



California Department of Social Services
Children and Family Services Division

Risk Assessment Validation: A Prospective Study

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EXECUTIVE SUMMARY

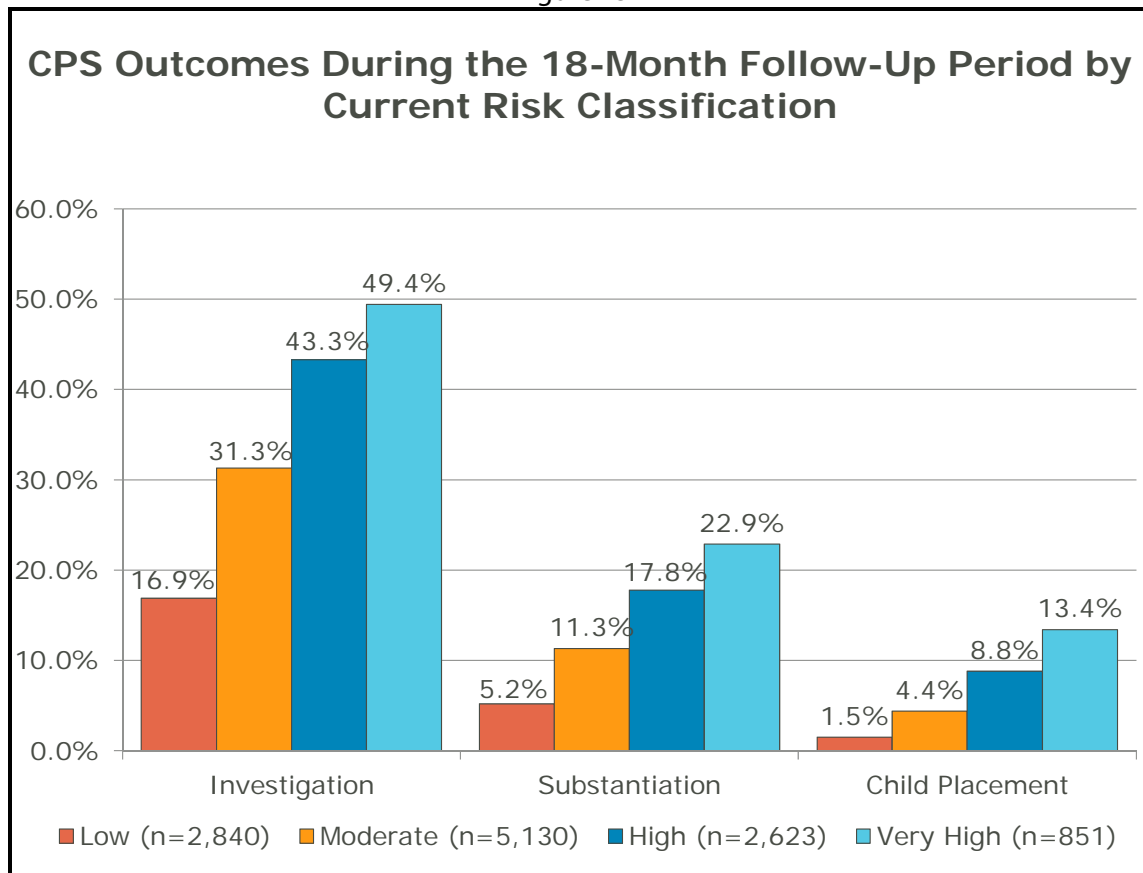
The California Department of Social Services (CDSS) Children and Family Services Division Child Welfare Services (CWS) contracted with the Children's Research Center (CRC), a center of the National Council on Crime and Delinquency (NCCD), to conduct a validation study of the risk assessment used to assess the likelihood of future child maltreatment among families investigated by child welfare agency staff. Since CDSS CWS adopted the current actuarial risk assessment in 2007, an additional 11 counties in California have implemented the Structured Decision Making® (SDM) system. Currently, child welfare agency staff in 54 of the 58 California counties complete the risk assessment for families at the end of a maltreatment investigation to help inform their case service decisions.

The objective of this validation study was to assess how well the current risk assessment estimates future maltreatment, particularly across subgroups. A second objective, if necessary, was to propose revisions to improve its classification abilities. The sample consisted of families that were investigated between July 1, 2010, and June 30, 2011. If a family was investigated more than once during the sample period, their first investigation was selected. Data describing subsequent child protective services (CPS) outcomes were observed for each family during a standardized follow-up period of 18 months (1.5 years) after their sample assessment. These outcome measures included investigations of abuse or neglect allegations, substantiations of maltreatment, and subsequent child placements during the standardized follow-up period.

The current risk assessment performed well when distinguishing between families classified at low, moderate, high, and very high risk of subsequent substantiated maltreatment. For all CPS outcomes (investigation, substantiation, and child placement) and among most sample subgroups, the recidivism rates observed among low-risk families were significantly lower than those of families classified at higher risk levels. For example, 5.2% of families classified as low risk had a subsequent substantiation during the 18-month follow-up period, a rate much lower than the average (12.2%) for

the entire sample. Families classified as moderate risk had a subsequent substantiation rate of 11.3%, high-risk families a rate of 17.8%, and very high-risk families had a rate of 22.9% (Figure ES1). An increase in risk from low to moderate and moderate to high corresponded to at least a 35% increase in the reinvestigation rate (only a 14% increase between high and very high risk), at least a 55% increase in the subsequent substantiation rate (only a 28% increase between high and very high risk), and a nearly twofold increase in the child placement rate (a 52% increase between high and very high risk).

Figure ES1



Although the current risk assessment classified families reasonably accurately overall, results suggest that performance could be improved. For example, there was a less pronounced difference in outcome rates for high- and very high-risk families (i.e., outcome rates were elevated for very high-risk families, but not much higher than outcome rates for high-risk families). This pattern was observed on both the abuse and neglect indices, individually, as well as for the overall scored risk level. It is desirable to have more distinction between high- and very high-risk families than what is currently observed. Also, the current assessment did not differentiate very well between moderate-, high-, and very high-risk Native American families. More than 50% of Native American families were classified as high or very high risk. This is particularly problematic given that outcome rates for high- and very high-risk Native American families did not significantly differ from those of moderate-risk Native American families.

Development of the Proposed Risk Assessment

To determine whether the current classification findings could be improved upon, CRC conducted independent risk factor analyses and risk assessment construction. This began with examining the relationship between the family case characteristics workers observed and recorded in the CWS/Case Management System (CMS) at the time of the sample investigation and subsequent CPS involvement. This includes risk and safety factors recorded by workers, allegations of abuse and neglect made at the time of the sample incident, and CPS involvement of families prior to the sample incident. Individual items were selected for inclusion in the abuse or neglect assessment based on their statistical association with subsequent maltreatment.

This first step was based on correlations and cross-tabulations between each potential risk factor available for study and each outcome measure. Risk factors that demonstrated a significant

statistical association with any CPS outcome were included in regression analyses.¹ Stepwise regression analyses informed the combination of risk factors tested for construction, and risk item weights were determined by assessing their bivariate and multivariate relationships to maltreatment outcome measures. Because the assessment must be completed by workers under field conditions, the ease of observing and reliably scoring case characteristics was also considered in the selection of revised assessment items. After a preliminary assessment was developed, it was tested against outcomes to determine optimal cut-points for classification categories and to evaluate its classification capabilities. The risk assessment was then applied to the validation sample to examine classification findings with a different sample.

This revalidation effort resulted in a proposed risk assessment that employs similar risk factors to the current one. The proposed neglect risk assessment, for example, lowers the score assigned to prior neglect history, separates out prior abuse history, distinguishes between families that received CPS in the past versus currently, makes child characteristics a one-point item rather than a summative item, removes the item related to the primary caregiver's physical care of the child, and adds evaluation of the secondary caregiver to the primary caregiver characteristics items (history of abuse or neglect as a child, mental health, alcohol/drug problem, criminal arrest history). The proposed abuse risk assessment expands the current report item to include emotional abuse, alters the scoring for number of prior abuse investigations, separates out prior neglect history, distinguishes between families that received CPS in the past versus those currently receiving services, eliminates delinquency history from the child characteristics and the "primary caregiver is domineering" item, adds "primary caregiver blames child," adds evaluation of the secondary caregiver to the primary caregiver characteristics items (history of abuse or neglect as a child and mental health), and adds an item regarding primary and/or secondary caregiver substance abuse.

¹ Pearson correlation significant at the .05 level.

Although both the current and proposed risk assessments perform well when distinguishing between families by the risk of future child maltreatment allegations, the proposed risk assessment classified fewer families as high and very high risk than the current assessment (26.2% compared to 30.4%); and a greater proportion of these families had a subsequent investigation, substantiation, and child placement compared to families classified as high or very high risk by the current risk assessment (Table ES1). In other words, the revised assessment achieved greater specificity than the current risk assessment (i.e., fewer families classified as high or very high risk, but a higher proportion of these families were subsequently involved with CPS). This difference may in part be attributable to the use of the sample for construction purposes (as opposed to validation), but validation findings for alternative samples indicate that the specificity may be transferrable (see Appendix C for more details). In addition, the revised risk assessment reduced differences in performance observed across ethnic groups when classified by the current risk assessment.

Table ES1					
Current and Proposed Risk Classification by Subsequent Maltreatment Outcomes					
Overall Risk Level	Sample Distribution		Outcome Rates During the 18-Month Follow-Up Period		
	N	%	Subsequent Investigation	Subsequent Substantiation	Subsequent Investigation With Removal
Total Sample	11,444	100.0%	31.8%	12.2%	5.4%
Current Risk Assessment Classification					
Low	2,840	24.8%	16.9%	5.2%	1.5%
Moderate	5,130	44.8%	31.3%	11.3%	4.4%
High	2,623	22.9%	43.3%	17.8%	8.8%
Very High	851	7.4%	49.4%	22.9%	13.4%
Proposed Risk Assessment Classification					
Low	2,582	22.6%	16.2%	5.1%	1.4%
Moderate	5,867	51.3%	30.3%	10.9%	4.4%
High	2,440	21.3%	46.1%	19.4%	9.5%
Very High	555	4.8%	57.7%	25.9%	15.7%

Adopting the proposed assessment should help to improve workers' estimates of a family's risk of future maltreatment. This, in turn, would permit the agency to reduce subsequent maltreatment by more effectively targeting service interventions to high-risk families. Agency monitoring and quality improvement efforts may also improve the accuracy of worker risk assessment estimates and the management of service delivery. As previously mentioned, periodic validations are required to ensure that risk assessments continue to effectively classify families by their likelihood of future child maltreatment. If child welfare agency operations change significantly in the next few years, CRC strongly recommends that another validation study be conducted to ensure that the risk assessment is effectively classifying families.

I. INTRODUCTION

California's Department of Social Services (CDSS) Children and Family Services Division Child Welfare Services (CWS) contracted with the Children's Research Center (CRC), a center of the National Council on Crime and Delinquency (NCCD), to conduct a validation study of the risk assessment used to assess the likelihood of future child maltreatment among families investigated by child welfare agency staff. Since CDSS CWS adopted the current actuarial risk assessment in 2007, an additional 11 counties have implemented the Structured Decision Making® (SDM) system. Currently, child welfare agency staff in 54 of the 58 California counties complete the risk assessment for families at the end of a maltreatment investigation to help inform their case service decisions.

The objective of this validation study was to assess how well the current risk assessment estimates future maltreatment, particularly across subgroups. A second objective was to, if necessary, propose revisions to improve its classification abilities.

II. BACKGROUND

A critical goal of the SDM® model is to reduce the maltreatment of children in families that have had an abuse or neglect incident. The most effective way to accomplish this goal is to accurately identify families at high risk for future maltreatment, prioritize them for service interventions, and effectively deliver services appropriate to their needs.

California's SDM system for child protective services (CPS) was developed in 1998 by CDSS CWS agency staff in conjunction with CRC. The SDM system's objectives are to increase the consistency and validity of worker case management decisions, target service interventions to families at high risk of subsequent maltreatment, reduce subsequent child maltreatment, and increase the effectiveness of the child protection system. The SDM system's key features are:

- A safety assessment, which helps to identify the immediate protective service interventions required during a CPS investigation, including removal of a child;
- A research-based risk assessment, which provides workers with an objective estimate of the family's risk of future maltreatment at the close of an investigation;
- A family strengths and needs assessment, which identifies case plan goals and appropriate service interventions;
- Agency policies that emphasize service intervention with high-risk families;
- A risk reassessment for families receiving in-home services, which helps workers to monitor progress toward treatment goals and make case decisions about continued services and the likelihood of subsequent child maltreatment;
- A reunification assessment for families with children in out-of-home placement, which helps workers to monitor family progress toward service goals and make decisions about how to achieve safety and permanency for children in out-of-home care;
- Workload standards that encourage more frequent worker contact with high-risk families in an effort to improve service intervention management; and
- Workload accounting, which identifies staff resources needed to reduce risk and strengthen families.

California first developed an actuarial risk assessment to classify families by the likelihood of future child maltreatment in 1998 using a sample of 2,511 families investigated for child maltreatment in 1995. Most (91.6%) of the families in the sample were substantiated for child abuse or neglect (CA/N). Although the risk assessment was to be applied in practice to both substantiated and inconclusive investigations, substantiated investigations were oversampled to help ensure the reliability of information found in the case files. Outcomes were observed for a standardized 24 months.² A workgroup of supervisors, workers, and administrators assisted in the design of the data collection survey. Case readers hired and trained by CRC staff collected information from case files, and periodic reliability checks ensured high-quality data collection. CRC staff constructed the risk assessment instrument by analyzing family characteristics at the time of the sample investigation and

² After the sample investigation, 36.4% of the 2,511 sampled families were investigated again during a 24-month follow up. Of the families sampled, 22.1% were investigated and substantiated for CA/N. These are the base rates for the 1998 study.

their relationships with the identified outcomes, including subsequent investigation, substantiation, and child injury resulting from substantiated maltreatment. The 1998 study showed that the final risk classification clearly identified groups of families by the likelihood of a future allegation or substantiation.

To ensure that the risk assessment classified families well according to their likelihood of subsequent maltreatment when completed by workers under field conditions, CDSS CWS conducted a validation study in 2003. This validation differed primarily in that the sample consisted of families investigated regardless of whether the sample incident was substantiated or not. This validation study also helped to ensure the validity of the risk assessment after any policy changes in one or more counties, such as changes to procedures for intake, investigation, and ongoing service delivery. The 2003 validation study showed that the risk assessment implemented in 1998 classified families well by their likelihood of subsequent CPS involvement.³ Some changes to the risk assessment resulted in an improved classification of families by subsequent CPS involvement and were therefore implemented in February 2005.

Since then, the number of California counties implementing the SDM system has increased annually. This—combined with the introduction of practice changes such as Team Decision Making, Safety-Organized Practice, and other family engagement models; coaching and training initiatives; and many others—resulted in the need for further validation. The 2007 validation study completed by CRC staff showed that the risk assessment and risk reassessment performed well overall. Again, however, small changes improved the assessment’s classification abilities. A slightly revised risk assessment was implemented for California counties in February 2008.

³ The research sample consisted of 5,694 families investigated for CA/N between January and March 2001 and included the following counties: Fresno, Humboldt, Los Angeles, Merced, Monterey, Orange, Sacramento, San Luis Obispo, and Sutter. Over one third (37.1%) were substantiated for CA/N at the time of the sampled incident. Of the sampled families, 46.4% were investigated at least once during a 24-month follow-up period, 20.4% were involved in a substantiated investigation of abuse or neglect, and 4.7% of sampled families had a child removed as a result of a subsequent investigation.

One of the strengths of California child welfare agencies using the SDM system is their commitment to ensure that the risk assessment is valid given current practice conditions. CDSS CWS understood early on that periodic validation of an actuarial assessment can help to ensure accurate and equitable classifications of families by risk. Thus, CDSS CWS opted to conduct this validation study to ensure that California child welfare agency staff have a risk assessment that accurately classifies families by the likelihood of future child maltreatment.

This report describes how California's family risk assessment (FRA) performed when classifying families assessed or investigated by child welfare agency staff by the likelihood of subsequent child maltreatment. CRC staff first assessed the ability of the current risk assessment to estimate future child maltreatment and then explored revisions to improve the risk assessment's performance.

III. RESEARCH METHODOLOGY

A. Method of Analysis

This research was conducted using information available from California's CWS/Case Management System (CMS) and the SDM database. This included data describing the type of abuse or neglect alleged and substantiated, demographic characteristics of children and other family members, child placement information, and findings from SDM safety and risk assessments as recorded by workers at the time of the sample incident.

The sample consisted of families that were investigated between July 1, 2010, and June 30, 2011.⁴ If a family was investigated more than once during the sample period, the first investigation (the "index investigation") was selected. Data describing subsequent CPS outcomes were observed for each family during a standardized follow-up period of 18 months (1.5 years) after the sample

⁴ For analysis purposes, CRC created families by identifying alleged victims investigated on each referral received between July 1, 2010, and June 30, 2011, and combining groups of alleged victims with common members. For example, if Child A and Child B are alleged victims in one investigation, and Child B and Child C are alleged victims in another investigation, all three alleged victims were combined into one family.

assessment.⁵ These outcome measures included investigations of abuse or neglect allegations, substantiations of maltreatment, and subsequent child placements during the standardized follow-up period.

The initial sample selection was based on how long and how often workers in counties had been completing the risk assessment in practice.⁶ County child protection systems must have implemented the risk assessment prior to the start of the sample period to be retained in the sample.⁷ The sample was further limited to counties in which the risk assessment completion rate was 75% or higher for substantiated and inconclusive investigations. That is, a risk assessment must be available in the database for 75% or more of substantiated or inconclusive investigations that occurred during the sample period. The 33 California counties eligible for sampling based on these two criteria are described in Table 3 of the next section.

During the sample period, these 33 counties received reports of alleged harm to a child for 137,786 unique families. Of these, 21,268 (15.4%) did not have a risk assessment available for their index investigation and therefore were excluded from analysis. An additional 4,476 families had all children associated with the index investigation placed in foster care for the entire 18-month follow-up period and thus were excluded. There were 34 families dropped because the index investigation was associated with a prior investigation that began more than 45 days before the sample timeframe.

Completing the risk assessment for families with unfounded allegations is optional in some California counties. Counties vary in the nature of departmental direct services provided; for example, whether differential response services are provided and how the service delivery is structured.

Because some county staff complete the FRA for families with unfounded allegations, the 59,152 unique families with unfounded child maltreatment allegations were excluded from the construction

⁵ An 18-month follow-up period was chosen to ensure a more accurate estimation of long-term risk. Outcomes were aggregated by children identified as part of the sample incident (if any child from the family was involved in a subsequent investigation, that investigation was included as an outcome).

⁶ See Appendix E for a comparison of counties that were using the SDM case management system as of March 2005.

⁷ The most recent implementation of the SDM risk assessment prior to July 1, 2010, was in San Mateo County, California, in October 2009.

and validation samples but retained for an exploratory validation effort. Appendix C reports the risk classification findings for the unfounded index investigations with a risk assessment available. Findings indicate that the proposed risk assessment would work similarly for families with an unfounded investigation.

Among the remaining investigations, families were stratified by ethnicity based on the primary ethnicity of the youngest alleged child victim on the index investigation; then they were randomly selected into either a construction sample or a validation sample. Asian/Pacific Islander and Native American families were oversampled for the construction sample to ensure ample representation. The construction sample consists of 50% of the Asian/Pacific Islander families with a substantiated or inconclusive index investigation and all of the Native American families whose index investigation was substantiated or inconclusive. The construction sample included 20% of all other race/ethnicity groups. The same sampling plan was used to create the validation sample, with the exception of Native American families.

Table 1						
Substantiated and Inconclusive Index Investigations by Family Race/Ethnicity Construction Sample Versus Validation Sample						
Family Race/Ethnicity	All Families		Construction Sample		Validation Sample	
	N	%	N	% Sampled From Race/Ethnicity Group	N	% Sampled From Race/Ethnicity Group
Asian/Pacific Islander	1,791	3.4%	874	48.8%	905	50.5%
Black/African American	8,321	15.7%	1,661	20.0%	1,655	19.9%
Hispanic/Latino or South/Central American	23,974	45.4%	4,775	19.9%	4,669	19.5%
White	14,820	28.0%	2,974	20.1%	2,977	20.1%
Native American	470	0.9%	470	100.0%	0	0.0%
Other/Missing	3,480	6.6%	690	19.8%	694	19.9%
Total	52,856	100.0%	11,444	21.7%	10,900	20.6%

CRC used the construction sample (n=11,444) to examine the performance of the current risk assessment and construct a preliminary revised risk assessment. The validation sample (n=10,900) was used to verify the accuracy of the revised risk assessment. Validating the instrument on a separate population better indicates how a risk assessment will perform when actually implemented.⁸

As a first step, CRC staff examined the relationship between the current risk classification and subsequent CPS outcomes to determine how well the assessment estimated future maltreatment. This analysis was based on cross-tabulations of the risk classification with CPS outcomes observed during the follow-up period.

The second part of the research involved efforts to construct an improved actuarial risk assessment. The proposed assessment presented in this report was developed by observing the actuarial relationship between family characteristics observed at the time of the sample assessment and subsequent CPS investigations and their findings. This involved an extensive evaluation of how family risk factors could be combined to construct a risk assessment that could better classify families based on estimates of future maltreatment rates.

B. Sampled Family Characteristics

The following tables describe the construction sample of 11,444 families investigated during the sample period. The majority of families had either one (43.1%) or two (28.9%) children, and 28.0% had three or more children (Table 2). Nearly one third (28.1%) of families had a youngest child under the age of 1 year, and 29.4% had a youngest child between the ages of 2 and 5 years. In one fifth (20.7%) of families, the youngest child was between 6 and 10 years of age, and in the remaining 21.8%, the youngest child was 11 years or older.

The youngest child's ethnicity was referenced in analyses to examine the equity of the risk assessment's classification abilities. For close to half (41.7%) of the sampled families, the ethnicity of

⁸ For more information about validation, see Appendix C.

the youngest child was Hispanic/Latino or South/Central American. Slightly more than one fourth (26.0%) of the youngest children were White/European American, 14.5% were Black/African American, 7.6% were Asian or Pacific Islander, and 4.1% were Native American.

Table 2			
Characteristics of Sampled Families			
Total Sample		N	%
		11,444	100.0%
Number of Children	One	4,934	43.1%
	Two	3,306	28.9%
	Three	1,950	17.0%
	Four	808	7.1%
	Five or more	446	3.9%
Age of Youngest Child	1 year or younger	3,212	28.1%
	2–5 years	3,367	29.4%
	6–10 years	2,373	20.7%
	11–15 years	1,973	17.2%
	16–17 years	519	4.5%
Race/Ethnicity of Youngest Child	Asian/Pacific Islander	874	7.6%
	Black/African American	1,661	14.5%
	Hispanic/Latino or South/Central American	4,775	41.7%
	White/European American	2,974	26.0%
	Native American	470	4.1%
	Other/Missing	690	6.0%

More than two thirds (68.2%) of the sampled families were referred to child welfare agencies for neglect, and 4.5% were referred for severe neglect (Table 3). One third (33.4%) of families were referred for physical abuse, 31.7% for emotional abuse, and 12.0% for sexual abuse of a child. Nearly one fourth (23.3%) included allegations of a child at risk. More than half (54.1%) of the sampled investigations were substantiated, and the remainder were found to be inconclusive (note that unfounded investigations were excluded from the study sample).

Nearly half (42.0%) of the sampled investigations occurred in Los Angeles County. An additional 12.5% of investigations were conducted in San Diego County, 9.3% in Orange County, 9.2% in Riverside County, and 8.2% in Sacramento County.

Table 3			
Characteristics of Sampled Investigations			
Total Sample		N	%
		11,444	100.0%
Sample Allegations⁹	Neglect	7,808	68.2%
	Physical abuse	3,820	33.4%
	Emotional abuse	3,623	31.7%
	Sexual abuse	1,369	12.0%
	Caregiver incapacitated	889	7.8%
	Severe neglect	515	4.5%
	Exploitation	17	0.1%
	At risk	2,667	23.3%
Investigation Disposition	Inconclusive	5,249	45.9%
	Substantiated	6,195	54.1%

⁹ More than one allegation may have been received; thus, the sum of percentages will be greater than 100.0%.

Table 3			
Characteristics of Sampled Investigations			
Total Sample		N	%
		11,444	100.0%
County	Alameda	138	1.2%
	Del Norte	56	0.5%
	El Dorado	86	0.8%
	Humboldt	70	0.6%
	Kern	506	4.4%
	Kings	73	0.6%
	Los Angeles County	4,811	42.0%
	Mendocino	92	0.8%
	Orange	1,059	9.3%
	Riverside	1,049	9.2%
	Sacramento	934	8.2%
	San Diego	1,426	12.5%
	San Luis Obispo	65	0.6%
	San Mateo	93	0.8%
	Santa Cruz	162	1.4%
	Shasta	131	1.1%
	Siskiyou	58	0.5%
	Solano	140	1.2%
	Ventura	116	1.0%
	Yolo	62	0.5%
Other*	317	2.8%	

*Other includes Alpine, Calaveras, Glenn, Inyo, Lake, Lassen, Marin, Modoc, Nevada, San Benito, Trinity, Tuolumne, and Yuba counties.

C. Subsequent CPS Involvement of Sampled Families

Outcomes consisted of subsequent CPS involvement observed for each family during the 18 months (1.5 years) following the sampled investigation. This standardized follow-up period ensured that each family in the sample had the same opportunity for subsequent involvement with child welfare agencies. Measures were any assigned investigation of abuse or neglect, a substantiation of maltreatment, and a subsequent child placement as the result of a new investigation.

