

The standard of proof at adjudication of abuse or neglect: Its influence on case outcomes at key junctures

Ashley J. Provencher¹, Josh Gupta-Kagan²,
and Mary Eschelbach Hansen³

Abstract. We measure the extent to which the standard of proof the CPS must meet at trial in a child abuse or neglect case influences the outcomes in the case. In the United States, the government of each of the 50 states and the District of Columbia sets its own standard of proof. We measure the influence of the standards of proof using survey data. We find that a higher standard of proof – one requiring the government to present clear and convincing evidence of abuse or neglect rather than only requiring a preponderance of the evidence of abuse or neglect—decreases the probability that the judge rules in favor of CPS. A clear and convincing standard also affects decisions before trial: it increases the number of visits made by CPS during an investigation; it lowers the odds that CPS substantiates the case; and it lowers the odds that a case reaches trial. After trial, it increases the probability of an out-of-home placement.

Keywords: child protective services; foster care; standard of proof; burden of proof; legal system

1. Assistant Professor of Economics, Siena College
2. Assistant Professor of Law, University of South Carolina School of Law
3. Associate Professor of Economics, American University

Address for correspondence: Department of Economics, American University, 4400 Massachusetts Avenue NW, Washington, DC, 20016, USA, mhansen@american.edu

Date of first (online) publication: 10th October 2014

Acknowledgement and disclaimer: The main analysis in this paper uses data from the National Survey of Child and Adolescent Well-Being, which was developed under contract with the Administration on Children, Youth, and Families, U.S. Department of Health and Human Services (ACYF/DHHS). Some calculations in section 4 utilize the National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2012v1, which was originally collected by the Children's Bureau. All data have been provided by the National Data Archive on Child Abuse and Neglect. The information and opinions expressed herein reflect solely the position of the authors. Nothing herein should be construed to indicate the support or endorsement of its contact by ACYF/DHHS. Annie Rumler provided excellent research assistance.

1. Introduction

A social worker engaged in child protective services (CPS) must navigate multiple contexts in addition to his or her own agency (Kearney, 2013). For example, to protect a child from immediate harm, a social worker often must work within the context of local law enforcement (Stroud and Warren-Adamson, 2013). This paper considers how the context of the legal system, including both the letter of the law and the way that social workers and other participants interpret the law, influences CPS decision-making. Studying how different legal systems influence CPS decision-making is important to understanding the geographic variations in out-of-home placements and other CPS outcomes, both between and within countries.¹ In the United States, which is our particular focus, the legal system that CPS workers must navigate varies across the individual U.S. states. This variation is similar to the way some aspects of the legal system vary across the United Kingdom.

In adversary legal systems such as the one in the U.S and other common law, British-influenced systems, one party bears the burden of proof in any legal case, including a case resulting from a CPS investigation. In order for that party to win, it must present a certain amount of evidence. If it fails to do so, then the other party to the case will win – even if that other party proves nothing. The law usually assigns the burden of proof to the party that has filed a case or is seeking some type of relief. The law further assigns a standard of proof, which defines the strength of evidence that must be provided by the party bearing the burden of proof.² In the United States, it is the legislature and the courts in each of the 50 states (plus the District of Columbia) that set the standard of proof in civil child abuse and neglect cases filed by state CPS agencies. This paper investigates whether the standard of proof required by states at adjudication of child abuse or neglect has any influence on the decisions made about the case at adjudication, as well as at key junctures before and after adjudication.

1.2 Standards of proof generally

The standard of proof serves

to instruct the factfinder [judge or jury] concerning the degree of confidence our society thinks he should have in the correctness of actual conclusions for a particular type of adjudication. (In re Winship, 1970, p. 370)

Put another way by the U.S. Supreme Court, a standard of proof

serves to allocate the risk of error between the litigants and to indicate the relative importance attached to the ultimate decision. (Addington, 1979, p. 423)

This purpose is illustrated in the justifications for the most well-known standard

of proof – the requirement that a criminal conviction be based on proof beyond a reasonable doubt. This high standard reflects society’s desire to provide a powerful protection to individuals facing deprivations of their physical liberty by the state. As the price of this protection, the law accepts that some guilty individuals will escape conviction. As the 18th century British scholar William Blackstone wrote, ‘It is better that ten guilty persons escape, than that one innocent suffer’ (Blackstone, 1892, p. 713). Benjamin Franklin increased the ratio tenfold, writing ‘it is better 100 guilty Persons should escape than that one innocent Person should suffer’ (Franklin, 1970, p. 293). These justifications admit that errors are inherent in any legal system, and they view a standard of proof as determining whether any side in a dispute should bear a greater part of the risk of error (In re Winship, 1970).

There are three primary standards of proof for trial decisions. The highest standard is beyond a reasonable doubt, which requires ‘being firmly convinced’ that something occurred, and also requires the absence of ‘a real possibility’ that it did not occur’ (Black’s Law Dictionary, 2001, p. 584). The beyond a reasonable doubt standard is applied in criminal and juvenile delinquency cases. The lowest standard of proof is preponderance of the evidence, defined as the ‘greater weight of the evidence’ which may be ‘slight’ and which need not be ‘sufficient to free the mind wholly from all reasonable doubt’ (Black’s, 2001, p. 547). This standard applies when ‘society has a minimal concern with the outcome,’ such as a ‘typical civil case involving a monetary dispute between private parties’ (Addington, 1979, p. 423). For example, the preponderance of the evidence standard applies in suits for negligence following a car crash or for medical malpractice after an injury suffered following a surgery. The intermediate standard of proof is clear and convincing evidence, defined as ‘evidence indicating that the thing to be proved is highly probable or reasonably certain’ (Black’s, 2001, 250). This standard is applied in civil cases with ‘interests at stake ... deemed to be more substantial than mere loss of money’ (Addington, 1979, p. 425).

