>		
No	9,604	85.5%
Yes	1,632	14.5%
<b>R14. Primary parent/caregiver has a history of abuse or neglect as a child</b>		
No	9,690	86.2%
Yes	1,546	13.8%
<b>R15. Domestic violence in the household in the past year</b>		
No	7,205	64.1%
Yes	4,031	35.9%

After summing the scores of these items for the sampled families and calculating the corresponding abuse risk levels, CRC determined that the abuse index performed well when classifying families by the likelihood of subsequent abuse. As with the neglect index, outcome rates increased with each increase in risk level. For example, families classified as high risk, compared to low-risk families, were three times more likely to have an investigation for abuse with a “reason to believe” disposition during the 12-month follow-up period (see Table 7). Although the base rate (1.0%) is very low, the estimation also classified families with the same distinction by abuse investigation resulting in removal.

<b>Table 7</b>								
<b>Texas Department of Family and Protective Services</b>								
<b>Risk of Abuse Classification by Abuse Outcomes</b>								
<b>Abuse Risk Level</b>	<b>Sample Distribution</b>		<b>Outcomes During the 12-Month Follow-Up Period</b>					
	<b>N</b>	<b>%</b>	<b>Abuse Investigation</b>		<b>Abuse Disposition of Reason to Believe</b>		<b>Abuse Investigation Resulting in Removal</b>	
			<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Low	4,550	40.5%	391	8.6%	48	1.1%	17	0.4%
Moderate	4,696	41.8%	651	13.9%	101	2.2%	43	0.9%
High	1,775	15.8%	399	22.5%	68	3.8%	43	2.4%
Very High	215	1.9%	64	29.8%	12	5.6%	7	3.3%
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>1,505</b>	<b>13.4%</b>	<b>229</b>	<b>2.0%</b>	<b>110</b>	<b>1.0%</b>

### 3. Outcomes by Scored Risk Level Classification

The overall scored risk level is the higher of the abuse risk level and the neglect risk level. As expected, based on findings for the abuse and neglect indices individually, the scored risk level classification demonstrated predictive validity when applied to the sample of families investigated by DFPS. Each increase in risk level corresponded to an increase in the proportion of families with either a new investigation, a new investigation with a “reason to believe” disposition, or a new investigation resulting in child removal (see Table 8). The proportion of moderate-risk families with a subsequent investigation was almost double the proportion of low-risk families with a subsequent investigation, and the proportion of high-risk families was 60% greater than the proportion of moderate-risk families with a subsequent investigation.

<b>Table 8</b>								
<b>Texas Department of Family and Protective Services</b>								
<b>Estimated Risk Classification by Overall Outcomes</b>								
<b>Estimated Scored Risk Level</b>	<b>Sample Distribution</b>		<b>Outcomes During the 12-Month Follow-Up Period</b>					
	<b>N</b>	<b>%</b>	<b>Investigation</b>		<b>Investigation Disposition: Reason to Believe</b>		<b>Investigation Resulting in Child Removal</b>	
			<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Low	2,734	24.3%	350	12.8%	62	2.3%	12	0.4%
Moderate	5,745	51.1%	1,280	22.3%	394	6.9%	97	1.7%
High	2,506	22.3%	898	35.8%	296	11.8%	104	4.2%
Very High	251	2.2%	112	44.6%	41	16.3%	18	7.2%
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,640</b>	<b>23.5%</b>	<b>793</b>	<b>7.1%</b>	<b>231</b>	<b>2.1%</b>

Most families were classified as low risk (24.3%) or moderate risk (51.1%). It is important to remember that this classification is an estimate; some data elements used in the analysis may not exactly match the information that will be captured on the SDM risk assessment. It is unlikely that the differences will result in a significant increase in the number of families classified as high or very high



risk, because some measures overestimated risk item prevalence and others underestimated risk item prevalence. For example, the SDM risk assessment items related to caregivers specify whether the item involves the primary or secondary caregiver; the IMPACT data elements used to estimate these items did not distinguish between primary and secondary caregiver, so the estimate reflects any caregiver. In addition, many of the items that could not be estimated or that were approximated tend to be scored very infrequently in other jurisdictions (e.g., family is homeless at any time during the investigation; primary caregiver is overly controlling/bullying). The items that could be most accurately estimated in this analysis (e.g., prior CPS history, number of children involved in the allegation/incident) tend to be the items most frequently identified on the risk assessment and therefore tend to have more influence on the scored risk level. Appendix D shows the frequency of risk items from the 2003 California risk validation compared to the frequencies observed in the DFPS sample. For items that could not be estimated or that could be only partially estimated in this study, the actual frequencies could be similar to those observed in California. This may provide insight on how many families would score an additional point for each item under field conditions.

#### 4. Outcomes by Risk Classification by Race/Ethnicity and Investigation Finding

The SDM family risk assessment performed well when classifying families within race/ethnicity groups by the likelihood of a subsequent investigation, subsequent investigation with a “reason to believe” disposition, or subsequent investigation resulting in child removal (see Table 9). The distribution of families by risk level classification was similar for all three of the most prevalent race/ethnicity groups (African American, Anglo, and Hispanic). For these groups, approximately one fourth of families or fewer were classified as high risk or very high risk.

Within each race/ethnicity group, an increase in the risk classification corresponded to an increase in the proportion of families experiencing subsequent CPS involvement. The exceptions to this pattern were race/ethnicity groups with a small number of families classified as very high risk.

Only 27 of 1,829 African American families and three of 752 Asian families were classified as very high risk, and the small sample size is likely related to unobserved differences between recurrence rates for high-risk and very high-risk families among these sample subgroups. It also is important to note that the observed outcome rate for subsequent investigation resulting in child removal is very low (2.1%).

The risk assessment classified families similarly across racial/ethnic groups in almost all cases, especially when considering the three largest race/ethnicity groups (African American, Anglo, and Hispanic). Considering the investigation outcome, low-risk families from one race/ethnicity group had similar outcome rates to low-risk families from the other two race/ethnicity groups, and the same pattern held for moderate-risk, high-risk, and very high-risk families. The one exception was that the proportion of high-risk Asian families with a subsequent investigation was only slightly higher than the outcome rates for moderate-risk families across other race/ethnicity groups. This may be due to the much lower outcome base rate observed for Asian families than for other race/ethnicity groups.

<b>Table 9</b>								
<b>Texas Department of Family and Protective Services</b>								
<b>Estimated Overall Risk Classification and Subsequent Maltreatment Outcomes by Race/Ethnicity</b>								
<b>Estimated Overall Risk Level</b>	<b>Sample Distribution</b>		<b>Outcomes During the 12-Month Follow-Up Period</b>					
			<b>Investigation</b>		<b>Investigation Disposition: Reason to Believe</b>		<b>Investigation Resulting in Child Removal</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,640</b>	<b>23.5%</b>	<b>793</b>	<b>7.1%</b>	<b>231</b>	<b>2.1%</b>
<b>African American</b>								
Low	427	23.3%	52	12.2%	6	1.4%	2	0.5%
Moderate	977	53.4%	234	24.0%	59	6.0%	17	1.7%
High	398	21.8%	139	34.9%	44	11.1%	15	3.8%
Very High	27	1.5%	11	40.7%	3	11.1%	1	3.7%
<b>Subtotal</b>	<b>1,829</b>	<b>100.0%</b>	<b>436</b>	<b>23.8%</b>	<b>112</b>	<b>6.1%</b>	<b>35</b>	<b>1.9%</b>
<b>Anglo</b>								
Low	741	21.5%	125	16.9%	25	3.4%	6	0.8%
Moderate	1,775	51.5%	426	24.0%	147	8.3%	40	2.3%

**Table 9**

**Texas Department of Family and Protective Services  
Estimated Overall Risk Classification and Subsequent Maltreatment Outcomes by Race/Ethnicity**

Estimated Overall Risk Level	Sample Distribution		Outcomes During the 12-Month Follow-Up Period					
			Investigation		Investigation Disposition: Reason to Believe		Investigation Resulting in Child Removal	
	N	%	N	%	N	%	N	%
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,640</b>	<b>23.5%</b>	<b>793</b>	<b>7.1%</b>	<b>231</b>	<b>2.1%</b>
High	836	24.3%	327	39.1%	116	13.9%	49	5.9%
Very High	92	2.7%	42	45.7%	20	21.7%	8	8.7%
<b>Subtotal</b>	<b>3,444</b>	<b>100.0%</b>	<b>920</b>	<b>26.7%</b>	<b>308</b>	<b>8.9%</b>	<b>103</b>	<b>3.0%</b>
<b>Asian</b>								
Low	339	45.1%	31	9.1%	6	1.8%	1	0.3%
Moderate	348	46.3%	47	13.5%	12	3.4%	4	1.1%
High	62	8.2%	17	27.4%	3	4.8%	0	0.0%
Very High	3	0.4%	0	0.0%	0	0.0%	0	0.0%
<b>Subtotal</b>	<b>752</b>	<b>100.0%</b>	<b>95</b>	<b>12.6%</b>	<b>21</b>	<b>2.8%</b>	<b>5</b>	<b>0.7%</b>
<b>Hispanic (of any race)</b>								
Low	1,047	23.5%	117	11.2%	23	2.2%	2	0.2%
Moderate	2,229	50.0%	473	21.2%	139	6.2%	26	1.2%
High	1,066	23.9%	368	34.5%	116	10.9%	33	3.1%
Very High	116	2.6%	54	46.6%	17	14.7%	9	7.8%
<b>Subtotal</b>	<b>4,458</b>	<b>100.0%</b>	<b>1,012</b>	<b>22.7%</b>	<b>295</b>	<b>6.6%</b>	<b>70</b>	<b>1.6%</b>
<b>Native American</b>								
Low	36	28.8%	6	16.7%	0	0.0%	0	0.0%
Moderate	70	56.0%	14	20.0%	5	7.1%	1	1.4%
High	19	15.2%	7	36.8%	2	10.5%	0	0.0%
Very High	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>Subtotal</b>	<b>125</b>	<b>100.0%</b>	<b>27</b>	<b>21.6%</b>	<b>7</b>	<b>5.6%</b>	<b>1</b>	<b>0.8%</b>
<b>Other</b>								
Low	144	22.9%	19	13.2%	2	1.4%	1	0.7%
Moderate	346	55.1%	86	24.9%	32	9.2%	9	2.6%
High	125	19.9%	40	32.0%	15	12.0%	7	5.6%
Very High	13	2.1%	5	38.5%	1	7.7%	0	0.0%
<b>Subtotal</b>	<b>628</b>	<b>100.0%</b>	<b>150</b>	<b>23.9%</b>	<b>50</b>	<b>8.0%</b>	<b>17</b>	<b>2.7%</b>

The risk classification had a similar relationship to outcomes, regardless of the investigation finding (see Table 10). Families with investigations resulting in a “reason to believe” disposition were more likely to be classified as high risk or very high risk than families with an investigation in which abuse or neglect was ruled out (35.0% and 19.5% respectively).