Classification findings are presented for all outcomes, but subsequent investigation was the primary outcome informing decisions during risk assessment performance evaluation and construction. Re-investigation has a higher average prevalence (referred to as base rate) and is more similar across ethnic groups than other outcomes (see Table 4). Subsequent substantiated allegation is an important secondary outcome because it is an evidentiary decision indicating that CA/N occurred, and it is related to federal performance standards. Workers substantiate maltreatment when they find evidence that the alleged abuse or neglect meets the definition of child maltreatment imposed by state statutes. In effect, a substantiated maltreatment finding incorporates a standard of evidence applied after the worker has assessed the CPS incident. Research shows that the substantiation decision's reliability, however, is questionable.¹⁰

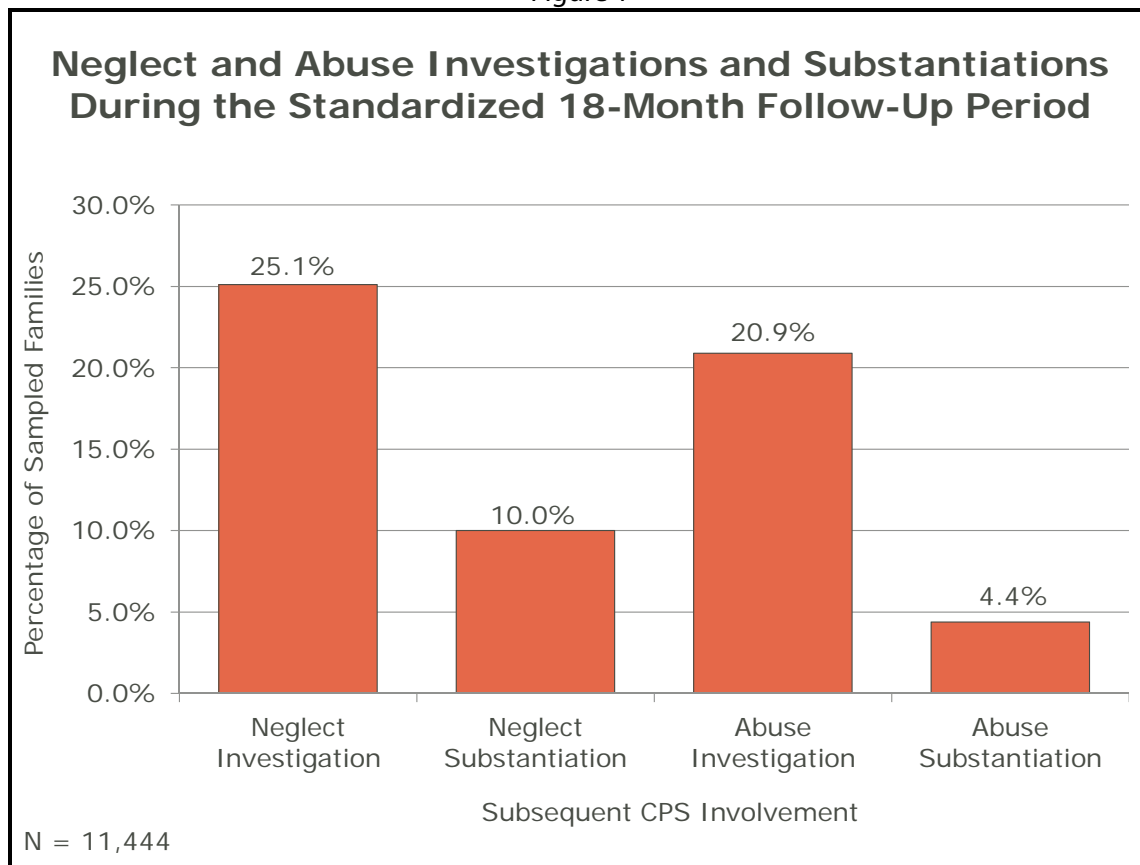
The FRA has two classification indices. One assesses the likelihood of subsequent neglect, and the other assesses the likelihood of subsequent abuse. The ability of these indices to classify families by the likelihood of each maltreatment type was examined by looking at the relevant maltreatment outcomes. For example, the actuarial risk of future neglect index was examined by comparing risk of neglect score and classification to whether or not neglect was alleged or substantiated as part of a subsequent investigation during a standardized follow-up period. The abuse index was examined relative to subsequent abuse involvement. The final risk classification, which is the higher of the neglect and abuse risk classifications, was examined by looking at any subsequent CPS investigation

¹⁰ Kohl, P., Jonson-Reid, M., & Drake, B. (2009). Time to leave substantiation behind. *Child Maltreatment*, 14(1), 17–26.

(regardless of allegation type), subsequent substantiation, and placement of a child in foster care during the standardized follow-up period.

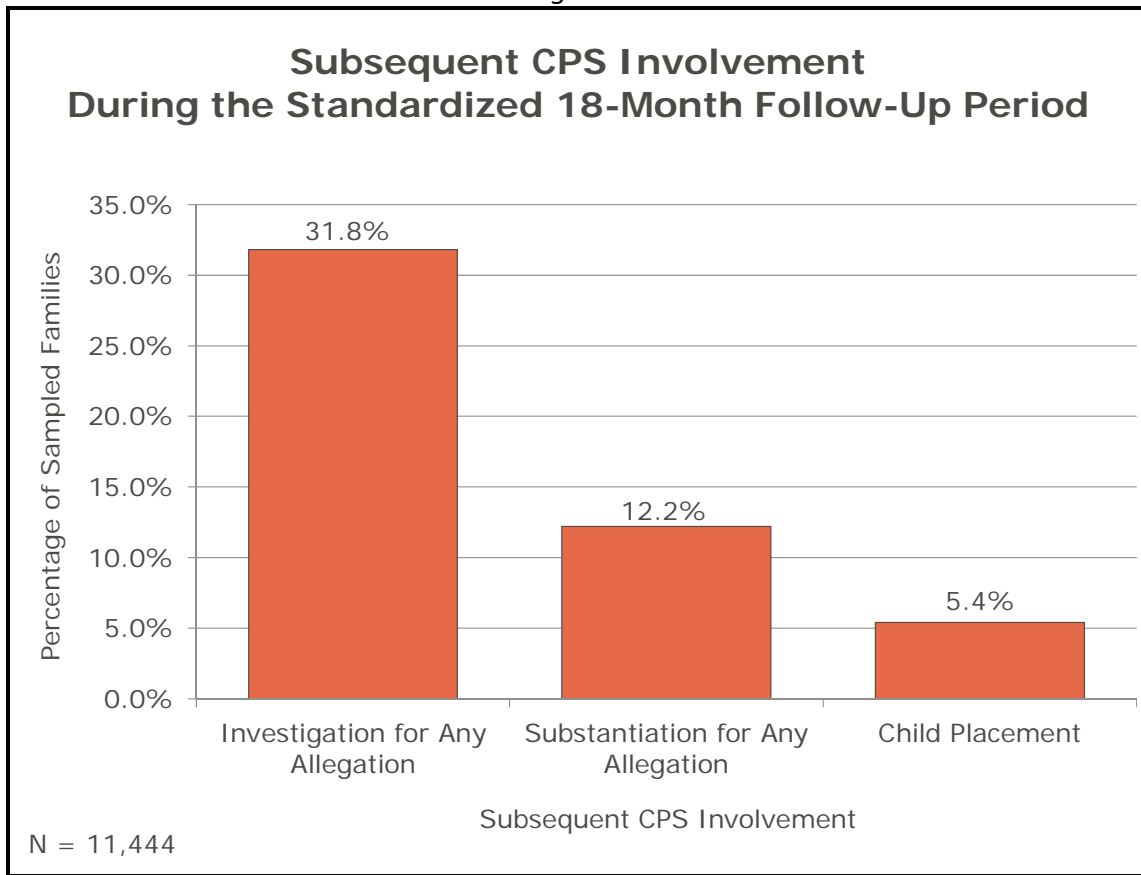
The proportion of sampled families with subsequent abuse allegations was lower than the proportion of families with subsequent neglect allegations (Figure 1). Among the 11,444 sample families, 25.1% had an investigation for neglect during the standardized 18-month follow-up period, and 10.0% were substantiated for neglect. One fifth (20.9%) were investigated for an abuse allegation, and only a small percentage (4.4%) of families were substantiated for abuse.

Figure 1



One third (31.8%) of the sampled families were investigated at least once during the standardized 18-month follow-up period (Figure 2). Workers subsequently substantiated maltreatment for 12.2% of these families, and child welfare agency staff subsequently placed a child out of the home for 5.4% of families.

Figure 2



Subsequent CPS involvement varied by the race/ethnicity of the youngest child (Table 4). Families of Asian or Pacific Islander descent had the lowest proportion re-investigated for child maltreatment (21.3%) or with subsequent substantiated allegations (7.8%). Only 3.4% of Asian/Pacific Islander families had a child subsequently placed out of home during the standardized follow-up period. In comparison, 44.0% of Native American families were subsequently investigated for child maltreatment, 20.4% were substantiated for maltreatment, and 12.1% subsequently had a child placed out of the home during the 18-month period. White/European American and Black/African American families had higher-than-average proportions with subsequent CPS involvement, and the proportion among Hispanic/Latino or South/Central American families was lower than average.

Sample Characteristics	Sample Distribution		Investigation for Any Allegation	Substantiation for Any Allegation	Child Out-of-Home Placement
Total Sample	11,444	100.0%	31.8%	12.2%	5.4%
Asian/Pacific Islander	874	7.6%	21.3%	7.8%	3.4%
Black/African American	1,661	14.5%	34.6%	12.5%	5.8%
Hispanic/Latino or South/Central American	4,775	41.7%	29.7%	11.9%	5.0%
White/European American	2,974	26.0%	37.8%	14.5%	6.4%
Native American	470	4.1%	44.0%	20.4%	12.1%
Other/Missing	690	6.0%	19.0%	2.5%	0.3%

Subsequent CPS involvement varied by county (Table 5). Overall, 31.8% of families were re-reported and re-investigated during the standardized period. Among counties with 500 or more families in the sample, the proportion re-investigated ranged between 21.7% and 36.0%. For these same counties, the proportion of subsequent substantiation ranged from 9.3% to 19.0%, and the rate of subsequent child placement ranged from 2.8% to 8.7%. This variation is significant; in some cases, counties had CPS outcome rates twice as high as those of other counties.

Table 5								
Subsequent CPS Involvement of Sampled Families by County During a Standardized 18-Month Follow-Up Period								
County	Sample Distribution		Investigation for Any Allegation		Substantiation for Any Allegation		Child Out-of-Home Placement	
	N	%	N	%	N	%	N	%
Total	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Alameda	138	1.2%	45	32.6%	21	15.2%	15	10.9%
Alpine	3	0.0%	0	0.0%	0	0.0%	0	0.0%
Calaveras	31	0.3%	12	38.7%	3	9.7%	1	3.2%
Del Norte	56	0.5%	15	26.8%	6	10.7%	2	3.6%
El Dorado	86	0.8%	29	33.7%	12	14.0%	6	7.0%
Glenn	12	0.1%	6	50.0%	2	16.7%	1	8.3%
Humboldt	70	0.6%	29	41.4%	12	17.1%	9	12.9%
Inyo	19	0.2%	9	47.4%	4	21.1%	0	0.0%
Kern	506	4.4%	179	35.4%	96	19.0%	44	8.7%
Kings	73	0.6%	22	30.1%	5	6.8%	4	5.5%
Lake	47	0.4%	16	34.0%	2	4.3%	2	4.3%
Lassen	21	0.2%	11	52.4%	2	9.5%	1	4.8%
Los Angeles County	4,811	42.0%	1,509	31.4%	588	12.2%	244	5.1%
Marin	28	0.2%	10	35.7%	5	17.9%	1	3.6%
Mendocino	92	0.8%	45	48.9%	19	20.7%	5	5.4%
Modoc	3	0.0%	2	66.7%	2	66.7%	1	33.3%
Nevada	44	0.4%	11	25.0%	8	18.2%	4	9.1%
Orange	1,059	9.3%	230	21.7%	106	10.0%	30	2.8%
Riverside	1,049	9.2%	378	36.0%	141	13.4%	70	6.7%
Sacramento	934	8.2%	283	30.3%	95	10.2%	44	4.7%
San Benito	16	0.1%	2	12.5%	2	12.5%	1	6.3%
San Diego	1,426	12.5%	465	32.6%	133	9.3%	75	5.3%
San Luis Obispo	65	0.6%	21	32.3%	7	10.8%	2	3.1%
San Mateo	93	0.8%	32	34.4%	7	7.5%	2	2.2%
Santa Cruz	162	1.4%	59	36.4%	28	17.3%	7	4.3%
Shasta	131	1.1%	56	42.7%	27	20.6%	15	11.5%
Siskiyou	58	0.5%	25	43.1%	11	19.0%	7	12.1%
Solano	140	1.2%	39	27.9%	12	8.6%	5	3.6%
Trinity	16	0.1%	5	31.3%	2	12.5%	2	12.5%
Tuolumne	39	0.3%	15	38.5%	8	20.5%	2	5.1%

Table 5								
Subsequent CPS Involvement of Sampled Families by County During a Standardized 18-Month Follow-Up Period								
County	Sample Distribution		Investigation for Any Allegation		Substantiation for Any Allegation		Child Out-of-Home Placement	
	N	%	N	%	N	%	N	%
Ventura	116	1.0%	46	39.7%	12	10.3%	8	6.9%
Yolo	62	0.5%	19	30.6%	3	4.8%	1	1.6%
Yuba	38	0.3%	16	42.1%	10	26.3%	4	10.5%

D. Characteristics of Sampled Counties

Given the variance in rates of subsequent CPS involvement for families across counties, it is not surprising that child protection practices also varied across the sampled counties. Whether a report meets the criteria for possible CA/N, how quickly a worker should begin investigating, and whether a child should be removed from the home are key decisions made by child welfare agency staff during the intake and investigation process. Overall, the counties screened in 68.3% of the reports they recorded for investigation, though the counties' investigation rates varied between 41.1% and 82.2% (see Table 6, column 3). The proportion of accepted referrals recommended for immediate response (within 24 hours) ranged from 12.4% to nearly half (43.7%). The proportion of investigations involving removal of a child ranged from none to 12.9%, with an overall proportion of 8.3% of investigations resulting in a child removal from the home.

Counties also varied in the types of allegations for which families were investigated and the rates at which the county agencies substantiated them (see Table 6, columns 6–8). The proportion of investigations with an allegation of neglect ranged from 43.2% to 92.6%. There were 18 counties with a neglect allegation rate that exceeded 70%, and only two counties had a neglect allegation rate lower than 50%. Similar variance is evident in the proportion experiencing allegations of abuse (27.4% to 75.7%). Abuse was alleged in 50% or more families in 15 counties and 33.7% or less in five counties.

Table 6

**Sample County Variance in Referral Actions
For Referrals Received July 1, 2010 – June 30, 2011**

County	Referrals		Investigations					Substantiated/ Inconclusive Investigations
	Total Referrals Received	% Investigated	% Immediate Response	% With Removal During Investigation	% With a Neglect Allegation	% With an Abuse Allegation	% With a Substantiated Allegation	% With a Completed Risk Assessment
All Analysis Counties Statewide								
Overall	243,433	68.3%	31.7%	8.3%	65.5%	59.9%	23.9%	89.9%
Minimum	32	41.1%	12.4%	0.0%	43.2%	27.4%	10.5%	72.9%
Maximum	80,610	82.2%	43.7%	12.9%	92.6%	75.7%	36.1%	100.0%
By County								
Alameda	9,341	44.4%	42.0%	10.5%	43.2%	59.5%	17.4%	75.3%
Alpine	32	56.3%	27.8%	0.0%	83.3%	33.3%	11.1%	100.0%
Calaveras	720	61.5%	16.5%	7.9%	81.0%	33.6%	23.3%	76.0%
Del Norte	941	47.0%	34.2%	10.2%	86.0%	27.4%	24.4%	90.0%
El Dorado	2,438	60.3%	20.9%	5.7%	80.4%	44.9%	21.7%	80.0%
Glenn	553	50.6%	19.3%	8.6%	64.3%	64.6%	22.5%	94.4%
Humboldt	2,395	42.3%	17.4%	10.2%	74.0%	40.9%	15.3%	86.7%
Inyo	460	41.1%	26.5%	2.1%	56.1%	59.3%	17.5%	100.0%
Kern	12,833	58.4%	35.1%	12.9%	86.0%	49.4%	33.3%	89.2%
Kings	2,187	59.5%	34.3%	10.3%	72.5%	39.9%	11.2%	78.7%
Lake	958	49.5%	13.3%	8.2%	78.1%	52.1%	16.7%	89.3%
Lassen	556	67.8%	23.1%	4.5%	81.2%	33.7%	16.4%	79.1%
Los Angeles	80,610	80.1%	39.2%	9.0%	58.3%	70.1%	26.2%	92.0%
Marin	1,969	51.4%	29.3%	3.9%	47.2%	75.7%	17.4%	82.0%
Mendocino	1,657	59.2%	19.1%	8.4%	80.4%	43.9%	28.0%	77.3%
Modoc	215	61.9%	33.1%	4.5%	72.9%	52.6%	10.5%	79.5%

Table 6

**Sample County Variance in Referral Actions
For Referrals Received July 1, 2010 – June 30, 2011**

County	Referrals		Investigations					Substantiated/ Inconclusive Investigations
	Total Referrals Received	% Investigated	% Immediate Response	% With Removal During Investigation	% With a Neglect Allegation	% With an Abuse Allegation	% With a Substantiated Allegation	% With a Completed Risk Assessment
Nevada	1,012	58.9%	12.4%	8.2%	67.6%	49.8%	19.1%	81.5%
Orange	17,895	64.5%	21.9%	7.4%	66.2%	45.6%	36.1%	92.4%
Riverside	22,154	82.2%	21.1%	8.2%	92.6%	35.1%	22.7%	94.4%
Sacramento	15,703	62.2%	34.7%	8.1%	71.6%	52.8%	18.9%	89.7%
San Benito	623	69.8%	37.2%	12.6%	66.0%	58.9%	23.4%	78.8%
San Diego	38,419	59.1%	29.6%	6.0%	54.5%	72.7%	18.0%	86.2%
San Luis Obispo	3,361	46.1%	21.3%	7.9%	68.6%	49.4%	22.6%	92.3%
San Mateo	3,391	77.2%	35.1%	4.9%	59.4%	58.3%	11.5%	80.4%
Santa Cruz	2,865	62.9%	43.7%	7.7%	66.5%	62.9%	23.0%	93.2%
Shasta	2,772	67.7%	15.1%	12.1%	80.4%	40.8%	27.1%	89.2%
Siskiyou	781	60.1%	16.6%	8.3%	80.2%	34.5%	31.1%	91.4%
Solano	4,220	53.0%	16.1%	6.4%	61.8%	65.0%	21.8%	92.5%
Trinity	151	64.2%	19.6%	12.4%	60.8%	48.5%	36.1%	98.1%
Tuolumne	730	58.2%	22.4%	10.1%	87.1%	32.5%	24.5%	89.8%
Ventura	8,690	68.0%	16.2%	6.0%	64.4%	61.5%	13.0%	76.5%
Yolo	1,351	64.3%	21.5%	10.0%	76.1%	51.1%	26.4%	83.7%
Yuba ¹¹	1,450	53.5%	32.3%	7.6%	75.3%	45.0%	26.2%	72.9%

Note: Analysis excludes referrals for which all allegations were made on a placement facility.

¹¹ The percent of investigations with a completed risk assessment is below 75% for Yuba County. This table examines all referrals received during the timeframe, and it is not rolled up by family. To choose who to include for the validation study, we examined each family's first investigation and evaluated whether it had a completed risk assessment. Counties with 75% or higher completion were retained for analysis.

It is clear that CPS outcome rates varied significantly by family race/ethnicity and county (see Tables 4–6). In addition, the counties in this study showed considerable variation in CPS practices relative to child maltreatment intake screening, allegation types reported, and investigation findings. All of these factors may influence the performance of a risk assessment, particularly its ability to demonstrate comparable estimates of future maltreatment across subgroups.

E. Current Family Risk Assessment

The risk assessment currently in use by the sampled California counties helps workers to observe specific characteristics of families and children investigated for CA/N and objectively estimate the risk of future child maltreatment. At the close of the investigation, a worker completes the 12-item neglect index *and* the 11-item abuse index. These scores determine an initial risk classification for abuse and neglect for each family, i.e., low, moderate, high, or very high risk. The final classification level assigned to the family is the higher risk classification reached by either the abuse or neglect risk indices. For example, a family scoring low risk for future abuse and high risk for future neglect would have a final classification of high risk.

The purpose of a scored actuarial risk classification is to help the worker and the agency prioritize service interventions according to the risk of future maltreatment. Focusing service provision and worker time on families at higher risk of future child maltreatment is likely to help the agency achieve its mission to reduce future occurrences of CA/N among investigated families. Actuarial risk assessment provides workers with an estimate of future family behavior based on a limited set of observable factors. It helps workers to identify high-risk families more accurately and thereby allocate available service interventions more effectively. It is important to note, however, that actuarial risk assessment is a classification instrument designed to identify groups of families with low, moderate,

high, or very high rates of subsequent maltreatment. It does not yield infallible predictions for individual families.

Because actuarial risk assessment cannot address all aspects of an individual family case, CDSS CWS established policy reasons for overriding the scored risk level. If any of the case circumstances described by agency override policies (see the current risk assessment on the following pages) apply to a family, the family is assigned to the very high risk classification, regardless of the scored risk level.

**CALIFORNIA
FAMILY RISK ASSESSMENT**

r: 09-12

Referral Name: _____ Referral #: _____ Date: ____/____/____

County Name: _____ Worker Name: _____ Worker ID#: _____

NEGLECT	Score	ABUSE	Score
N1. Current Report Is for Neglect		A1. Current Report Is for Physical Abuse	
a. No0		a. No0	
b. Yes1	_____	b. Yes1	_____
N2. Prior Investigations (<i>assign highest score that applies</i>)		A2. Number of Prior Investigations	
a. None -1		a. None -1	
b. One or more, <u>abuse</u> only1		b. One or more, neglect only0	
c. One or two for <u>neglect</u>2		c. One for abuse1	
d. Three or more for <u>neglect</u>3	_____	d. Two or more for abuse2	_____
N3. Household Has Previously Received CPS (<i>voluntary/court ordered</i>)		A3. Household Has Previously Received CPS (<i>voluntary/court ordered</i>)	
a. No0		a. No0	
b. Yes1	_____	b. Yes1	_____
N4. Number of Children Involved in the Child Abuse/Neglect Incident		A4. Prior Physical Injury to a Child Resulting from Child Abuse/Neglect or Prior Substantiated Physical Abuse to a Child	
a. One, two, or three0		a. None/not applicable0	
b. Four or more1	_____	b. One or more apply1	_____
N5. Age of Youngest Child in the Home		<input type="checkbox"/> Prior physical injury to a child resulting from CA/N	
a. Two or older0		<input type="checkbox"/> Prior substantiated physical abuse of a child	
b. Under two1	_____	A5. Number of Children Involved in the Child Abuse/Neglect Incident	
N6. Characteristics of Children in Household (<i>add for score</i>)		a. One, two, or three0	
a. Not applicable0		b. Four or more1	_____
b. One or more present (<i>mark all applicable and add</i>)		A6. Characteristics of Children in Household (<i>score 1 if any present</i>)	
<input type="checkbox"/> Developmental, learning, or physical disability1		a. Not applicable0	
<input type="checkbox"/> Developmental <input type="checkbox"/> Learning <input type="checkbox"/> Physical		b. One or more present (<i>mark all applicable</i>)1	_____
<input type="checkbox"/> Medically fragile or failure to thrive1		<input type="checkbox"/> Delinquency history	
<input type="checkbox"/> Mental health or behavioral problem1	_____	<input type="checkbox"/> Developmental disability	
N7. Primary Caregiver Provides Physical Care of the Child That Is:		<input type="checkbox"/> Learning disability	
a. Consistent with child needs0		<input type="checkbox"/> Mental health or behavioral problem	
b. Inconsistent with child needs1	_____	A7. Two or More Incidents of Domestic Violence in the Household in the Past Year	
N8. Primary Caregiver Has a History of Abuse or Neglect as a Child		a. No0	
a. No0		b. Yes1	_____
b. Yes1	_____	A8. Primary Caregiver Employs Excessive/Inappropriate Discipline	
N9. Primary Caregiver Has/Had a Mental Health Problem		a. No0	
a. No0		b. Yes1	_____
b. Yes1	_____	A9. Primary Caregiver Is Domineering	
N10. Primary Caregiver Has/Had an Alcohol and/or Drug Problem		a. No0	
a. None/not applicable0		b. Yes1	_____
b. One or more apply (<i>mark all applicable</i>)2		A10. Primary Caregiver Has a History of Abuse or Neglect as a Child	
<input type="checkbox"/> Alcohol (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)		a. No0	
<input type="checkbox"/> Drugs (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)		b. Yes1	_____
<input type="checkbox"/> Marijuana <input type="checkbox"/> Methamphetamine <input type="checkbox"/> Heroin <input type="checkbox"/> Cocaine		A11. Primary Caregiver Has/Had a Mental Health Problem	
<input type="checkbox"/> Other: _____		a. No0	
N11. Primary Caregiver Has Criminal Arrest History		b. One or more apply1	_____
a. No0		<input type="checkbox"/> During the last 12 months	
b. Yes1	_____	<input type="checkbox"/> Prior to the last 12 months	
N12. Current Housing			
a. Not applicable0			
b. One or more apply1	_____		
<input type="checkbox"/> Physically unsafe, AND/OR			
<input type="checkbox"/> Family homeless			
TOTAL NEGLECT RISK SCORE _____		TOTAL ABUSE RISK SCORE _____	

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

<u>Neglect Score</u>	<u>Abuse Score</u>	<u>Scored Risk Level</u>
<input type="checkbox"/> -1-1	<input type="checkbox"/> -1-0	<input type="checkbox"/> Low
<input type="checkbox"/> 2-5	<input type="checkbox"/> 1-3	<input type="checkbox"/> Moderate
<input type="checkbox"/> 6-8	<input type="checkbox"/> 4-6	<input type="checkbox"/> High
<input type="checkbox"/> 9+	<input type="checkbox"/> 7+	<input type="checkbox"/> Very High

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

- | | |
|--|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 1. Sexual abuse case AND the perpetrator is likely to have access to the child. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 2. Non-accidental injury to a child under age two years. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 3. Severe non-accidental injury. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 4. Caregiver action or inaction resulted in the death of a child due to abuse or neglect (previous or current). |

DISCRETIONARY OVERRIDE. If a discretionary override is made, mark yes, increase risk by one level, and indicate reason.