Although the standard of proof that applies to most cases is well-settled, the determination of the standard of proof does occasionally create a legal dispute, especially when the state intervenes in the constitutional right to liberty outside of a criminal case. For instance, the U.S. Supreme Court held that a beyond a reasonable doubt standard must apply in juvenile delinquency cases – which are nominally civil but bear many similarities to adult criminal cases (In re Winship, 1970). The U.S. Supreme Court has also held that the intermediate standard of clear and convincing evidence applies to involuntary civil commitments of adults to mental institutions (Addington, 1979), permanent termination of parental rights regarding a child (Santosky, 1982), and deportation orders (Woodby, 1966). The types of cases in which a clear and convincing standard applies have two themes in common. First, they pit the state, with its significant law enforcement and litigation resources, against an individual. Second, they threaten to infringe upon a fundamental constitutional right (such as the right to physical liberty or family integrity) or impose a ‘drastic deprivation’ (such as deportation, Woodby, 1966, p. 284). When less important rights are at stake, the U.S. Supreme Court has

approved the preponderance of the evidence standard; for instance, the Court approved a preponderance of the evidence standard in parentage proceedings designed to force non-custodial fathers to pay child support, noting that parents have no constitutional right to avoid paying child support (Rivera, 1987).

The text of the U.S. Supreme Court's decisions regarding the standard of proof reflect some ambivalence about whether the Court expected the choice between clear and convincing evidence and either alternative to have much practical difference, at least in jury trials. In *Addington v. Texas* (1979, pp. 424-425), in which the Court required a clear and convincing evidence standard rather than a preponderance of the evidence standard in civil commitment cases, it wrote:

Candor suggests that, to a degree, efforts to analyze what lay jurors understand concerning the differences among these three tests or the nuances of a judge's instructions on the law may well be largely an academic exercise; there are no directly relevant empirical studies. Indeed, the ultimate truth as to how the standards of proof affect decisionmaking may well be unknowable, given that factfinding is a process shared by countless thousands of individuals throughout the country. We probably can assume no more than that the difference between a preponderance of the evidence and proof beyond a reasonable doubt probably is better understood than either of them in relation to the intermediate standard of clear and convincing evidence.

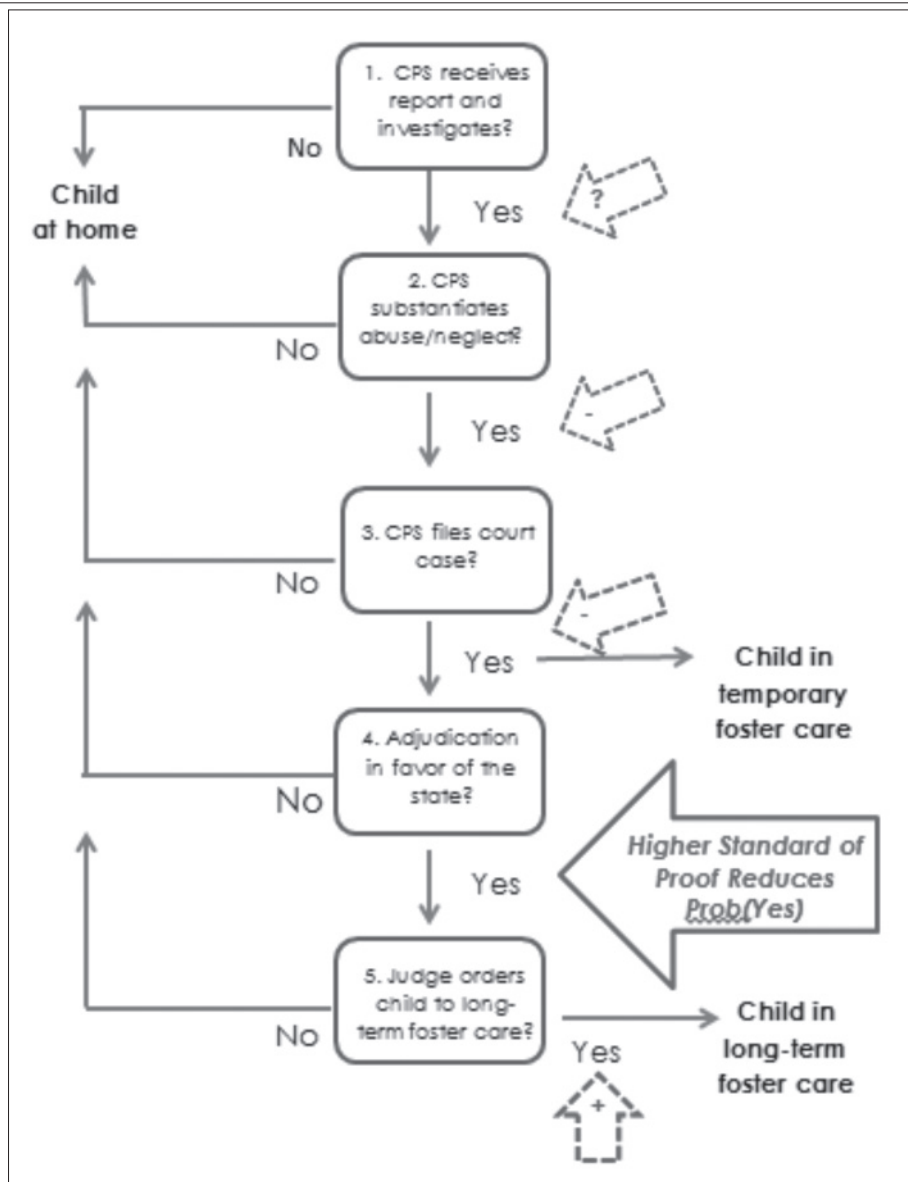
The Court thus implicitly invited study to determine if setting a standard of proof is 'more than an empty semantic exercise (Addington, 1979, p. 425).' We take up their invitation through the study of standards of proof at the adjudication of cases of child abuse and neglect.

1.3 Child protection cases and standards of proof

Again, in the United States, state rather than federal law governs individual child abuse and neglect cases, which are filed by state CPS agencies in state courts.³ This devolution to the state level differs from the centralized systems of some countries but is similar to the United Kingdom, which devolves certain authority to England, Wales, and Scotland. The issues addressed here have broad implications for both nations with decentralized systems and for understanding differences across international lines. Moreover, while we focus on child abuse and neglect and out-of-home placement decisions, the implications of our research extend to other issues in social work, such as domestic violence and juvenile delinquency, as well as to the understanding standards of proof broadly.

In all 50 states and the District of Columbia the sequence pictured in figure 1 is followed, namely:

Figure 1
Expected impact of the standard of proof on case outcomes



Note: A higher standard of proof is expected to have a direct effect, reducing the probability of adjudication of abuse and neglect (solid arrow). Shadow effects (dashed arrows) may be negative (-), positive (+), indeterminate (?).