Across outcomes, the risk assessment classified families such that an increase between low, moderate, and high risk corresponded to a significant increase in subsequent CPS involvement. In addition to demonstrating within-group predictive validity, classification results were similar across groups. Outcome rates by risk level for families with “reason to believe” dispositions were similar to the outcome rates observed for families with “ruled out” dispositions. For example, 10.5% of the low-risk families who had a sample investigation with a “reason to believe” disposition experienced a subsequent investigation, compared to 13.7% of the low-risk families whose sample investigation ended with a “ruled out” disposition; 16.9% of moderate-risk families who had a sample investigation with a “reason to believe” disposition had a subsequent investigation, compared to 25.4% of moderate-risk families who had a subsequent investigation with a “ruled out” disposition. For high-risk and very high-risk families, the outcome rates were higher for families whose investigation resulted in a disposition of “ruled out.” However, because the most important separation in risk level occurs between moderate and high risk, which is the point at which ongoing services are recommended, it is worth noting that high-risk and very high-risk families with a “reason to believe” disposition still had outcome rates higher than moderate-risk families whose investigation had a disposition of “ruled out.” These findings are consistent with other risk studies, which have found that risk level is a better indicator of future outcomes than the substantiation finding.

**Table 10**

**Texas Department of Family and Protective Services  
Current Overall Risk Classification and Subsequent Maltreatment Outcomes by Disposition**

Overall Risk Level	Sample Distribution		Outcomes During the 12-Month Follow-Up Period					
			Investigation		Investigation Disposition: Reason to Believe		Investigation Resulting in Child Removal	
	N	%	N	%	N	%	N	%
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,640</b>	<b>23.5%</b>	<b>793</b>	<b>7.1%</b>	<b>231</b>	<b>2.1%</b>
<b>Sample Investigation Disposition: Reason to Believe</b>								
Low	353	11.4%	37	10.5%	7	2.0%	2	0.6%
Moderate	1,666	53.7%	282	16.9%	98	5.9%	29	1.7%
High	946	30.5%	265	28.0%	102	10.8%	42	4.4%
Very High	139	4.5%	62	44.6%	25	18.0%	11	7.9%
<b>Subtotal</b>	<b>3,104</b>	<b>100.0%</b>	<b>646</b>	<b>20.8%</b>	<b>232</b>	<b>7.5%</b>	<b>84</b>	<b>2.7%</b>
<b>Sample Investigation Disposition: Unable to Determine</b>								
Low	279	19.5%	26	9.3%	7	2.5%	0	0.0%
Moderate	788	55.0%	163	20.7%	55	7.0%	14	1.8%
High	332	23.2%	127	38.3%	40	12.0%	13	3.9%
Very High	35	2.4%	13	37.1%	7	20.0%	3	8.6%
<b>Subtotal</b>	<b>1,434</b>	<b>100.0%</b>	<b>329</b>	<b>22.9%</b>	<b>109</b>	<b>7.6%</b>	<b>30</b>	<b>2.1%</b>
<b>Sample Investigation Disposition: Ruled Out</b>								
Low	2,102	31.4%	287	13.7%	48	2.3%	10	0.5%
Moderate	3,291	49.1%	835	25.4%	241	7.3%	54	1.6%
High	1,228	18.3%	506	41.2%	154	12.5%	49	4.0%
Very High	77	1.1%	37	48.1%	9	11.7%	4	5.2%
<b>Subtotal</b>	<b>6,698</b>	<b>100.0%</b>	<b>1,665</b>	<b>24.9%</b>	<b>452</b>	<b>6.7%</b>	<b>117</b>	<b>1.7%</b>

The distribution of families by risk classification was similar across regions in that one third or fewer families were classified as high risk or very high risk. The percentage of families in the low-risk group ranged from 17.3% to 35.3%; moderate risk rates ranged from 46.8% to 55.7%, high risk rates ranged from 13.5% to 28.6%, and very high risk rates ranged from 0.7% to 4.7% (see Table 11).

Region	N	Estimated Risk Level							
		Low		Moderate		High		Very High	
		N	%	N	%	N	%	N	%
Region 1	421	88	20.9%	227	53.9%	92	21.9%	14	3.3%
Region 2	359	62	17.3%	178	49.6%	102	28.4%	17	4.7%
Region 3	2,918	738	25.3%	1,515	51.9%	605	20.7%	60	2.1%
Region 4	553	106	19.2%	308	55.7%	122	22.1%	17	3.1%
Region 5	420	96	22.9%	226	53.8%	94	22.4%	4	1.0%
Region 6	2,085	736	35.3%	1,053	50.5%	282	13.5%	14	0.7%
Region 7	1,412	262	18.6%	739	52.3%	375	26.6%	36	2.5%
Region 8	1,320	256	19.4%	657	49.8%	377	28.6%	30	2.3%
Region 9	307	76	24.8%	146	47.6%	76	24.8%	9	2.9%
Region 10	328	74	22.6%	175	53.4%	76	23.2%	3	0.9%
Region 11	1,113	240	21.6%	521	46.8%	305	27.4%	47	4.2%
<b>Total</b>	<b>11,236</b>	<b>2,734</b>	<b>24.3%</b>	<b>5,745</b>	<b>51.1%</b>	<b>2,506</b>	<b>22.3%</b>	<b>251</b>	<b>2.2%</b>

<sup>9</sup> Estimated risk levels and outcomes by region are examined in Appendix E.

## **V. LIMITATIONS**

The purpose of conducting a risk assessment fit analysis is to estimate how well a risk assessment developed on one population will work for another population. When fitting the risk items to the DFPS population, data were limited to administrative data routinely collected by caseworkers about the families they serve and the investigations they conduct. Administrative data can provide accurate and detailed information, but these data are limited by the accuracy and consistency of their collection and recording by caseworkers under field conditions. When fitting a risk assessment using administrative data, the fit of the risk items reflects these limitations.

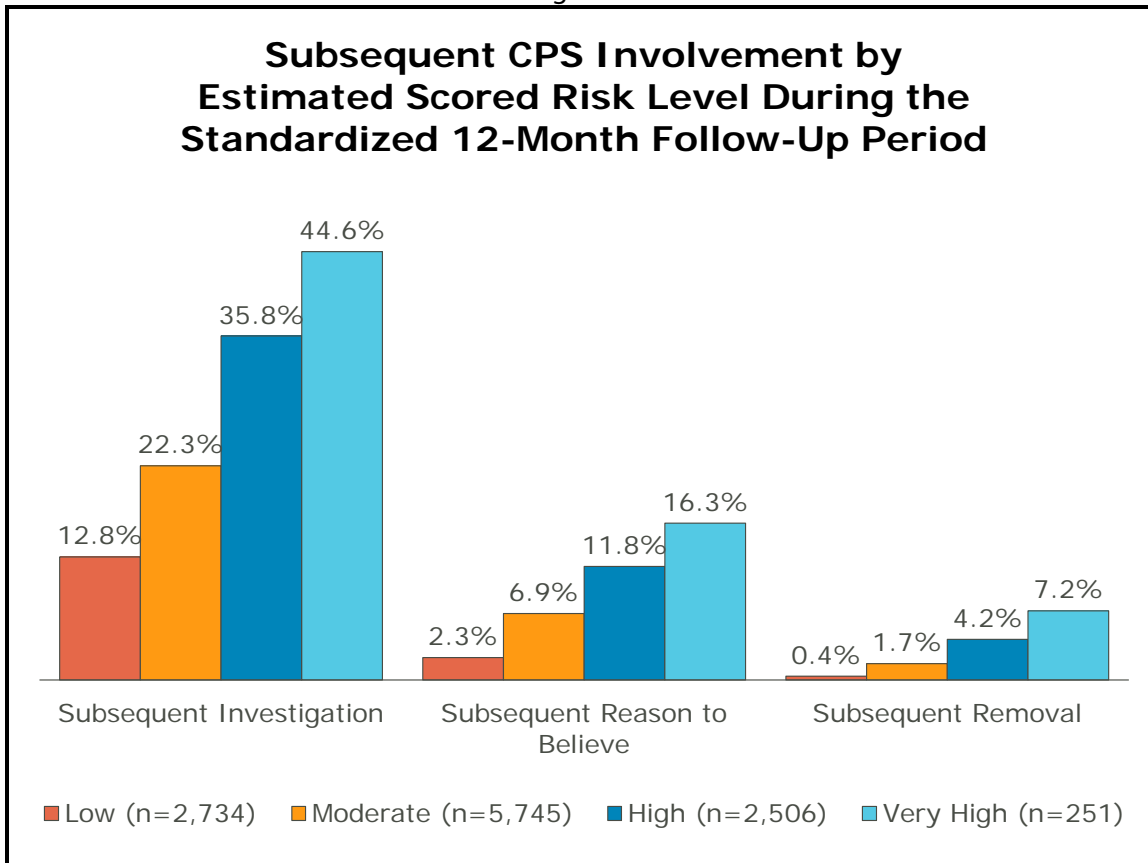
Some risk factors that were available in California were not an exact match to the data recorded by DFPS. It also must be noted that the items collected on the SDM risk assessment have specific definitions that may vary from the criteria used to record data elements in the IMPACT casework system. Therefore, CRC created proxy items using available data fields to mimic the original items. Proxy items have characteristics or definitions that are similar to the original risk items, but they are created based on a set of assumptions about the data. It is therefore possible that a proxy item may be different from the actual risk assessment item.

## **VI. DISCUSSION**

This study used electronically available information to estimate how the California SDM risk assessment will perform when classifying families investigated by DFPS in Texas. CRC was able to partially or fully estimate all but one of the risk factors from the assessment to estimate a risk level classification for a sample of 11,236 families investigated between July 1, 2012, and June 30, 2013. The estimated risk level classification was examined relative to each family's subsequent CPS involvement during a standardized 12-month follow-up period.

The estimated risk classification effectively grouped families by their likelihood of future child maltreatment (Figure 2). In other words, an increase in estimated risk level corresponded with an increase in subsequent investigations and “reason to believe” dispositions in a stepwise manner. Families classified as high risk had significantly higher rates of subsequent investigation and “reason to believe” dispositions than families classified as low or moderate risk.

Figure 2



While not all of the risk factors could be fully estimated, factors that could be drawn directly from available data were part of the group. These included a family’s prior CPS history, allegations associated with the sample incident, number of alleged child victims, and age of the youngest child; these are some of the highest-scoring items (prior CPS history) and often the most frequently scored



items. Other items that were at least partially fit included characteristics of children and caregivers, substance abuse, child abuse and neglect history, and domestic violence history of caregivers. Based on risk classification estimates, approximately 22.3% of families would have been classified as high risk, and 2.2% would have been classified as very high risk.

A comparison between the sample families of Texas and the 2003 California validation study sample indicated similar risk level distributions, although slightly more families in Texas were classified as high risk (see Appendix D). Despite the differences, the results of the analysis show that the California risk assessment performed as expected when applied to Texas families. While some risk factors could not be fully estimated, others may have been overestimated based on differences in item definitions. It is impossible to know exactly how many families would have been classified differently using the actual SDM risk assessment; however, the evidence from the preliminary analysis of the risk assessment indicates that the risk assessment will be effective at identifying those families who are at much greater risk of subsequent child maltreatment.

It is also important to consider the impact that SDM risk assessment implementation may have on DFPS workload. Risk assessment classification informs the decision to provide ongoing case services to families as well as the recommended intensity of those services (e.g., number of face-to-face contacts). SDM policy typically recommends that agencies provide continued services to high-risk and very high-risk families.<sup>10</sup> It is critical that DFPS monitor rates at which families are recommended for ongoing services during the early adopter phase in order to best serve families with the highest risk of recurrence and to ensure adequate staffing.