- | | | | | |
|--|--|-----------------------------------|-------------------------------|------------------------------------|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 5. If <u>yes</u> , override risk level (mark one): | <input type="checkbox"/> Moderate | <input type="checkbox"/> High | <input type="checkbox"/> Very High |
|--|--|-----------------------------------|-------------------------------|------------------------------------|

Discretionary override reason: _____ Date: ____/____/____

Supervisor's Review/Approval of Discretionary Override: _____ Date: ____/____/____

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

RECOMMENDED DECISION

Final Risk Level	Recommendation
Low	Do Not Promote*
Moderate	Do Not Promote*
High	Promote
Very High	Promote

*Unless there are unresolved dangers.

PLANNED ACTION:

- Promote
- Do Not Promote

If recommended decision and planned action do not match, explain why:

SUPPLEMENTAL ITEMS

Note: These items should be recorded, but are not scored.

1. Primary caregiver characteristics:

Yes No

- a. Blames child
- b. Provides insufficient emotional/psychological support

2. Secondary caregiver characteristics:

No secondary caregiver

Yes No

- a. Has history of abuse/neglect as a child
- b. Has/had mental health problem
 - During the last 12 months Prior to the last 12 months
- c. Has/had an alcohol and/or drug problem (*mark all applicable*)
 - Alcohol (Last 12 months and/or Prior 12 months)
 - Drugs (Last 12 months and/or Prior 12 months)
 - Marijuana Methamphetamine Heroin Cocaine
 - Other: _____
- d. Employs excessive/inappropriate discipline
- e. Domineering
- f. Secondary caregiver has criminal arrest history

CDSS CWS enables investigating workers and supervisors to exercise a discretionary override that increases the scored classification by one level (shown on the form). Discretionary overrides are based on a worker’s professional judgment and observation of each family. Whether workers exercise a discretionary override or not, their decisions will be informed by a scored actuarial risk classification that has a strong empirical relationship to the incidence of future maltreatment.

After applying overrides to the scored risk level, the worker reaches the family’s final risk level, which guides the decision to close the investigation or promote the family to a case. In general, low- and moderate-risk families are recommended for closure unless there are unresolved safety threats, while high- and very high-risk cases are recommended for case opening (Table 7).

Table 7	
Risk-Based Case Open/Close Guide	
Risk Level	Recommendation
Low	Close*
Moderate	Close*
High	Open
Very High	Open

*When unresolved safety threats are still present at the end of the investigation, the referral should be promoted to a case regardless of risk level.

The final risk level also informs the ongoing worker of minimum contact guidelines for each family that is promoted to a case. Each increase in risk level corresponds with an increase in contact frequency (Table 8a and Table 8b). For example, a low-risk family promoted to an in-home case should have one face-to-face contact per month and one collateral contact in the caregiver’s residence, whereas a very high-risk family should have four face-to-face contacts and four collateral contacts per month, two of which must be in the caregiver’s residence.

Table 8a		
Ongoing Worker Minimum Contact Guidelines For In-Home Services		
Risk Level	Caregiver and Child Contacts	Location
Low	One face-to-face visit per month with caregiver and child One collateral contact	Must be in caregiver’s residence
Moderate	Two face-to-face visits per month with caregiver and child Two collateral contacts	One must be in caregiver’s residence
High	Three face-to-face visits per month with caregiver and child Three collateral contacts	One must be in caregiver’s residence
Very High	Four face-to-face visits per month with caregiver and child Four collateral contacts	Two must be in caregiver’s residence
Additional Considerations		
Contact Definition	Each required contact shall include at least one caregiver and one child. During the course of a month, each caregiver and each child in the household shall be contacted at least once.	
Designated Contacts	The ongoing worker/supervisor/service team may delegate face-to-face contacts to providers with a contractual relationship to the agency and/or other agency staff such as social work aids. However, the ongoing worker must always maintain at least one face-to-face contact with the caregiver and child per month, as well as monthly contact with the service provider designated to replace the ongoing worker’s face-to-face contacts.	

Table 8b	
Contact Guidelines for Family Reunification Cases	
Risk Level	Documented Contacts With Caregiver
Low	One face-to-face visit per month with caregiver One collateral contact
Moderate	Two face-to-face visits per month with caregiver Two collateral contacts
High	Three face-to-face visits per month with caregiver Three collateral contacts
Very High	Three face-to-face visits per month with caregiver Three collateral contacts
	Documented Contacts With Children
	At least one face-to-face per month with each child
Additional Considerations	
Contact Definition	During the course of a month, each caregiver and each child shall be contacted at least once.
Designated Contacts	The ongoing worker must always maintain at least one face-to-face contact per month with the caregiver. However, the ongoing worker may delegate remaining contacts to service providers outlined in the case plan or other agency staff.
Overrides	A discretionary override to these contact guidelines is permitted based on unique case circumstances that are documented by the ongoing worker and approved by the supervisor. All case contacts must at least meet Division 31 regulations.

The following section describes how well the risk assessment estimated future maltreatment among families investigated by child welfare agency staff. This analysis references the risk classification resulting from item scoring rather than the risk classification after overrides because the focus is on the predictive validity of the scored risk assessment.

IV. FINDINGS

The following analyses observed case outcomes for the scored risk classification completed by workers for each sample family. As mentioned previously, outcomes for each family were observed for an 18-month period following the sample investigation to assess subsequent CPS involvement after the risk assessment was completed. Subsequent neglect investigation and substantiation rates are reported for the scored neglect classification, subsequent abuse rates are reported for the scored abuse classification, and overall rates of subsequent investigation or maltreatment substantiation are shown for the overall risk classification (before any overrides).

A. Current Family Risk Assessment Classification Findings

A valid risk assessment classifies families into risk categories with progressively higher rates of subsequent CPS involvement. Ideally, the rates between consecutive risk levels maximize the separation between the high- and low-risk groups as well as between consecutive risk groups. In other words, each increase in risk level should correspond to a significant increase in subsequent CPS investigation, substantiated maltreatment, and subsequent child placement by child welfare agency staff.

1. Current Family Risk Assessment Classification Findings for Neglect

Table 9 shows the proportion of families with a follow-up neglect investigation as classified by the current neglect instrument. One third (33.6%) of families were classified as low risk, while 42.5% of families were classified as moderate risk, 17.3% as high risk, and 6.6% as very high risk.

Within 18 months after the initial classification was assigned, 25.1% of the sampled families were investigated for a neglect allegation on at least one occasion. Of the families classified as low risk, 12.1% were subsequently investigated for neglect. Families classified as moderate risk of neglect had a

neglect re-investigation rate of 27.6%, high-risk families had a rate of 37.8%, and very high-risk families had a rate of 42.5%. The neglect index risk assessment performed as expected in that an increase in the neglect risk level corresponded to an increase in the subsequent neglect investigation rate.

The current risk assessment of neglect performed similarly when the outcome was subsequent substantiation for a neglect allegation. Only 4.0% of sampled families assigned to the low risk classification had neglect substantiated during the follow-up period, compared to 10.3% of moderate-risk families, 16.7% of high-risk families, and 20.8% of very high-risk families.

Neglect Risk Level	Sample		Subsequent Neglect Investigation		Subsequent Neglect Substantiation		Subsequent Neglect Investigation With Removal	
	N	%	N	%	N	%	N	%
Low	3,848	33.6%	465	12.1%	153	4.0%	54	1.4%
Moderate	4,864	42.5%	1,341	27.6%	502	10.3%	235	4.8%
High	1,979	17.3%	748	37.8%	330	16.7%	181	9.1%
Very High	753	6.6%	320	42.5%	157	20.8%	96	12.7%
Total Sample	11,444	100.0%	2,874	25.1%	1,142	10.0%	566	4.9%

2. Current Family Risk Assessment Classification Findings for Abuse

The risk assessment performed similarly when classifying families by their likelihood of subsequent abuse (Table 10). More than one third (39.4%) of the sampled families were classified as low risk, 45.0% as moderate risk, and 14.1% as high risk. Only 169 (1.5%) families classified as having a very high risk of abuse, which makes the evaluation of findings for this group difficult.

Among the 4,514 families classified as low risk, 13.4% were subsequently investigated for abuse allegations. Families classified as moderate, high, and very high risk had progressively higher follow-up abuse investigation rates of 22.3%, 35.7%, and 40.2%, respectively. The risk assessment

performed as expected in that an increase in the abuse risk level corresponded to an increase in the rate of subsequent abuse investigation.

The same pattern can be observed when the outcome is subsequent abuse substantiation. Families classified as having a low risk of abuse had a follow-up abuse substantiation rate of 2.3%. In comparison, moderate-risk families had a rate of 4.9% and high-risk families a rate of 8.5%. Families classified as very high risk had a slightly lower, but nearly the same abuse substantiation rate as high-risk families (8.3%). The low number of families in the very high risk category, however, makes this finding difficult to evaluate.

Abuse Risk Level	Sample		Subsequent Abuse Investigation		Subsequent Abuse Substantiation		Subsequent Abuse Investigation with Removal	
	N	%	N	%	N	%	N	%
Low	4,514	39.4%	606	13.4%	106	2.3%	53	1.2%
Moderate	5,152	45.0%	1,148	22.3%	252	4.9%	149	2.9%
High	1,609	14.1%	574	35.7%	136	8.5%	103	6.4%
Very High	169	1.5%	68	40.2%	14	8.3%	11	6.5%
Total Sample	11,444	100.0%	2,396	20.9%	508	4.4%	316	2.8%

3. Current Family Risk Assessment Classification Findings for Any Maltreatment

As mentioned previously, the overall risk classification is the highest risk level assigned by the abuse or neglect index. This classification establishes a risk level that estimates the likelihood of subsequent maltreatment of any kind (i.e., either abuse or neglect) and is used by agencies to inform case opening decisions and contact guidelines for families promoted to case services.

Table 11 and Figure 3 report the follow-up investigation, substantiation, and child placement rates by the overall classification obtained by the current family risk assessment. During the 18 months following the sampled investigation, 31.8% of families had at least one investigation for a

maltreatment report. Among families classified as low risk, 16.9% had a follow-up investigation.

Families classified as moderate risk had a subsequent investigation rate of 31.3%. Families classified as high or very high risk had progressively higher rates (43.3% and 49.4%, respectively) of subsequent investigation for abuse or neglect.

When the outcome was subsequent substantiation for abuse or neglect, the findings retained the same pattern. Families classified as low risk had a rate of 5.2%, while the corresponding rate was 11.3% for moderate risk, 17.8% for high risk, and 22.9% for very high risk.

The overall risk classification also demonstrated good discrimination by subsequent placement of a child. Only 1.5% of families classified as low risk had a subsequent child placement, compared to 4.4% of moderate-risk families, 8.8% of high-risk families, and 13.4% of very high-risk families.

Overall Risk Level	Sample		Subsequent Investigation		Subsequent Substantiation		Subsequent Investigation with Removal	
	N	%	N	%	N	%	N	%
Low	2,840	24.8%	481	16.9%	149	5.2%	42	1.5%
Moderate	5,130	44.8%	1,605	31.3%	579	11.3%	227	4.4%
High	2,623	22.9%	1,135	43.3%	468	17.8%	232	8.8%
Very High	851	7.4%	420	49.4%	195	22.9%	114	13.4%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%

4. Current Risk Assessment Classification Findings by the Investigation Disposition

Table 12 shows the overall risk assessment classification findings by workers' substantiation decision for the sampled investigation (inconclusive or substantiated). A greater proportion of families with a substantiated allegation were classified as high or very high risk. More than one fourth (26.2%) of families substantiated at the time of the sampled incident classified as high risk, and an additional 10.6% classified as very high risk. In comparison, 19.0% of families with an inconclusive finding classified as high risk and 3.7% classified as very high risk.¹²

For each of the three CPS outcomes observed, an increase in the risk classification corresponds to an increase in the outcome rate for families regardless of the sampled investigation's disposition. When the outcome was subsequent substantiation or subsequent child placement, outcome rates within a risk classification were similar for families whether the sample incident was substantiated or not. For example, 4.6% of low-risk families with an inconclusive finding had a subsequent substantiated child maltreatment incident during the standardized 18-month follow-up period, compared to 5.9% of substantiated low-risk families. The corresponding rates for moderate-risk families were 11.4% for inconclusive and 11.1% for substantiated families. The rates for high-risk families were 19.7% for inconclusive and 16.7% for substantiated families, while subsequent substantiation rates for very high-risk families were 25.1% for inconclusive and 22.3% for substantiated families.

Similar findings were observed when the outcome was subsequent child placement. For example, the placement rate for inconclusive families classified as very high risk was 15.4%, while the rate for substantiated, very high-risk families was 12.8%.

¹² Note that the substantiation decision is based on state statutes and is unrelated to the risk assessment completion.

Table 12								
Current Overall Risk Classification and Subsequent Maltreatment Outcomes by Investigation Disposition								
Overall Risk Level	Sample Distribution		Subsequent Investigation		Subsequent Substantiation		Subsequent Investigation With Removal	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Inconclusive for Current Allegations								
Low	1,510	28.8%	243	16.1%	70	4.6%	23	1.5%
Moderate	2,547	48.5%	830	32.6%	291	11.4%	119	4.7%
High	997	19.0%	482	48.3%	196	19.7%	96	9.6%
Very High	195	3.7%	107	54.9%	49	25.1%	30	15.4%
Subtotal	5,249	100.0%	1,662	31.7%	606	11.5%	268	5.1%
Substantiated for Current Allegations								
Low	1,330	21.5%	238	17.9%	79	5.9%	19	1.4%
Moderate	2,583	41.7%	775	30.0%	288	11.1%	108	4.2%
High	1,626	26.2%	653	40.2%	272	16.7%	136	8.4%
Very High	656	10.6%	313	47.7%	146	22.3%	84	12.8%
Subtotal	6,195	100.0%	1,979	31.9%	785	12.7%	347	5.6%

5. Current Risk Assessment Classification Findings by Race/Ethnicity of Youngest Child

Table 13 compares risk assessment classification findings by the race/ethnicity of the youngest child in the household. The distribution of families by risk level classification was similar for White/European American and Black/African American families (see Table 12, columns two and three). For example, among Black/African American and White/European American families, approximately 27% to 29% of families classified as high risk and approximately 10% as very high risk. A lower proportion of Hispanic/Latino or South/Central American and Asian/Pacific Islander families classified as high (20.0% and 12.4%, respectively) and very high risk (5.6% and 3.1%, respectively). More than half (54.3%) of the Native American families classified as high risk (38.3%) or very high risk (16.0%).

With one exception, an increase in the risk classification corresponded to an increase in the CPS outcome rate for families in every ethnic group. For example, among Hispanic/Latino or

South/Central American families, the subsequent substantiation rate was 5.0% for low-risk, 11.8% for moderate-risk, 18.4% for high-risk, and 25.0% for very high-risk families. The only exception to this pattern was Native American families, whose re-investigation and subsequent substantiation rates for very high-risk families were lower than the corresponding rates for high-risk families. This is explained in part by the higher outcome base rate of Native American families, which is double that of Asian/Pacific Islander families.

Among White/European American, Black/African American, and Hispanic/Latino or South/Central American families, rates within each risk classification were also similar. For example, 13.3% of White/European American families classified as moderate risk were substantiated during the standardized 18-month follow-up period, compared to 11.8% of moderate-risk Hispanic/Latino or South/Central American and 11.0% of moderate-risk Black/African American families. Very high-risk Asian/Pacific Islander families, however, had re-investigation and subsequent child placement rates similar to those of high-risk families of the other four main ethnic groups; moderate-risk Native American families had outcome rates similar to high-risk families from other ethnic groups. This observation is known as “crossover,” and an assessment working equitably for different subgroups should have little or no crossover.

Table 13

Current Overall Risk Classification and Subsequent Maltreatment Outcomes by Ethnicity

Overall Risk Level	Sample Distribution		Subsequent Investigation		Subsequent Substantiation		Subsequent Investigation With Removal	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Asian/Pacific Islander								
Low	320	36.6%	43	13.4%	14	4.4%	5	1.6%
Moderate	419	47.9%	94	22.4%	30	7.2%	11	2.6%
High	108	12.4%	37	34.3%	16	14.8%	8	7.4%
Very High	27	3.1%	12	44.4%	8	29.6%	6	22.2%
Subtotal	874	100.0%	186	21.3%	68	7.8%	30	3.4%
Black/African American								
Low	279	16.8%	40	14.3%	10	3.6%	3	1.1%
Moderate	721	43.4%	236	32.7%	79	11.0%	36	5.0%
High	492	29.6%	213	43.3%	78	15.9%	37	7.5%
Very High	169	10.2%	86	50.9%	41	24.3%	21	12.4%
Subtotal	1,661	100.0%	575	34.6%	208	12.5%	97	5.8%
Hispanic/Latino or South/Central American								
Low	1,354	28.4%	241	17.8%	68	5.0%	14	1.0%
Moderate	2,199	46.1%	648	29.5%	259	11.8%	96	4.4%
High	954	20.0%	396	41.5%	176	18.4%	89	9.3%
Very High	268	5.6%	134	50.0%	67	25.0%	40	14.9%
Subtotal	4,775	100.0%	1,419	29.7%	570	11.9%	239	5.0%
White/European American								
Low	571	19.2%	116	20.3%	44	7.7%	14	2.5%
Moderate	1,306	43.9%	492	37.7%	174	13.3%	66	5.1%
High	800	26.9%	369	46.1%	150	18.8%	73	9.1%
Very High	297	10.0%	146	49.2%	64	21.5%	37	12.5%
Subtotal	2,974	100.0%	1,123	37.8%	432	14.5%	190	6.4%
Native American								
Low	54	11.5%	15	27.8%	9	16.7%	6	11.1%
Moderate	161	34.3%	68	42.2%	31	19.3%	17	10.6%
High	180	38.3%	89	49.4%	42	23.3%	24	13.3%
Very High	75	16.0%	35	46.7%	14	18.7%	10	13.3%

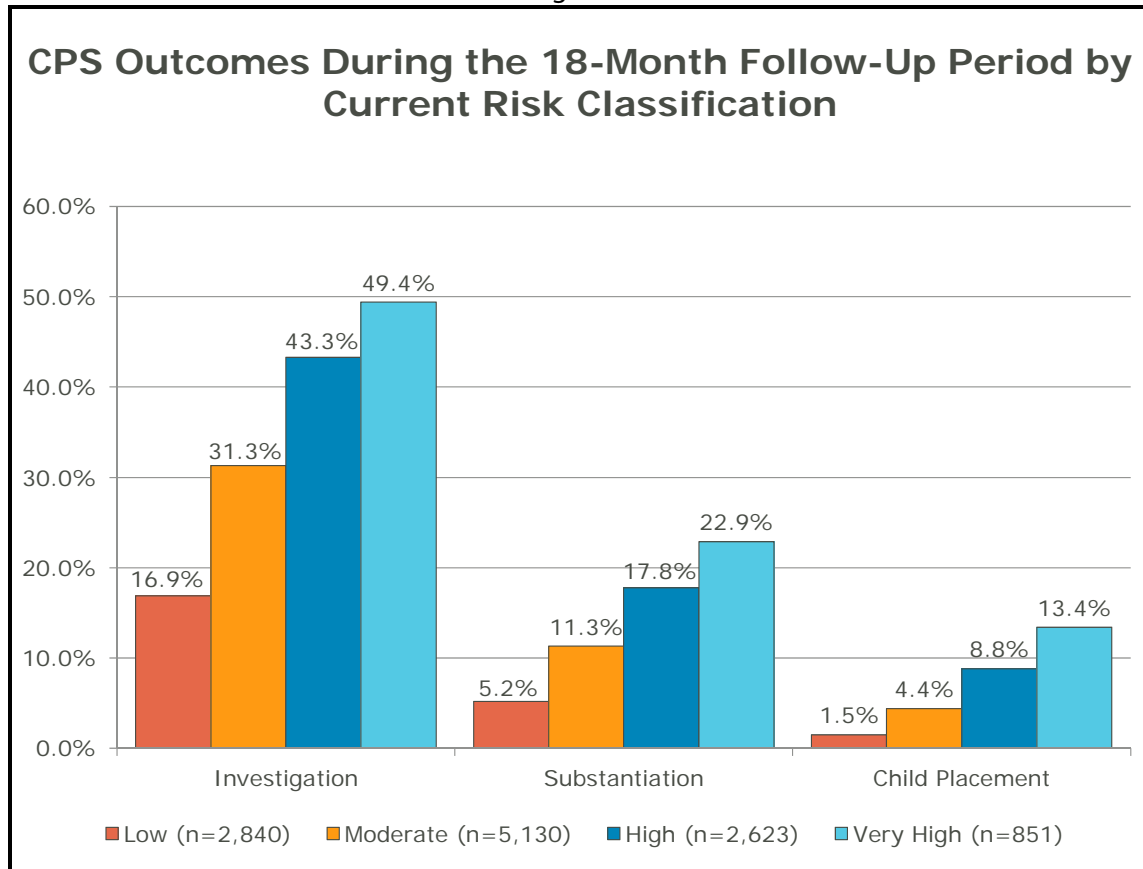
Table 13								
Current Overall Risk Classification and Subsequent Maltreatment Outcomes by Ethnicity								
Overall Risk Level	Sample Distribution		Subsequent Investigation		Subsequent Substantiation		Subsequent Investigation With Removal	
	N	%	N	%	N	%	N	%
Subtotal	470	100.0%	207	44.0%	96	20.4%	57	12.1%
Other/Missing								
Low	262	38.0%	26	9.9%	4	1.5%	0	0.0%
Moderate	324	47.0%	67	20.7%	6	1.9%	1	0.3%
High	89	12.9%	31	34.8%	6	6.7%	1	1.1%
Very High	15	2.2%	7	46.7%	1	6.7%	0	0.0%
Subtotal	690	100.0%	131	19.0%	17	2.5%	2	0.3%

6. Summary of Current Risk Assessment Classification Findings

The current risk assessment performed well when distinguishing between families classified at low, moderate, high, and very high risk of subsequent substantiated maltreatment. For all CPS outcomes (investigation, substantiation, and child placement) and among most sample subgroups, the recidivism rates observed among low-risk families were significantly lower than those of families classified at higher risk levels. For example, 5.2% of families classified as low risk had a subsequent substantiation during the 18-month follow-up period, a rate much lower than the average (12.2%) for the entire sample. Families classified as moderate risk had a subsequent substantiation rate of 11.3%, high-risk families a rate of 17.8%, and very high-risk families had a rate of 22.9% (see Figure 3). An increase in risk from low to moderate and moderate to high corresponded to more than a 35% increase in the re-investigation rate (only a 14% increase between high and very high risk); for instance, 43.3% of high-risk families had a subsequent investigation compared to 31.3% of moderate-risk families, representing an increase of 38%. Similarly, an increase in risk level from low to moderate and moderate to high corresponded to at least a 55% increase in the subsequent substantiation rate

(only a 28% increase between high and very high risk), and nearly a twofold increase in the child placement rate (a 52% increase between high and very high risk).

Figure 3



Although the current risk assessment classified families overall with reasonable accuracy, results suggest that performance could be improved. For example, there was a less pronounced difference in outcome rates for high- and very high-risk families (i.e., outcome rates were elevated for very high-risk families, but not much higher than outcome rates for high-risk families). This pattern was observed on both the abuse and neglect indices, individually, as well as for the overall scored risk level. It is desirable to have more distinction between high- and very high-risk families than that which is currently observed. Also, the current assessment did not differentiate between moderate-, high-,

and very high-risk Native American families very well (see Table 13). More than 50% of Native American families were classified as high or very high risk. This is particularly problematic given that outcome rates did not significantly differ from those of moderate-risk Native American families.

B. Development of the Proposed Risk Assessment

To determine whether or not the current classification findings could be improved upon, CRC conducted independent risk-factor analyses to guide risk assessment construction. This began with examining the relationships between the family case characteristics that workers observed and recorded in CWS/CMS at the time of the sample investigation and the family's subsequent CPS involvement. This includes risk factors recorded by workers, allegations of abuse and neglect made at the time of the sample incident, and CPS involvement of families prior to the sample incident. Individual items were selected for inclusion in the abuse or neglect assessment based on their statistical association with subsequent maltreatment.

This first step was based on correlations and cross-tabulations between each potential risk factor available for study and each outcome measure. The primary maltreatment outcome was subsequent investigation, for the reasons articulated previously. Risk factors that demonstrated a significant statistical association with any CPS outcome were included in regression analyses.¹³ Stepwise regression analyses informed the combination of risk factors tested for construction, and risk item weights were determined by assessing their bivariate and multivariate relationships to maltreatment outcome measures. Because the assessment must be completed by workers under field conditions, the ease of observing and reliably scoring case characteristics was also considered in the selection of revised instrument items. After a preliminary assessment was developed, it was tested against outcomes to determine optimal cut-off points for classification categories and to evaluate its

¹³ Pearson correlation significant at the .05 level.

classification capabilities. This risk assessment was then applied to the validation sample to examine classification findings with a different sample.

This revalidation effort resulted in a proposed risk assessment that employs similar risk factors to the current one. The proposed neglect risk index, for example, lowers the score assigned to prior neglect history, separates out prior abuse history, distinguishes between families that received CPS in the past versus currently, makes child characteristics a one-point item rather than a summative item, removes the item related to the primary caregiver's physical care of the child, and adds evaluation of the secondary caregiver to the primary caregiver characteristics items (history of abuse or neglect as a child, mental health, alcohol/drug problem, criminal arrest history). The proposed abuse risk index expands the current report items to include emotional abuse, alters the scoring for number of prior abuse investigations (see item A2), separates out prior neglect history, distinguishes between families that received CPS in the past versus currently, eliminates delinquency history from the child characteristics and the "primary caregiver is domineering" item, adds "primary caregiver blames child," adds evaluation of the secondary caregiver to the primary caregiver characteristics items (history of abuse or neglect as a child and mental health), and adds an item regarding primary and/or secondary caregiver substance abuse.