1. CPS receives a report alleging that a parent has abused or neglected a child and decides whether or not to investigate the allegation. CPS must also decide how many resources to devote to investigation, including how many visits to make during the investigation.
2. CPS makes an administrative determination as to whether the parent has abused or neglected the child. A positive determination is called 'substantiation' of the allegation.
3. If the allegation is substantiated, CPS decides whether to file a court case charging abuse or neglect. Filing a case typically coincides with a decision to remove children from their homes and place them temporarily in foster care.
4. After CPS files a court case, one of several options occurs: CPS may dismiss the case before it reaches trial; a parent may admit to the abuse or neglect (essentially, pleading guilty); or the case may proceed to a trial, at which a judge decides whether the state has proven that the parent abused or neglected the child. The standard of proof determines how robust the evidence must be for adjudication in favor of the state.
5. After an adjudication in favor of the state, the judge decides the disposition of the case, that is, whether the child should remain (or return) home with some sort of CPS oversight, or whether the child should be placed in long term foster care.

As the party taking action to intervene in a family, CPS bears the burden of proof at each of these stages, but the standard of proof may vary across the 50 states and the District of Columbia from one stage to another. At the first stage, state statutes differ regarding the levels of certainty under which mandatory reporters (such as doctors or teachers) must report possible child abuse or neglect to child protection authorities; some states trigger that obligation when reporters have cause to believe that abuse or neglect occurred while others require reasonable suspicion before reporters must call CPS (Levi & Portwood, 2011). At the second stage, CPS must meet a standard of proof before they substantiate an allegation of abuse or neglect.⁴ The standard varies from credible evidence or probable cause in some states to preponderance of the evidence in others (Levine, 1998).

At the fourth stage, CPS must prove to a judge that a parent has abused or neglected a child. The standard of proof for adjudication of abuse or neglect is a preponderance of the evidence in 32 states plus the District of Columbia and Puerto Rico,⁵ but it is clear and convincing evidence in 18 states.⁶ As noted above, a judicial adjudication that a parent has abused or neglected a child subjects the child and parent to ongoing court jurisdiction (it is sometimes called the 'jurisdictional hearing'). It also empowers the judge to decide what disposition serves the child's best interests; that is, the judge decides whether the child should return home under court or agency supervision or live in foster care.⁷

Again, this study focuses on the effects of the different standards of proof applied

by states at stage 4, the judicial adjudication of abuse or neglect. As discussed above, the different standards of proof at this stage reflect different legal and policy judgments in each state regarding how to balance the competing interests at stake in these cases – respecting parents’ and children’s right to family integrity while also protecting children from potential harm caused by parental abuse or neglect. A clear and convincing standard of proof suggests that the state strikes this balance closer to the former concern because the right to family integrity is important and worthy of strong legal protections, to minimize the risk of finding abuse or neglect based on isolated behaviors, and to protect children and parents from unjustified removals of children from parental custody (for example, *In re M.L.C.* (2001) and *In the interest of Dimmett* (1977)). A preponderance of the evidence standard suggests that the state strikes this balance closer to the latter. Courts approving this standard have noted that wrongfully ruling that abuse or neglect did not occur would leave children living with unfit parents and at risk of future neglect. Moreover, a ruling in favor of the state would only authorize a temporary invasion into the family – compared with the permanent severing of a parent-child relationship at issue in a termination of parental rights case (for example, *In re Tammie Z.* (1985) and *In re N.H.* (1990)).

Commentators are split regarding the most appropriate standard to apply (McMahon, 1999; Mandel, 2006). We take no position here regarding whether the clear and convincing evidence or preponderance of the evidence standard should apply in child abuse and neglect cases. Rather, this study seeks only to determine whether different standards of proof matter in the sense that they have real influence on the outcomes child welfare court cases, on decisions about the disposition of the case subsequent to the court’s findings, or on administrative decisions leading up to a court case.

What influence might the standard of proof at adjudication have? The standard of proof should directly affect the outcome of the court case at stage 4 in figure 1. A higher standard of proof should reduce the probability that a judge finds that abuse or neglect occurred. In formal legal terms, a higher standard of proof reduces the probability of adjudication of abuse and neglect. This direct effect is illustrated by the solid red block arrow on the right-hand side of figure 1.

Legal theory also suggests that the standard of proof will affect decisions leading up to a trial, because such decisions are made ‘in the shadow of the law’ (Mnookin & Kornhauser, 1979). The higher the standard of proof at the end stage, the more cautious one would expect CPS to be along the way by dismissing more cases pre-trial, filing fewer cases at all, and/or substantiating fewer allegations of child abuse or neglect. Moreover, a high standard of proof may also have an effect on the disposition of a case: in states with a higher standard of proof, judges may be more willing to order long-term foster care because they are more certain abuse or neglect occurred. These possible shadow effects are illustrated by the dashed block arrows in figure 1. The expected sign of the effect of a higher standard of proof on

the probability of a positive decision at each stage is shown inside the arrow.

The standard of proof should affect the state's incentives to gather evidence at the first stage, but here the sign of the effect is not predictable and is illustrated in figure 1 with a question mark (?) in the top-most arrow. A higher standard of proof is expected to increase the incentive for state agencies and lawyers to gather evidence to ensure that the state can meet its standard of proof. This may lead CPS to make more visits during an investigation. However, if the standard of proof is so high that CPS does not believe they can meet it, a higher standard might reduce incentive to gather evidence at all (Stephenson, 2011).

Additionally, the influence of the burden of proof on outcomes may be different for different types of allegations under investigation by CPS. For example, sex abuse charges are very difficult to prove because there is often no physical evidence; therefore, a higher burden of proof may reduce the likelihood that CPS files and prosecutes sex abuse cases. For this reason, it is desirable to estimate the impact of the standard of proof using case-level data, as we do below.

1.4 Prior Empirical Research

To our knowledge, our study is the first to consider the real-world effects of preponderance of the evidence versus clear and convincing evidence standards of proof on adjudication of cases filed by the CPS.