Based on the results of this analysis, the California SDM family risk assessment is likely to perform well when applied in Texas. However, every jurisdiction is unique; an assessment may require fine-tuning in order to work best for a particular agency. CRC recommends that a CPS risk validation

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<sup>10</sup> Note that families who classify as low risk or moderate risk may be recommended for continuing child protection services if safety threats remain unresolved.

study be conducted three to five years after the implementation of the SDM risk assessment in Texas. A risk validation study provides further examination of the items from the risk assessment and suggests ways to improve the risk assessment to more accurately classify families based on the risk of future child maltreatment. Changes may entail adding or removing assessment items, altering the scoring pattern, changing risk level cut points, or reevaluating item definitions. The validation process is a very important step that DFPS can take in the future to better classify families and target services more effectively.

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## **Appendix A**

### **Texas SDM® Family Risk Assessment**

## **Texas SDM® Family Risk Assessment**

The actuarial risk assessment adopted by the Texas Department of Family and Protective Services (DFPS) was originally developed by the California Department of Social Services (CDSS) in 1998. This risk assessment is completed at the end of an investigation and helps workers to objectively estimate the risk of future maltreatment of a child based on specific, observable characteristics of families and children investigated for child abuse or neglect. The original assessment appears in a “double-stream” format, in which a worker completes the 10-item family neglect index and the 10-item family abuse index in separate columns. These scores are summed on the two indices individually and determine an initial risk classification for abuse and neglect for each family, i.e., low, moderate, high, or very high risk. The scored classification level assigned to the family is the highest risk classification reached by either the abuse risk index or the neglect risk index. For example, a family scoring low risk for future abuse and high risk for future neglect would have a scored risk classification of high risk. DFPS elected to adopt a “single-stream” version of the assessment, in which all items appear in a single column, and each item has a corresponding neglect score and abuse score. The content of the double-stream assessment is identical to the content of the single-stream assessment.

The purpose of the risk classification is to help the worker and the agency to prioritize service interventions according to risk of future maltreatment. Actuarial risk assessment provides workers with an estimate of future family behavior based on a limited set of observable factors to help them identify high-risk families more accurately and thereby allocate services more effectively. It is important to note, however, that the risk assessment is a classification tool and is not intended to yield infallible predictions for individual families.

Because risk assessment cannot address all aspects of an individual family case, DFPS established reasons for overriding the initial risk level. A risk level override can be made for policy or discretionary reasons. The policy overrides are explicitly defined by the agency and reflect agency

policy. If any of the circumstances described by the policy override reasons apply to a family under assessment, the family would be assigned to the “very high risk” classification, regardless of the scored risk level.

Investigating caseworkers and supervisors can also exercise a discretionary override, which increases the scored classification by one level. Discretionary overrides are based on the worker’s professional judgment and observation of the family. Whether or not a worker exercises a discretionary override, his/her decision will be informed by a scored actuarial risk classification with a strong empirical relationship to the incidence of future maltreatment.

At the time of the risk fit analysis, final revisions to the SDM risk assessment were still in progress by a DFPS workgroup. The SDM risk assessment for Texas DFPS will be finalized in March 2015.

**TEXAS DEPARTMENT OF FAMILY AND PROTECTIVE SERVICES  
SDM® FAMILY RISK ASSESSMENT OF CHILD ABUSE/NEGLECT**

c: 12/14

Case Name: \_\_\_\_\_ Case ID: \_\_\_\_\_  
 Investigator Name: \_\_\_\_\_ Assessment Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Household Assessed: \_\_\_\_\_ Were there allegations in this household?  Yes  No

SECTION 1: NEGLECT/ABUSE INDEX	Risk of Future Neglect Score	Risk of Future Abuse Score
<b>R1. Current referral</b> <input type="radio"/> a. Neglect <input type="radio"/> b. Abuse <input type="radio"/> c. Both	1 0 1	0 1 1
<b>R2. Prior investigations</b> <input type="radio"/> a. No <input type="radio"/> b. Yes  <b>R2a. Prior neglect</b> <input type="radio"/> a. None <input type="radio"/> b. One <input type="radio"/> c. Two <input type="radio"/> d. Three or more  <b>R2b. Prior abuse</b> <input type="radio"/> a. None <input type="radio"/> b. One <input type="radio"/> c. Two or more	0 1  0 1 1 2  0 0 0	0 0  0 0 0 0  0 1 2
<b>R3. Household has previously been referred for ongoing child protective services</b> <input type="radio"/> a. No <input type="radio"/> b. Yes	0 1	0 1
<b>R4. Number of children involved in the allegation(s)/incident(s)</b> <input type="radio"/> a. One, two, or three <input type="radio"/> b. Four or more	0 1	0 0
<b>R5. Prior injury to a child resulting from child abuse/neglect</b> <input type="radio"/> a. No <input type="radio"/> b. Yes	0 0	0 1
<b>R6. Age of youngest child in the home</b> <input type="radio"/> a. 2 or older <input type="radio"/> b. Under 2	0 1	0 0

<b>R7.</b>	<b>Current or historic characteristics of children in household (check all that apply)</b>		
	<input type="checkbox"/> a. Medically fragile or failure to thrive	1	0
	<input type="checkbox"/> b. Positive toxicology screen at birth	1	0
	<input type="checkbox"/> c. Developmental, physical, or learning disability	1	0
	<input type="checkbox"/> i. Developmental or learning disability	0	1
	<input type="checkbox"/> ii. Physical disability	0	0
	<input type="checkbox"/> d. Child or youth in conflict with law	0	1
	<input type="checkbox"/> e. Mental health or behavioral problem	0	1
	<input type="checkbox"/> f. None of the above	0	0
<b>R8.</b>	<b>Primary parent/caregiver's assessment of incident (check all that apply)</b>		
	<input type="checkbox"/> a. Blames child for maltreatment	0	1
	<input type="checkbox"/> b. Justifies maltreatment	0	2
	<input type="checkbox"/> c. None of the above	0	0
<b>R9.</b>	<b>Primary parent/caregiver provides physical care consistent with child needs</b>		
	<input type="radio"/> a. No	1	0
	<input type="radio"/> b. Yes	0	0
<b>R10.</b>	<b>Primary parent/caregiver characteristics (check all that apply)</b>		
	<input type="checkbox"/> a. Provides insufficient emotional/psychological support	0	1
	<input type="checkbox"/> b. Employs excessive/inappropriate discipline	0	1
	<input type="checkbox"/> c. Overcontrolling/bullying	0	1
	<input type="checkbox"/> d. None of the above	0	0
<b>R11.</b>	<b>Primary parent/caregiver has a historic or current mental health issue</b>		
	<input type="radio"/> a. No	0	0
	<input type="radio"/> b. Yes (check all that apply)	1	0
	<input type="checkbox"/> Current (within the last 12 months)		
	<input type="checkbox"/> Historic (prior to the last 12 months)		
<b>R12.</b>	<b>Primary parent/caregiver has a historic or current alcohol or drug issue</b>		
	<input type="checkbox"/> a. No	0	0
	<input type="checkbox"/> b. Alcohol (check all that apply)	1	0
	<input type="checkbox"/> Current (within the last 12 months)		
	<input type="checkbox"/> Historic (prior to the last 12 months)		
	<input type="checkbox"/> c. Drugs (check all that apply)	1	0
	<input type="checkbox"/> Current (within the last 12 months)		
	<input type="checkbox"/> Historic (prior to the last 12 months)		
<b>R13.</b>	<b>Secondary parent/caregiver has historic or current alcohol or drug issue</b>		
	<input type="checkbox"/> a. No secondary parent/caregiver	0	0
	<input type="checkbox"/> b. No	0	0
	<input type="checkbox"/> c. Yes	0	1
	<input type="checkbox"/> Alcohol (check all that apply)		
	<input type="checkbox"/> Current (within the last 12 months)		
	<input type="checkbox"/> Historic (prior to the last 12 months)		
	<input type="checkbox"/> Drugs (check all that apply)		
	<input type="checkbox"/> Current (within the last 12 months)		
	<input type="checkbox"/> Historic (prior to the last 12 months)		



<b>R14. Primary parent/caregiver has a history of abuse or neglect as a child</b>		
<input type="radio"/> a. No	0	0
<input type="radio"/> b. Yes	0	1
<b>R15. Domestic violence in the household in the past year</b>		
<input type="radio"/> a. No	0	0
<input type="radio"/> b. Yes	0	2
<b>R16. Housing (check all that apply)</b>		
<input type="checkbox"/> a. Current housing is physically unsafe	1	0
<input type="checkbox"/> b. Homeless	2	0
<input type="checkbox"/> c. None of the above	0	0
<b>TOTAL RISK SCORE</b>		

**SECTION 2: SCORING**

**SCORED RISK LEVEL**

Neglect Score	Abuse Score	Risk Level
0-1	0-1	Low
2-4	2-4	Moderate
5-8	5-7	High
9+	8+	Very High

**SECTION 3: SUPPLEMENTAL RISK QUESTIONS**

**S1. Secondary Caregiver Characteristics**

Not applicable; no secondary caregiver

If there is no secondary caregiver, the following items do not apply:

Yes  No Secondary caregiver has a historic or current mental health issue

Yes  No Secondary caregiver has a history of abuse or neglect as a child

**S2. Is the family socially isolated or unsupported by extended family?**

a. No

b. Yes

**S3. Mother's boyfriend who is not the birth father of the child provides unsupervised child care to a child under the age of 3.**

a. No

b. Yes

**OVERRIDES**

Please select an override code. If there are no overrides, select "No overrides apply"; risk level will remain the same. If there is a policy override, select the appropriate override; the risk level will become "very high." If there is a discretionary override, the risk level will increase one level, and a reason must be entered in the box provided.

**No Overrides**

No overrides apply

**Policy Overrides**

- Non-accidental injury to a child younger than 3.
- Sexual abuse case AND the perpetrator is likely to have access to the child.
- Severe non-accidental injury to any child younger than 16.
- Parent/caregiver's action or inaction resulted in death of a child due to abuse or neglect (previous or current).

**Discretionary Override**

Discretionary override

Select override level:  Moderate  High  Very High

**Discretionary override reason:** \_\_\_\_\_  
\_\_\_\_\_

**Supervisor signature:** \_\_\_\_\_

**FINAL RISK LEVEL**

Final risk level:  Low  Moderate  High  Very High

Risk Classification	Investigation Finding: Validated and Not Validated	Check Recommended Action
Very High	Open for ongoing services	<input type="checkbox"/>
High	Open for ongoing services	<input type="checkbox"/>
Moderate	Close*	<input type="checkbox"/>
Low	Close*	<input type="checkbox"/>

\*Low-risk and moderate-risk cases should be opened if the most recent safety assessment finding was "safe with a plan" or "unsafe."

**ACTION.** Enter the action taken (opened as a case or not opened as a case). If the recommended action differs from the action taken, provide an explanation.