**CALIFORNIA
PROPOSED FAMILY RISK ASSESSMENT**

r: 07-13

Referral Name: _____ **Referral #:** _____ **Date:** ____/____/____

County Name: _____ **Worker Name:** _____ **Worker ID#:** _____

NEGLECT	Score	ABUSE	Score
N1. Current Report Is for Neglect		A1. Current Report Is for Physical or Emotional Abuse	
a. No.....0		a. No 0	
b. Yes 1	_____	b. Yes 1	_____
N2. Two or More Prior Neglect Investigations (<i>assign highest score that applies</i>)		A2. Two or More Prior Abuse Investigations	
a. Fewer than two prior neglect investigations 0		a. Fewer than two prior abuse investigations..... 0	
b. Two prior neglect investigations..... 1		b. Two prior abuse investigations 1	
c. Three prior neglect investigations..... 2	_____	c. Three or more prior abuse investigations..... 2	_____
N3. Any Prior Investigation for Abuse		A3. Any Prior Investigation for Neglect	
a. No 0		a. No 0	
b. Yes 1	_____	b. Yes 1	_____
N4. Household Has Previously Received CPS (<i>voluntary/court ordered</i>)		A4. Household Has Previously Received CPS (<i>voluntary/court ordered</i>)	
a. No.....0		a. No 0	
b. Yes, previously but not currently 1		b. Yes, Previously but Not Currently 1	
c. Yes, household currently receiving CPS 2	_____	c. Yes, Household Currently Receiving CPS 2	_____
N5. Number of Children Involved in the Child Abuse/Neglect Incident		A5. Prior Physical Injury to a Child Resulting From Child Abuse/Neglect or Prior Substantiated Physical Abuse to a Child	
a. One, two, or three.....0		a. None/not applicable 0	
b. Four or more 1	_____	b. One or more apply 1	_____
N6. Age of Youngest Child in the Home		<input type="checkbox"/> Prior physical injury to a child resulting from CA/N	
a. Two or older 0		<input type="checkbox"/> Prior substantiated physical abuse of a child	
b. Younger than two 1	_____	A6. Number of Children Involved in the Child Abuse/Neglect Incident	
N7. Characteristics of Children in Household		a. One, two, or three 0	
a. Not applicable 0		b. Four or more 1	_____
b. One or more present 1		A7. Characteristics of Children in Household (<i>score 1 if any present</i>)	
<input type="checkbox"/> Developmental, learning, or physical disability		a. Not applicable 0	
<input type="checkbox"/> Developmental <input type="checkbox"/> Learning <input type="checkbox"/> Physical		b. One or more present (<i>mark all applicable</i>) 1	_____
<input type="checkbox"/> Medically fragile or failure to thrive		<input type="checkbox"/> Developmental disability	
<input type="checkbox"/> Mental health or behavioral problem	_____	<input type="checkbox"/> Learning disability	
N8. Primary or Secondary Caregiver Has a History of Abuse or Neglect as a Child		<input type="checkbox"/> Mental health or behavioral problem	
a. No.....0		A8. Two or More Incidents of Domestic Violence in the Household in the Past Year	
b. Yes 1	_____	a. No 0	
N9. Primary or Secondary Caregiver Has/Had a Mental Health Problem		b. Yes 1	_____
a. No.....0		A9. Primary Caregiver Employs Excessive/Inappropriate Discipline	
b. Yes 1	_____	a. No 0	
N10. Primary or Secondary Caregiver Has/Had an Alcohol and/or Drug Problem		b. Yes 1	_____
a. None/not applicable 0		A10. Primary Caregiver Blames Child	
b. One or more apply (<i>mark all applicable</i>) 1	_____	a. No 0	
<input type="checkbox"/> Alcohol (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)		b. Yes 1	_____
<input type="checkbox"/> Drugs (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)		A11. Primary or Secondary Caregiver Has a History of Abuse or Neglect as a Child	
N11. Primary or Secondary Caregiver Has Criminal Arrest History		a. No 0	
a. No.....0		b. Yes 1	_____
b. Yes 1	_____	A12. Primary or Secondary Caregiver Has/Had a Mental Health Problem	
N12. Current Housing		a. No 0	
a. Not applicable 0		b. One or more apply 1	_____
b. One or more apply 1	_____	<input type="checkbox"/> During the last 12 months	
<input type="checkbox"/> Physically unsafe, AND/OR		<input type="checkbox"/> Prior to the last 12 months	
<input type="checkbox"/> Family homeless		A13. Primary or Secondary Caregiver Has/Had an Alcohol and/or Drug Problem	
		a. None/not applicable 0	
		b. One or more apply (<i>mark all applicable</i>) 1	_____
		<input type="checkbox"/> Alcohol (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)	
		<input type="checkbox"/> Drugs (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)	
TOTAL NEGLECT RISK SCORE	=====	TOTAL ABUSE RISK SCORE	=====

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

Neglect Score	Abuse Score	Scored Risk Level
<input type="checkbox"/> 0-2	<input type="checkbox"/> 0-1	<input type="checkbox"/> Low
<input type="checkbox"/> 3-5	<input type="checkbox"/> 2-4	<input type="checkbox"/> Moderate
<input type="checkbox"/> 6-8	<input type="checkbox"/> 5-7	<input type="checkbox"/> High
<input type="checkbox"/> 9+	<input type="checkbox"/> 8+	<input type="checkbox"/> Very High

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

- | | | |
|------------------------------|-----------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Sexual abuse case AND the perpetrator is likely to have access to the child. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 2. Non-accidental injury to a child under the age of two years. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 3. Severe non-accidental injury. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 4. Caregiver action or inaction resulted in the death of a child due to abuse or neglect (previous or current). |

DISCRETIONARY OVERRIDE. If a discretionary override is made, mark yes, increase risk by one level, and indicate reason.

- Yes No 5. If yes, override risk level (mark one): Moderate High Very High

Discretionary override reason: _____

Supervisor's Review/Approval of Discretionary Override: _____ Date: ____/____/____

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

RECOMMENDED DECISION

Final Risk Level	Recommendation
Low	Do Not Promote*
Moderate	Do Not Promote*
High	Promote
Very High	Promote

*Unless there are unresolved safety threats.

PLANNED ACTION

- Promote
 Do Not Promote

If recommended decision and planned action do not match, explain why:

C. Performance of the Proposed Family Risk Assessment for Abuse and Neglect

The following tables review the proposed risk assessment classification results for the construction sample, using the same maltreatment outcomes reviewed for assessing the performance of the current family risk assessment. Findings are shown for the proposed neglect index, the proposed abuse index, and the overall risk classification.

1. Proposed Family Risk Assessment Classification Findings for Neglect

Table 14 shows that when classified by the proposed neglect risk assessment, an increase in the neglect risk level corresponded to an increase in rates for every neglect outcome. Among families classified as being at low risk of neglect, 13.8% had a subsequent investigation for neglect, compared to 27.4% of families classified as moderate risk, 41.5% of high-risk families, and 53.4% of very high-risk families. When the outcome was subsequent substantiation for neglect, the rate roughly doubled from low (4.3%) to moderate (11.1%) and moderate to high (18.1%) and increased approximately 50% from high to very high risk (26.7%).

Table 14								
Proposed Risk of Neglect Classification by Neglect Outcomes								
Proposed Neglect Risk Level	Sample		Subsequent Neglect Investigation		Subsequent Neglect Substantiation		Subsequent Neglect Investigation With Removal	
	N	%	N	%	N	%	N	%
Low	4,452	38.9%	615	13.8%	190	4.3%	68	1.5%
Moderate	4,832	42.2%	1,326	27.4%	534	11.1%	258	5.3%
High	1,853	16.2%	769	41.5%	336	18.1%	186	10.0%
Very High	307	2.7%	164	53.4%	82	26.7%	54	17.6%
Total Sample	11,444	100.0%	2,874	25.1%	1,142	10.0%	566	4.9%

2. Proposed Family Risk Assessment Classification Findings for Abuse

The proposed abuse risk assessment classified families by their likelihood of future physical, emotional, or sexual abuse of a child more accurately than the current assessment. As Table 15 indicates, families classified as very high risk had an abuse investigation and substantiation rate approximately four times greater than low-risk families. Each increase in the abuse risk level demonstrated a significantly higher investigation and substantiation rate.

Proposed Risk of Abuse Classification by Abuse Outcomes								
Proposed Abuse Risk Level	Sample		Subsequent Abuse Investigation		Subsequent Abuse Substantiation		Subsequent Abuse Investigation With Removal	
	N	%	N	%	N	%	N	%
Low	3,389	29.6%	385	11.4%	75	2.2%	37	1.1%
Moderate	5,793	50.6%	1,209	20.9%	243	4.2%	131	2.3%
High	1,868	16.3%	622	33.3%	151	8.1%	113	6.0%
Very High	394	3.4%	180	45.7%	39	9.9%	35	8.9%
Total Sample	11,444	100.0%	2,396	20.9%	508	4.4%	316	2.8%

3. Proposed Family Risk Assessment Classification Findings for Any Maltreatment

The proposed neglect and abuse assessments resulted in an improved overall risk classification for maltreatment. Table 16 shows that the proposed risk assessment classified fewer families as high or very high risk (26.2%) than the current risk assessment (30.4%).

In addition, the proposed risk assessment showed the same or better discrimination in CPS outcomes between risk levels and achieved higher outcome rates for the very high-risk group. For example, 5.1% of the sampled families classified as low risk had a subsequent substantiation compared to 10.9% of moderate-risk families, 19.4% of high-risk, and 25.9% for very high-risk families. By comparison (see Table 11), families classified as very high risk by the current risk assessment had a subsequent substantiation rate of 22.9%.

Proposed Overall Risk Level	Sample		Subsequent Investigation		Subsequent Substantiation		Subsequent Investigation With Removal	
	N	%	N	%	N	%	N	%
Low	2,582	22.6%	419	16.2%	131	5.1%	36	1.4%
Moderate	5,867	51.3%	1,778	30.3%	642	10.9%	259	4.4%
High	2,440	21.3%	1,124	46.1%	474	19.4%	233	9.5%
Very High	555	4.8%	320	57.7%	144	25.9%	87	15.7%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%

4. Proposed Risk Assessment Classification Findings by the Investigation Disposition

Table 17 shows the overall risk assessment classification findings by the disposition decision (inconclusive or substantiated) for the sampled investigation. As with the current risk assessment, a greater proportion of families with a substantiated allegation were classified as high or very high risk compared to families with an inconclusive finding.

For each of the three CPS outcomes observed, an increase in the risk classification corresponded to an increase in the outcome rate for families regardless of the sampled investigation's disposition. In addition, subsequent substantiation and child placement rates within a risk level classification were similar regardless of the sampled investigation's disposition. For example, 23.5% of very high-risk families with an inconclusive finding for the sample incident and 26.8% of very high-risk families with a substantiated sample incident had a subsequent substantiation during the follow-up period. This rate is at least four times that of subsequent substantiation among low-risk families.

Proposed Overall Risk Classification and Subsequent Maltreatment Outcomes by Investigation Disposition								
Proposed Overall Risk Level	Sample Distribution		Subsequent Investigation		Subsequent Substantiation		Subsequent Investigation With Removal	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Inconclusive for Current Allegations								
Low	1,460	27.8%	214	14.7%	60	4.1%	18	1.2%
Moderate	2,739	52.2%	904	33.0%	315	11.5%	132	4.8%
High	901	17.2%	457	50.7%	196	21.8%	97	10.8%
Very High	149	2.8%	87	58.4%	35	23.5%	21	14.1%
Subtotal	5,249	100.0%	1,662	31.7%	606	11.5%	268	5.1%
Substantiated for Current Allegations								
Low	1,122	18.1%	205	18.3%	71	6.3%	18	1.6%
Moderate	3,128	50.5%	874	27.9%	327	10.5%	127	4.1%
High	1,539	24.8%	667	43.3%	278	18.1%	136	8.8%
Very High	406	6.6%	233	57.4%	109	26.8%	66	16.3%
Subtotal	6,195	100.0%	1,979	31.9%	785	12.7%	347	5.6%

5. Proposed Risk Assessment Classification Findings by Race/Ethnicity of Youngest Child

Table 18 compares the proposed risk assessment classification findings by race/ethnicity of the youngest child in the household. The distribution of families by risk level classification was similar for White/European American and Black/African American families. For example, 32.0% of

White/European American families and 33.5% of Black/African American families were classified as high or very high risk by the proposed risk assessment. A lower proportion of Hispanic/Latino or South/Central American (22.6%) and Asian/Pacific Islander (13.3%) families classified as high or very high risk. While the percentage of Native American families classified as high or very high (43.0%) remains higher than the proportion of other ethnic groups in those risk categories, this is a marked improvement from the current assessment, which classified 54.3% of Native American families as high or very high risk.

With one exception, an increase in the proposed risk classification corresponded to an increase in every outcome rate for every ethnic group observed. The only exception was the subsequent substantiation rates for moderate- and high-risk Native American families, which were essentially the same (20.0% versus 20.6%, respectively). One factor that may have influenced this observation is the high base rate of subsequent substantiation for Native American families, which is 40% higher than the next highest substantiation base rate for a race/ethnicity group (14.5% for White/European American families).

In almost all cases, outcome rates within a risk classification were similar across racial/ethnic groups. For example, White/European American families classified as low risk had a subsequent investigation rate of 20.0%, compared to 18.7% of Black/African American families, 16.6% of Hispanic/Latino or South/Central American families, 12.4% of Asian/Pacific Islander families, and 21.1% of Native American families. However, when subsequent substantiation is considered, low- and moderate-risk Native American families have outcome rates similar to high-risk families from other race/ethnic groups. It is important to remember that the base rate for this outcome for Native American families is between 40% and 260% *higher* than the rate observed for other major race/ethnic groups, making this a difficult outcome to evaluate. In addition, the subsequent investigation rate for moderate-risk Asian/Pacific Islander families was similar to the rate for low-risk White/European American families and low-risk Native American families.

Table 18

Proposed Overall Risk Classification and Subsequent Maltreatment Outcomes by Ethnicity

Proposed Overall Risk Level	Sample Distribution		Subsequent Investigation		Subsequent Substantiation		Subsequent Investigation With Removal	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Asian/Pacific Islander								
Low	298	34.1%	37	12.4%	14	4.7%	4	1.3%
Moderate	460	52.6%	101	22.0%	32	7.0%	12	2.6%
High	104	11.9%	42	40.4%	18	17.3%	10	9.6%
Very High	12	1.4%	6	50.0%	4	33.3%	4	33.3%
Subtotal	874	100.0%	186	21.3%	68	7.8%	30	3.4%
Black/African American								
Low	262	15.8%	49	18.7%	12	4.6%	2	0.8%
Moderate	843	50.8%	258	30.6%	88	10.4%	44	5.2%
High	441	26.6%	197	44.7%	75	17.0%	35	7.9%
Very High	115	6.9%	71	61.7%	33	28.7%	16	13.9%
Subtotal	1,661	100.0%	575	34.6%	208	12.5%	97	5.8%
Hispanic/Latino or South/Central American								
Low	1,228	25.7%	204	16.6%	60	4.9%	18	1.5%
Moderate	2,467	51.7%	713	28.9%	281	11.4%	99	4.0%
High	875	18.3%	388	44.3%	180	20.6%	94	10.7%
Very High	205	4.3%	114	55.6%	49	23.9%	28	13.7%
Subtotal	4,775	100.0%	1,419	29.7%	570	11.9%	239	5.0%
White/European American								
Low	501	16.8%	100	20.0%	36	7.2%	10	2.0%
Moderate	1,521	51.1%	544	35.8%	187	12.3%	75	4.9%
High	769	25.9%	377	49.0%	161	20.9%	74	9.6%
Very High	183	6.2%	102	55.7%	48	26.2%	31	16.9%
Subtotal	2,974	100.0%	1,123	37.8%	432	14.5%	190	6.4%
Native American								
Low	38	8.1%	8	21.1%	6	15.8%	2	5.3%
Moderate	230	48.9%	88	38.3%	46	20.0%	27	11.7%
High	170	36.2%	89	52.4%	35	20.6%	20	11.8%
Very High	32	6.8%	22	68.8%	9	28.1%	8	25.0%
Subtotal	470	100.0%	207	44.0%	96	20.4%	57	12.1%
Other/Missing								
Low	255	37.0%	21	8.2%	3	1.2%	0	0.0%
Moderate	346	50.1%	74	21.4%	8	2.3%	2	0.6%
High	81	11.7%	31	38.3%	5	6.2%	0	0.0%
Very High	8	1.2%	5	62.5%	1	12.5%	0	0.0%
Subtotal	690	100.0%	131	19.0%	17	2.5%	2	0.3%

6. Summary of Proposed Risk Assessment Classification Findings

Although the current and proposed risk assessments perform well when distinguishing between families by the risk of future child maltreatment allegations, the proposed risk assessment classified fewer families as high and very high risk than the current assessment (26.2% compared to 30.4%); and a greater proportion of these families had a subsequent investigation, substantiation, and child placement compared to families classified as high or very high risk by the current risk assessment (Table 19). This means that the revised assessment achieved greater specificity than the current risk assessment. This difference may in part be attributable to the use of the sample for construction purposes (as opposed to validation), but validation findings for alternative samples indicate that the specificity may be transferrable (see Appendix C for more details). In other words, the revised assessment classified fewer families as high or very high risk, but a higher proportion of these families were subsequently involved with CPS. In addition, the revised risk assessment improved differences in performance observed across ethnic groups when classified by the current risk assessment.

Table 19					
Current and Proposed Risk Classification by Subsequent Maltreatment Outcomes					
Overall Risk Level	Sample Distribution		Outcome Rates During the 18-Month Follow-Up Period		
	N	%	Subsequent Investigation	Subsequent Substantiation	Subsequent Investigation With Removal
Total Sample	11,444	100.0%	31.8%	12.2%	5.4%
Current Risk Assessment Classification					
Low	2,840	24.8%	16.9%	5.2%	1.5%
Moderate	5,130	44.8%	31.3%	11.3%	4.4%
High	2,623	22.9%	43.3%	17.8%	8.8%
Very High	851	7.4%	49.4%	22.9%	13.4%
Proposed Risk Assessment Classification					
Low	2,582	22.6%	16.2%	5.1%	1.4%
Moderate	5,867	51.3%	30.3%	10.9%	4.4%
High	2,440	21.3%	46.1%	19.4%	9.5%
Very High	555	4.8%	57.7%	25.9%	15.7%

This pattern was true for sample subgroups as well. For every subgroup, the very high risk groups were smaller and had higher outcome rates than when families were classified by the current risk assessment. Native American families classified as moderate risk, however, had subsequent investigation outcome rates similar to, albeit lower than, Asian/Pacific Islander families classified as high risk. Note that when classified by the current risk assessment, the outcomes for moderate-risk Native American families were similar to high- and/or very high-risk families from other race/ethnic groups.¹⁴

Another advantage of the proposed assessment was an enhanced ability to discriminate by subsequent maltreatment for high- and very high-risk families. As Table 19 indicates, the transition from high to very high risk moved the subsequent investigation rate from 46.1% to 57.7% in the proposed assessment, versus 43.3% to 49.4% under the current one. This pattern was also maintained for ethnic subgroups.

¹⁴ As noted previously, the base rates for Native American families were nearly twice that of Asian/Pacific Islander families, which makes equivalent classification findings difficult to achieve.

V. SUMMARY

When evaluated across all measures of subsequent maltreatment, the current risk assessment performed reasonably well when distinguishing between families classified at low, moderate, high, and very high risk of future child maltreatment. For all CPS outcomes (investigation, substantiation, and child placement) and among most sample subgroups, the recidivism rates observed among low-risk families were significantly lower than those of families classified at higher risk levels. An increase in risk level (low to moderate and moderate to high) corresponded to at least a 35% increase in the re-investigation rate, a 55% increase in the subsequent substantiation rate, and a twofold increase in the child placement rate. Among Native American families, however, the risk assessment did not perform as well when classifying by the likelihood of future child maltreatment. In addition, the distinction between re-investigation and other outcome rates for high- and very high-risk families was unremarkable.

A proposed risk assessment was developed to determine whether the performance of the current risk assessment could be improved. This was achieved by independently analyzing the relationship between family characteristics (e.g., number of children, prior history, child and caregiver characteristics, details related to the current investigation, etc.) observed at the time of the sample incident and family outcomes observed during the standardized 18-month follow-up period. The proposed risk assessment classified fewer families as high and very high risk, and these families had higher rates of subsequent CPS involvement than families classified as high and very high risk by the current assessment. The revised assessment also more accurately classified Native American families by the likelihood of re-investigation.

The proposed risk assessment was applied to a validation sample to assess its classification ability in a sample other than the one with which the assessment was constructed. Shrinkage, the amount of classification power lost when risk assessment findings are compared in independent

construction and validation samples, was between 3.6% and 15.4% (see Appendix C for more information), within acceptable limits. CRC recommends that child welfare agency staff regularly monitor the accuracy of risk assessment findings by examining outcomes by classification findings for family samples to ensure a valid, reliable, and equitable risk assessment.

Adopting the proposed assessment should help to improve workers' estimates of a family's risk of future maltreatment. This, in turn, would permit the agency to reduce subsequent maltreatment by more effectively targeting service interventions to high-risk families. Agency monitoring and quality improvement efforts may also improve the accuracy of worker risk assessment estimates and the management of service delivery. As previously mentioned, periodic validations are required to ensure that risk assessments continue to effectively classify families by their likelihood of future child maltreatment. If child welfare agency operations change significantly in the next few years, CRC strongly recommends that another validation study be conducted to ensure that the risk assessment is effectively classifying families.

Appendix A

Current Family Risk Assessment Form and Item Analysis

**CALIFORNIA
FAMILY RISK ASSESSMENT**

r: 09-12

Referral Name: _____ Referral #: _____ Date: ____/____/____

County Name: _____ Worker Name: _____ Worker ID#: _____

NEGLECT	Score	ABUSE	Score
N1. Current Report Is for Neglect		A1. Current Report Is for Physical Abuse	
a. No0		a. No0	
b. Yes1	_____	b. Yes1	_____
N2. Prior Investigations (<i>assign highest score that applies</i>)		A2. Number of Prior Investigations	
a. None -1		a. None -1	
b. One or more, <u>abuse</u> only1		b. One or more, neglect only0	
c. One or two for <u>neglect</u>2		c. One for abuse1	
d. Three or more for <u>neglect</u>3	_____	d. Two or more for abuse2	_____
N3. Household Has Previously Received CPS (<i>voluntary/court ordered</i>)		A3. Household Has Previously Received CPS (<i>voluntary/court ordered</i>)	
a. No0		a. No0	
b. Yes1	_____	b. Yes1	_____
N4. Number of Children Involved in the Child Abuse/Neglect Incident		A4. Prior Physical Injury to a Child Resulting from Child Abuse/Neglect or Prior Substantiated Physical Abuse to a Child	
a. One, two, or three0		a. None/not applicable0	
b. Four or more1	_____	b. One or more apply1	_____
N5. Age of Youngest Child in the Home		<input type="checkbox"/> Prior physical injury to a child resulting from CA/N	
a. Two or older0		<input type="checkbox"/> Prior substantiated physical abuse of a child	
b. Under two1	_____	A5. Number of Children Involved in the Child Abuse/Neglect Incident	
N6. Characteristics of Children in Household (<i>add for score</i>)		a. One, two, or three0	
a. Not applicable0		b. Four or more1	_____
b. One or more present (<i>mark all applicable and add</i>)		A6. Characteristics of Children in Household (<i>score 1 if any present</i>)	
<input type="checkbox"/> Developmental, learning, or physical disability1		a. Not applicable0	
<input type="checkbox"/> Developmental <input type="checkbox"/> Learning <input type="checkbox"/> Physical		b. One or more present (<i>mark all applicable</i>)1	_____
<input type="checkbox"/> Medically fragile or failure to thrive1		<input type="checkbox"/> Delinquency history	
<input type="checkbox"/> Mental health or behavioral problem1	_____	<input type="checkbox"/> Developmental disability	
N7. Primary Caregiver Provides Physical Care of the Child That Is:		<input type="checkbox"/> Learning disability	
a. Consistent with child needs0		<input type="checkbox"/> Mental health or behavioral problem	
b. Inconsistent with child needs1	_____	A7. Two or More Incidents of Domestic Violence in the Household in the Past Year	
N8. Primary Caregiver Has a History of Abuse or Neglect as a Child		a. No0	
a. No0		b. Yes1	_____
b. Yes1	_____	A8. Primary Caregiver Employs Excessive/Inappropriate Discipline	
N9. Primary Caregiver Has/Had a Mental Health Problem		a. No0	
a. No0		b. Yes1	_____
b. Yes1	_____	A9. Primary Caregiver Is Domineering	
N10. Primary Caregiver Has/Had an Alcohol and/or Drug Problem		a. No0	
a. None/not applicable0		b. Yes1	_____
b. One or more apply (<i>mark all applicable</i>)2	_____	A10. Primary Caregiver Has a History of Abuse or Neglect as a Child	
<input type="checkbox"/> Alcohol (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)		a. No0	
<input type="checkbox"/> Drugs (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months)		b. Yes1	_____
<input type="checkbox"/> Marijuana <input type="checkbox"/> Methamphetamine <input type="checkbox"/> Heroin <input type="checkbox"/> Cocaine		A11. Primary Caregiver Has/Had a Mental Health Problem	
<input type="checkbox"/> Other: _____		a. No0	
N11. Primary Caregiver Has Criminal Arrest History		b. One or more apply1	_____
a. No0		<input type="checkbox"/> During the last 12 months	
b. Yes1	_____	<input type="checkbox"/> Prior to the last 12 months	
N12. Current Housing			
a. Not applicable0			
b. One or more apply1	_____		
<input type="checkbox"/> Physically unsafe, AND/OR			
<input type="checkbox"/> Family homeless			
TOTAL NEGLECT RISK SCORE _____		TOTAL ABUSE RISK SCORE _____	

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

<u>Neglect Score</u>	<u>Abuse Score</u>	<u>Scored Risk Level</u>
<input type="checkbox"/> -1-1	<input type="checkbox"/> -1-0	<input type="checkbox"/> Low
<input type="checkbox"/> 2-5	<input type="checkbox"/> 1-3	<input type="checkbox"/> Moderate
<input type="checkbox"/> 6-8	<input type="checkbox"/> 4-6	<input type="checkbox"/> High
<input type="checkbox"/> 9+	<input type="checkbox"/> 7+	<input type="checkbox"/> Very High

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

- | | |
|--|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 1. Sexual abuse case AND the perpetrator is likely to have access to the child. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 2. Non-accidental injury to a child under age two years. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 3. Severe non-accidental injury. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 4. Caregiver action or inaction resulted in the death of a child due to abuse or neglect (previous or current). |

DISCRETIONARY OVERRIDE. If a discretionary override is made, mark yes, increase risk by one level, and indicate reason.