Standards of proof mainly have been studied in mock jury trial settings, and these studies' inconsistent results suggest that the effect of standards of proof is not obvious. Mock jurors found for the plaintiffs more frequently when applying a lower standard of proof to the plaintiffs' argument, but the size and statistical significance of the differences in outcomes depended on the instructions given to the jurors (Schwartz & Seaman, 2013; Kagehiro & Stanton, 1985; Solan, 1999). Results regarding punitive damages in civil cases were less statistically robust than results in criminal matters (Woody & Greene, 2012). In child abuse and neglect cases, however, the fact-finder is a judge and the standard of proof can be assumed to be well-understood (for studies of judge versus jury see, Moore, 2000, and Clemant & Eisenberg, 1992). CPS lawyers who decide whether to file and prosecute cases can also be assumed to understand the law.

Most studies of legal outcomes for children with CPS contact do not include standards of proof as a covariate. As a recent meta-study on the determinants of out-of-home placement shows, many studies are for a limited geographical area and therefore the investigators do not observe variation in legal variables (Bhatti-Sinclair & Sutcliffe, 2013). But even national studies of the determinants of substantiation and out-of-home-placements using administrative data or probability samples (Meyer, et al., 2010) do not include differences in legal systems or standards. The two studies we located that look specifically at decisions of judges do not discuss evidentiary

standards (Ben-David, 2011; Britner & Mossler, 2002). The single identified study of the evaluation of evidence by caseworkers discusses varying standards of proof but does not include it in the analysis (Cross & Casanueva, 2009).

Two studies of the child welfare system use state-level cross sections to consider the effect of different standards of proof for administrative substantiations (stage 2 in figure 1). They find that states with higher standards of proof had lower substantiation rates, as we would also predict, but the differences were small and not statistically significant, again suggesting that the impact of standards of proof is not obvious (Levine, 1998, Flango, 1991). Flango (1991) found that little if any difference existed between substantiation rates across different categories of maltreatment: Substantiation in hard-to-prove categories such as emotional maltreatment did not differ in substantiation rates from easier-to-prove categories. Note, however, that the standard of proof at the substantiation stage may be, and often is, different from the standard of proof at the adjudication stage. Here we focus only on the standard at adjudication.

2. Data

We use the National Survey of Child and Adolescent Well-being (NSCAW). NSCAW is a rich source of child-level data that allows for the inclusion of control variables that have the potential to affect the outcome of the case. Moreover, the eight states identifiable in NSCAW data contain two that have a clear and convincing standard of proof at adjudication and six that have a preponderance of the evidence standard.

2.1 NSCAW

NSCAW is a national probability sample of children who came into contact with state CPS agencies.⁸ Children were eligible for sampling if they were the alleged victim in an incident of abuse or neglect, and the CPS investigation began between October 1, 1999, and December 31, 2000. All children were younger than 15 years old at the close of an investigation. The baseline interviews were conducted between November 1999 and April 2001; three waves of interviews were conducted approximately 12 months, 18 months, and 36 months later. Data from later waves were used only to capture court proceedings and out-of-home placements.

The observations in NSCAW are drawn without replacement from a two-stage stratified sample. At the first stage, there are nine strata. The first eight are the states with the largest number of CPS caseloads: California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas. The ninth stratum consists of the remaining states.⁹ Primary sampling units (PSUs) are selected from within these strata. In

most cases, PSUs correspond to a county or a group of adjacent counties. In more densely populated places, a PSU may be a single CPS agency.¹⁰ Because this paper is concerned with differences between states, we considered the subpopulations in strata composed of single states. Of these eight states:

- Pennsylvania and Ohio had a clear and convincing standard of proof at trial during the sample time frame. NSCAW contains 314 cases from Ohio and 300 cases from Pennsylvania, representing about 8 percent (95 percent confidence interval 5.7-10.1 percent) of the population of children who came into contact with CPS in those two states.
- The remaining states in the first eight strata had a preponderance of the evidence standard of proof at trial. NSCAW contains 695 cases from California, 285 cases from Illinois, 298 cases from Florida, 336 cases from Michigan, 408 cases from New York, and 485 cases from Texas, representing about 40 percent (95 percent confidence interval 33.1-45.8 percent) of the population of children who came into contact with CPS in those six states.

Because the NSCAW time frame is short and includes no states that made changes to their standard of proof at adjudication, we are constrained to cross-section regressions. We cannot use the panel techniques that might allow us to separate the impact of the standard of proof from other state-wide differences in policy or social work practice that might influence decisions at the key junctures illustrated in figure 1. This would tend to increase the standard errors of our estimates, making it unlikely that we can detect differences at standard levels of statistical significance. The survey's complex design may also tend to increase standard errors of estimates particularly for small subgroups of the sample. Finally, because the survey includes only eight identifiable states, readers should use caution in the extension of the findings here to all states. Yet NSCAW is the only publicly available data set of which we are aware that allows us to observe so many junctures in the progression of a case, as well as characteristics of the child and the case.

2.2 Descriptive Statistics on the Outcomes of Interest

To simplify the exposition, we present descriptive statistics and regression results in the order that the decisions are made in the course of a case, following figure 1 from top to bottom.

2.2.1. *Number of visits during investigation*

The number of visits by CPS during the course of an investigation was recorded at the second wave, about 12 months after the close of the investigation. (all definitions from appendices to NDCAN 2008). Agencies in New York and Illinois only reported

data for substantiated cases, which creates an upward bias in number of visits, so these two states are excluded from the analysis for this outcome. As shown in column 1 of table 1, there were 2,012 valid observations in NSCAW from the six strata. (See Online Appendix table A1 for all population statistics.¹¹) These observations represent about 914,000 children in the six states. The number of visits per investigation averaged 2.65, with a standard deviation of 2.47. Adjusting for sample weights, the estimated average number of visits per case is between 2.06 and 2.44 (95 percent confidence interval).

2.2.2. Abuse or neglect was substantiated

To determine whether or not abuse or neglect was substantiated in a case, we use a derived variable in the NSCAW data set that indicated whether a case was either ‘substantiated,’ or ‘other than substantiated.’ Again we use the six-state sample because New York and Illinois only reported data for substantiated cases. Again referring to column 1 of table 1, 54 percent of sample children’s cases were substantiated; after using the sample weights to adjust for the survey structure, we estimate that between 25 and 37 percent of the population of cases in the six states were substantiated.