- Open (note whether \_\_ new or \_\_ continuing services offered)
- Do not open

If recommended action and action taken do not match, explain why: \_\_\_\_\_

**CALIFORNIA  
FAMILY RISK ASSESSMENT**

c: 10/98

**Case Name:** \_\_\_\_\_ **Case #:** \_\_\_\_\_ **Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**County Name:** \_\_\_\_\_ **Worker Name:** \_\_\_\_\_ **Worker ID#:** \_\_\_\_\_

	<b>Score</b>		<b>Score</b>
<b>NEGLECT</b>		<b>ABUSE</b>	
N1. Current Complaint is for Neglect		A1. Current Complaint is for Abuse	
a. No.....0		a. No.....0	
b. Yes.....1	_____	b. Yes.....1	_____
N2. Prior Investigations (assign highest score that applies)		A2. Number of Prior Abuse Investigations (number: ____)	
a. None.....0		a. None.....0	
b. One or more, <u>abuse</u> only.....1		b. One.....1	
c. One or two for <u>neglect</u> .....2		c. Two or more.....2	_____
d. Three or more for <u>neglect</u> .....3	_____		
N3. Household has Previously Received CPS (voluntary/court-ordered)		A3. Household has Previously Received CPS (voluntary/court-ordered)	
a. No.....0		a. No.....0	
b. Yes.....1	_____	b. Yes.....1	_____
N4. Number of Children Involved in the CA/N Incident		A4. Prior Injury to a Child Resulting from CA/N	
a. One, two, or three.....0		a. No.....0	
b. Four or more.....1	_____	b. Yes.....1	_____
N5. Age of Youngest Child in the Home		A5. Primary Caretaker's Assessment of Incident (check all that apply)	
a. Two or older.....0		a. Not applicable.....0	
b. Under two.....1	_____	b. <u>Blames</u> child.....1	
		c. <u>Justifies</u> maltreatment of a child.....2	_____
N6. Primary Caretaker Provides Physical Care Inconsistent with Child Needs		A6. Domestic Violence in the Household in the Past Year	
a. No.....0		a. No.....0	
b. Yes.....1	_____	b. Yes.....2	_____
N7. Primary Caretaker has a Past or Current Mental Health Problem		A7. Primary Caretaker Characteristics (check applicable items and add for score)	
a. No.....0		a. Not applicable.....0	
b. Yes.....1	_____	b. <u>Provides</u> insufficient emotional/psychological support.....1	
		c. <u>Employs</u> excessive/inappropriate discipline.....1	
		d. <u>Domineering</u> parent.....1	_____
N8. Primary Caretaker has Historic or Current Alcohol or Drug Problem (Check applicable items and add for score)		A8. Primary Caretaker has a History of Abuse or Neglect as a Child	
a. Not applicable.....0		a. No.....0	
b. <u>Alcohol</u> (current or historic).....1		b. Yes.....1	_____
c. <u>Drug</u> (current or historic).....1	_____		
N9. Characteristics of Children in Household (Check applicable items and add for score)		A9. Secondary Caretaker has Historic or Current Alcohol or Drug Problem	
a. Not applicable.....0		a. No.....0	
b. <u>Medically</u> fragile/failure to thrive.....1		b. Yes, alcohol and/or drug (check all applicable).....1	_____
c. <u>Developmental</u> or physical disability.....1		<u>Alcohol</u> <u>Drug</u>	
d. <u>Positive</u> toxicology screen at birth.....1	_____		
N10. Housing (check applicable items and add for score)		A10. Characteristics of Children in Household (check appropriate items and add for score)	
a. Not applicable.....0		a. Not applicable.....0	
b. <u>Current</u> housing is physically unsafe.....1		b. <u>Delinquency</u> history.....1	
c. <u>Homeless</u> at time of investigation.....2	_____	c. <u>Developmental</u> disability.....1	
		d. <u>Mental</u> health/behavioral problem.....1	_____
<b>TOTAL NEGLECT RISK SCORE</b>	=====	<b>TOTAL ABUSE RISK SCORE</b>	=====

**SCORED RISK LEVEL.** Assign the family's scored risk level based on the highest score on either the neglect or the abuse instrument, using the following chart:

<b>Neglect Score</b>	<b>Abuse Score</b>	<b>Scored Risk Level</b>
_____ 0-1	_____ 0-1	_____ Low
_____ 2-4	_____ 2-4	_____ Moderate
_____ 5-8	_____ 5-7	_____ High
_____ 9+	_____ 8+	_____ Very High

**POLICY OVERRIDES.** Circle yes if a condition shown below is applicable in this case. If any condition is applicable, override final risk level to very high.

- Yes No 1. Sexual abuse case AND the perpetrator is likely to have access to the child victim.  
 Yes No 2. Non-accidental injury to a child under age 2.  
 Yes No 3. Severe non-accidental injury.  
 Yes No 4. Parent/caretaker action or inaction resulted in death of a child due to abuse or neglect (previous or current).

**DISCRETIONARY OVERRIDE.** If a discretionary override is made, circle yes, circle override risk level, and indicate reason. Risk level may be overridden one level higher.

- Yes No 5. If yes, override risk level (circle one): Low Moderate High Very High  
 Discretionary override reason: \_\_\_\_\_

Supervisor's Review/Approval of Discretionary Override: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**FINAL RISK LEVEL** (circle final level assigned):      Low    Moderate    High    Very High

## **Appendix B**

### **Sample Selection Methods and Risk Item Map**

In October 2014, the Texas Department of Family and Protective Services (DFPS) provided the Children's Research Center (CRC) with several data sets obtained from their Statewide Automated Child Welfare Information System (SACWIS), Information Management Protecting Adults and Children in Texas (IMPACT). These data sets included information associated with all investigations closed by DFPS between January 2007 and September 2014. These data sets included:

- Intake data, including the intake identifier, intake dates, report type, screening decision, priority, and maltreatment allegations;
- Investigation data, including the investigation identifier, investigation stage start and end dates, dates the investigation began and was completed, disposition, investigation closure reason, region, and resulting investigation case identifier;
- Investigation allegation data, including the investigation identifier, person identifiers for the alleged victim and the alleged perpetrator for each allegation, the relationship of the alleged perpetrator to the alleged victim, the allegation type, allegation disposition, and allegation severity;
- Investigation principal data, including the intake identifier, investigation identifier, person identifier for the principal, race/ethnicity, birthdate, gender, and the principal's role in the investigation (e.g., designated victim, designated perpetrator, no role);
- Person merge data, indicating person identifiers that have been merged;
- Person characteristics data, including the person identifier, the type of characteristic, when the characteristic was identified, and whether the characteristic is diagnosed or suspected;
- Person relation data, including family tree information when available;
- Investigation safety assessment data, including the investigation identifier, person identifier, and each safety factor and its category and response;
- Investigation risk assessment data, including the investigation identifier and each risk factor and its category and response;
- Parental child safety placement (PCSP) data, including person identifier for the child, the child's demographic information, information for the caregiver, the stage during which the PCSP occurred, and the dates the PCSP setting started and ended;
- Conservatorship placement data, including the person identifier for the child, the dates the placement setting started and ended, the type of placement, living arrangement, and reason why the setting ended; and

- Conservatorship outcome data, including the person identifier for the child, the date the child entered the legal status, the date the legal status ended, and the reason for the legal status ending. Note that this information was available only for closed conservatorships.

CRC analysts used these data to create a data set of all investigations completed by DFPS between 2007 and September 2014. Analysts attached all relevant intake information to these investigations, including all allegations for each child victim. Allegations with a finding of “reason to believe” were identified as well. Additionally, the alleged perpetrator type was added to the investigations. The SDM risk assessment is a household-based assessment and should not be completed for investigations involving only abuse or neglect outside of the home. Therefore, CRC excluded allegations where the perpetrator was not a family member (i.e., adoptive/foster parent, attorney, attorney ad litem, board and care, community center staff, day care facility/provider, doctor, financial institution, foster parent, friend, guardian ad litem, attorney/guardian ad litem, home and community-based services staff, institution personnel/volunteer, medical facility staff, neighbor, nurse, parole/probation officer, paid caregiver, service provider, psychologist/psychiatrist, school personnel, therapist, and unregistered family home were excluded.)

If a Texas DFPS safety and/or risk assessment was completed for the investigation, safety and risk factors were added to the data set. CRC analysts attached the investigation disposition, status, and investigation closure reason to the data set, including whether the investigation was opened for ongoing services. If the investigation resulted in a child removal (either PCSP or conservatorship), the removal dates and number of removed victims were attached to the data set. The first date that a child was returned home from a PCSP or conservatorship was also included. Investigations and allegations with a closure reason of “administrative closure” or “unable to complete” were excluded from further analysis.

Alleged child victims were then grouped into “families” so that investigations with common alleged child victims were connected to the same family identifier. For instance, if child A and child B were alleged victims in one investigation, and child B and child C were alleged victims in another investigation, all three children were grouped into one family. CRC analysts connected this proxy family identifier to the data set of investigations. To reduce the chances of overcounting previous or follow-up activity, CRC analysts aggregated a family’s investigation record in the following manner: If the family had an investigation that started within 10 days of another investigation, those investigations were aggregated into one; also, investigations that started during the first 60 days of another investigation were combined.

Next, CRC analysts identified all families who had an investigation that started between July 1, 2012, and June 30, 2013. If the family had more than one investigation during that time, the first investigation was selected as the “index” or “sample” investigation. CRC analysts identified the oldest child on the family’s first investigation and attached that child’s age and race/ethnicity. From the resulting cohort of 111,010 families, CRC selected a random sample stratified by the family’s race/ethnicity for analysis purposes (see Table B1).

<b>Table B1</b>						
<b>Sample Selection by Family Race/Ethnicity</b>						
<b>Family Race/Ethnicity</b>	<b>All Families</b>		<b>Sampled</b>		<b>Not Sampled</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>% of Subgroup</b>	<b>N</b>	<b>% of Subgroup</b>
<b>Race/Ethnicity</b>						
Hispanic (of any race)	47,801	100.0%	4,766	10.0%	43,035	90.0%
Anglo	36,421	100.0%	3,715	10.2%	32,706	89.8%
African American	19,472	100.0%	1,994	10.2%	17,478	89.8%
Asian	774	100.0%	774	100.0%	0	0.0%
Native American	139	100.0%	139	100.0%	0	0.0%
Other	6,403	100.0%	673	10.5%	5,730	89.5%
<b>Total</b>	<b>111,010</b>	<b>100.0%</b>	<b>12,061</b>	<b>10.9%</b>	<b>98,949</b>	<b>89.1%</b>

Each family's prior investigation history was added to the sample investigation, including number of prior investigations for abuse and/or neglect; whether the family had a prior investigation with a finding of "reason to believe," including a child injury; and whether the family had a prior investigation that was transferred to family-based safety services (FBSS) or conservatorship (CVS). Following the index investigation, and if applicable, CRC analysts identified each family's first new investigation for neglect, first new investigation for abuse, first neglect investigation resulting in a disposition of "reason to believe," first abuse investigation resulting in a disposition of "reason to believe," first neglect investigation resulting in a conservatorship, and first abuse investigation resulting in a conservatorship. Analysts calculated a follow-up start date for each family, which was either the investigation closure date or 60 days after the date the investigation started, whichever occurred earlier. Outcomes, such as subsequent abuse investigation, subsequent neglect investigation, subsequent abuse investigation with "reason to believe" disposition, subsequent neglect investigation with "reason to believe" disposition, subsequent abuse investigation resulting in child removal, and subsequent neglect investigation resulting in child removal, were observed during this 12-month follow-up period for each family. If all alleged child victims were removed (either through PCSP or conservatorship) from the home at any time during the sample investigation, and all children remained in placement for the entire 12-month follow-up period, the family was dropped from the sample. Note that 798 of the 12,061 families had all children removed for the entire follow-up period.

To examine the performance of the SDM risk assessment for Texas's child welfare population, CRC analysts simulated the items from the risk assessment using DFPS administrative data. Tables B2 and B3 provide a detailed guide as to how the risk items were calculated.