- | | |
|--|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 5. If <u>yes</u> , override risk level (mark one): <input type="checkbox"/> Moderate <input type="checkbox"/> High <input type="checkbox"/> Very High |
|--|---|

Discretionary override reason: _____ Date: ____/____/____

Supervisor's Review/Approval of Discretionary Override: _____ Date: ____/____/____

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

RECOMMENDED DECISION

Final Risk Level	Recommendation
Low	Do Not Promote*
Moderate	Do Not Promote*
High	Promote
Very High	Promote

*Unless there are unresolved dangers.

PLANNED ACTION:

- Promote
- Do Not Promote

If recommended decision and planned action do not match, explain why:

SUPPLEMENTAL ITEMS

Note: These items should be recorded, but are not scored.

1. Primary caregiver characteristics:
Yes No
a. Blames child
b. Provides insufficient emotional/psychological support
2. Secondary caregiver characteristics:
 No secondary caregiver
Yes No
a. Has history of abuse/neglect as a child
b. Has/had mental health problem
 During the last 12 months Prior to the last 12 months
c. Has/had an alcohol and/or drug problem (*mark all applicable*)
 Alcohol (Last 12 months and/or Prior 12 months)
 Drugs (Last 12 months and/or Prior 12 months)
 Marijuana Methamphetamine Heroin Cocaine
 Other: _____
d. Employs excessive/inappropriate discipline
e. Domineering
f. Secondary caregiver has criminal arrest history

The purpose of an item analysis is to describe the bivariate relationship between individual risk factors scored on the neglect and abuse indices and the outcomes observed during the standardized 18-month follow-up period. Table A1 reviews the neglect risk factors and their relationship to subsequent neglect outcomes (i.e., subsequent neglect investigation, neglect substantiation, and new removal related to a neglect investigation). Columns two and three show the prevalence of each risk factor among the sample. Columns four and five show the proportion of families with a subsequent investigation for neglect for each of the risk characteristics. Column six reports the Pearson correlation for each risk factor and subsequent neglect investigation, while column seven reports the significance of that correlation. The expectation is that each risk factor will have a significant relationship with the relevant CPS outcomes in the expected direction. For example, 65.3% of sampled families were investigated for neglect at the time of the sample incident. Among families with no current allegations of neglect, 19.3% were re-investigated for neglect during the follow-up timeframe. More than one fourth (28.2%) of families investigated for neglect at the time of the sample incident were re-investigated for neglect during the follow-up period. The correlation between current neglect allegation and subsequent neglect investigation (.098) is significant (i.e., p-value \leq .05). Columns eight through 11 show the rate and correlation for each risk factor with subsequent neglect substantiation, and columns 12 through 15 show the rate and correlation for each risk factor with subsequent removals related to a neglect investigation.

Almost every risk factor in the neglect instrument has a statistically significant relationship to at least one of the three outcomes shown ($p \leq$.05; Table A1). The one exception is sub-item "N12. Current Housing Physically Unsafe," which did not show a statistically significant correlation with any of the outcomes. All abuse items have a significant relationship to at least one of the three abuse outcomes (Table A2).

Table A1

Neglect Instrument Item Analysis of Current Risk Assessment: Construction Sample

Item	Sample Distribution		New Neglect Investigation Within 18 Months				New Substantiated Neglect Investigation Within 18 Months				New Removal Related to Neglect Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	11,444	100.0%	2,874	25.1%			1,142	10.0%			566	4.9%		
N1. Current Report Is for Neglect					0.098	0.000			0.092	0.000			0.061	0.000
No	3,967	34.7%	764	19.3%			245	6.2%			124	3.1%		
Yes	7,477	65.3%	2,110	28.2%			897	12.0%			442	5.9%		
N2. Prior Investigations					0.206	0.000			0.133	0.000			0.107	0.000
None	5,223	45.6%	874	16.7%			337	6.5%			148	2.8%		
One or more, abuse only	1,414	12.4%	314	22.2%			100	7.1%			63	4.5%		
One or two for neglect	2,886	25.2%	896	31.0%			368	12.8%			168	5.8%		
Three or more for neglect	1,921	16.8%	790	41.1%			337	17.5%			187	9.7%		
N3. Household Has Previously Received CPS					0.129	0.000			0.101	0.000			0.101	0.000
No	9,226	80.6%	2,064	22.4%			784	8.5%			357	3.9%		
Yes	2,218	19.4%	810	36.5%			358	16.1%			209	9.4%		
N4. Number of Children Involved in the Child Abuse/Neglect Incident					0.086	0.000			0.045	0.000			0.028	0.001
One, two, or three	10,260	89.7%	2,446	23.8%			977	9.5%			486	4.7%		
Four or more	1,184	10.3%	428	36.1%			165	13.9%			80	6.8%		
N5. Age of Youngest Child in the Home					0.058	0.000			0.075	0.000			0.072	0.000
2 years or older	8,249	72.1%	1,943	23.6%			707	8.6%			328	4.0%		
Under 2 years	3,195	27.9%	931	29.1%			435	13.6%			238	7.4%		
N6. Characteristics of Children in Household					0.069	0.000			0.016	0.039			0.025	0.004
Not applicable	9,331	81.5%	2,209	23.7%			907	9.7%			443	4.7%		
One present	1,883	16.5%	588	31.2%			211	11.2%			102	5.4%		
Two present	224	2.0%	75	33.5%			23	10.3%			21	9.4%		
Three present	6	0.1%	2	33.3%			1	16.7%			0	0.0%		
N6. Characteristics of Children in Household: Developmental, Learning, or Physical Disability					0.047	0.000			0.003	0.369			0.012	0.091
No	10,541	92.1%	2,584	24.5%			1,049	10.0%			513	4.9%		

Table A1

Neglect Instrument Item Analysis of Current Risk Assessment: Construction Sample

Item	Sample Distribution		New Neglect Investigation Within 18 Months				New Substantiated Neglect Investigation Within 18 Months				New Removal Related to Neglect Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	11,444	100.0%	2,874	25.1%			1,142	10.0%			566	4.9%		
Yes	903	7.9%	290	32.1%			93	10.3%			53	5.9%		
N6. Characteristics of Children in Household: Developmental Disability					0.031	0.000			-0.006	0.261			-	0.346
No	10,920	95.4%	2,710	24.8%			1,094	10.0%			542	5.0%		
Yes	524	4.6%	164	31.3%			48	9.2%			24	4.6%		
N6. Characteristics of Children in Household: Learning Disability					0.028	0.001			-0.002	0.417			0.011	0.110
No	10,990	96.0%	2,733	24.9%			1,098	10.0%			538	4.9%		
Yes	454	4.0%	141	31.1%			44	9.7%			28	6.2%		
N6. Characteristics of Children in Household: Physical Disability					0.021	0.014			0.016	0.049			0.019	0.023
No	11,319	98.9%	2,832	25.0%			1,124	9.9%			555	4.9%		
Yes	125	1.1%	42	33.6%			18	14.4%			11	8.8%		
N6. Characteristics of Children in Household: Medically Fragile or Failure to Thrive					0.023	0.008			0.011	0.109			0.018	0.029
No	11,254	98.3%	2,812	25.0%			1,118	9.9%			551	4.9%		
Yes	190	1.7%	62	32.6%			24	12.6%			15	7.9%		
N6. Characteristics of Children in Household: Mental Health or Behavioral Problem					0.049	0.000			0.016	0.039			0.018	0.028
No	10,188	89.0%	2,482	24.4%			999	9.8%			490	4.8%		
Yes	1,256	11.0%	392	31.2%			143	11.4%			76	6.1%		
N7. Primary Caregiver Provides Physical Care of the Child That Is:					0.035	0.000			0.029	0.001			0.015	0.052
Consistent with child needs	10,574	92.4%	2,610	24.7%			1,029	9.7%			513	4.9%		
Inconsistent with child needs	870	7.6%	264	30.3%			113	13.0%			53	6.1%		
N8. Primary Caregiver Has a History of Abuse or Neglect as a Child					0.097	0.000			0.086	0.000			0.092	0.000

Table A1

Neglect Instrument Item Analysis of Current Risk Assessment: Construction Sample

Item	Sample Distribution		New Neglect Investigation Within 18 Months				New Substantiated Neglect Investigation Within 18 Months				New Removal Related to Neglect Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	11,444	100.0%	2,874	25.1%			1,142	10.0%			566	4.9%		
No	9,304	81.3%	2,149	23.1%			814	8.7%			371	4.0%		
Yes	2,140	18.7%	725	33.9%			328	15.3%			195	9.1%		
N9. Primary Caregiver Has/Had a Mental Health Problem					0.074	0.000			0.060	0.000			0.048	0.000
No	9,848	86.1%	2,346	23.8%			912	9.3%			446	4.5%		
Yes	1,596	13.9%	528	33.1%			230	14.4%			120	7.5%		
N10. Primary Caregiver Has/Had an Alcohol and/or Drug Problem					0.134	0.000			0.114	0.000			0.103	0.000
None/not applicable	8,518	74.4%	1,849	21.7%			679	8.0%			310	3.6%		
One or more apply	2,926	25.6%	1,025	35.0%			463	15.8%			256	8.7%		
N10. Primary Caregiver Alcohol Problem in the Last 12 Months					0.062	0.000			0.044	0.000			0.035	0.000
No	10,735	93.8%	2,622	24.4%			1,035	9.6%			510	4.8%		
Yes	709	6.2%	252	35.5%			107	15.1%			56	7.9%		
N10. Primary Caregiver Alcohol Problem Prior to the Last 12 Months					0.049	0.000			0.033	0.000			0.032	0.000
No	10,977	95.9%	2,709	24.7%			1,073	9.8%			527	4.8%		
Yes	467	4.1%	165	35.3%			69	14.8%			39	8.4%		
N10. Primary Caregiver Drug Problem in the Last 12 Months					0.080	0.000			0.082	0.000			0.062	0.000
No	9,841	86.0%	2,333	23.7%			885	9.0%			433	4.4%		
Yes	1,603	14.0%	541	33.7%			257	16.0%			133	8.3%		
N10. Primary Caregiver Drug Problem Prior to the Last 12 Months					0.089	0.000			0.065	0.000			0.076	0.000
No	10,270	89.7%	2,445	23.8%			957	9.3%			451	4.4%		
Yes	1,174	10.3%	429	36.5%			185	15.8%			115	9.8%		
N10. Primary Caregiver Marijuana Problem					0.069	0.000			0.055	0.000			0.039	0.000
No	10,425	91.1%	2,521	24.2%			987	9.5%			488	4.7%		
Yes	1,019	8.9%	353	34.6%			155	15.2%			78	7.7%		
N10. Primary Caregiver Methamphetamine Problem					0.094	0.000			0.092	0.000			0.100	0.000

Table A1

Neglect Instrument Item Analysis of Current Risk Assessment: Construction Sample

Item	Sample Distribution		New Neglect Investigation Within 18 Months				New Substantiated Neglect Investigation Within 18 Months				New Removal Related to Neglect Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	11,444	100.0%	2,874	25.1%			1,142	10.0%			566	4.9%		
No	10,117	88.4%	2,391	23.6%			909	9.0%			421	4.2%		
Yes	1,327	11.6%	483	36.4%			233	17.6%			145	10.9%		
N10. Primary Caregiver Heroin Problem					0.013	0.077			0.030	0.001			0.032	0.000
No	11,380	99.4%	2,853	25.1%			1,128	9.9%			557	4.9%		
Yes	64	.6%	21	32.8%			14	21.9%			9	14.1%		
N10. Primary Caregiver Cocaine Problem					0.020	0.018			0.020	0.016			0.026	0.003
No	11,219	98.0%	2,804	25.0%			1,110	9.9%			546	4.9%		
Yes	225	2.0%	70	31.1%			32	14.2%			20	8.9%		
N10. Primary Caregiver Other Drug Problem					0.031	0.000			0.017	0.035			0.005	0.293
No	11,198	97.9%	2,790	24.9%			1,109	9.9%			552	4.9%		
Yes	246	2.1%	84	34.1%			33	13.4%			14	5.7%		
N11. Primary Caregiver Has Criminal Arrest History					0.112	0.000			0.103	0.000			0.095	0.000
No	8,386	73.3%	1,861	22.2%			680	8.1%			310	3.7%		
Yes	3,058	26.7%	1,013	33.1%			462	15.1%			256	8.4%		
N12. Current Housing					0.026	0.003			0.024	0.005			0.029	0.001
Not applicable	10,935	95.6%	2,720	24.9%			1,074	9.8%			526	4.8%		
One or more apply	509	4.4%	154	30.3%			68	13.4%			40	7.9%		
N12. Current Housing Physically Unsafe					-0.004	0.331			-0.005	0.294			0.004	0.326
No	11,230	98.1%	2,823	25.1%			1,123	10.0%			554	4.9%		
Yes	214	1.9%	51	23.8%			19	8.9%			12	5.6%		
N12. Family Homeless					0.034	0.000			0.035	0.000			0.035	0.000
No	11,138	97.3%	2,770	24.9%			1,092	9.8%			537	4.8%		
Yes	306	2.7%	104	34.0%			50	16.3%			29	9.5%		

Table A2

Abuse Instrument Item Analysis of Current Risk Assessment: Construction Sample

Item	Sample Distribution		New Abuse Investigation Within 18 Months				New Substantiated Abuse Investigation Within 18 Months				New Removal Related to Abuse Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total	11,444	100.0%	2,396	20.9%			508	4.4%			316	2.8%		
A1. Current Report Is for Physical Abuse					0.057	0.000			0.017	0.034			0.007	0.234
No	7,855	68.6%	1,521	19.4%			330	4.2%			211	2.7%		
Yes	3,589	31.4%	875	24.4%			178	5.0%			105	2.9%		
A2. Number of Prior Investigations					0.168	0.000			0.094	0.000			0.090	0.000
None	5,552	48.5%	823	14.8%			146	2.6%			78	1.4%		
One or more, neglect only	2,104	18.4%	471	22.4%			103	4.9%			66	3.1%		
One for abuse	1,894	16.6%	457	24.1%			112	5.9%			68	3.6%		
Two or more for abuse	1,894	16.6%	645	34.1%			147	7.8%			104	5.5%		
A3. Household Has Previously Received CPS					0.097	0.000			0.061	0.000			0.070	0.000
No	9,307	81.3%	1,772	19.0%			357	3.8%			206	2.2%		
Yes	2,137	18.7%	624	29.2%			151	7.1%			110	5.1%		
A4. Prior Physical Injury to a Child Resulting From Child Abuse/Neglect or Prior Substantiated Physical Abuse to a Child					0.063	0.000			0.033	0.000			0.036	0.000
None/not applicable	10,908	95.3%	2,222	20.4%			468	4.3%			287	2.6%		
One or more apply	536	4.7%	174	32.5%			40	7.5%			29	5.4%		
A4. Prior Physical Injury to a Child Resulting From CA/N					0.026	0.003			0.015	0.050			0.007	0.213
No	11,255	98.3%	2,341	20.8%			495	4.4%			309	2.7%		
Yes	189	1.7%	55	29.1%			13	6.9%			7	3.7%		
A4. Prior Substantiated Physical Abuse of a Child					0.062	0.000			0.036	0.000			0.042	0.000
No	11,031	96.4%	2,256	20.5%			474	4.3%			290	2.6%		
Yes	413	3.6%	140	33.9%			34	8.2%			26	6.3%		
A5. Number of Children Involved in the Child Abuse/Neglect Incident					0.079	0.000			0.042	0.000			0.039	0.000
One, two, or three	10,343	90.4%	2,057	19.9%			430	4.2%			264	2.6%		
Four or more	1,101	9.6%	339	30.8%			78	7.1%			52	4.7%		

Table A2

Abuse Instrument Item Analysis of Current Risk Assessment: Construction Sample

Item	Sample Distribution		New Abuse Investigation Within 18 Months				New Substantiated Abuse Investigation Within 18 Months				New Removal Related to Abuse Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total	11,444	100.0%	2,396	20.9%			508	4.4%			316	2.8%		
A6. Characteristics of Children in Household					0.090	0.000			0.034	0.000			0.035	0.000
Not applicable	9,386	82.0%	1,805	19.2%			386	4.1%			234	2.5%		
One or more present	2,058	18.0%	591	28.7%			122	5.9%			82	4.0%		
A6. Characteristics of Children in Household: Delinquency History					0.013	0.078			0.003	0.360			0.020	0.016
No	11,178	97.7%	2,331	20.9%			495	4.4%			303	2.7%		
Yes	266	2.3%	65	24.4%			13	4.9%			13	4.9%		
A6. Characteristics of Children in Household: Developmental Disability					0.021	0.013			0.004	0.338			-0.009	0.179
No	10,924	95.5%	2,267	20.8%			483	4.4%			305	2.8%		
Yes	520	4.5%	129	24.8%			25	4.8%			11	2.1%		
A6. Characteristics of Children in Household: Learning Disability					0.033	0.000			0.022	0.008			0.020	0.015
No	11,016	96.3%	2,277	20.7%			479	4.3%			297	2.7%		
Yes	428	3.7%	119	27.8%			29	6.8%			19	4.4%		
A6. Characteristics of Children in Household: Mental Health or Behavioral Problem					0.084	0.000			0.025	0.004			0.035	0.000
No	10,189	89.0%	2,011	19.7%			434	4.3%			261	2.6%		
Yes	1,255	11.0%	385	30.7%			74	5.9%			55	4.4%		
A7. Two or More Incidents of Domestic Violence in the Household in the Past Year					0.022	0.010			0.027	0.002			0.020	0.018
No	9,481	82.8%	1,947	20.5%			397	4.2%			248	2.6%		
Yes	1,963	17.2%	449	22.9%			111	5.7%			68	3.5%		
A8. Primary Caregiver Employs Excessive/Inappropriate Discipline					0.034	0.000			0.011	0.117			-0.002	0.436
No	10,731	93.8%	2,209	20.6%			470	4.4%			297	2.8%		
Yes	713	6.2%	187	26.2%			38	5.3%			19	2.7%		
A9. Primary Caregiver Is Domineering					0.025	0.003			0.006	0.256			0.016	0.039

Table A2

Abuse Instrument Item Analysis of Current Risk Assessment: Construction Sample

Item	Sample Distribution		New Abuse Investigation Within 18 Months				New Substantiated Abuse Investigation Within 18 Months				New Removal Related to Abuse Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total	11,444	100.0%	2,396	20.9%			508	4.4%			316	2.8%		
No	10,947	95.7%	2,268	20.7%			483	4.4%			296	2.7%		
Yes	497	4.3%	128	25.8%			25	5.0%			20	4.0%		
A10. Primary Caregiver Has a History of Abuse or Neglect as a Child					0.065	0.000			0.014	0.067			0.053	0.000
No	9,387	82.0%	1,850	19.7%			404	4.3%			221	2.4%		
Yes	2,057	18.0%	546	26.5%			104	5.1%			95	4.6%		
A11. Primary Caregiver Has/Had a Mental Health Problem					0.056	0.000			0.029	0.001			0.038	0.000
No	9,924	86.7%	1,989	20.0%			417	4.2%			250	2.5%		
Yes	1,520	13.3%	407	26.8%			91	6.0%			66	4.3%		
A11. Primary Caregiver Has/Had a Mental Health Problem During the Last 12 Months					0.048	0.000			0.029	0.001			0.027	0.002
No	10,225	89.3%	2,072	20.3%			433	4.2%			267	2.6%		
Yes	1,219	10.7%	324	26.6%			75	6.2%			49	4.0%		
A11. Primary Caregiver Has/Had a Mental Health Problem Prior to the Last 12 Months					0.031	0.000			-	0.457			0.021	0.012
No	10,710	93.6%	2,207	20.6%			476	4.4%			286	2.7%		
Yes	734	6.4%	189	25.7%			32	4.4%			30	4.1%		

Appendix B

Review of Proposed Risk Assessment

**CALIFORNIA
PROPOSED FAMILY RISK ASSESSMENT**

r: 07-13

Referral Name: _____ **Referral #:** _____ **Date:** ____/____/____

County Name: _____ **Worker Name:** _____ **Worker ID#:** _____

NEGLECT

- | | Score |
|---|--------------|
| N1. Current Report Is for Neglect | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| N2. Two or More Prior Neglect Investigations (<i>assign highest score that applies</i>) | |
| a. Fewer than two prior neglect investigations..... | 0 |
| b. Two prior neglect investigations..... | 1 |
| c. Three prior neglect investigations..... | 2 _____ |
| N3. Any Prior Investigation for Abuse | |
| c. No..... | 0 |
| d. Yes..... | 1 _____ |
| N4. Household Has Previously Received CPS (<i>voluntary/court ordered</i>) | |
| a. No..... | 0 |
| b. Yes, previously but not currently..... | 1 |
| c. Yes, household currently receiving CPS..... | 2 _____ |
| N5. Number of Children Involved in the Child Abuse/Neglect Incident | |
| a. One, two, or three..... | 0 |
| b. Four or more..... | 1 _____ |
| N6. Age of Youngest Child in the Home | |
| a. Two or older..... | 0 |
| b. Younger than two..... | 1 _____ |
| N7. Characteristics of Children in Household | |
| a. Not applicable..... | 0 |
| b. One or more present..... | 1 |
| <input type="checkbox"/> Developmental, learning, or physical disability | |
| <input type="checkbox"/> Developmental <input type="checkbox"/> Learning <input type="checkbox"/> Physical | |
| <input type="checkbox"/> Medically fragile or failure to thrive | |
| <input type="checkbox"/> Mental health or behavioral problem..... | _____ |
| N8. Primary or Secondary Caregiver Has a History of Abuse or Neglect as a Child | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| N9. Primary or Secondary Caregiver Has/Had a Mental Health Problem | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| N10. Primary or Secondary Caregiver Has/Had an Alcohol and/or Drug Problem | |
| a. None/not applicable..... | 0 |
| b. One or more apply (<i>mark all applicable</i>)..... | 1 _____ |
| <input type="checkbox"/> Alcohol (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months) | |
| <input type="checkbox"/> Drugs (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months) | |
| N11. Primary or Secondary Caregiver Has Criminal Arrest History | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| N12. Current Housing | |
| a. Not applicable..... | 0 |
| b. One or more apply..... | 1 _____ |
| <input type="checkbox"/> Physically unsafe, AND/OR | |
| <input type="checkbox"/> Family homeless | |

TOTAL NEGLECT RISK SCORE _____

ABUSE

- | | Score |
|---|--------------|
| A1. Current Report Is for Physical or Emotional Abuse | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| A2. Two or More Prior Abuse Investigations | |
| a. Fewer than two prior abuse investigations..... | 0 |
| b. Two prior abuse investigations..... | 1 |
| c. Three or more prior abuse investigations..... | 2 _____ |
| A3. Any Prior Investigation for Neglect | |
| c. No..... | 0 |
| d. Yes..... | 1 _____ |
| A4. Household Has Previously Received CPS (<i>voluntary/court ordered</i>) | |
| a. No..... | 0 |
| b. Yes, Previously but Not Currently..... | 1 |
| c. Yes, Household Currently Receiving CPS..... | 2 _____ |
| A5. Prior Physical Injury to a Child Resulting From Child Abuse/Neglect or Prior Substantiated Physical Abuse to a Child | |
| a. None/not applicable..... | 0 |
| b. One or more apply..... | 1 _____ |
| <input type="checkbox"/> Prior physical injury to a child resulting from CA/N | |
| <input type="checkbox"/> Prior substantiated physical abuse of a child | |
| A6. Number of Children Involved in the Child Abuse/Neglect Incident | |
| a. One, two, or three..... | 0 |
| b. Four or more..... | 1 _____ |
| A7. Characteristics of Children in Household (<i>score 1 if any present</i>) | |
| a. Not applicable..... | 0 |
| b. One or more present (<i>mark all applicable</i>)..... | 1 _____ |
| <input type="checkbox"/> Developmental disability | |
| <input type="checkbox"/> Learning disability | |
| <input type="checkbox"/> Mental health or behavioral problem | |
| A8. Two or More Incidents of Domestic Violence in the Household in the Past Year | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| A9. Primary Caregiver Employs Excessive/Inappropriate Discipline | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| A10. Primary Caregiver Blames Child | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| A11. Primary or Secondary Caregiver Has a History of Abuse or Neglect as a Child | |
| a. No..... | 0 |
| b. Yes..... | 1 _____ |
| A12. Primary or Secondary Caregiver Has/Had a Mental Health Problem | |
| a. No..... | 0 |
| b. One or more apply..... | 1 _____ |
| <input type="checkbox"/> During the last 12 months | |
| <input type="checkbox"/> Prior to the last 12 months | |
| A13. Primary or Secondary Caregiver Has/Had an Alcohol and/or Drug Problem | |
| c. None/not applicable..... | 0 |
| d. One or more apply (<i>mark all applicable</i>)..... | 1 _____ |
| <input type="checkbox"/> Alcohol (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months) | |
| <input type="checkbox"/> Drugs (<input type="checkbox"/> Last 12 months and/or <input type="checkbox"/> Prior to the last 12 months) | |

TOTAL ABUSE RISK SCORE _____

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

Neglect Score	Abuse Score	Scored Risk Level
<input type="checkbox"/> 0-2	<input type="checkbox"/> 0-1	<input type="checkbox"/> Low
<input type="checkbox"/> 3-5	<input type="checkbox"/> 2-4	<input type="checkbox"/> Moderate
<input type="checkbox"/> 6-8	<input type="checkbox"/> 5-7	<input type="checkbox"/> High
<input type="checkbox"/> 9+	<input type="checkbox"/> 8+	<input type="checkbox"/> Very High

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

- | | | |
|------------------------------|-----------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Sexual abuse case AND the perpetrator is likely to have access to the child. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 2. Non-accidental injury to a child under the age of two years. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 3. Severe non-accidental injury. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 4. Caregiver action or inaction resulted in the death of a child due to abuse or neglect (previous or current). |

DISCRETIONARY OVERRIDE. If a discretionary override is made, mark yes, increase risk by one level, and indicate reason.