2.2.3. CPS filed a court case after substantiation

As part of the second wave of NSCAW interviews, the caseworker was asked about the child’s experience in court since the date of contact with the CPS agency (or, if contact date was missing, since the report date). If the abuse or neglect was substantiated and an ‘adjudication/jurisdiction hearing’ was recorded in NSCAW, then we know that CPS decided to file a court case at stage 3 in figure 1. (Note that if CPS filed a court case but dropped it before the adjudication hearing, the filing is not observed; therefore, we underestimate total cases filed.) The estimation sample contains substantiated cases in the eight-state sample: 2,648 children (table 1, column 2). CPS filed a court case alleging abuse or neglect for 21 percent of the children in the sample, indicating that between 8 and 19 percent of substantiated cases in the eight states went to trial.

2.2.4. Adjudication in favor of the state

Unfortunately, NSCAW does not directly record whether the judge made a finding in favor of the state at stage 4 in figure 1. We construct a proxy for the judge’s decision that utilizes the information about the dates of hearings recorded in NSCAW. Our proxy equals zero if an adjudication trial is the last court appearance recorded. The absence of court appearances after an adjudication trial indicates that it is likely that the judge found in favor of the parent/defendant and the case was closed. Our proxy equals one if any court appearances are recorded at dates later than the adjudication trial. If the judge finds in favor of the state at trial, or if the parents admit to alleged abuse/neglect before the court, there will be one

THE STANDARD OF PROOF AT ADJUDICATION OF ABUSE OR NEGLECT

Table 1
Descriptive Statistics

	(1)		(2)		(3)	
	Six-State Sample		Eight-state Sample		Eight-state Sample	
	Mean or % = 1	St. Dev.	Mean or %	St. Dev.	Mean or %	St. Dev.
Number of Visits by CPS Substantiated	2.65	2.47	3.15	2.89	3.19	3.17
Reached Adj Trial Substantiation	0.54		0.21			
Judge Found in Favor of State Adj. Trial					0.80	
OOH Place. Adj. Trial					0.67	
State has C&C Standard	0.24		0.17		0.21	
Sexual Abuse	0.14		0.14		0.10	
Physical Abuse	0.34		0.31		0.29	
Neglect	0.59		0.63		0.69	
Child's Age in Months	38.87	3.61	36.72	3.81	28.13	4.09
<i>n/N</i>	2,102		2,648		1,891	

Description of table 1: Sample (unweighted) descriptive statistics of dependent variables and selected independent variables included in estimation of the results reported in table 2. See sections 2.2 and 2.3 for further details. See Online Appendix table A1¹¹ for a complete list and for population (weighted) statistics.

or more hearings after the adjudication trial at which, for example, the judge will make a ruling about whether the child will be placed in long-term foster care. The estimation sample includes 1,891 children whose cases reached an adjudication trial (table 1, column 3). We estimate that there was a finding for the state in 80 percent of the cases for which an adjudication trial was recorded, indicating that between 58 and 83 percent of all findings are made in favor of the state.

2.2.5. Child was in an out-of-home placement after an adjudication hearing.

If a child was observed to be in an out-of-home placement, conditional upon an adjudication hearing being recorded in NSCAW, then the child's case reached the final stage shown at the bottom of figure 1. The estimation sample for this final stage contains 1,891 children, representing nearly 404,000 children. Sixty-seven percent of children were in out of home placements at this stage, indicating that

between 38 and 69 percent cases that reached adjudication trial resulted in out-of-home placements.

2.3 Descriptive Statistics of Primary Independent Variable

The fraction of the sample cases that were conducted in states with a clear and convincing standard of proof varies between estimation samples. Twenty-four percent of cases in the six-state sample were in states with the higher standard of proof (table 1, column 1); the 95 percent confidence interval is (12, 22). Seventeen percent of the sample of substantiated cases were in states with the higher standard of proof; the population proportion is between 5 and 18 percent (table 1, column 2). Twenty-one percent of the sample of cases that reached adjudication trial were in states with the higher standard (table 1, column 3).

2.4 Descriptive Statistics of Control Variables

We control for several characteristics of the child and the case. Table 1, and Online Appendix table A1 again show descriptive statistics for the three estimation samples.

2.4.1. *Type of abuse/neglect.*

As noted above, allegations of some types of abuse – sexual abuse in particular – are very hard to prove under any standard of proof. By comparison, evidence is more readily found in cases of physical abuse or neglect. We therefore expect cases involving allegations of sexual abuse to require more visits during an investigation, to be associated with lower probabilities of substantiation, reaching trial, and adjudications in favor of the state, and to be associated with a higher probability of out-of-home placement after adjudication. Because the influence of the standard of proof may vary by type of abuse, in our logistic regressions we included an interaction term between the type of abuse and the standard of proof at adjudication in the state.

Information about the type of abuse or neglect was collected from the caseworker at wave 1 of NSCAW: caseworkers were asked if the case involved sexual abuse, physical abuse, or neglect. Responses were not mutually exclusive: a case may involve more than one type of abuse or neglect. For the sample of children in the six strata where we can observe the state's decision to substantiate (stage 2 in figure 1), about 14 percent involve allegations of sexual abuse, implying that there was an allegation of sexual abuse of between nine and 16 percent of cases. The proportion of cases involving allegations of sexual abuse is about the same in the estimation sample for stage 3, which includes all eight identifiable states in NSCAW but includes only those children whose cases were substantiated. The weighting results

in a slightly wider 95 percent confidence interval for the population. The proportion in the sample for the final stages (children whose cases reached adjudication trial) is 10 percent, implying that allegations of sexual abuse were made between two and 10 percent of the time in the population.

Allegations of physical abuse and neglect are more common at every stage. In the six-strata sample, 34 percent of children's cases involve allegations of abuse and 59 percent involved allegations of neglect. The corresponding confidence intervals are 35 to 45 percent for allegations of physical abuse and 35 to 45 percent for allegations of neglect. In the eight-strata sample of substantiated cases, the proportion of the sample with allegations of physical abuse is 31 percent; the proportion with allegations of neglect is 63 percent. The confidence intervals are 31 to 48 percent for allegations of physical abuse and 49 to 62 percent for allegations of neglect. In the sample of cases that reached adjudication trial, the proportion of the sample with allegations of physical abuse is 29 percent; the proportion with allegations of neglect is 69 percent. The confidence intervals are 23 to 53 percent for allegations of physical abuse and 46 to 82 percent for allegations of neglect.