**Table B2**

**Texas Preliminary Risk Assessment Fit Analysis  
Guide to Neglect Index Risk Assessment Items**

Neglect Index Risk Assessment Item	Score	Match in Texas IMPACT Data?	How CRC Estimated the Item
<b>R1. Current report is for neglect</b>			
a. No	0	Yes	CRC matched the allegation data to the sample investigation to identify the maltreatment types. If any maltreatment type was abandonment, medical neglect, neglectful supervision, physical neglect, or refusal of parental responsibility, this item was scored with a "Yes" response.
b. Yes	1		
<b>R2. Prior investigations</b>			
a. None	0	Yes	<p>CRC matched the allegation data to all prior investigations to identify the maltreatment types of all investigations for the sample families. If any maltreatment type was abandonment, medical neglect, neglectful supervision, physical neglect, or refusal of parental responsibility, the investigation was for neglect. Similarly, if any maltreatment type was for physical abuse, emotional abuse, or sexual abuse/exploitation, the maltreatment type was abuse. An investigation may include both neglect and abuse maltreatment types. Prior investigations starting within 10 days of one another were aggregated into one investigation; also, prior investigations that started during the first 60 days of another investigation were combined. CRC calculated the number of prior investigations for neglect and abuse. If the family had no prior investigations, this item was scored "None." If the family had no prior neglect investigations but had prior investigations for abuse, this item was scored "One or more, abuse only." If the family had one or two prior neglect investigations (and any number of prior abuse investigations), this item was scored "One or two for neglect." If the family had three or more prior neglect investigations and any number of prior abuse investigations, this item was scored "Three or more for neglect."</p> <p>Note: DFPS recently began purging "ruled out" investigations from the IMPACT casework system, so prior history counts in this analysis may not include all prior investigations with a disposition of "ruled out."</p>
b. One or more, abuse only	1		
c. One or two for neglect	2		
d. Three or more for neglect	3		
<b>R3. Household has previously been referred for ongoing child protective services</b>			
a. No	0	Yes	CRC examined closure reasons for each family's prior investigations. If the family had a prior investigation resulting in FBSS or removal, this item was scored "Yes." If the family had no prior investigation resulting in treatment services, this item was scored "No."
b. Yes	1		
<b>R4. Number of children involved in the allegation(s)/incident(s)</b>			
a. One, two, or three	0	Yes	CRC counted the number of alleged child victims on the sample investigation.
b. Four or more	1		
<b>R6. Age of youngest child in the home</b>			
a. 2 or older	0	Yes	CRC identified all alleged child victims on the sample investigation and calculated the age of the youngest alleged child victim at the time that the sample investigation began.
b. Under 2	1		

**Table B2**

**Texas Preliminary Risk Assessment Fit Analysis  
Guide to Neglect Index Risk Assessment Items**

Neglect Index Risk Assessment Item	Score	Match in Texas IMPACT Data?	How CRC Estimated the Item
<b>R9. Primary parent/caregiver provides physical care consistent with child needs</b>			
a. Yes	0	Proxy item	CRC identified whether the index investigation included a substantiated allegation of physical neglect. Additionally, CRC examined two items from the existing Texas risk assessment that were completed as part of the sample investigation: any child denied medical treatment (QC.PC1) and overall lack of physical care for any child (QC.PC3). If the index investigation included such an allegation or either of the risk assessment items were marked "Yes," this item was scored "Yes."
b. No	1		
<b>R11. Primary parent/caregiver has a historic or current mental health issue</b>			
a. No problem	0	Proxy item	CRC matched person characteristics to all alleged perpetrators listed on the sample investigation. If the characteristic had been identified at any time up to and including the sample investigation, it was considered true for the alleged perpetrator. If any alleged perpetrator on the sample investigation had indications of depression, emotional disturbance, mental illness, psychological disorder, bipolar disorder, mood disorder, eating disorder, oppositional defiant disorder, post-traumatic stress syndrome, conduct disorder, or self-abuse, this item was marked "Yes." This is a proxy item because CRC could not differentiate primary parent/caregiver from all household perpetrators.
b. Past or current problems	1		
<b>R12. Primary parent/caregiver has historic or current alcohol or drug issue (check applicable items and add for score)</b>			
a. No problem	0	Proxy item	<p>CRC matched person characteristics to all alleged perpetrators listed on the sample investigation. If the characteristic had been identified at any time up to and including the sample investigation, it was considered true for the alleged perpetrator.</p> <ul style="list-style-type: none"> <li>If any alleged perpetrator on the sample investigation had indications of alcohol use, the alcohol item response was marked "Yes."</li> <li>If any alleged perpetrator on the sample investigation had indicators of drug or inhalant use, the drug problem item response was marked "Yes."</li> </ul> <p>This is a proxy item because CRC could not differentiate primary parent/caregiver from all household alleged perpetrators.</p>
b. Alcohol problem (current or historic)	1		
c. Drug problem (current or historic)	1		
<b>R7. Current or historic characteristics of children in household (check applicable items and add for score)</b>			
a. None apply	0	Proxy item	<p>CRC matched child characteristics to all alleged child victims listed on the sample investigation. If the characteristic had been identified at any time up to and including the sample investigation, it was considered true for the child. CRC also identified the Texas risk assessment completed at the time of the sample investigation.</p> <ul style="list-style-type: none"> <li>If any alleged child victim on the sample investigation had characteristic indicators of failure to thrive, medically fragile, medically complex, or terminally ill, the medically fragile/failure to thrive item response was marked "Yes."</li> </ul>
b. Medically fragile or failure to thrive	1		

**Table B2**

**Texas Preliminary Risk Assessment Fit Analysis  
Guide to Neglect Index Risk Assessment Items**

<b>Neglect Index Risk Assessment Item</b>	<b>Score</b>	<b>Match in Texas IMPACT Data?</b>	<b>How CRC Estimated the Item</b>
c. Developmental, physical, or learning disability	1		<ul style="list-style-type: none"> <li>• If any child victim on the sample investigation had indicators of ADHD, autism, reactive attachment disorder, developmental delay, developmental disability, Down syndrome, hearing impairment, learning disability, intellectual developmental delay, physical disability, speech disorder, spina bifida, traumatic brain injury, visual impairment, or hearing impairment, the developmental, physical, or learning disability item response was marked "Yes."</li> <li>• If any child victim on the sample investigation had a characteristic indicator of fetal alcohol syndrome or fetal drug syndrome, or if the risk assessment completed at the time of the sample investigation indicated that any child was born addicted to or exposed to drugs or alcohol (MT.CS3), the positive toxicology screen item response was marked "Yes."</li> </ul>
d. Positive toxicology screen at birth	1		
<b>R16. Housing (check applicable items and add for score)</b>			
a. Neither b or c apply	0	Proxy item	CRC used the results from the sample investigation risk assessment to estimate whether the housing was physically unsafe. If the item asking whether conditions in or around the home were hazardous or unsanitary (HS.DE2) was marked "Yes," the "physically unsafe" item response was scored "Yes." Based on information available in the IMPACT casework system, CRC was unable to assess whether or not families were homeless at any time during the investigation.
b. Housing is physically unsafe	1		
c. Homeless at any time during investigation	2		

**Table B3**

**Texas Preliminary Risk Assessment Fit Analysis  
Guide to Abuse Index Risk Assessment Items**

Abuse Index Risk Assessment Item	Score	Match in Texas IMPACT Data?	How CRC Estimated the Item
<b>R1. Current report is for abuse</b>			
a. No	0	Yes	CRC matched the allegation data to the sample investigation to identify the maltreatment types. If any maltreatment type was physical abuse, emotional abuse, or sexual abuse, this item was scored with a “Yes” response.
b. Yes	1		
<b>R2. Number of prior screened-in reports of abuse</b>			
a. None	0	Yes	<p>CRC matched the allegation data to all prior investigations to identify the maltreatment types of all investigations for the sample families. If any maltreatment type was abandonment, medical neglect, neglectful supervision, physical neglect, or refuses parental responsibility, the investigation was for neglect. Similarly, if any maltreatment type was for physical abuse, emotional abuse, or sexual abuse/exploitation, the maltreatment type was abuse. An investigation may include both neglect and abuse maltreatment types. Prior investigations starting within 10 days of one another were aggregated into one investigation; also, prior investigations that started during the first 60 days of another investigation were combined. CRC calculated the number of prior investigations for neglect and abuse. If the family had no prior investigations or only prior investigations involving neglect allegations, this item was scored “None.” If the family had one prior abuse investigation, this item was scored one point. If the family had two or more prior abuse investigations, this item was scored two points.</p> <p>Note: DFPS recently began purging “ruled out” investigations from the IMPACT casework system, so prior history counts in this analysis may not include all prior “ruled out” investigations.</p>
b. One	1		
c. Two or more	2		
<b>R3. Household has previously been referred for ongoing child protective services</b>			
a. No	0	Yes	CRC examined closure reasons for each family’s prior investigations. If the family had a prior investigation resulting in FBSS or removal, this item was scored “Yes.” If the family had no prior investigation resulting in treatment services, this item was scored “No.”
b. Yes	1		
<b>R5. Prior injury to a child resulting from child abuse/neglect</b>			
a. No	0	Proxy item	CRC identified the Texas risk assessment completed at the time of the sample investigation. If risk assessment item MT.CS1, “any child received physical harm that appears to be inflicted (non-accidental) or requires medical care, and where the actual harm is serious,” was marked “Yes,” this item was marked “Yes.”
b. Yes	1		

**Table B3**

**Texas Preliminary Risk Assessment Fit Analysis  
Guide to Abuse Index Risk Assessment Items**

Abuse Index Risk Assessment Item	Score	Match in Texas IMPACT Data?	How CRC Estimated the Item
<b>R7. Current or historic characteristics of children in household (check appropriate items and add for score)</b>			
a. None apply	0		CRC matched child characteristics to all alleged child victims listed on the sample investigation. If the characteristic had been identified at any time up to and including the sample investigation, it was considered true for the child.
b. Delinquent behavior	1		<ul style="list-style-type: none"> <li>If any alleged child victim on the sample investigation had characteristic indicators of assaultive behavior, cruelty to animals, fire setting, gang activity, running away, sexually acting out, or other behavior problems, the delinquent behavior item response was marked "Yes" and scored one point.</li> </ul>
c. Developmental or learning disability	1		<ul style="list-style-type: none"> <li>If any alleged child victim on the sample investigation had indicators of ADHD, autism, reactive attachment disorder, developmental delay, developmental disability, Down syndrome, learning disability, intellectual developmental delay, or speech disorder, the developmental or learning disability item response was marked "Yes" and scored one point.</li> </ul>
d. Mental health or behavioral problem	1		<ul style="list-style-type: none"> <li>If any alleged child victim on the sample investigation had a characteristic indicator of depression, emotional disturbance, mental illness, psychological disorder, bipolar disorder, mood disorder, eating disorder, oppositional defiant disorder, conduct disorder, post-traumatic stress syndrome, or self-abuse, the mental health/behavioral problem item response was marked "Yes."</li> </ul>
<b>R8. Primary parent/caregiver's assessment of incident (check applicable items and add for score)</b>			
a. Neither b or c apply	0	No	Based on information available from the IMPACT casework system, this item could not be estimated.
b. Blames child for abuse/neglect	1		
c. Justifies abuse/neglect	2		
<b>R10. Primary parent/caregiver characteristics (check applicable items and add for score)</b>			
a. None apply		Proxy item	<p>CRC identified the Texas risk assessment completed at the time of the sample investigation.</p> <ul style="list-style-type: none"> <li>If the risk assessment indicated "Any caregiver lacks empathy for or shows lack of attachment to any child" (QC.EC1) or "Any child is scapegoated, rejected, humiliated, or treated differently by any caregiver" (QC.EC4), the "provides insufficient emotional/psychological support" item was marked "Yes."</li> </ul>
b. Provides insufficient emotional/psychological support	1		