- Yes No 5. If yes, override risk level (mark one): Moderate High Very High
 Discretionary override reason: _____

Supervisor's Review/Approval of Discretionary Override: _____ Date: ____/____/____

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

RECOMMENDED DECISION

Final Risk Level	Recommendation
Low	Do Not Promote*
Moderate	Do Not Promote*
High	Promote
Very High	Promote

*Unless there are unresolved safety threats.

PLANNED ACTION

- Promote
 Do Not Promote

If recommended decision and planned action do not match, explain why:

Table B1

Neglect Instrument Item Analysis of Proposed Risk Assessment: Construction Sample

Item	Sample Distribution		New Neglect Investigation Within 18 Months				New Substantiated Neglect Investigation Within 18 Months				New Removal Related to Neglect Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	11,444	100.0%	2,874	25.1%			1,142	10.0%			566	4.9%		
N1. Current Report Is for Neglect					0.098	0.000			0.092	0.000			0.061	0.000
No	3,967	34.7%	764	19.3%			245	6.2%			124	3.1%		
Yes	7,477	65.3%	2,110	28.2%			897	12.0%			442	5.9%		
N2. Two or More Prior Neglect Investigations					0.223	0.000			0.151	0.000			.123	0.000
Fewer than two prior neglect investigations	8,755	76.5%	1,751	20.0%			669	7.6%			311	3.6%		
Two prior neglect investigations	1,051	9.2%	361	34.3%			139	13.2%			75	7.1%		
Three or more prior neglect investigations	1,638	14.3%	762	46.5%			334	20.4%			180	11.0%		
N3. Any Prior Investigation for Abuse					0.154	0.000			0.086	0.000			0.068	0.000
No	7,085	61.9%	1,409	19.9%			563	7.9%			269	3.8%		
Yes	4,359	38.1%	1,465	33.6%			579	13.3%			297	6.8%		
N4. Household Has Previously Received CPS					0.146	0.000			0.116	0.000			0.122	0.000
No	9,067	79.2%	1,992	22.0%			751	8.3%			338	3.7%		
Yes, previously but not currently	1,953	17.1%	692	35.4%			300	15.4%			163	8.3%		
Yes, household currently receiving services	424	3.7%	190	44.8%			91	21.5%			65	15.3%		
N5. Number of Children Involved in the Child Abuse/Neglect Incident					0.086	0.000			0.045	0.000			0.028	0.001
One, two, or three	10,260	89.7%	2,446	23.8%			977	9.5%			486	4.7%		
Four or more	1,184	10.3%	428	36.1%			165	13.9%			80	6.8%		
N6. Age of Youngest Child in the Home					0.058	0.000			0.075	0.000			0.072	0.000
2 years or older	8,249	72.1%	1,943	23.6%			707	8.6%			328	4.0%		
Under 2 years	3,195	27.9%	931	29.1%			435	13.6%			238	7.4%		

Table B1

Neglect Instrument Item Analysis of Proposed Risk Assessment: Construction Sample

Item	Sample Distribution		New Neglect Investigation Within 18 Months				New Substantiated Neglect Investigation Within 18 Months				New Removal Related to Neglect Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	11,444	100.0%	2,874	25.1%			1,142	10.0%			566	4.9%		
N7. Characteristics of Children in Household					0.070	0.000			0.018	0.026			0.019	0.020
Not applicable	9,331	81.5%	2,209	23.7%			907	9.7%			443	4.7%		
One or more present	2,113	18.5%	665	31.5%			235	11.1%			123	5.8%		
N8. Primary or Secondary Caregiver Has a History of Abuse or Neglect as a Child					0.086	0.000			0.077	0.000			0.081	0.000
No	8,796	76.9%	2,029	23.1%			766	8.7%			350	4.0%		
Yes	2,648	23.1%	845	31.9%			376	14.2%			216	8.2%		
N9. Primary or Secondary Caregiver Has/Had a Mental Health Problem					0.070	0.000			0.048	0.000			0.039	0.000
No	9,422	82.3%	2,233	23.7%			877	9.3%			429	4.6%		
Yes	2,022	17.7%	641	31.7%			265	13.1%			137	6.8%		
N10. Primary or Secondary Caregiver Has/Had an Alcohol and/or Drug Problem					0.110	0.000			0.093	0.000			0.087	0.000
None/not applicable	7,285	63.7%	1,566	21.5%			574	7.9%			257	3.5%		
One or more apply	4,159	36.3%	1,308	31.4%			568	13.7%			309	7.4%		
N11. Primary or Secondary Caregiver Has Criminal Arrest History					0.082	0.000			0.076	0.000			0.076	0.000
No	6,559	57.3%	1,445	22.0%			525	8.0%			231	3.5%		
Yes	4,885	42.7%	1,429	29.3%			617	12.6%			335	6.9%		
N12. Current Housing					0.026	0.003			0.024	0.005			0.029	0.001
Not applicable	10,935	95.6%	2,720	24.9%			1,074	9.8%			526	4.8%		
One or more apply	509	4.4%	154	30.3%			68	13.4%			40	7.9%		

Table B2

Abuse Instrument Item Analysis of Proposed Risk Assessment: Construction Sample

Item	Sample Distribution		New Abuse Investigation Within 18 Months				New Substantiated Abuse Investigation Within 18 Months				New Removal Related to Abuse Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total	11,444	100.0%	2,396	20.9%			508	4.4%			316	2.8%		
A1. Current Report Is for Physical or Emotional Abuse					0.090	0.000			0.046	0.000			0.024	0.005
No	5,485	47.9%	940	17.1%			189	3.4%			129	2.4%		
Yes	5,959	52.1%	1,456	24.4%			319	5.4%			187	3.1%		
A2. Two or More Prior Abuse Investigations					0.192	0.000			0.088	0.000			0.103	0.000
Fewer than two prior abuse investigations	9,144	79.9%	1,578	17.3%			317	3.5%			181	2.0%		
Two prior abuse investigations	1,004	8.8%	288	28.7%			84	8.4%			42	4.2%		
Two or more prior abuse investigations	1,296	11.3%	530	40.9%			107	8.3%			93	7.2%		
A3. Any Prior Investigation for Neglect					0.150	0.000			0.079	0.000			0.076	0.000
No	6,734	58.8%	1,067	15.8%			207	3.1%			116	1.7%		
Yes	4,710	41.2%	1,329	28.2%			301	6.4%			200	4.2%		
A4. Household Has Previously Received CPS					0.125	0.000			0.080	0.000			0.104	0.000
No	9,139	79.9%	1,708	18.7%			341	3.7%			189	2.1%		
Yes, previously but not currently	1,881	16.4%	510	27.1%			117	6.2%			80	4.3%		
Yes, household currently receiving CPS	424	3.7%	178	42.0%			50	11.8%			47	11.1%		
A5. Prior Physical Injury to a Child Resulting From Child Abuse/Neglect or Prior Substantiated Physical Abuse to a Child					0.063	0.000			0.033	0.000			0.036	0.000
None/not applicable	10,908	95.3%	2,222	20.4%			468	4.3%			287	2.6%		
One or more apply	536	4.7%	174	32.5%			40	7.5%			29	5.4%		

Table B2

Abuse Instrument Item Analysis of Proposed Risk Assessment: Construction Sample

Item	Sample Distribution		New Abuse Investigation Within 18 Months				New Substantiated Abuse Investigation Within 18 Months				New Removal Related to Abuse Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total	11,444	100.0%	2,396	20.9%			508	4.4%			316	2.8%		
A5. Prior Physical Injury to a Child Resulting From CA/N					0.026	0.003			0.015	0.050			0.007	0.213
No	11,255	98.3%	2,341	20.8%			495	4.4%			309	2.7%		
Yes	189	1.7%	55	29.1%			13	6.9%			7	3.7%		
A5. Prior Substantiated Physical Abuse of a Child					0.062	0.000			0.036	0.000			0.042	0.000
No	11,031	96.4%	2,256	20.5%			474	4.3%			290	2.6%		
Yes	413	3.6%	140	33.9%			34	8.2%			26	6.3%		
A6. Number of Children Involved in the Child Abuse/Neglect Incident					0.079	0.000			0.042	0.000			0.039	0.000
One, two, or three	10,343	90.4%	2,057	19.9%			430	4.2%			264	2.6%		
Four or more	1,101	9.6%	339	30.8%			78	7.1%			52	4.7%		
A7. Characteristics of Children in Household					0.088	0.000			0.031	0.000			0.029	0.001
Not applicable	9,542	83.4%	1,845	19.3%			396	4.2%			243	2.5%		
One or more present	1,902	16.6%	551	29.0%			112	5.9%			73	3.8%		
A7. Characteristics of Children in Household: Developmental Disability					0.021	0.013			0.004	0.338			-0.009	0.179
No	10,924	95.5%	2,267	20.8%			483	4.4%			305	2.8%		
Yes	520	4.5%	129	24.8%			25	4.8%			11	2.1%		
A7. Characteristics of Children in Household: Learning Disability					0.033	0.000			0.022	0.008			0.020	0.015
No	11,016	96.3%	2,277	20.7%			479	4.3%			297	2.7%		
Yes	428	3.7%	119	27.8%			29	6.8%			19	4.4%		

Table B2

Abuse Instrument Item Analysis of Proposed Risk Assessment: Construction Sample

Item	Sample Distribution		New Abuse Investigation Within 18 Months				New Substantiated Abuse Investigation Within 18 Months				New Removal Related to Abuse Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total	11,444	100.0%	2,396	20.9%			508	4.4%			316	2.8%		
A7. Characteristics of Children in Household: Mental Health or Behavioral Problem					0.084	0.000			0.025	0.004			0.035	0.000
No	10,189	89.0%	2,011	19.7%			434	4.3%			261	2.6%		
Yes	1,255	11.0%	385	30.7%			74	5.9%			55	4.4%		
A8. Two or More Incidents of Domestic Violence in the Household in the Past Year					0.022	0.010			0.027	0.002			0.020	0.018
No	9,481	82.8%	1,947	20.5%			397	4.2%			248	2.6%		
Yes	1,963	17.2%	449	22.9%			111	5.7%			68	3.5%		
A9. Primary Caregiver Employs Excessive/Inappropriate Discipline					0.034	0.000			0.011	0.117			-0.002	0.436
No	10,731	93.8%	2,209	20.6%			470	4.4%			297	2.8%		
Yes	713	6.2%	187	26.2%			38	5.3%			19	2.7%		
A10. Primary Caregiver Blames Child					0.040	0.000			0.025	0.004			0.041	0.000
No	10,768	94.1%	2,211	20.5%			464	4.3%			279	2.6%		
Yes	676	5.9%	185	27.4%			44	6.5%			37	5.5%		
A11. Primary or Secondary Caregiver Has a History of Abuse or Neglect as a Child					0.065	0.000			0.025	0.004			0.050	0.000
No	8,796	76.9%	1,714	19.5%			366	4.2%			203	2.3%		
Yes	2,648	23.1%	682	25.8%			142	5.4%			113	4.3%		

Table B2

Abuse Instrument Item Analysis of Proposed Risk Assessment: Construction Sample

Item	Sample Distribution		New Abuse Investigation Within 18 Months				New Substantiated Abuse Investigation Within 18 Months				New Removal Related to Abuse Investigation Within 18 Months			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total	11,444	100.0%	2,396	20.9%			508	4.4%			316	2.8%		
A12. Primary or Secondary Caregiver Has/Had a Mental Health Problem					0.059	0.000			0.033	0.000			0.034	0.000
No	9,422	82.3%	1,867	19.8%			389	4.1%			236	2.5%		
Yes	2,022	17.7%	529	26.2%			119	5.9%			80	4.0%		
A13. Primary or Secondary Caregiver Has/Had an Alcohol and/or Drug Problem					0.026	0.002			0.005	0.306			0.027	0.002
None/not applicable	7,285	63.7%	1,466	20.1%			318	4.4%			177	2.4%		
One or more apply	4,159	36.3%	930	22.4%			190	4.6%			139	3.3%		

Appendix C

Comparison of Proposed Risk Assessment Classification Findings for Construction and Validation Samples

Comparison of Proposed Risk Assessment Classification Findings for the Construction and Validation Samples

The sample population of 52,856 families with an inconclusive or substantiated investigation between July 1, 2010, and June 30, 2011, was selected randomly into two groups: a construction sample of 11,444 families and a validation sample of 10,900 families. The use of two samples allows a scale to be developed on one population (the construction sample) and tested on another (the validation sample). Families were stratified by ethnicity, based on the primary ethnicity of the youngest alleged child victim on the index investigation, and then randomly selected into either a construction sample or a validation sample. Asian/Pacific Islander and Native American families were oversampled for the construction sample to ensure ample representation. The construction sample consisted of 50% of the Asian/Pacific Islander families with a substantiated or inconclusive index investigation and all of the Native American families whose index investigation was substantiated or inconclusive. The construction sample included 20% of all other race/ethnicity groups. The same sampling plan was used to create the validation sample, with the exception of Native American families (Table C1).

Family Race/Ethnicity	All Families		Construction Sample		Validation Sample	
	N	%	N	% Sampled From Race/Ethnicity Group	N	% Sampled From Race/Ethnicity Group
Asian/Pacific Islander	1,791	3.4%	874	48.8%	905	50.5%
Black/African American	8,321	15.7%	1,661	20.0%	1,655	19.9%
Hispanic or Latino	23,974	45.4%	4,775	19.9%	4,669	19.5%
White	14,820	28.0%	2,974	20.1%	2,977	20.1%
Native American	470	0.9%	470	100.0%	0	0.0%
Other/Missing	3,480	6.6%	690	19.8%	694	19.9%
Total	52,856	100.0%	11,444	21.7%	10,900	20.6%

Because some California counties complete the family risk assessment on unfounded investigations, a third sample of 13,039 families was selected from the pool of unfounded investigations in the sample period. Again, this sample was selected by stratifying families by the primary ethnicity of the youngest alleged child victim on the index investigation. This unfounded sample was used to estimate the performance of the proposed FRA for families involved in unfounded investigations.

Family Race/Ethnicity	All Families		Unfounded Testing Sample	
	N	%	N	% Sampled From Race/Ethnicity Group
Asian/Pacific Islander	2,194	3.7%	1,104	50.3%
Black/African American	8,602	14.5%	1,755	20.4%
Hispanic or Latino	26,723	45.2%	5,353	20.0%
White	16,369	27.7%	3,316	20.3%
Native American	537	0.9%	537	100.0%
Other/Missing	4,727	8.0%	974	20.6%
Total	59,152	100.0%	13,039	22.0%

Classification results will be the most robust for the sample from which the assessment was constructed. Validating the scale on a separate population provides a reasonable approximation of how a risk assessment will perform when actually implemented. The ability of a risk assessment to classify families by maltreatment outcomes is expected to decrease somewhat when the risk assessment is applied to samples other than the construction sample. The amount of classification power lost from construction to validation sample is called shrinkage. Shrinkage is normal and expected.¹⁵

¹⁵ See Silver, E., Smith, W., & Banks, S. (2000). Constructing actuarial devices for predicting recidivism. *Criminal Justice and Behavior*, 29(5), 733–764. See also Altman, D., & Royston, P. (2000). What do we mean by validating a prognostic model? *Statistics in Medicine*, 19, 453–473.

Table C3 compares findings by the overall risk classification level obtained for families in the construction versus the validation sample. For families in the construction sample, the risk assessment classified families such that an increase in risk of one level from low to moderate or moderate to high corresponded to an increase in the outcome rate of 50.0% or more across all maltreatment outcomes observed, while an increase from high to very high risk corresponded to an increase of approximately 25% for subsequent investigation and approximately 33% to 65% for the remaining outcomes.

Findings were similar when the proposed risk assessment was applied to the validation sample. For families in the validation sample, an increase in the risk level corresponded to at least a 33% increase in the outcome rates for all three outcomes (Table C3). The distribution of the families classified by the proposed risk assessment was also very similar in the validation as compared to the construction sample. Among families in the validation sample, 22.7% classified as low risk, 51.7% as moderate risk, 21.4% as high risk, and 4.3% as very high risk.

We also reviewed the performance of the proposed risk classification as applied to unfounded investigations with a risk assessment available (Table C3). Among families with an unfounded index investigation, an increase from low to moderate risk corresponded to at least a 91% increase across outcomes, at least a 58% increase across outcomes between moderate and high risk, and a 31% to 91% increase in outcome rates with a move from high to very high risk.

Table C3					
Proposed Risk Classification by Subsequent Maltreatment Outcomes for Sample Groups: Construction, Validation, and Families With Unfounded Sample Investigations					
Proposed Overall Risk Level	Sample Distribution		Outcomes		
	N	%	New Investigation Within 18 Months	New Substantiated Investigation Within 18 Months	New Removal Related to Investigation Within 18 Months
Construction Sample					
Low	2,582	22.6%	16.2%	5.1%	1.4%
Moderate	5,867	51.3%	30.3%	10.9%	4.4%
High	2,440	21.3%	46.1%	19.4%	9.5%
Very High	555	4.8%	57.7%	25.9%	15.7%
Total	11,444	100.0%	31.8%	12.2%	5.4%
Validation Sample					
Low	2,471	22.7%	17.5%	5.1%	1.7%
Moderate	5,637	51.7%	30.3%	11.3%	4.6%
High	2,328	21.4%	45.7%	18.4%	8.7%
Very High	464	4.3%	60.8%	26.3%	14.7%
Total	10,900	100.0%	32.0%	12.0%	5.3%
Unfounded Sample					
Low	5,084	39.0%	15.9%	3.7%	1.0%
Moderate	6,080	46.6%	30.5%	9.2%	3.3%
High	1,687	12.9%	48.3%	17.0%	8.6%
Very High	188	1.4%	63.3%	27.1%	16.5%
Total	13,039	100.0%	27.6%	8.3%	3.3%

One way to assess the degree of shrinkage is to look at changes in scores for the Dispersion Index for Risk (DIFR). The DIFR was introduced in 1998 by Silver and Banks as an alternative method for assessing the classification abilities of a risk assessment. Traditional measures of predictive accuracy, such as sensitivity and specificity, are based on the assumption of a dichotomous decision and therefore have limited usefulness for measures with more than two classification categories.

The DIFR measures the potency of a risk assessment by assessing how an entire cohort is partitioned into different groups and the extent to which group outcomes vary from the base rate for the entire cohort. In essence, it weights the distance between a subgroup's outcome rate from the

cohort's base rate by the subgroup size to estimate the "potency" of a classification system. Because this measure considers proportionality and differences in outcome rates among several subgroups, it is a measure of the efficacy of classification systems. The DIFR formula is:

$$DIFR = \sqrt{\sum_{i=1}^k \left(\ln\left(\frac{P}{1-P}\right) - \ln\left(\frac{p_i}{1-p_i}\right) \right)^2 * \frac{n_i}{N}}$$

where k is the number of subgroups in the risk classification model, P is the total sample base rate of the outcome, N is the total sample size, p_i represents the base rate of each of the k subgroups, and n_i is the size of each k subgroup. In sum, the DIFR considers the degree to which outcomes of each subgroup (classification level) differ from the mean for the study sample and adjusts for the size of the group classified to each level.¹⁶

¹⁶ The limitations of the DIFR are as follows.

1. It measures distance from the mean without considering whether it is in the expected or logical direction. Therefore, when outcome rates do not conform to the basic expectations (i.e., that failure rates will increase as risk levels increase), the test is inappropriate.
2. It measures overall dispersion from the base rate and does not assess the degree of separation between any two risk categories. In a similar fashion, the DIFR cannot help to assess whether a risk classification model is classifying two subgroups similarly, but rather assesses the dispersion within a subgroup (given that group's base rate).

CRC compared the DIFR scores for the construction and validation samples by each maltreatment outcome observed (Table C4). Based on changes in the DIFR scores, the amount of shrinkage is estimated to be 8.1%.¹⁷

Table C4				
Dispersion Index for the Proposed Three-Level Risk by Subsequent Maltreatment Outcomes for the Construction and Validation Samples				
Sample Group	Sample Size	DIFR Index for CPS Outcomes and Their Differences		
		New Investigation Within 18 Months	New Substantiated Investigation Within 18 Months	New Removal Related to Investigation Within 18 Months
Construction	11,444	0.56	0.56	0.78
Validation	10,900	0.53	0.54	0.66
Change in DIFR Score		0.03	0.02	0.12

It should be noted that validating by splitting the sample may underestimate shrinkage (see Silver and Banks, 2000). The construction and validation samples originate from the same initial sample and are therefore subject to the same type of measurement bias. In addition, implementation of the risk assessment under field conditions may impact the classification abilities of the risk assessment. The best approach for determining shrinkage is to monitor risk assessment use with regular data reporting and case reviews and to examine the risk assessment’s classification abilities in the future.

¹⁷ The percent change (the difference in scores divided by the score for the construction sample) is 5.4% for subsequent investigation, 3.6% for subsequent substantiation, and 15.4% for subsequent child placement. The percent change averaged over the three outcomes is 8.1%.

Appendix D

Review of the Risk Reassessment

Workers complete the risk reassessment to measure changes in families' risk of future maltreatment based on the response to services, as well as other changes in the household. Workers reassess families with an open service case every six months, and a significant change within a family may affect risk level.

The California family risk reassessment for in-home cases (see pages D2 and D3) combines items from the initial risk assessment related to the case-initiating referral with additional items that evaluate a family's progress toward case plan goals. Unlike the initial risk assessment, which contains separate indices for risk of neglect and risk of abuse, the risk reassessment includes a single index.

**CALIFORNIA
FAMILY RISK REASSESSMENT FOR IN-HOME CASES**

r: 09-12

Case Name: _____ Case #: _____ Date: ____/____/____
 County Name: _____ Worker Name: _____ Worker ID#: _____

- | | Score |
|--|-------|
| R1. Number of Prior Neglect or Abuse CPS Investigations | |
| a. None..... | 0 |
| b. One..... | 1 |
| c. Two or more..... | 2 |
| R2. Household Has Previously Received CPS (voluntary/court ordered) | |
| a. No..... | 0 |
| b. Yes..... | 1 |
| R3. Primary Caregiver Has a History of Abuse or Neglect as a Child | |
| a. No..... | 0 |
| b. Yes..... | 1 |
| R4. Child Characteristics (mark applicable items) | |
| a. <input type="checkbox"/> No child has any of the characteristics below..... | 0 |
| b. <input type="checkbox"/> Yes (mark all that apply)..... | 1 |
| <input type="checkbox"/> One or more children in household is developmentally disabled | |
| <input type="checkbox"/> One or more children in household has a learning disability | |
| <input type="checkbox"/> One or more children in household is physically disabled | |
| <input type="checkbox"/> One or more children in household are medically fragile or diagnosed with failure to thrive | |

The following case observations pertain to the period since the last assessment/reassessment.

- | | |
|--|---|
| R5. New Investigation of Abuse or Neglect Since the Initial Risk Assessment or the Last Reassessment | |
| a. No..... | 0 |
| b. Yes..... | 1 |
| R6. Caregiver Has Not Addressed Alcohol or Drug Abuse Problem since the Last Assessment/Reassessment (mark one) | |
| a. <input type="checkbox"/> No history of alcohol or drug abuse problem..... | 0 |
| b. <input type="checkbox"/> No current alcohol or drug abuse problem; no intervention needed..... | 0 |
| c. <input type="checkbox"/> Yes, alcohol or drug abuse problem; problem is being addressed..... | 0 |
| d. <input type="checkbox"/> Yes, alcohol or drug abuse problem; problem is <u>not</u> being addressed..... | 1 |

If "c" or "d" is selected for R6, please indicate each type of substance used during review period:

Not applicable. No known use during review period.

OR

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> Alcohol | <input type="checkbox"/> Heroin |
| <input type="checkbox"/> Marijuana | <input type="checkbox"/> Cocaine |
| <input type="checkbox"/> Methamphetamine | <input type="checkbox"/> Other: _____ |

- | | |
|--|---|
| R7. Problems With Adult Relationships | |
| a. None applicable..... | 0 |
| b. Yes, harmful/tumultuous relationships with adults, or domestic violence..... | 1 |
| R8. Primary Caregiver Has/Had a Mental Health Problem | |
| a. No..... | 0 |
| b. Yes..... | 1 |
| R9. Primary Caregiver Provides Physical Care of the Child That Is: | |
| a. Consistent with child needs..... | 0 |
| b. Not consistent with child needs..... | 1 |
| R10. Caregiver's Progress with Case Plan Objectives (score based on the caregiver demonstrating the least progress) | |
| P S | |
| <input type="checkbox"/> <input type="checkbox"/> a. Demonstrates new skills consistent with case plan objectives OR is actively engaged in services and activities to gain new skills consistent with case plan objectives..... | 0 |
| <input type="checkbox"/> <input type="checkbox"/> b. Does not demonstrate new skills consistent with case plan objectives AND/OR participation is minimal and insufficient to contribute to achieving case plan objectives..... | 1 |
| <input type="checkbox"/> No secondary caregiver | |

TOTAL SCORE _____

SCORED RISK LEVEL. Assign the family's risk level based on the following chart.

Score	Risk Level
0-1	<input type="checkbox"/> Low
2-4	<input type="checkbox"/> Moderate
5-7	<input type="checkbox"/> High
8+	<input type="checkbox"/> Very High

POLICY OVERRIDES. Mark yes if condition is applicable in the current review period. 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.
 Yes No 2. Non-accidental injury to a child under age two years.
 Yes No 3. Severe non-accidental injury.
 Yes No 4. Caregiver action or inaction resulted in death of a child due to abuse or neglect.

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

- Yes No 5. If yes, override risk level (mark one): Low Moderate High Very High

Discretionary override reason: _____

Supervisor's Review/Approval of Discretionary Override: _____ Date: ____/____/____

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

RECOMMENDED DECISION

Final Risk Level	Recommendation
Low	Close*
Moderate	Close*
High	Continue Services
Very High	Continue Services

*Unless there are unresolved safety threats.