2.4.2. Characteristics of the child.

We controlled for the race, ethnicity, and age of the child. Race was described with the mutually exclusive categories 'White,' 'Black,' and 'Other' (These statistics are reported in full in Online Appendix table A1). In the six-state estimation sample, 30 percent of children are Black; the estimated population mean is 26 percent. In the eight-state estimation sample of substantiated cases, the proportion of the sample children who are black is 34 percent. In the estimation sample of cases that reached trial (column 3) 36 percent of children are Black. While the proportion of the sample children that is Black increases as we consider cases at later stages, the confidence intervals overlap substantially.

The race of six to seven percent of children in each of the estimation samples is listed as 'Other.' These include multiracial children, and children identified as Native American (about 6 percent after weighting) and Asian (2 percent). From 23 to 26 percent of children are identified as Hispanic; the confidence intervals are wide.

In the six-state estimation sample, the average age of children in the sample is 39 months (standard deviation of 3.61 months), but younger children are overrepresented in the sample, so the estimated average age of the corresponding population is between 63 and 70 months. The average age of the children in the eight-state estimation sample of substantiated cases is almost 37 months, and the population average confidence interval is between 55 and 67 months. In the estimation sample of cases that reached adjudication, the average age of children in the estimation sample is 28 months, and the population mean is between 34 and 52 months

2.4.3. *Contacts during investigation.*

The source of the information collected during investigation may influence outcomes (Zuravin, Watson & Ehrenschaft, 1987). Some sources, including medical personnel and foster parents, may have better knowledge about evidence or better access to collect evidence. Alternatively, some sources of information, such as teachers, may be viewed as more credible.

NSCAW records who was contacted during an investigation in data collected from caseworkers at wave 2 (NDACAN, 2008, p. II-E-12). Contacts recorded include the parent or guardian of the child, the foster parent, another relative of the child, teachers, doctors, and others. For this category of control variables, there is little variation in sample proportions across estimation samples: parents/guardians were contacted in 90 to 94 percent of cases in each estimation sample; foster parents were contacted in from 4 to 10 percent of sample cases; other relatives were contacted from 50 to 58 percent of sample cases; teachers were contacted in 25 to 32 percent of cases, and 'others' were contacted in about 49 to 55 percent of cases. The proportion of cases in which doctors were contacted had the greatest variation between estimation samples, from 33 to 47 percent, but again the confidence intervals overlap substantially.

2.4.4. *Investigator.*

The knowledge, access, or credibility of the investigator may also influence the outcome of the case. The type of investigator(s) recorded are not mutually exclusive and included CPS caseworkers, police, and 'others,' and the information was collected from caseworkers at wave 2 (NDACAN, 2008, II-E-12). Nearly all cases involved social workers, so that category is excluded. We expect that investigations conducted by CPS (or other child welfare workers) and police officials are more likely to move forward at each stage. In the samples, the proportion of investigations that involved police ranged from 27 to 33 (with overlapping confidence intervals) percent, and the proportion of investigations that involved 'others' ranged from just five to seven percent.

2.4.5. *Number of visits.*

This variable is an outcome of interest in the first stage of figure 1, and it is included as a control in the analysis of subsequent states. We expect a larger number of visits made during the investigation to increase the amount or quality of evidence and therefore to be positively associated with a case moving forwards at each adjudication. We allowed for the possibility of non-linearity by including the square of the number of visits.

As noted above, the six-state sample has a mean of 2.64 visits per case. In the eight-state sample estimation sample used for estimation of reaching an adjudication trial, the mean number of visits per case is 3.15 (with standard deviation of 2.89); the 95 percent confidence interval for the population mean is

(2.49, 3.01) . For the sample of cases that reached adjudication trial, the sample mean of number of visits is 3.16 (standard deviation of 3.17); the estimated population average is 2.97.

2.4.6. Multiple contacts with CPS.

We considered two measures of whether the child had multiple contacts with CPS. We expect new reports to decrease the scrutiny of the current report and to decrease the probability that a case based on the current report moves forward at each stage of figure 1, as the focus would likely move to the new report. NSCAW asks caseworkers whether a new report was opened for the sampled child between the time of the initial report and the close of the case (NDACAN, 2008, p. II-I-16). The percent of sample cases with new cases opened ranged from 27 to 33 percent, again with no statistically significant difference between estimation samples.

We expect past contacts with CPS to increase scrutiny of the child's situation and to increase the probability that a case moves forward at each stage. NSCAW asks the caseworker whether there was any previous substantiated report of abuse or neglect of the child (NDACAN, 2008, p.II-I-128).

Children with past substantiations ranged from 30 to 47 percent. The confidence intervals between the six-state and eight-state substantiated sample barely overlap, but there is no statistically significant difference between the eight-state samples of cases that were substantiated and reached adjudication trial.

Finally, in our estimation of the influences on the number of visits during the investigation, we also control for whether the child was ever placed in emergency care. Emergency care may increase the number of visits. Thirty-three percent (confidence interval 14-24 percent) were ever placed in emergency care

3. Results

Table 2 overleaf shows our main regression results; complete results appear in Online Appendix A2. In the first column are coefficients and t-statistics from a Poisson regression that estimates the impact of the standard of proof at adjudication on the number of visits made by CPS during an investigation. In columns 2-5 are odds ratios and t-statistics from the logistic regressions on the probabilities of cases being substantiated, reaching an adjudication trial, being adjudicated in favor of the state, and resulting in a long-term out-of-home placement.

The main effect of a state's having a clear and convincing standard has the predicted sign in each regression. The main effect of having a standard of clear and convincing evidence:

- increases the number of visits during an investigation,

- lowers the odds of substantiation,
- lowers the odds that the case reaches adjudication trial (conditional upon the case being substantiated),
- lowers the odds of adjudication in favor of the state (conditional upon the case having reached trial), and
- increases the odds of an out-of-home placement (conditional upon the case reaching trial).

As noted in section 2.1 above, the regressions have low power, and the main effect of a higher standard of proof is not statistically significant at a level of 10 percent or better in any regression. However, in the logistic regression for stage 4, which measures the impact of the standard of proof on the outcome of the trial, the main effect is statistically significant at the 13 percent level.