<b>Table B3</b>			
<b>Texas Preliminary Risk Assessment Fit Analysis Guide to Abuse Index Risk Assessment Items</b>			
<b>Abuse Index Risk Assessment Item</b>	<b>Score</b>	<b>Match in Texas IMPACT Data?</b>	<b>How CRC Estimated the Item</b>
c. Employs excessive/inappropriate discipline	1		<ul style="list-style-type: none"> <li>If the risk assessment indicated "The behaviors or discipline practices of any person seem violent or out of control" (CC.CT1) or "The discipline used is disproportionately harsh compared to the misbehavior" (CC.CT2), the "employs excessive/inappropriate discipline" item was marked "Yes."</li> <li>The overly controlling/bullying item could not be estimated based on information available from the IMPACT casework system. This item is a proxy because the Texas risk assessment items do not specify whether the caregiver is the primary parent/caregiver. Also, one sub-item could not be estimated.</li> </ul>
d. Overly controlling/bullying	1		
<b>R13. Secondary parent/caregiver has historic or current alcohol or drug issue</b>			
a. No problem or no secondary caregiver	0	Proxy item	CRC matched person characteristics to all alleged perpetrators listed on the sample investigation. If the characteristic had been identified at any time up to and including the sample investigation, it was considered true for the alleged perpetrator. If any alleged perpetrator on the sample investigation had indications of alcohol, drug, or inhalant use, the item response was marked "Yes." This is a proxy item because CRC could not differentiate secondary parent/caregiver from all household alleged perpetrators.
b. Alcohol and/or drug problem	1		
<b>R14. Primary parent/caregiver has a history of abuse or neglect as a child</b>			
a. No	0	Proxy item	CRC identified the Texas risk assessment completed at the time of the sample investigation. If risk assessment item CC.FN4, "any caregivers abused or neglected as children," was marked "Yes," this item was marked "Yes." This item is a proxy because CRC could not determine from the risk item response whether the person was a primary or secondary caregiver.
b. Yes	1		
<b>R15. Domestic violence in the household in the past year</b>			
a. No	0	Proxy item	CRC identified the Texas risk assessment completed at the time of the sample investigation. If risk assessment indicated that "any person in the household was ever the victim of family violence" (item HS.SV1) or that "any person in the home was ever a perpetrator of family violence" (item HS.SV2), this item was marked "Yes." This item is a proxy because the Texas risk assessment items used to estimate the score did not specify a timeframe (e.g., the past year). It also does not specify whether the incident occurred between adults in the household.
b. Yes	2		

After items from the risk assessment were simulated, scores from the neglect and abuse indices were tallied to reach the family's scored neglect risk level, scored abuse risk level, and scored risk level. These risk levels were then compared to outcome rates for families.

## **Appendix C**

### **Item Analyses for Neglect and Abuse Indices**

Tables C1 and C2 show the item analyses for the SDM family risk assessment fitted to Texas DFPS administrative data. The item analyses demonstrate each item's distribution and relationship to the outcomes of subsequent investigation, subsequent investigation with a "reason to believe" disposition, and subsequent investigation resulting in child removal. For example, 66.2% of the sample families had no prior investigations (R2), 3.6% had a prior abuse investigation but no prior neglect investigation, 22.3% had one or two prior neglect investigations, and 7.9% had three or more prior neglect investigations. Of the sample families with no prior investigations, 13.2% had a subsequent investigation for neglect during the follow-up period; families with only prior investigations for abuse had a subsequent neglect investigation rate of 23.6%; families with one or two prior neglect investigations had a subsequent neglect investigation rate of 27.3%; and 39.8% of families who had three or more prior investigations had a subsequent neglect investigation. The increase in outcome rates for families with prior investigations is statistically significant and demonstrated by strong correlations with the three outcomes (subsequent neglect investigation, subsequent neglect investigation with a "reason to believe" disposition, and subsequent neglect investigation resulting in child removal). For example, the correlation between item R2 and the neglect investigation outcome was .215 with a significance level of .000, and the correlation with the "reason to believe" outcome was .144 with a significance level of .000. Higher correlation values with significance levels below .05 represent strong relationships between the risk item and outcome.



**Table C1**

**Neglect Index  
Item Analyses**

Item	Sample Distribution		Outcomes During the 12-Month Follow-Up Period											
	N	%	Neglect Investigation				Neglect Disposition: Reason to Believe				Neglect Investigation Resulting in Removal			
			N	%	Corr.	P-Value	N	%	Corr.	P-Value	N	%	Corr.	P-Value
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,115</b>	<b>18.8%</b>			<b>690</b>	<b>6.1%</b>			<b>223</b>	<b>2.0%</b>		
<b>R1. Current referral is for neglect</b>					.114	.000			.074	.000			.041	.000
No	3,246	28.9%	385	11.9%			109	3.4%			35	1.1%		
Yes	7,990	71.1%	1,730	21.7%			581	7.3%			188	2.4%		
<b>R2. Prior investigations</b>					.215	.000			.144	.000			.104	.000
None	7,440	66.2%	983	13.2%			288	3.9%			76	1.0%		
One or more, abuse only	399	3.6%	94	23.6%			23	5.8%			11	2.8%		
One or two for neglect	2,505	22.3%	683	27.3%			251	10.0%			85	3.4%		
Three or more for neglect	892	7.9%	355	39.8%			128	14.3%			51	5.7%		
<b>R3. Household has previously been referred for ongoing child protective services</b>					.146	.000			.108	.000			.086	.000
No	9,510	84.6%	1,559	16.4%			479	5.0%			140	1.5%		
Yes	1,726	15.4%	556	32.2%			211	12.2%			83	4.8%		
<b>R4. Number of children involved in the allegation(s)/incident(s)</b>					.091	.000			.052	.000			.043	.000
One, two, or three	10,580	94.2%	1,898	17.9%			617	5.8%			194	1.8%		
Four or more	656	5.8%	217	33.1%			73	11.1%			29	4.4%		

**Table C1**

**Neglect Index  
Item Analyses**

Item	Sample Distribution		Outcomes During the 12-Month Follow-Up Period											
	N	%	Neglect Investigation				Neglect Disposition: Reason to Believe				Neglect Investigation Resulting in Removal			
			N	%	Corr.	P-Value	N	%	Corr.	P-Value	N	%	Corr.	P-Value
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,115</b>	<b>18.8%</b>			<b>690</b>	<b>6.1%</b>			<b>223</b>	<b>2.0%</b>		
<b>R6. Age of youngest child in the home</b>					.064	.000			.075	.000			.060	.000
2 or older	8,336	74.2%	1,446	17.3%			423	5.1%			124	1.5%		
Under 2	2,900	25.8%	669	23.1%			267	9.2%			99	3.4%		
<b>R7. Current or historic characteristics of children in household</b>					.044	.000			.052	.000			.048	.000
None present	9,769	86.9%	1,775	18.2%			551	5.6%			169	1.7%		
One present	1,398	12.4%	322	23.0%			133	9.5%			51	3.6%		
Two present	65	0.6%	16	24.6%			5	7.7%			2	3.1%		
Three present	4	0.0%	2	50.0%			1	25.0%			1	25.0%		
<b>R7. Current or historic characteristics of children in household: medically fragile or failure to thrive</b>					.023	.008			.017	.036			.014	.073
No	11,198	99.7%	2,102	18.8%			685	6.1%			221	2.0%		
Yes	38	0.3%	13	34.2%			5	13.2%			2	5.3%		
<b>R7. Current or historic characteristics of children in household: developmental, physical, or learning disability</b>					.038	.000			.037	.000			.038	.000
No	10,475	93.2%	1,930	18.4%			618	5.9%			193	1.8%		
Yes	761	6.8%	185	24.3%			72	9.5%			30	3.9%		

**Table C1**

**Neglect Index  
Item Analyses**

Item	Sample Distribution		Outcomes During the 12-Month Follow-Up Period											
	N	%	Neglect Investigation				Neglect Disposition: Reason to Believe				Neglect Investigation Resulting in Removal			
			N	%	Corr.	P-Value	N	%	Corr.	P-Value	N	%	Corr.	P-Value
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,115</b>	<b>18.8%</b>			<b>690</b>	<b>6.1%</b>			<b>223</b>	<b>2.0%</b>		
<b>R7. Current or historic characteristics of children in household: positive toxicology screen at birth</b>					.021	.014			.035	.000			.029	.001
No	10,495	93.4%	1,953	18.6%			621	5.9%			197	1.9%		
Yes	741	6.6%	162	21.9%			69	9.3%			26	3.5%		
<b>R9. Primary parent/caregiver provides physical care consistent with child needs</b>					.025	.005			.019	.021			.040	.000
Yes	10,728	95.5%	1,997	18.6%			648	6.0%			200	1.9%		
No	508	4.5%	118	23.2%			42	8.3%			23	4.5%		
<b>R11. Primary parent/caregiver has a historic or current mental health issue</b>					.067	.000			.046	.000			.060	.000
No	10,497	93.4%	1,903	18.1%			614	5.8%			185	1.8%		
Yes	739	6.6%	212	28.7%			76	10.3%			38	5.1%		
<b>R12. Primary parent/caregiver has a historic or current alcohol or drug issue</b>					.069	.000			.072	.000			.048	.000
Neither	9,604	85.5%	1,699	17.7%			521	5.4%			161	1.7%		
Alcohol <i>or</i> drugs	1,353	12.0%	339	25.1%			136	10.1%			53	3.9%		
Alcohol <i>and</i> drugs	279	2.5%	77	27.6%			33	11.8%			9	3.2%		
<b>R12. Historic or current alcohol issue</b>					.041	.000			.041	.000			.000	.492
No	10,729	95.5%	1,982	18.5%			636	5.9%			213	2.0%		
Yes	507	4.5%	133	26.2%			54	10.7%			10	2.0%		

**Table C1**

**Neglect Index  
Item Analyses**

Item	Sample Distribution		Outcomes During the 12-Month Follow-Up Period											
	N	%	Neglect Investigation				Neglect Disposition: Reason to Believe				Neglect Investigation Resulting in Removal			
			N	%	Corr.	P-Value	N	%	Corr.	P-Value	N	%	Corr.	P-Value
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>2,115</b>	<b>18.8%</b>			<b>690</b>	<b>6.1%</b>			<b>223</b>	<b>2.0%</b>		
<b>R12. Historic or current drug issue</b>					.066	.000			.069	.000			.064	.000
No	9,832	87.5%	1,755	17.8%			542	5.5%			162	1.6%		
Yes	1,404	12.5%	360	25.6%			148	10.5%			61	4.3%		
<b>R16. Housing</b>					.036	.000			.026	.003			.042	.000
Not applicable	10,655	94.8%	1,971	18.5%			639	6.0%			197	1.8%		
Current housing is physically unsafe	581	5.2%	144	24.8%			51	8.8%			26	4.5%		