PLANNED ACTION

- Continue Services
 Close **Note: A closing safety assessment is required.**

If recommended decision and planned action do not match, explain why:

Validating the risk reassessment is difficult for many reasons. Workers complete this assessment for families served by the department. If services are effective, then these families are less likely to subsequently maltreat a child. While the case is open, however, service providers have more contact with the families and may report allegations that otherwise would not have been reported. If a family does not comply with the case plan and child safety is a concern, the department may remove a child from the home. Each of these factors would affect the likelihood that a caregiver would maltreat a child in the future.

Assessing the performance of the risk reassessment is also difficult because child welfare agency staff complete the assessment multiple times during the life of a case. The likelihood of a family being assessed for child maltreatment allegations at the time of the first reassessment may be very different compared to the likelihood at the time of the second or the last reassessment. The performance of the risk reassessment can still be reviewed, but the results of analysis and proposed changes need to be evaluated within this context.

To examine the predictive validity of the risk reassessment, CRC selected families from the validation study samples (construction, validation, unfounded, and families not selected into one of those samples) whose index investigation resulted in a new case opening. In other words, the sample for the risk reassessment analysis is a subgroup of the families from the risk assessment validation study. We observed the classification abilities of the risk reassessment for these families at two separate points in time: after workers completed the first risk reassessment and after the second risk reassessment.¹⁸ The first sample consisted of families whose index investigation resulted in a new case opening¹⁹ and who had a risk reassessment completed within eight months of the investigation

¹⁸ See section III (Research Methodology) for a complete description of sampling methods for the validation study. Note that the reassessment sample includes families from the construction sample, validation sample, and unfounded sample, as well as families that were investigated by the selected counties during the timeframe but not retained for the construction, validation, or unfounded samples. Families from all partitions of the sample were included to ensure an adequate sample size for the reassessment analyses.

¹⁹ To best control for how long sample families had been receiving ongoing services, families whose index investigations resulted in continuation of ongoing services were excluded from the analysis.

closure. The second sample consisted of the second risk reassessment completed for these families, if completed within eight months of the first reassessment.

As with the risk assessment validation study, information for analyses came from the CWS/CMS system and the SDM database. CPS outcomes were observed for each family in both samples during a standardized follow-up period of nine months from the sampled reassessment date. These outcomes included an investigation of abuse or neglect allegations, substantiation of maltreatment, and subsequent out-of-home placement of a child.

The first risk reassessment sample consisted of 5,259 families investigated for child maltreatment between July 1, 2010, and June 30, 2011, and opened into new case services. Of these families, 21.1% had a subsequent investigation, 7.1% had a subsequent substantiation, and 4.0% experienced child removal within nine months. Child welfare agency staff completed a second risk reassessment within eight months for 2,154 of these families. Among this second risk reassessment sample, 20.5% experienced a subsequent investigation, 6.5% had a new substantiation, and 3.3% had a child removal within nine months.

At the time of the first risk reassessment, 35.5% of families were classified as low risk, 49.5% as moderate risk, 13.7% as high risk, and 1.3% as very high risk. Outcome rates by scored risk reassessment level showed the expected pattern across all three outcomes (Table D1); i.e., with each increase in risk level, there was a corresponding increase in the outcome level. For example, 13.0% of low-risk families had a subsequent investigation, compared to 22.5% of moderate-risk families, 35.1% of high-risk families, and 43.3% of very high-risk families.

At the time of the second reassessment, very few families classified as high (12.2%) or very high risk (1.0%). With so few families classified as high or very high risk, it is difficult to make reliable comparisons between very high risk and other families. A comparison of low- to moderate-risk families and moderate- to high-risk families shows that an increase in risk level corresponded to an increase in every outcome rate.

Table D1								
Current Risk Reassessment Classification by Subsequent Maltreatment Outcomes								
Risk Reassessment Level	Sample Distribution		Case Outcome Rates During the Nine-Month Follow-Up Period					
	N	%	Investigation of Any Allegation		Substantiation for Any Allegation		Child Removal	
First Risk Reassessment Sample								
Low	1,867	35.5%	242	13.0%	78	4.2%	40	2.1%
Moderate	2,605	49.5%	586	22.5%	176	6.8%	97	3.7%
High	720	13.7%	253	35.1%	106	14.7%	62	8.6%
Very High	67	1.3%	29	43.3%	15	22.4%	10	14.9%
Total Sample	5,259	100.0%	1,110	21.1%	375	7.1%	209	4.0%
Second Risk Reassessment Sample								
Low	786	36.5%	106	13.5%	25	3.2%	11	1.4%
Moderate	1,084	50.3%	240	22.1%	81	7.5%	43	4.0%
High	263	12.2%	88	33.5%	32	12.2%	17	6.5%
Very High	21	1.0%	7	33.3%	3	14.3%	0	0.0%
Total Sample	2,154	100.0%	441	20.5%	141	6.5%	71	3.3%

Table D2 reviews the individual reassessment items by subsequent CPS involvement. This item analysis is useful when determining possible modifications to the risk reassessment.

Table D2

Item Analysis of Current Risk Reassessment For the First Risk Reassessment Sample

Risk Reassessment Item	Sample Distribution		Any New Investigation Within Nine Months of First Reassessment				Any New Substantiated Investigation Within Nine Months of First Reassessment				New Removal Related to Any Investigation Within Nine Months of First Reassessment			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	5,259	100.0%	1,110	21.1%			375	7.1%			209	4.0%		
R1. Number of Prior Neglect or Abuse CPS Investigations					0.141	0.000			0.077	0.000			0.062	0.000
None	2,153	40.9%	336	15.6%			112	5.2%			58	2.7%		
One	1,216	23.1%	229	18.8%			78	6.4%			48	3.9%		
Two or more	1,890	35.9%	545	28.8%			185	9.8%			103	5.4%		
R2. Household Has Previously Received CPS					.097	0.000			.083	0.000			.079	0.000
No	4,010	76.3%	758	18.9%			238	5.9%			125	3.1%		
Yes	1,249	23.7%	352	28.2%			137	11.0%			84	6.7%		
R3. Primary Caregiver Has a History of Abuse or Neglect as a Child					.071	0.000			.052	0.000			.064	0.000
No	4,109	78.1%	804	19.6%			264	6.4%			136	3.3%		
Yes	1,150	21.9%	306	26.6%			111	9.7%			73	6.3%		
R4. Child Characteristics					.072	0.000			.037	0.004			.012	0.196
No child has any of the characteristics	4,534	86.2%	904	19.9%			306	6.7%			176	3.9%		
One or more characteristics apply	725	13.8%	206	28.4%			69	9.5%			33	4.6%		
R4. One or More Children in Household Is/Are Developmentally Disabled					.045	0.001			.026	0.029			0.004	0.397
No	4,978	94.7%	1,029	20.7%			347	7.0%			197	4.0%		
Yes	281	5.3%	81	28.8%			28	10.0%			12	4.3%		
R4. One or More Children in Household Has/Have a Learning Disability					.038	0.003			.019	0.083			-.004	0.374
No	4,851	92.2%	1,002	20.7%			339	7.0%			194	4.0%		
Yes	408	7.8%	108	26.5%			36	8.8%			15	3.7%		
R4. One or More Children in Household Is/Are Medically Fragile or Diagnosed With Failure to Thrive					.038	0.003			.017	0.115			.011	0.220

Table D2

Item Analysis of Current Risk Reassessment For the First Risk Reassessment Sample

Risk Reassessment Item	Sample Distribution		Any New Investigation Within Nine Months of First Reassessment				Any New Substantiated Investigation Within Nine Months of First Reassessment				New Removal Related to Any Investigation Within Nine Months of First Reassessment			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	5,259	100.0%	1,110	21.1%			375	7.1%			209	4.0%		
No	5,126	97.5%	1,069	20.9%			362	7.1%			202	3.9%		
Yes	133	2.5%	41	30.8%			13	9.8%			7	5.3%		
R4. One or More Children in Household Is/Are Physically Disabled					.042	0.001			.032	0.010			.010	0.227
No	5,189	98.7%	1,085	20.9%			365	7.0%			205	4.0%		
Yes	70	1.3%	25	35.7%			10	14.3%			4	5.7%		
R5. New Investigation of Abuse or Neglect Since the Initial Risk Assessment or the Last Reassessment					.125	0.000			.096	0.000			.072	0.000
No	4,632	88.1%	891	19.2%			288	6.2%			160	3.5%		
Yes	627	11.9%	219	34.9%			87	13.9%			49	7.8%		
R6. Caregiver Has Not Addressed Alcohol or Drug Abuse Problem Since the Last Assessment/Reassessment					.058	0.000			.084	0.000			.073	0.000
No history, no current problem, or problem is being addressed	4,873	92.7%	996	20.4%			318	6.5%			174	3.6%		
Problem is not being addressed	386	7.3%	114	29.5%			57	14.8%			35	9.1%		
R7. Problems With Adult Relationships					.022	.053			.034	.007			.019	.087
None applicable	4,148	78.9%	856	20.6%			277	6.7%			157	3.8%		
Yes, harmful/tumultuous relationships with adults, or domestic violence	1,111	21.1%	254	22.9%			98	8.8%			52	4.7%		
R8. Primary Caregiver Has/Had a Mental Health Problem					.076	.000			.075	.000			.060	.000
No	4,395	83.6%	867	19.7%			276	6.3%			152	3.5%		
Yes	864	16.4%	243	28.1%			99	11.5%			57	6.6%		
R9. Primary Caregiver Provides Physical Care of the Child That Is:					.029	.016			.034	.007			.042	.001
Consistent with child	4,959	94.3%	1,032	20.8%			343	6.9%			187	3.8%		

Table D2

Item Analysis of Current Risk Reassessment For the First Risk Reassessment Sample

Risk Reassessment Item	Sample Distribution		Any New Investigation Within Nine Months of First Reassessment				Any New Substantiated Investigation Within Nine Months of First Reassessment				New Removal Related to Any Investigation Within Nine Months of First Reassessment			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Total Sample	5,259	100.0%	1,110	21.1%			375	7.1%			209	4.0%		
needs														
Not consistent with child needs	300	5.7%	78	26.0%			32	10.7%			22	7.3%		
R10. Caregiver's Progress With Case Plan Objectives					.064	.000			.064	.000			.065	.000
Primary and secondary caregivers demonstrate new skills consistent with case plan objectives	3,532	67.2%	681	19.3%			211	6.0%			109	3.1%		
Either caregiver does not demonstrate new skills consistent with case plan objectives	1,727	32.8%	429	24.8%			164	9.5%			100	5.8%		
R10. Primary Caregiver Progress With Case Plan Objectives					.098	.000			.101	.000			.096	.000
Demonstrates new skills consistent with case plan objectives	4,095	77.9%	777	19.0%			235	5.7%			122	3.0%		
Does not demonstrate new skills consistent with case plan objectives	1,164	22.1%	333	28.6%			140	12.0%			87	7.5%		
R10. Secondary Caregiver Progress With Case Plan Objectives					-.003	.402			.007	.310			.011	.208
Demonstrates new skills consistent with case plan objectives or no secondary caregiver	4,217	80.2%	893	21.2%			297	7.0%			163	3.9%		
Does not demonstrate new skills consistent with case plan objectives	1,042	19.8%	217	20.8%			78	7.5%			46	4.4%		

These findings show that the risk reassessment is working well overall for families in California. Using information from the item analysis and regression analysis, CRC was able to make minor modifications to the risk reassessment that may improve its classification abilities. A proposed reassessment was developed using the same methods applied for the proposed initial risk assessment.

The revised risk reassessment (shown on the following page) features two changes. Revising item R1 (Number of Prior Neglect or Abuse CPS Investigations) improved the performance of the risk assessment. On the current assessment, a family is assigned 0 points for no prior investigations, one point for one investigation, and two points for two or more investigations. The revised version of the item assigns 0 points for no priors, one point for one or two priors, and two points for three or more prior investigations. A comparison of item R1 in its original and revised form appears below (Table D3). Given its strong relationship to outcomes, the item weight for recent investigation of child maltreatment investigations (R5) increased from one to two points. The cut points for risk level classification remain the same.

Table D3														
Item Analysis of Current Versus Revised Item R1 for the First Risk Reassessment Sample														
Risk Reassessment Item	Sample Distribution		Any New Investigation Within Nine Months of First Reassessment				Any New Substantiated Investigation Within Nine Months of First Reassessment				New Removal Related to Any Investigation Within Nine Months of First Reassessment			
	N	%	N	%	Corr.	P Value	N	%	Corr.	P Value	N	%	Corr.	P Value
Current R1. Number of Prior Neglect or Abuse CPS Investigations					0.141	0.000			0.077	0.000			0.062	0.000
None	2,153	40.9%	336	15.6%			112	5.2%			58	2.7%		
One	1,216	23.1%	229	18.8%			78	6.4%			48	3.9%		
Two or more	1,890	35.9%	545	28.8%			185	9.8%			103	5.4%		
Revised R1. Number of Prior Neglect or Abuse CPS Investigations					0.170	0.000			0.086	0.000			0.052	0.000
None	2,608	49.6%	407	15.6%			137	5.3%			86	3.3%		
One or two	1,537	29.2%	322	20.9%			115	7.5%			54	3.5%		
Three or more	1,114	21.2%	381	34.2%			123	11.0%			69	6.2%		

Note. The revised version of item R1 is based on administrative data recorded in CWS/CMS. The current version of item R1 was taken directly from what was recorded on the risk reassessment. It is therefore possible that the two versions of these items do not always match.

CALIFORNIA
PROPOSED FAMILY RISK REASSESSMENT FOR IN-HOME CASES

r: 09-13

Case Name: _____ Case #: _____ Date: _____ / _____ / _____
 County Name: _____ Worker Name: _____ Worker ID#: _____

	Score
R1. Number of Prior Neglect or Abuse CPS Investigations	
a. None	0
b. One or two	1
c. Three or more	2
R2. Household Has Previously Received CPS (voluntary/court ordered)	
a. No	0
b. Yes	1
R3. Primary Caregiver Has a History of Abuse or Neglect as a Child	
a. No	0
b. Yes	1
R4. Child Characteristics (mark applicable items)	
a. <input type="checkbox"/> No child has any of the characteristics below	0
b. <input type="checkbox"/> Yes (mark all that apply)	1
<input type="checkbox"/> One or more children in household are developmentally disabled	
<input type="checkbox"/> One or more children in household are learning disabled	
<input type="checkbox"/> One or more children in household are physically disabled	
<input type="checkbox"/> One or more children in household are medically fragile or diagnosed with failure to thrive	

The following case observations pertain to the period since the last assessment/reassessment.

R5. New Investigation of Abuse or Neglect Since the Initial Risk Assessment or the Last Reassessment	
a. No	0
b. Yes	2
R6. Caregiver Has Not Addressed Alcohol or Drug Abuse Problem Since the Last Assessment/Reassessment (mark one)	
a. <input type="checkbox"/> No history of alcohol or drug abuse problem	0
b. <input type="checkbox"/> No current alcohol or drug abuse problem; no intervention needed	0
c. <input type="checkbox"/> Yes, alcohol or drug abuse problem; problem is being addressed	0
d. <input type="checkbox"/> Yes, alcohol or drug abuse problem; problem is <u>not</u> being addressed	1
R7. Problems With Adult Relationships	
a. None applicable	0
b. Yes, harmful/tumultuous relationships with adults, or domestic violence	1
R8. Primary Caregiver Has/Had a Mental Health Problem	
a. No	0
b. Yes	1
R9. Primary Caregiver Provides Physical Care of the Child That Is:	
a. Consistent with child needs	0
b. Not consistent with child needs	1
R10. Caregiver's Progress With Case Plan Objectives (score based on the caregiver demonstrating the least progress)	
P S	
<input type="checkbox"/> <input type="checkbox"/> a. Demonstrates new skills consistent with case plan objectives OR is actively engaged in services and activities to gain new skills consistent with case plan objectives	0
<input type="checkbox"/> <input type="checkbox"/> b. Does not demonstrate new skills consistent with case plan objectives AND/OR participation is minimal and insufficient to contribute to achieving case plan objectives	1
<input type="checkbox"/> No secondary caregiver	

TOTAL SCORE _____

SCORED RISK LEVEL. Assign the family's risk level based on the following chart.

Score	Risk Level
0-1	<input type="checkbox"/> Low
2-4	<input type="checkbox"/> Moderate
5-7	<input type="checkbox"/> High
8+	<input type="checkbox"/> Very High

POLICY OVERRIDES. Mark yes if condition is applicable in the current review period. 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.
- Yes No 2. Non-accidental injury to a child younger than 2 years.
- Yes No 3. Severe non-accidental injury.
- Yes No 4. Caregiver action or inaction resulted in death of a child due to abuse or neglect.

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

Yes No 5. If yes, override risk level (mark one): Low Moderate High Very High
 Discretionary override reason: _____

Supervisor's Review/Approval of Discretionary Override: _____ Date: ____/____/____

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

RECOMMENDED DECISION

Final Risk Level	Recommendation
Low	Close*
Moderate	Close*
High	Continue Services
Very High	Continue Services

*Unless there are unresolved safety threats.

PLANNED ACTION

- Continue Services
- Close **Note: A closing safety assessment is required.**

If recommended decision and planned action do not match, explain why:

The proposed risk reassessment resulted in a better classification of families, especially at the time of the first risk reassessment. Sampled families were classified such that an increase in risk level corresponded to an increase in every outcome rate (see Table D4). For example, 4.1% of families classified as low risk at the time of the first reassessment had a subsequent substantiation during the nine-month follow-up period, compared to 6.8% of moderate-risk, 15.6% of high-risk, and 28.8% of very high-risk families. The increases were larger than those obtained by the current risk reassessment (see Table D1).

At the time of the second reassessment, only 27 families classified as very high risk, making it very difficult to interpret the results for these families. The proposed risk reassessment classified families at the time of the second reassessment such that an increase from moderate to high risk corresponded to an increase in all three outcomes.

Table D4								
Proposed Risk Reassessment Classification by Subsequent Maltreatment Outcomes								
Risk Reassessment Level	Sample Distribution		Case Outcome Rates During the Nine-Month Follow-Up Period					
	N	%	Investigation of Any Allegation		Substantiation for Any Allegation		Child Removal	
First Risk Reassessment Sample								
Low	2,021	38.4%	258	12.8%	82	4.1%	46	2.3%
Moderate	2,528	48.1%	568	22.5%	172	6.8%	90	3.6%
High	630	12.0%	242	38.4%	98	15.6%	59	9.4%
Very High	80	1.5%	42	52.5%	23	28.8%	14	17.5%
Total Sample	5,259	100.0%	1,110	21.1%	375	7.1%	209	4.0%
Second Risk Reassessment Sample								
Low	869	40.3%	109	12.5%	28	3.2%	15	1.7%
Moderate	994	46.1%	236	23.7%	77	7.7%	37	3.7%
High	264	12.3%	82	31.1%	33	12.5%	18	6.8%
Very High	27	1.3%	14	51.9%	3	11.1%	1	3.7%
Total Sample	2,154	100.0%	441	20.5%	141	6.5%	71	3.3%

Due to a smaller sample size, the sample used to test the current performance of the risk reassessment could not be separated into construction and validation samples as in the risk assessment validation. CRC performed additional analyses to better ensure equitable performance of the revised risk assessment. The revised risk reassessment worked well for the three largest ethnic groups, and outcome rates subsequently increased with each increase in risk level (Table D5).

Table D5								
Proposed Risk Reassessment Classification and Subsequent Maltreatment Outcomes by Ethnicity								
Revised Risk Reassessment Level	Sample Distribution		Case Outcome Rates During the Nine-Month Follow-Up Period					
	N	%	Investigation of Any Allegation		Substantiation of Any Allegation		Child Removal	
Black/African American								
Low	240	29.2%	40	16.7%	11	4.6%	9	3.8%
Moderate	435	52.9%	121	27.8%	32	7.4%	19	4.4%
High	132	16.0%	67	50.8%	25	18.9%	18	13.6%
Very High	16	1.9%	9	56.3%	5	31.3%	2	12.5%
Subtotal	823	100.0%	237	28.8%	73	8.9%	48	5.8%
Hispanic/Latino								
Low	1,135	40.5%	150	13.2%	40	3.5%	23	2.0%
Moderate	1,341	47.9%	267	19.9%	86	6.4%	40	3.0%
High	291	10.4%	95	32.6%	39	13.4%	24	8.2%
Very High	33	1.2%	16	48.5%	9	27.3%	6	18.2%
Subtotal	2,800	100.0%	528	18.9%	174	6.2%	93	3.3%
White								
Low	470	35.7%	54	11.5%	24	5.1%	12	2.6%
Moderate	643	48.8%	162	25.2%	47	7.3%	26	4.0%
High	177	13.4%	68	38.4%	29	16.4%	15	8.5%
Very High	27	2.1%	15	55.6%	8	29.6%	5	18.5%
Subtotal	1,317	100.0%	299	22.7%	108	8.2%	58	4.4%

Appendix E

Description of Counties Eligible for Sampling and Risk Classification Findings by County

Description of Counties Eligible for Sampling

Counties eligible for sampling must have implemented the SDM risk assessment prior to the start of the sample period (50 counties met this criteria). Child protection practices varied across these counties (Table E1). Overall, the counties assigned 67.4% of the referrals they received for investigation, though the counties' investigation rates varied between approximately 39% and 82%. The proportion of investigated referrals recommended for immediate response (within 24 hours) ranged from 5.3% to nearly half (43.7%). The proportion of investigations involving removal of a child ranged from approximately 0% to 19%. Counties also varied in the type of allegations for which families were investigated and the rate at which the county agency workers substantiated them.

Table E1			
County Variance in Case Actions Taken For Investigations July 1, 2010 – June 30, 2011 California SDM® Counties That Implemented Prior to July 1, 2010			
Case Action	Overall	Minimum	Maximum
Percent of referrals investigated	67.4%	38.7%	82.3%
Percent of investigations assigned an immediate response	31.5%	5.3%	43.7%
Percent of investigations with a child removal	8.1%	0.0%	18.6%
Percent of investigations with a neglect allegation	65.9%	43.2%	92.6%
Percent of investigations with an abuse allegation	58.8%	22.0%	75.7%
Percent of investigations with a substantiated allegation	22.9%	10.5%	48.5%
Percent of inconclusive or substantiated investigations with a risk assessment available	87.0%	13.8%	100.0%

Table E2 illustrates case practices, allegations, and substantiation rates for each county. Table E3 reviews risk assessment completion rates and distribution for each county. Only counties with a risk assessment completion rate of 75% or higher were selected for sampling.²⁰ There were 33 California counties eligible for sampling. Table E4 reviews demographic information for the sampled counties based on data from the US Census Bureau.

²⁰ The percent of investigations with a completed risk assessment is below 75% for Yuba County. These tables examine all referrals received during the timeframe, not rolled up by family. To choose who to include for the validation study, we examined each family's first investigation and evaluated whether or not that first investigation had a completed risk assessment. Counties with a 75% or higher completion rate were retained for analysis.