The impact of the type of abuse depends on the stage. An allegation of sexual abuse is associated with slightly more visits during an investigation, a lower probability of substantiation and of reaching an adjudication trial, but a higher probability of adjudication in favor of the state and out-of-home placement. An allegation of physical abuse is associated with slightly fewer visits, a higher probability of substantiation, and a lower probability of reaching trial, adjudication in favor of the state, and out-of-home placement. An allegation of neglect is associated with more visits during an investigation on average (the only statistically significant effect among the main effects of type of abuse), a higher probability of substantiation and reaching trial, a lower probability of adjudication in favor of the state, and a higher probability of out-of-home placement.

We expected that case outcomes would be correlated with age in a non-linear fashion; a *logarithmic* specification fit the data best. We expected that younger children would receive more conservative treatment at each stage, and (although only statistically significant in one specification in table 2), cases involving infants have more caseworker visits and are more likely to be substantiated and reach an adjudication trial. Cases involving infants are, however, less likely to be adjudicated in favor of the state or result in an out-of-home placement.

Because allegations of sexual abuse may be difficult to prove, at least relative to allegations of physical abuse or neglect, the impact of having a clear and convincing standard of proof might depend upon the type of abuse. Therefore, our specifications include an interaction between the state's standard of proof and the type of abuse alleged in the report; all of the interaction terms in the specification for stage 4, adjudication in favor of the state, are statistically significant. The full impact (that is, including the contributions of both the main effect and the interactions) of a higher standard of proof on each outcome, by type of abuse and age of child is illustrated in Figures 2 through 6. The predicted probabilities shown in the figures are calculated with all other control variables held at their medians.

THE STANDARD OF PROOF AT ADJUDICATION OF ABUSE OR NEGLECT

Table 2
Abridged regression results: The impact of a clear and convincing standard of proof

	(1)	(2)	(3)	(4)	(5)
	Number of Visits	Substan- -tiated	Reached Adj Trial Subst.	Adj in Favor of State Adj Trial	Out-of-home Place. Adj Trial
	Coef.	OR	OR	OR	OR
State Has C&C Standard	0.11 0.64	0.79 -0.30	0.61 -0.73	0.11 -1.57	1.64 0.32
Sexual Abuse	0.06 0.66	0.82 -0.49	0.29*** -3.96	48.21*** 2.72	5.37** 2.04
Physical Abuse	-0.02 -0.27	1.31 1.11	0.86 -0.45	0.91 -0.18	0.55 -0.88
Neglect	0.19*** 3.48	1.02 0.08	1.34 0.56	0.62 -0.76	1.27 0.39
C&C * Sexual Abuse	-0.17 -0.76	0.88 -0.14	34.05*** 3.12	0.02*** -2.37	0.02** -2.32
C&C * Physical Abuse	0.08 0.74	0.85 -0.21	1.19 0.29	16.54* 1.95	2.04 0.42
C&C * Neglect	-0.12 -0.71	1.59 1.06	0.95 -0.06	10.20** 2.07	0.83 -0.11
ln (Child's Age in Months)	-0.02 -0.77	0.86 -1.50	0.74*** -2.85	1.17 0.69	1.05 0.27
Sample n ^a	2,102	2,102	2,648	1,891	1,891
F	5.40	3.67	8.94	6.81	4.19

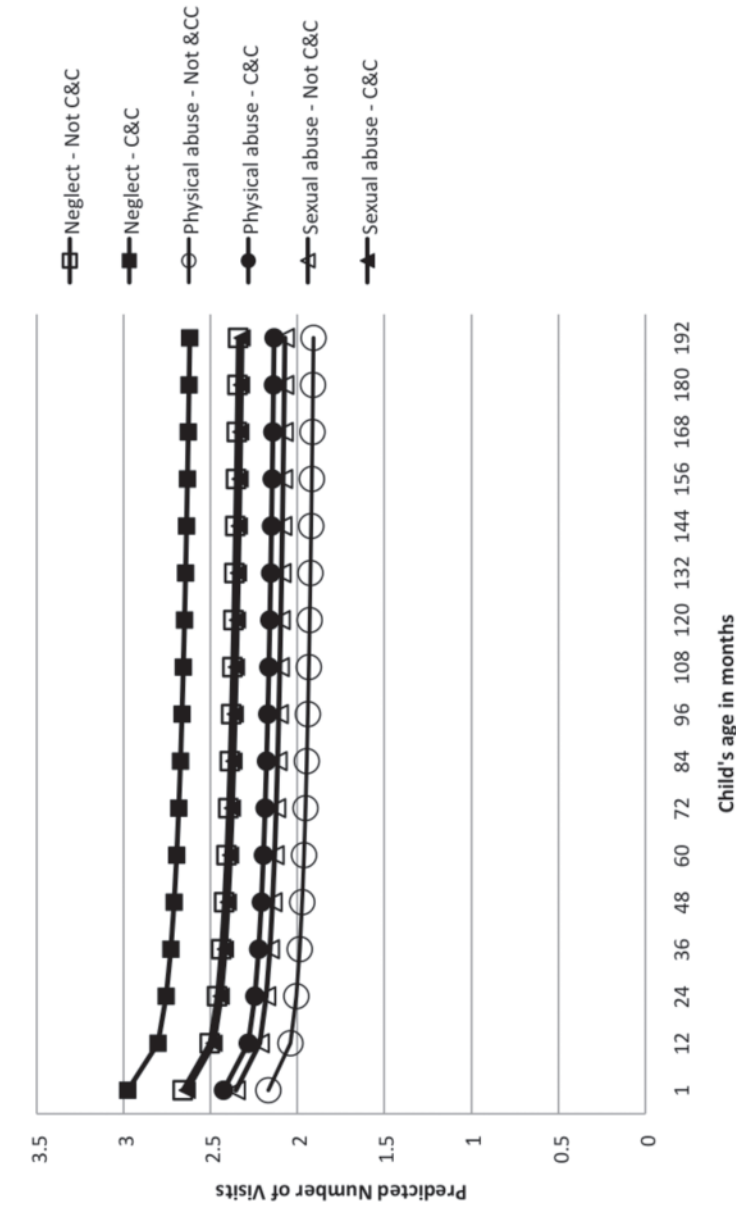
Notes:

*Indicates p<0.10, ** indicates p<0.05, ***indicates p<0.01; t-statistics in italics.