Table C2														
Abuse Index Item Analyses														
Item	Sample Distribution		Outcomes During the 12-Month Follow-Up Period											
			Abuse Investigation				Abuse Disposition: Reason to Believe				Abuse Investigation Resulting in Removal			
	N	%	N	%	Corr.	P-Value	N	%	Corr.	P-Value	N	%	Corr.	P-Value
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>1,505</b>	<b>13.4%</b>			<b>229</b>	<b>2.0%</b>			<b>110</b>	<b>1.0%</b>		
<b>R1. Current referral is for abuse</b>					.047	.000			.020	.015			.006	.278
No	5,011	44.6%	581	11.6%			86	1.7%			46	0.9%		
Yes	6,225	55.4%	924	14.8%			143	2.3%			64	1.0%		
<b>R2. Prior investigations for abuse</b>					.181	.000			.077	.000			.056	.000
None	8,484	75.5%	856	10.1%			122	1.4%			56	0.7%		
One	1,635	14.6%	328	20.1%			56	3.4%			30	1.8%		
Two or more	1,117	9.9%	321	28.7%			51	4.6%			24	2.1%		
<b>R3. Household has previously been referred for ongoing child protective services</b>					.135	.000			.061	.000			.060	.000
No	9,510	84.6%	1,088	11.4%			159	1.7%			69	0.7%		
Yes	1,726	15.4%	417	24.2%			70	4.1%			41	2.4%		
<b>R5. Prior injury to a child resulting from child abuse/neglect</b>					.113	.000			.038	.000			.053	.000
No	10,434	92.9%	1,286	12.3%			197	1.9%			87	0.8%		
Yes	802	7.1%	219	27.3%			32	4.0%			23	2.9%		
<b>R7. Current or historic characteristics of children in household</b>					.064	.000			.035	.000			.028	.001
None present	10,157	90.4%	1,291	12.7%			193	1.9%			92	0.9%		
One present	847	7.5%	163	19.2%			25	3.0%			13	1.5%		
Two present	185	1.6%	35	18.9%			8	4.3%			2	1.1%		
Three present	47	0.4%	16	34.0%			3	6.4%			3	6.4%		

**Table C2**

**Abuse Index  
Item Analyses**

Item	Sample Distribution		Outcomes During the 12-Month Follow-Up Period											
	N	%	Abuse Investigation				Abuse Disposition: Reason to Believe				Abuse Investigation Resulting in Removal			
			N	%	Corr.	P-Value	N	%	Corr.	P-Value	N	%	Corr.	P-Value
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>1,505</b>	<b>13.4%</b>			<b>229</b>	<b>2.0%</b>			<b>110</b>	<b>1.0%</b>		
<b>R7. Current or historic characteristics of children in household: child or youth in conflict with law</b>					.045	.000			.021	.012			.008	.195
No	10,885	96.9%	1,428	13.1%			216	2.0%			105	1.0%		
Yes	351	3.1%	77	21.9%			13	3.7%			5	1.4%		
<b>R7. Current or historic characteristics of children in household: developmental or learning disability</b>					.051	.000			.026	.003			.023	.006
No	10,545	93.9%	1,366	13.0%			205	1.9%			97	0.9%		
Yes	691	6.1%	139	20.1%			24	3.5%			13	1.9%		
<b>R7. Current or historic characteristics of children in household: mental health or behavioral problem</b>					.036	.000			.025	.004			.027	.002
No	10,920	97.2%	1,440	13.2%			216	2.0%			102	0.9%		
Yes	316	2.8%	65	20.6%			13	4.1%			8	2.5%		
<b>R10. Primary parent/caregiver characteristics</b>					.005	.280			.015	.060			.030	.001
None present	8,641	76.9%	1,143	13.2%			165	1.9%			70	0.8%		
One present	2,159	19.2%	307	14.2%			54	2.5%			33	1.5%		
Two present	436	3.9%	55	12.6%			10	2.3%			7	1.6%		
Three present	0	0.0%	N/A	N/A			N/A	N/A			N/A	N/A		
<b>R10. Primary parent/caregiver characteristics: provides insufficient emotional/psychological support</b>					.008	.211			.014	.070			.022	.009
No	10,520	93.6%	1,402	13.3%			209	2.0%			97	0.9%		
Yes	716	6.4%	103	14.4%			20	2.8%			13	1.8%		

Table C2														
Abuse Index Item Analyses														
Item	Sample Distribution		Outcomes During the 12-Month Follow-Up Period											
			Abuse Investigation				Abuse Disposition: Reason to Believe				Abuse Investigation Resulting in Removal			
	N	%	N	%	Corr.	P-Value	N	%	Corr.	P-Value	N	%	Corr.	P-Value
<b>Total Sample</b>	<b>11,236</b>	<b>100.0%</b>	<b>1,505</b>	<b>13.4%</b>			<b>229</b>	<b>2.0%</b>			<b>110</b>	<b>1.0%</b>		
<b>R10. Primary parent/caregiver characteristics: employs excessive/inappropriate discipline</b>					.003	.394			.011	.130			.025	.004
No	8,921	79.4%	1,191	13.4%			175	2.0%			76	0.9%		
Yes	2,315	20.6%	314	13.6%			54	2.3%			34	1.5%		
<b>R10. Primary parent/caregiver characteristics: overcontrolling/bullying</b>					could not estimate				could not estimate				could not estimate	
<b>R13. Secondary parent/caregiver has historic or current alcohol or drug issue</b>					.031	.000			.033	.000			.036	.000
No	9,604	85.5%	1,244	13.0%			177	1.8%			80	0.8%		
Yes	1,632	14.5%	261	16.0%			52	3.2%			30	1.8%		
<b>R14. Primary parent/caregiver has a history of abuse or neglect as a child</b>					.037	.000			.037	.000			.039	.000
No	9,690	86.2%	1,249	12.9%			177	1.8%			80	0.8%		
Yes	1,546	13.8%	256	16.6%			52	3.4%			30	1.9%		
<b>R15. Domestic violence in the household in the past year</b>					.062	.000			.027	.002			.033	.000
No	7,205	64.1%	851	11.8%			126	1.7%			53	0.7%		
Yes	4,031	35.9%	654	16.2%			103	2.6%			57	1.4%		

## **Appendix D**

### **Comparison of Texas and 2003 California Validation Study Samples**



## **Comparison of Texas DFPS Risk Fit and 2003 California Validation Study Samples**

The following tables compare the frequency of risk factors and the risk level distribution of the Texas DFPS risk fit sample to the sample of families from the 2003 California validation study. In 2003, the 1998 California risk assessment was validated with a sample of 5,694 families investigated in 2001 by counties that were completing the risk assessment at the close of a child maltreatment investigation. Comparing the Texas sample to the California sample provides additional information about how the California risk assessment may perform when classifying Texas families by likelihood of subsequent child maltreatment.

Table D1 compares the prevalence of neglect risk factors among the Texas sample families to the prevalence among the California sample. Note that the homeless sub-item of "R16. Housing" could not be estimated in Texas, though it scored infrequently in the California sample (i.e., the family was identified as homeless in only 2.0% of sample investigations). This suggests that relatively few families in the Texas sample would experience a change in the neglect scale score that was calculated in the preliminary risk assessment fit analysis; for instance, if the same percentage of families in the Texas sample had the homeless item identified, then 2.0% of Texas families would have an additional point added to their neglect scale score. Some items evaluated in the risk fit were approximations of the actual risk assessment item, or proxy items. Proxy items are necessary when only part of a risk item can be estimated or when the SDM definition varies from how the variable exists in the IMPACT casework system. For instance, on the SDM assessment neglect scale, some items apply only to the primary caregiver; the characteristics drawn from the IMPACT casework system did not specify whether they applied to the primary or secondary caregiver, and these items are therefore proxy items.

<b>Table D1</b>				
<b>Prevalence of Neglect Risk Factors Among Texas and California Sampled Families</b>				
<b>Neglect Risk Factor</b>	<b>Texas Families Investigated During Sample Period (N = 11,236 families)</b>		<b>Sample of Families from 2003 California Risk Validation (N = 5,694 families)</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>R1. Current referral is for neglect</b>				
No	3,246	28.9%	2,790	49.0%
Yes	7,990	71.1%	2,904	51.0%
<b>R2. Prior investigations</b>				
None	7,440	66.2%	3,457	60.7%
One or more, abuse only	399	3.6%	693	12.2%
One or two for neglect	2,505	22.3%	1,020	17.9%
Three or more for neglect	892	7.9%	524	9.2%
<b>R3. Household has previously been referred for ongoing child protection services</b>				
No	9,510	84.6%	5,025	88.3%
Yes	1,726	15.4%	669	11.7%
<b>R4. Number of children involved in the allegation(s)/incident(s)</b>				
One, two, or three	10,580	94.2%	5,293	93.0%
Four or more	656	5.8%	401	7.0%
<b>R6. Age of youngest child in the home</b>				
2 or older	8,336	74.2%	4,576	80.4%
Under 2	2,900	25.8%	1,118	19.6%
<b>R7. Current or historic characteristics of children in household (proxy)</b>				
Medically fragile or failure to thrive	38	0.3%	51	0.9%
Developmental, physical, or learning disability	761	6.8%	186	3.3%
Positive toxicology screen at birth	741	6.6%	100	1.8%
<b>R9. Primary parent/caregiver provides physical care consistent with child needs (proxy)</b>				
Yes	10,728	95.5%	5,383	94.5%
No	508	4.5%	311	5.5%
<b>R11. Primary parent/caregiver has a historic or current mental health issue (proxy)</b>				
No	10,497	93.4%	5,455	95.8%
Yes	739	6.6%	239	4.2%
<b>R12. Primary parent/caregiver has a historic or current alcohol or drug issue (proxy)</b>				
Neither apply	9,604	85.5%	4,857	85.3%
Alcohol problem (current or historic)	507	4.5%	717	12.6%
Drug problem (current or historic)	1,404	12.5%	120	2.1%
<b>R16. Housing (proxy)*</b>				
Housing is physically unsafe	581	5.2%	71	1.2%
Homeless at time of investigation	could not estimate		113	2.0%

\*This item was a partial estimate in the Texas analysis.

Table D2 compares the prevalence of abuse risk factors among the Texas DFPS risk fit sample families to the prevalence among the California sample. The items that could not be estimated scored in the California sample less than 5% of the time. This suggests that relatively few families in the Texas sample would experience a change in the abuse scale score that was calculated in the preliminary risk assessment fit analysis; for instance, if the same percentage of families in the Texas sample had a primary caregiver who blames the child for the incident, then 3.1% of Texas families would have an additional point added to their abuse scale score. Again, because CRC was unable to differentiate between primary and secondary caregiver from the IMPACT data, the items for primary and secondary caregiver actually reflect either caregiver.