Table E2

**Prevalence of Case Actions by County
For Investigations July 1, 2010 – June 30, 2011
California SDM® Counties That Implemented Prior to July 1, 2010**

County	Total Referrals	% Investigated	Total Investigations	% Immediate Response	% With Removal During Investigation	Allegations				Investigation Disposition		
						Neglect and No Abuse	Neglect and Abuse	Abuse and No Neglect	At Risk Only	Unfounded	Inconclusive	Substantiated
Alameda	9,341	44.4%	4,143	42.0%	10.5%	40.5%	2.7%	56.8%	0.0%	73.9%	8.8%	17.4%
Alpine	32	56.3%	18	27.8%	0.0%	66.7%	16.7%	16.7%	0.0%	38.9%	50.0%	11.1%
Butte	3,496	50.5%	1,767	29.8%	13.9%	49.7%	27.8%	22.5%	0.0%	53.2%	14.9%	31.9%
Calaveras	720	61.5%	443	16.5%	7.9%	66.4%	14.7%	19.0%	0.0%	40.9%	35.9%	23.3%
Colusa	187	67.4%	126	19.8%	11.1%	67.5%	5.6%	27.0%	0.0%	62.7%	9.5%	27.8%
Del Norte	941	47.0%	442	34.2%	10.2%	72.6%	13.3%	14.0%	0.0%	43.4%	32.1%	24.4%
El Dorado	2,438	60.3%	1,471	20.9%	5.7%	55.1%	25.2%	19.6%	0.0%	52.4%	25.9%	21.7%
Fresno	13,412	64.7%	8,674	36.7%	7.5%	51.1%	22.2%	26.6%	0.1%	68.4%	16.3%	15.3%
Glenn	553	50.6%	280	19.3%	8.6%	35.4%	28.9%	35.7%	0.0%	68.2%	9.3%	22.5%
Humboldt	2,395	42.3%	1,013	17.4%	10.2%	59.1%	14.9%	26.0%	0.0%	70.3%	14.4%	15.3%
Inyo	460	41.1%	189	26.5%	2.1%	40.7%	15.3%	43.9%	0.0%	63.5%	19.0%	17.5%
Kern	12,833	58.4%	7,489	35.1%	12.9%	50.6%	35.3%	14.0%	0.0%	51.5%	15.2%	33.3%
Kings	2,187	59.5%	1,302	34.3%	10.3%	60.1%	12.4%	27.5%	0.0%	58.2%	30.6%	11.2%
Lake	958	49.5%	474	13.3%	8.2%	47.9%	30.2%	21.9%	0.0%	36.7%	46.6%	16.7%
Lassen	556	67.8%	377	23.1%	4.5%	66.3%	14.9%	18.8%	0.0%	64.5%	19.1%	16.4%
Los Angeles	80,610	80.1%	64,583	39.2%	9.0%	29.8%	28.4%	41.7%	0.1%	50.5%	23.3%	26.2%
Madera	2,254	63.3%	1,426	19.4%	5.9%	43.1%	33.2%	23.7%	0.0%	58.2%	21.8%	20.0%
Marin	1,969	51.4%	1,013	29.3%	3.9%	24.3%	22.9%	52.8%	0.0%	73.6%	9.0%	17.4%
Mariposa	232	72.0%	167	33.5%	10.8%	70.7%	13.2%	16.2%	0.0%	43.7%	7.8%	48.5%
Mendocino	1,657	59.2%	981	19.1%	8.4%	56.1%	24.4%	19.6%	0.0%	46.5%	25.5%	28.0%
Merced	2,835	77.5%	2,198	38.4%	8.7%	52.4%	17.6%	30.0%	0.0%	76.2%	6.5%	17.3%
Modoc	215	61.9%	133	33.1%	4.5%	47.4%	25.6%	27.1%	0.0%	70.7%	18.8%	10.5%

Table E2

**Prevalence of Case Actions by County
For Investigations July 1, 2010 – June 30, 2011
California SDM® Counties That Implemented Prior to July 1, 2010**

County	Total Referrals	% Investigated	Total Investigations	% Immediate Response	% With Removal During Investigation	Allegations				Investigation Disposition		
						Neglect and No Abuse	Neglect and Abuse	Abuse and No Neglect	At Risk Only	Unfounded	Inconclusive	Substantiated
Mono	161	50.9%	82	37.8%	1.2%	43.9%	22.0%	34.1%	0.0%	42.7%	26.8%	30.5%
Monterey	2,476	69.2%	1,713	31.6%	5.6%	38.2%	19.3%	42.4%	0.1%	74.4%	11.6%	14.0%
Nevada	1,012	58.9%	596	12.4%	8.2%	50.2%	17.4%	32.4%	0.0%	37.6%	43.3%	19.1%
Orange	17,895	64.5%	11,548	21.9%	7.4%	54.4%	11.9%	33.8%	0.0%	45.7%	18.2%	36.1%
Placer	2,844	65.7%	1,868	23.4%	5.9%	35.5%	16.7%	47.8%	0.0%	67.6%	13.0%	19.4%
Plumas	156	78.8%	123	25.2%	12.2%	78.0%	8.1%	13.8%	0.0%	51.2%	17.1%	31.7%
Riverside	22,154	82.2%	18,203	21.1%	8.2%	64.8%	27.8%	7.4%	0.1%	63.2%	14.0%	22.7%
Sacramento	15,703	62.2%	9,768	34.7%	8.1%	47.2%	24.4%	28.4%	0.0%	41.7%	39.4%	18.9%
San Benito	623	69.8%	435	37.2%	12.6%	41.1%	24.8%	34.0%	0.0%	62.1%	14.5%	23.4%
San Diego	38,419	59.1%	22,697	29.6%	6.0%	27.3%	27.2%	45.5%	0.0%	58.2%	23.7%	18.0%
San Francisco	5,253	49.6%	2,607	37.7%	7.9%	33.9%	17.3%	48.8%	0.0%	74.1%	5.9%	20.0%
San Joaquin	7,439	57.0%	4,237	23.5%	4.6%	35.6%	13.9%	50.4%	0.0%	51.1%	27.8%	21.1%
San Luis Obispo	3,361	46.1%	1,550	21.3%	7.9%	50.6%	18.1%	31.4%	0.0%	66.3%	11.0%	22.6%
San Mateo	3,391	77.2%	2,618	35.1%	4.9%	41.7%	17.6%	40.6%	0.0%	74.6%	13.8%	11.5%
Santa Barbara	4,034	82.3%	3,321	21.1%	5.9%	46.5%	21.5%	32.0%	0.0%	76.4%	7.4%	16.2%
Santa Cruz	2,865	62.9%	1,802	43.7%	7.7%	37.1%	29.5%	33.5%	0.0%	47.6%	29.4%	23.0%
Shasta	2,772	67.7%	1,877	15.1%	12.1%	59.2%	21.3%	19.6%	0.0%	54.3%	18.6%	27.1%
Sierra	56	67.9%	38	5.3%	2.6%	68.4%	7.9%	23.7%	0.0%	42.1%	23.7%	34.2%
Siskiyou	781	60.1%	469	16.6%	8.3%	65.5%	14.7%	19.8%	0.0%	35.4%	33.5%	31.1%
Solano	4,220	53.0%	2,235	16.1%	6.4%	35.0%	26.8%	38.2%	0.0%	59.2%	19.0%	21.8%
Sutter	860	48.7%	419	18.9%	12.2%	55.8%	10.5%	33.7%	0.0%	66.3%	11.2%	22.4%

Table E2

**Prevalence of Case Actions by County
For Investigations July 1, 2010 – June 30, 2011
California SDM® Counties That Implemented Prior to July 1, 2010**

County	Total Referrals	% Investigated	Total Investigations	% Immediate Response	% With Removal During Investigation	Allegations				Investigation Disposition		
						Neglect and No Abuse	Neglect and Abuse	Abuse and No Neglect	At Risk Only	Unfounded	Inconclusive	Substantiated
Tehama	1,756	38.7%	679	31.2%	18.6%	45.5%	19.9%	34.6%	0.0%	63.0%	11.9%	25.0%
Trinity	151	64.2%	97	19.6%	12.4%	51.5%	9.3%	39.2%	0.0%	45.4%	18.6%	36.1%
Tulare	6,785	73.7%	5,003	33.2%	5.8%	54.2%	28.9%	16.8%	0.0%	79.9%	8.2%	12.0%
Tuolumne	730	58.2%	425	22.4%	10.1%	67.5%	19.5%	12.9%	0.0%	42.1%	33.4%	24.5%
Ventura	8,690	68.0%	5,908	16.2%	6.0%	38.5%	25.9%	35.6%	0.0%	79.2%	7.8%	13.0%
Yolo	1,351	64.3%	869	21.5%	10.0%	48.9%	27.2%	23.9%	0.0%	44.2%	29.5%	26.4%
Yuba	1,450	53.5%	776	32.3%	7.6%	55.0%	20.2%	24.7%	0.0%	56.7%	17.1%	26.2%
Total	297,669	67.4%	200,672	31.5%	8.1%	41.2%	24.7%	34.1%	0.0%	57.0%	20.2%	22.9%

Note. Analysis excludes referrals for which all allegations were made on a placement facility.

Table E3

**Risk Assessment Information by County
For Investigations July 1, 2010 – June 30, 2011
California SDM® Counties That Implemented Prior to July 1, 2010**

County	Total Investigations	% Investigations With Inconclusive/ Substantiated Finding	% With Risk Assessment	Scored Risk Level Distribution			
				Low	Moderate	High	Very High
Alameda	4,143	26.1%	75.3%	15.6%	36.9%	29.9%	17.6%
Alpine	18	61.1%	100.0%	9.1%	54.5%	27.3%	9.1%
Butte	1,767	46.8%	55.9%	3.7%	32.7%	34.2%	29.4%
Calaveras	443	59.1%	76.0%	14.6%	50.8%	22.6%	12.1%
Colusa	126	37.3%	53.2%	12.0%	32.0%	24.0%	32.0%
Del Norte	442	56.6%	90.0%	8.0%	28.9%	37.3%	25.8%
El Dorado	1,471	47.6%	80.0%	15.9%	48.4%	24.3%	11.4%
Fresno	8,674	31.6%	65.9%	14.5%	42.1%	27.9%	15.5%
Glenn	280	31.8%	94.4%	2.4%	44.0%	34.5%	19.0%
Humboldt	1,013	29.7%	86.7%	6.5%	33.3%	33.3%	26.8%
Inyo	189	36.5%	100.0%	20.3%	36.2%	37.7%	5.8%
Kern	7,489	48.5%	89.2%	12.3%	37.7%	31.3%	18.8%
Kings	1,302	41.8%	78.7%	12.4%	37.6%	30.6%	19.4%
Lake	474	63.3%	89.3%	8.6%	42.5%	32.1%	16.8%
Lassen	377	35.5%	79.1%	12.3%	50.0%	28.3%	9.4%
LA County	64,583	49.5%	92.0%	19.4%	43.5%	27.3%	9.8%
Madera	1,426	41.8%	71.1%	22.6%	48.8%	20.5%	8.0%
Marin	1,013	26.4%	82.0%	19.6%	45.7%	27.9%	6.8%
Mariposa	167	56.3%	13.8%	0.0%	15.4%	53.8%	30.8%
Mendocino	981	53.5%	77.3%	13.3%	43.6%	32.0%	11.1%
Merced	2,198	23.8%	72.8%	12.3%	31.0%	34.9%	21.8%
Modoc	133	29.3%	79.5%	9.7%	35.5%	29.0%	25.8%
Mono	82	57.3%	21.3%	20.0%	20.0%	40.0%	20.0%
Monterey	1,713	25.6%	69.9%	15.3%	40.4%	28.7%	15.6%
Nevada	596	62.4%	81.5%	12.2%	38.9%	35.6%	13.2%
Orange	11,548	54.3%	92.4%	33.1%	44.3%	17.2%	5.4%
Placer	1,868	32.4%	66.6%	14.6%	46.7%	24.8%	13.9%
Plumas	123	48.8%	20.0%	8.3%	50.0%	25.0%	16.7%

Table E3

**Risk Assessment Information by County
For Investigations July 1, 2010 – June 30, 2011
California SDM® Counties That Implemented Prior to July 1, 2010**

County	Total Investigations	% Investigations With Inconclusive/ Substantiated Finding	% With Risk Assessment	Scored Risk Level Distribution			
				Low	Moderate	High	Very High
Riverside	18,203	36.8%	94.4%	18.1%	41.1%	27.5%	13.2%
Sacramento	9,768	58.3%	89.7%	15.2%	44.7%	27.8%	12.3%
San Benito	435	37.9%	78.8%	6.2%	46.9%	27.7%	19.2%
San Diego	22,697	41.8%	86.2%	20.4%	44.6%	25.7%	9.3%
San Francisco	2,607	25.9%	72.8%	9.1%	34.3%	33.3%	23.2%
San Joaquin	4,237	48.9%	71.3%	20.7%	51.1%	20.1%	8.2%
San Luis Obispo	1,550	33.7%	92.3%	10.4%	33.4%	33.4%	22.8%
San Mateo	2,618	25.4%	80.4%	19.5%	44.4%	25.8%	10.3%
Santa Barbara	3,321	23.6%	67.6%	14.7%	37.5%	33.3%	14.5%
Santa Cruz	1,802	52.4%	93.2%	18.8%	45.2%	23.9%	12.2%
Shasta	1,877	45.7%	89.2%	10.3%	37.0%	32.2%	20.5%
Sierra	38	57.9%	40.9%	0.0%	33.3%	44.4%	22.2%
Siskiyou	469	64.6%	91.4%	7.2%	35.7%	36.5%	20.6%
Solano	2,235	40.8%	92.5%	18.8%	40.4%	27.6%	13.2%
Sutter	419	33.7%	63.8%	20.0%	35.6%	26.7%	17.8%
Tehama	679	37.0%	55.0%	8.7%	41.3%	33.3%	16.7%
Trinity	97	54.6%	98.1%	3.8%	26.9%	30.8%	38.5%
Tulare	5,003	20.1%	71.7%	9.0%	41.2%	34.0%	15.8%
Tuolumne	425	57.9%	89.8%	8.6%	49.3%	31.2%	10.9%
Ventura	5,908	20.8%	76.5%	17.0%	41.8%	26.7%	14.6%
Yolo	869	55.8%	83.7%	17.7%	44.3%	27.3%	10.6%
Yuba	776	43.3%	72.9%	11.4%	43.7%	31.0%	13.9%
Total	200,672	43.0%	87.0%	18.7%	42.9%	26.9%	11.5%

Table E4 compares the demographic characteristics of counties included in the sample based on information from the US Census Bureau.²¹ Using this information in conjunction with case actions taken by each county may provide insight on child welfare trends with respect to population density, population growth, and poverty.

Table E4												
Census Bureau Information by Sampled County												
County	Population Estimate: July 1, 2012	Population: April 1, 2010 Census	Population % Change April 1, 2010, to July 1, 2012	Persons per Square Mile, 2010	% Below Poverty, 2007–2011	White Alone, 2012	Black or African American Alone, 2012	American Indian and Alaska Native Alone, 2012	Asian Alone, 2012	Native Hawaiian and Other Pacific Islander Alone, 2012	Two or More Races, 2012	Hispanic or Latino, 2012
State of California	38,041,430	37,253,956	2.1%	239.1	14.4%	73.7%	6.6%	1.7%	13.9%	0.5%	3.6%	38.2%
Alameda	1,554,720	1,510,271	2.9%	2,043.6	11.8%	52.3%	12.8%	1.2%	27.6%	1.0%	5.1%	22.7%
Alpine	1,129	1,175	-3.9%	1.6	15.2%	73.2%	0.4%	22.5%	1.1%	0.0%	2.8%	8.4%
Calaveras	44,742	45,578	-1.8%	44.7	8.3%	92.2%	1.0%	1.8%	1.4%	0.2%	3.4%	10.8%
Del Norte	28,290	28,610	-1.1%	28.4	21.2%	79.1%	3.8%	8.8%	3.5%	0.2%	4.6%	18.8%
El Dorado	180,561	181,058	-0.3%	106.0	8.4%	90.4%	0.9%	1.3%	3.8%	0.2%	3.4%	12.2%
Glenn	27,992	28,122	-0.5%	21.4	18.8%	90.2%	1.1%	3.0%	2.9%	0.2%	2.7%	38.7%
Humboldt	134,827	134,623	0.2%	37.7	18.4%	84.5%	1.3%	6.2%	2.5%	0.3%	5.3%	10.3%
Inyo	18,495	18,546	-0.3%	1.8	11.7%	81.8%	0.8%	12.7%	1.5%	0.1%	3.0%	20.3%
Kern	856,158	839,631	2.0%	103.3	21.4%	83.0%	6.3%	2.7%	4.8%	0.3%	3.0%	50.3%

²¹ Source: US Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, and Building Permits. <http://quickfacts.census.gov/qfd/states/06/06001.html>

Table E4

Census Bureau Information by Sampled County

County	Population Estimate: July 1, 2012	Population: April 1, 2010 Census	Population % Change April 1, 2010, to July 1, 2012	Persons per Square Mile, 2010	% Below Poverty, 2007–2011	White Alone, 2012	Black or African American Alone, 2012	American Indian and Alaska Native Alone, 2012	Asian Alone, 2012	Native Hawaiian and Other Pacific Islander Alone, 2012	Two or More Races, 2012	Hispanic or Latino, 2012
State of California	38,041,430	37,253,956	2.1%	239.1	14.4%	73.7%	6.6%	1.7%	13.9%	0.5%	3.6%	38.2%
Kings	151,364	152,982	-1.1%	110.1	19.3%	81.4%	7.5%	3.0%	4.3%	0.3%	3.5%	52.0%
Lake	63,983	64,665	-1.1%	51.5	21.4%	88.1%	2.0%	4.1%	1.3%	0.2%	4.3%	18.0%
Lassen	33,658	34,895	-3.5%	7.7	14.6%	81.5%	9.0%	4.3%	1.3%	0.6%	3.4%	18.2%
Los Angeles	9,962,789	9,818,605	1.5%	2,419.6	16.3%	71.6%	9.3%	1.5%	14.5%	0.4%	2.8%	48.2%
Marin	256,069	252,409	1.5%	485.1	7.2%	86.3%	2.9%	1.1%	5.9%	0.2%	3.6%	15.7%
Mendocino	87,428	87,841	-0.5%	25.1	17.8%	86.9%	0.9%	6.3%	1.9%	0.2%	3.8%	23.0%
Modoc	9,327	9,686	-3.7%	2.5	19.8%	88.9%	1.1%	5.1%	1.1%	0.3%	3.5%	14.4%
Nevada	98,292	98,764	-0.5%	103.1	10.3%	94.0%	0.5%	1.2%	1.3%	0.1%	2.9%	8.9%
Orange	3,090,132	3,010,232	2.7%	3,807.7	10.9%	74.5%	2.0%	1.1%	18.9%	0.4%	3.2%	34.1%
Riverside	2,268,783	2,189,641	3.6%	303.8	14.2%	80.8%	7.0%	1.9%	6.6%	0.4%	3.3%	46.5%
Sacramento	1,450,121	1,418,788	2.2%	1,470.8	14.9%	65.3%	10.9%	1.6%	15.3%	1.2%	5.8%	22.0%
San Benito	56,884	55,269	2.9%	39.8	11.3%	88.7%	1.3%	3.1%	3.3%	0.4%	3.3%	57.3%
San Diego	3,177,063	3,095,313	2.6%	735.8	13.0%	76.7%	5.6%	1.3%	11.6%	0.6%	4.2%	32.7%
San Luis Obispo	274,804	269,637	1.9%	81.7	13.2%	89.2%	2.3%	1.4%	3.7%	0.2%	3.3%	21.5%
San Mateo	739,311	718,451	2.9%	1,602.2	7.0%	63.8%	3.1%	0.9%	26.4%	1.6%	4.3%	25.4%
Santa Cruz	266,776	262,382	1.7%	589.4	13.7%	88.0%	1.4%	1.7%	4.8%	0.2%	3.9%	32.7%
Shasta	178,586	177,223	0.8%	46.9	17.2%	88.9%	1.0%	3.1%	2.7%	0.2%	4.1%	8.9%

Table E4

Census Bureau Information by Sampled County

County	Population Estimate: July 1, 2012	Population: April 1, 2010 Census	Population % Change April 1, 2010, to July 1, 2012	Persons per Square Mile, 2010	% Below Poverty, 2007–2011	White Alone, 2012	Black or African American Alone, 2012	American Indian and Alaska Native Alone, 2012	Asian Alone, 2012	Native Hawaiian and Other Pacific Islander Alone, 2012	Two or More Races, 2012	Hispanic or Latino, 2012
State of California	38,041,430	37,253,956	2.1%	239.1	14.4%	73.7%	6.6%	1.7%	13.9%	0.5%	3.6%	38.2%
Siskiyou	44,154	44,900	-1.7%	7.2	18.4%	87.7%	1.5%	4.5%	1.3%	0.3%	4.8%	11.1%
Solano	420,757	413,344	1.8%	503.0	10.8%	60.6%	15.0%	1.2%	15.5%	1.0%	6.6%	24.8%
Trinity	13,526	13,786	-1.9%	4.3	17.6%	88.8%	0.5%	4.9%	0.8%	0.2%	4.8%	7.0%
Tuolumne	54,008	55,365	-2.5%	24.9	13.3%	91.1%	2.2%	2.2%	1.2%	0.2%	3.2%	11.1%
Ventura	835,981	823,318	1.5%	446.7	9.9%	85.2%	2.2%	1.8%	7.3%	0.3%	3.2%	41.2%
Yolo	204,118	200,849	1.6%	197.9	18.6%	76.2%	3.0%	1.8%	13.6%	0.6%	4.8%	31.0%
Yuba	72,926	72,155	1.1%	114.2	20.3%	79.7%	3.8%	3.0%	7.2%	0.5%	5.9%	26.2%

Risk Classification Results by County

The following tables compare risk assessment classification findings for the current and proposed risk assessments for counties with sample sizes of more than 500 families. Table E5 compares risk assessment classification findings for the current risk assessment. The distribution of families by risk level classification differed across counties (see Table E5, columns two and three), but an increase in risk level corresponded to an increase for each outcome rate in every county, with the exception of the new investigation outcome for the smaller counties combined (i.e., there was not an increase in the new investigation outcome for high-risk families versus very high-risk families).

Table E5								
Current Overall Risk Classification Results by County								
Scored Risk Level	Sample Distribution		New Investigation Within 18 Months		New Substantiated Investigation Within 18 Months		New Removal Related to Investigation Within 18 Months	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Kern								
Low	88	17.4%	21	23.9%	9	10.2%	3	3.4%
Moderate	210	41.5%	68	32.4%	34	16.2%	11	5.2%
High	140	27.7%	56	40.0%	35	25.0%	19	13.6%
Very High	68	13.4%	34	50.0%	18	26.5%	11	16.2%
Subtotal	506	100.0%	179	35.4%	96	19.0%	44	8.7%
Los Angeles								
Low	1,226	25.5%	211	17.2%	55	4.5%	12	1.0%
Moderate	2,214	46.0%	666	30.1%	244	11.0%	86	3.9%
High	1,057	22.0%	459	43.4%	207	19.6%	96	9.1%
Very High	314	6.5%	173	55.1%	82	26.1%	50	15.9%
Subtotal	4,811	100.0%	1,509	31.4%	588	12.2%	244	5.1%
Orange								
Low	445	42.0%	59	13.3%	25	5.6%	2	.4%
Moderate	468	44.2%	115	24.6%	52	11.1%	14	3.0%
High	124	11.7%	46	37.1%	25	20.2%	11	8.9%
Very High	22	2.1%	10	45.5%	4	18.2%	3	13.6%
Subtotal	1,059	100.0%	230	21.7%	106	10.0%	30	2.8%

Table E5

Current Overall Risk Classification Results by County

Scored Risk Level	Sample Distribution		New Investigation Within 18 Months		New Substantiated Investigation Within 18 Months		New Removal Related to Investigation Within 18 Months	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Riverside								
Low	221	21.1%	47	21.3%	18	8.1%	8	3.6%
Moderate	465	44.3%	165	35.5%	57	12.3%	28	6.0%
High	276	26.3%	123	44.6%	45	16.3%	25	9.1%
Very High	87	8.3%	43	49.4%	21	24.1%	9	10.3%
Subtotal	1,049	100.0%	378	36.0%	141	13.4%	70	6.7%
Sacramento								
Low	175	18.7%	27	15.4%	7	4.0%	2	1.1%
Moderate	416	44.5%	114	27.4%	37	8.9%	18	4.3%
High	246	26.3%	97	39.4%	31	12.6%	16	6.5%
Very High	97	10.4%	45	46.4%	20	20.6%	8	8.2%
Subtotal	934	100.0%	283	30.3%	95	10.2%	44	4.7%
San Diego								
Low	398	27.9%	60	15.1%	16	4.0%	6	1.5%
Moderate	629	44.1%	205	32.6%	55	8.7%	33	5.2%
High	305	21.4%	152	49.8%	44	14.4%	23	7.5%
Very High	94	6.6%	48	51.1%	18	19.1%	13	13.8%
Subtotal	1,426	100.0%	465	32.6%	133	9.3%	75	5.3%
All Other Counties								
Low	287	17.3%	56	19.5%	19	6.6%	9	3.1%
Moderate	728	43.9%	272	37.4%	100	13.7%	37	5.1%
High	475	28.6%	202	42.5%	81	17.1%	42	8.8%
Very High	169	10.2%	67	39.6%	32	18.9%	20	11.8%
Subtotal	1,659	100.0%	597	36.0%	232	14.0%	108	6.5%

Table E6 compares risk assessment classification findings for the proposed risk assessment.

The distribution of families by risk level classification continues to differ across counties. Across counties, an increase in risk level corresponded to an increase in every outcome rate examined with one exception (outcomes for Riverside County's very high-risk families were lower than high-risk family investigation and substantiation outcomes, though results are difficult to interpret because only 51 families were classified as very high risk). For most counties, outcome rates for families classified as high and very high risk were higher than those of families similarly classified by the current risk assessment.

Table E6								
Proposed Overall Risk Classification Results by County								
Scored Risk Level	Sample Distribution		New Investigation Within 18 Months		New Substantiated Investigation Within 18 Months		New Removal Related to Investigation Within 18 Months	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Kern								
Low	59	11.7%	11	18.6%	5	8.5%	2	3.4%
Moderate	268	53.0%	80	29.9%	42	15.7%	15	5.6%
High	140	27.7%	67	47.9%	38	27.1%	19	13.6%
Very High	39	7.7%	21	53.8%	11	28.2%	8	20.5%
Subtotal	506	100.0%	179	35.4%	96	19.0%	44	8.7%
Los Angeles								
Low	1,055	21.9%	174	16.5%	45	4.3%	13	1.2%
Moderate	2,481	51.6%	710	28.6%	263	10.6%	90	3.6%
High	1,011	21.0%	470	46.5%	210	20.8%	103	10.2%
Very High	264	5.5%	155	58.7%	70	26.5%	38	14.4%
Subtotal	4,811	100.0%	1,509	31.4%	588	12.2%	244	5.1%
Orange								
Low	471	44.5%	70	14.9%	30	6.4%	3	.6%
Moderate	479	45.2%	119	24.8%	56	11.7%	19	4.0%
High	93	8.8%	34	36.6%	17	18.3%	5	5.4%
Very High	16	1.5%	7	43.8%	3	18.8%	3	18.8%
Subtotal	1,059	100.0%	230	21.7%	106	10.0%	30	2.8%

Table E6

Proposed Overall Risk Classification Results by County

Scored Risk Level	Sample Distribution		New Investigation Within 18 Months		New Substantiated Investigation Within 18 Months		New Removal Related to Investigation Within 18 Months	
	N	%	N	%	N	%	N	%
Total Sample	11,444	100.0%	3,641	31.8%	1,391	12.2%	615	5.4%
Riverside								
Low	193	18.4%	37	19.2%	15	7.8%	5	2.6%
Moderate	556	53.0%	184	33.1%	61	11.0%	30	5.4%
High	249	23.7%	133	53.4%	54	21.7%	29	11.6%
Very High	51	4.9%	24	47.1%	11	21.6%	6	11.8%
Subtotal	1,049	100.0%	378	36.0%	141	13.4%	70	6.7%
Sacramento								
Low	190	20.3%	24	12.6%	7	3.7%	2	1.1%
Moderate	492	52.7%	152	30.9%	47	9.6%	24	4.9%
High	207	22.2%	80	38.6%	28	13.5%	12	5.8%
Very High	45	4.8%	27	60.0%	13	28.9%	6	13.3%
Subtotal	934	100.0%	283	30.3%	95	10.2%	44	4.7%
San Diego								
Low	324	22.7%	43	13.3%	11	3.4%	7	2.2%
Moderate	736	51.6%	236	32.1%	66	9.0%	34	4.6%
High	297	20.8%	141	47.5%	38	12.8%	21	7.1%
Very High	69	4.8%	45	65.2%	18	26.1%	13	18.8%
Subtotal	1,426	100.0%	465	32.6%	133	9.3%	75	5.3%
All Other Counties								
Low	290	17.5%	60	20.7%	18	6.2%	4	1.4%
Moderate	855	51.5%	297	34.7%	107	12.5%	47	5.5%
High	443	26.7%	199	44.9%	89	20.1%	44	9.9%
Very High	71	4.3%	41	57.7%	18	25.4%	13	18.3%
Subtotal	1,659	100.0%	597	36.0%	232	14.0%	108	6.5%