<b>Table D2</b>				
<b>Prevalence of Abuse Risk Factors Among Texas and California Sampled Families</b>				
<b>Abuse Risk Factor</b>	<b>Texas Families Investigated During Sample Period (N = 11,236 families)</b>		<b>Sample of Families from 2003 California Risk Validation (N = 5,694 families)</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>R1. Current referral is for abuse</b>				
No	5,011	44.6%	2,130	37.4%
Yes	6,225	55.4%	3,564	62.6%
<b>R2. Number of prior investigations for abuse</b>				
None	8,484	75.5%	3,818	67.1%
One	1,635	14.6%	1,059	18.6%
Two or more	1,117	9.9%	817	14.3%
<b>R3. Household has previously been referred for ongoing child protection services</b>				
No	9,510	84.6%	5,078	89.2%
Yes	1,726	15.4%	616	10.8%
<b>R5. Prior injury to a child resulting from abuse/neglect (proxy)</b>				
No	10,434	92.9%	5,435	95.5%
Yes	802	7.1%	259	4.5%
<b>R7. Current or historic characteristics of children in household (proxy)</b>				
Delinquent behavior	351	3.1%	224	3.9%
Developmental or learning disability	691	6.1%	149	2.6%
Mental health or behavioral problem	316	2.8%	471	8.3%
<b>R8. Primary parent/caregiver's assessment of incident</b>				
Blames child	unable to estimate		177	3.1%
Justifies maltreatment of child	unable to estimate		120	2.1%

<b>Table D2</b>				
<b>Prevalence of Abuse Risk Factors Among Texas and California Sampled Families</b>				
<b>Abuse Risk Factor</b>	<b>Texas Families Investigated During Sample Period (N = 11,236 families)</b>		<b>Sample of Families from 2003 California Risk Validation (N = 5,694 families)</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>R10. Primary parent/caregiver characteristics (proxy)*</b>				
Provides insufficient emotional/psychological support	716	6.4%	267	4.7%
Overly controlling/bullying	Unable to estimate		181	3.2%
Employs excessive/inappropriate discipline	2,315	20.6%	47	0.8%
<b>R13. Secondary parent/caregiver has historic or current alcohol or drug issue (proxy)</b>				
No	9,604	85.5%	5,064	88.9%
Yes	1,632	14.5%	630	11.1%
<b>R14. Primary parent/caregiver has a history of abuse or neglect as a child (proxy)</b>				
No	9,690	86.2%	5,309	93.2%
Yes	1,546	13.8%	385	6.8%
<b>R15. Domestic violence in the household in the past year (proxy)</b>				
No	7,205	64.1%	4,719	82.9%
Yes	4,031	35.9%	975	17.1%

\*This item was a partial estimate or approximation in the Texas analysis.

Table D3 compares the risk level distributions for the two sample groups. More families in Texas scored “moderate risk” on the neglect index than in the California sample (43.6% versus 34.7%, respectively). This is not surprising, given that the sample investigation was for neglect in 71.1% of Texas families versus 51.0% of California families. Despite the frequency differences in neglect scale item scores, the percentage of families scoring “high risk” or “very high risk” on the neglect index was similar across the two samples. On the abuse index, more Texas families scored “high risk” than in the California sample (15.8% versus 8.0%, respectively). This is a somewhat surprising finding given that 55.4% of Texas families had a sample investigation for abuse versus 62.3% of California families; however, the explanation may be that the domestic violence item was scored almost twice as frequently in the Texas sample. Note that the data collected from the IMPACT casework system for the domestic violence item may actually overestimate that item due to differences in definition. CRC recommends that DFPS monitor how frequently this item is scored after implementation of the SDM

risk assessment. When the two indices are taken together, the distribution of families by risk level is very similar across the two samples.

<b>Table D3</b>				
<b>Prevalence of Abuse Risk Factors Among Texas and California Sampled Families</b>				
<b>Risk Level</b>	<b>Texas Families Investigated During Sample Period (N = 11,236 families)</b>		<b>Sample of Families from 2003 California Risk Validation (N = 5,694 families)</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Scored Neglect Risk Level</b>				
Low	4,627	41.2%	2,975	52.2%
Moderate	4,904	43.6%	1,973	34.7%
High	1,650	14.7%	697	12.2%
Very High	55	0.5%	49	0.9%
<b>Scored Abuse Risk Level</b>				
Low	4,550	40.5%	2,760	48.5%
Moderate	4,696	41.8%	2,396	42.1%
High	1,775	15.8%	458	8.0%
Very High	215	1.9%	80	1.4%
<b>Scored Risk Level</b>				
Low	2,734	24.3%	1,670	29.3%
Moderate	5,745	51.1%	2,905	51.0%
High	2,506	22.3%	999	17.5%
Very High	251	2.2%	120	2.1%

## **Appendix E**

### **Estimated Risk Level and Outcomes by Region**

Table E								
Texas Department of Family and Protective Services Estimated Risk Classification by Overall Outcomes by Region								
Estimated Risk Level	Sample Distribution		Outcomes During the 12-Month Follow-Up Period					
	N	%	Investigation		Disposition: Reason to Believe		Investigation with Removal	
Total	11,236	100.0%	N	%	N	%	N	%
<b>Region 1</b>								
Low	88	20.9%	17	19.3%	6	6.8%	2	2.3%
Moderate	227	53.9%	65	28.6%	19	8.4%	4	1.8%
High	92	21.9%	35	38.0%	18	19.6%	4	4.3%
Very High	14	3.3%	5	35.7%	3	21.4%	1	7.1%
<b>Subtotal</b>	<b>421</b>	<b>100.0%</b>	<b>122</b>	<b>29.0%</b>	<b>46</b>	<b>10.9%</b>	<b>11</b>	<b>2.6%</b>
<b>Region 2</b>								
Low	62	17.3%	11	17.7%	4	6.5%	0	0.0%
Moderate	178	49.6%	50	28.1%	24	13.5%	1	0.6%
High	102	28.4%	45	44.1%	14	13.7%	5	4.9%
Very High	17	4.7%	10	58.8%	3	17.6%	0	0.0%
<b>Subtotal</b>	<b>359</b>	<b>100.0%</b>	<b>116</b>	<b>32.3%</b>	<b>45</b>	<b>12.5%</b>	<b>6</b>	<b>1.7%</b>
<b>Region 3</b>								
Low	738	25.3%	88	11.9%	20	2.7%	4	0.5%
Moderate	1,515	51.9%	323	21.3%	102	6.7%	29	1.9%
High	605	20.7%	220	36.4%	77	12.7%	25	4.1%
Very High	60	2.1%	27	45.0%	11	18.3%	5	8.3%
<b>Subtotal</b>	<b>2,918</b>	<b>100.0%</b>	<b>658</b>	<b>22.5%</b>	<b>210</b>	<b>7.2%</b>	<b>63</b>	<b>2.2%</b>
<b>Region 4</b>								
Low	106	19.2%	19	17.9%	2	1.9%	0	0.0%
Moderate	308	55.7%	76	24.7%	27	8.8%	9	2.9%
High	122	22.1%	50	41.0%	16	13.1%	5	4.1%
Very High	17	3.1%	6	35.3%	4	23.5%	1	5.9%
<b>Subtotal</b>	<b>553</b>	<b>100.0%</b>	<b>151</b>	<b>27.3%</b>	<b>49</b>	<b>8.9%</b>	<b>15</b>	<b>2.7%</b>
<b>Region 5</b>								
Low	96	22.9%	19	19.8%	0	0.0%	0	0.0%
Moderate	226	53.8%	67	29.6%	17	7.5%	8	3.5%
High	94	22.4%	34	36.2%	8	8.5%	6	6.4%
Very High	4	1.0%	3	75.0%	2	50.0%	2	50.0%
<b>Subtotal</b>	<b>420</b>	<b>100.0%</b>	<b>123</b>	<b>29.3%</b>	<b>27</b>	<b>6.4%</b>	<b>16</b>	<b>3.8%</b>

Table E								
Texas Department of Family and Protective Services Estimated Risk Classification by Overall Outcomes by Region								
Estimated Risk Level	Sample Distribution		Outcomes During the 12-Month Follow-Up Period					
	N	%	Investigation		Disposition: Reason to Believe		Investigation with Removal	
Total	11,236	100.0%	N	%	N	%	N	%
<b>Region 6</b>								
Low	736	35.3%	76	10.3%	13	1.8%	4	0.5%
Moderate	1,053	50.5%	180	17.1%	39	3.7%	11	1.0%
High	282	13.5%	90	31.9%	23	8.2%	8	2.8%
Very High	14	0.7%	7	50.0%	1	7.1%	0	0.0%
<b>Subtotal</b>	<b>2,085</b>	<b>100.0%</b>	<b>353</b>	<b>16.9%</b>	<b>76</b>	<b>3.6%</b>	<b>23</b>	<b>1.1%</b>
<b>Region 7</b>								
Low	262	18.6%	29	11.1%	3	1.1%	2	0.8%
Moderate	739	52.3%	169	22.9%	48	6.5%	13	1.8%
High	375	26.6%	131	34.9%	38	10.1%	14	3.7%
Very High	36	2.5%	13	36.1%	1	2.8%	1	2.8%
<b>Subtotal</b>	<b>1,412</b>	<b>100.0%</b>	<b>342</b>	<b>24.2%</b>	<b>90</b>	<b>6.4%</b>	<b>30</b>	<b>2.1%</b>
<b>Region 8</b>								
Low	256	19.4%	43	16.8%	7	2.7%	0	0.0%
Moderate	657	49.8%	152	23.1%	48	7.3%	11	1.7%
High	377	28.6%	144	38.2%	47	12.5%	16	4.2%
Very High	30	2.3%	9	30.0%	2	6.7%	0	0.0%
<b>Subtotal</b>	<b>1,320</b>	<b>100.0%</b>	<b>348</b>	<b>26.4%</b>	<b>104</b>	<b>7.9%</b>	<b>27</b>	<b>2.0%</b>
<b>Region 9</b>								
Low	76	24.8%	8	10.5%	3	3.9%	0	0.0%
Moderate	146	47.6%	33	22.6%	17	11.6%	2	1.4%
High	76	24.8%	26	34.2%	8	10.5%	7	9.2%
Very High	9	2.9%	6	66.7%	3	33.3%	1	11.1%
<b>Subtotal</b>	<b>307</b>	<b>100.0%</b>	<b>73</b>	<b>23.8%</b>	<b>31</b>	<b>10.1%</b>	<b>10</b>	<b>3.3%</b>
<b>Region 10</b>								
Low	74	22.6%	10	13.5%	1	1.4%	0	0.0%
Moderate	175	53.4%	33	18.9%	11	6.3%	2	1.1%
High	76	23.2%	26	34.2%	11	14.5%	4	5.3%
Very High	3	0.9%	1	33.3%	1	33.3%	0	0.0%
<b>Subtotal</b>	<b>328</b>	<b>100.0%</b>	<b>70</b>	<b>21.3%</b>	<b>24</b>	<b>7.3%</b>	<b>6</b>	<b>1.8%</b>



**Table E**

**Texas Department of Family and Protective Services  
Estimated Risk Classification by Overall Outcomes by Region**

Estimated Risk Level	Sample Distribution		Outcomes During the 12-Month Follow-Up Period					
	N	%	Investigation		Disposition: Reason to Believe		Investigation with Removal	
<b>Total</b>	<b>11,236</b>	<b>100.0%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Region 11</b>								
Low	240	21.6%	30	12.5%	3	1.2%	0	0.0%
Moderate	521	46.8%	132	25.3%	42	8.1%	7	1.3%
High	305	27.4%	97	31.8%	36	11.8%	10	3.3%
Very High	47	4.2%	25	53.2%	10	21.3%	7	14.9%
<b>Subtotal</b>	<b>1,113</b>	<b>100.0%</b>	<b>284</b>	<b>25.5%</b>	<b>91</b>	<b>8.2%</b>	<b>24</b>	<b>2.2%</b>

## CONTRIBUTORS

### Primary Analysts

Erin Wicke Dankert  
Andrea Bogie

### Project Manager

Heather Meitner

### Program Support

Shanna Dean  
Jennifer Cotter  
Peggy Cordero

### Database Administrator

Dan Feeney

### Research Support

Jesse Russell, PhD  
Kristen Johnson, PhD  
Colleen Kerwin  
Chris Scharenbroch

### Administrative Staff

Amy Fry  
Keely Stotlar  
Emily Ramasamy

### Communications Staff

Debra Greene  
Ellen Vinz

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