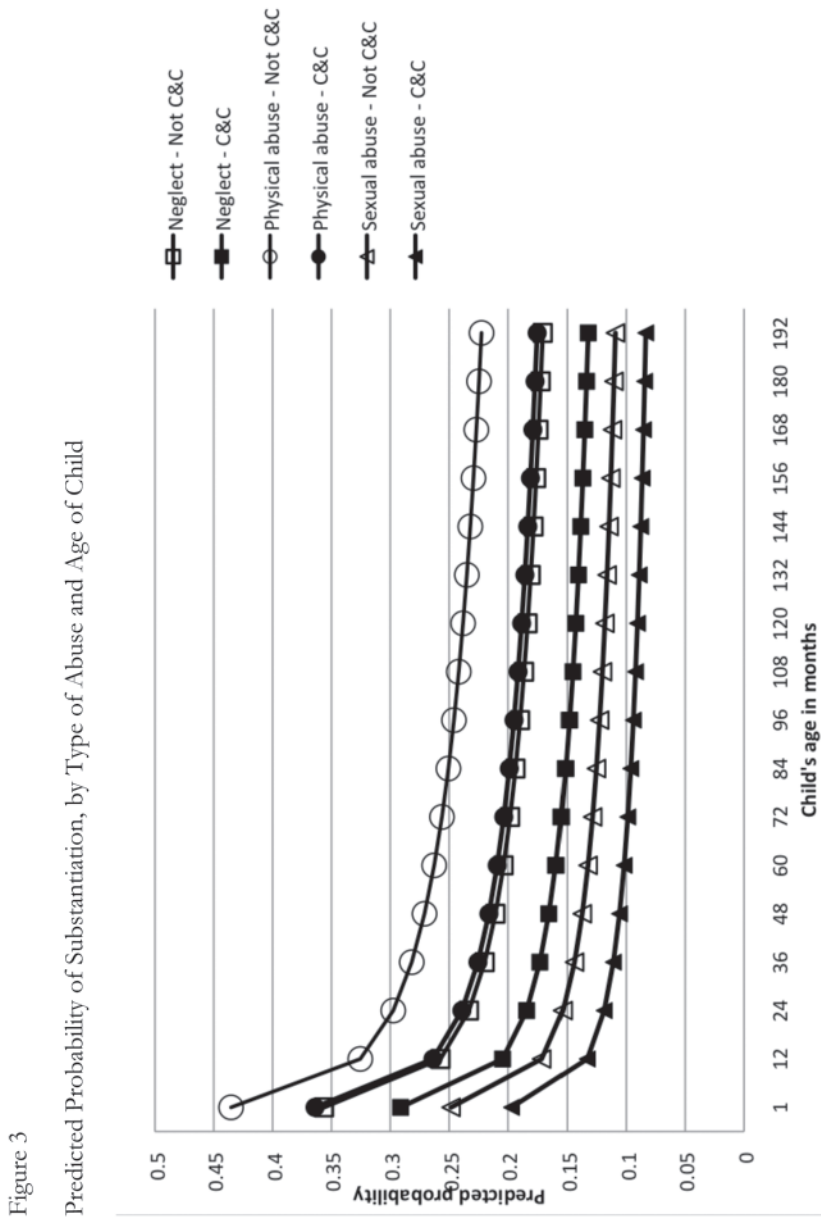
^a IL and NY are omitted from Substantiation regressions because substantiation was a condition of children's entry into sample.

See Online Appendix table A2¹¹ for complete results.

Figure 2
 Predicted Number of Visits During Investigation, by Type of Abuse/Neglect and Age of Child

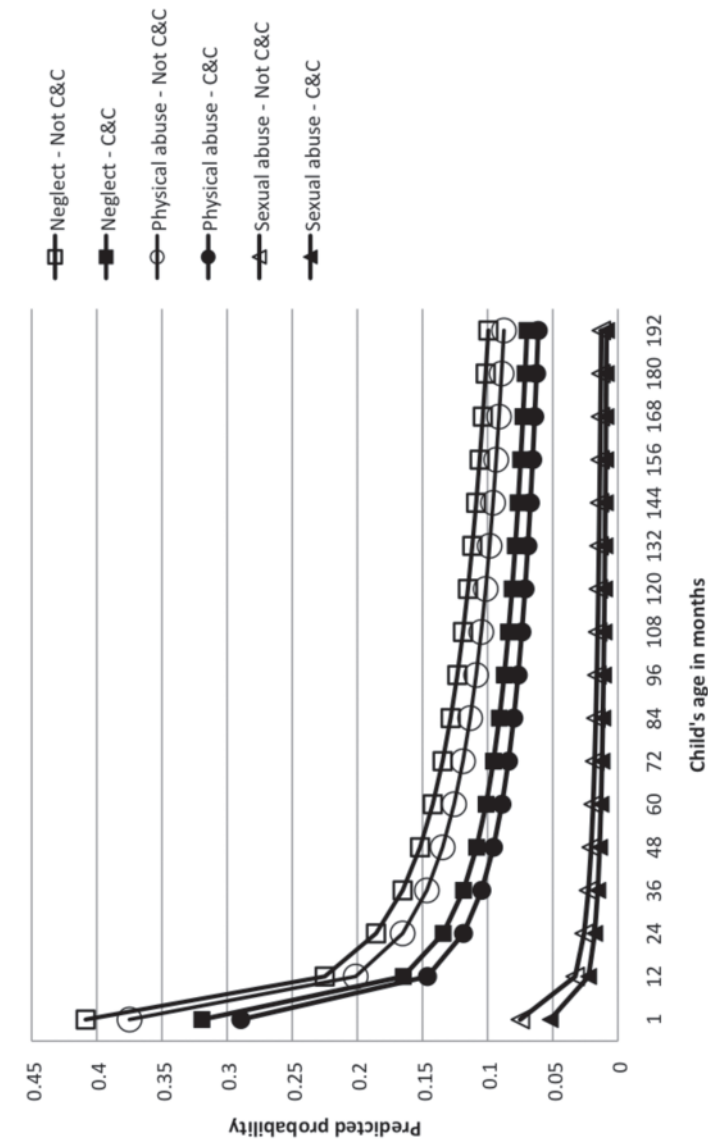


More visits are made during a CPS investigation in states with a clear and convincing (C&C) standard of proof at adjudication, regardless of type of abuse or age of the child.



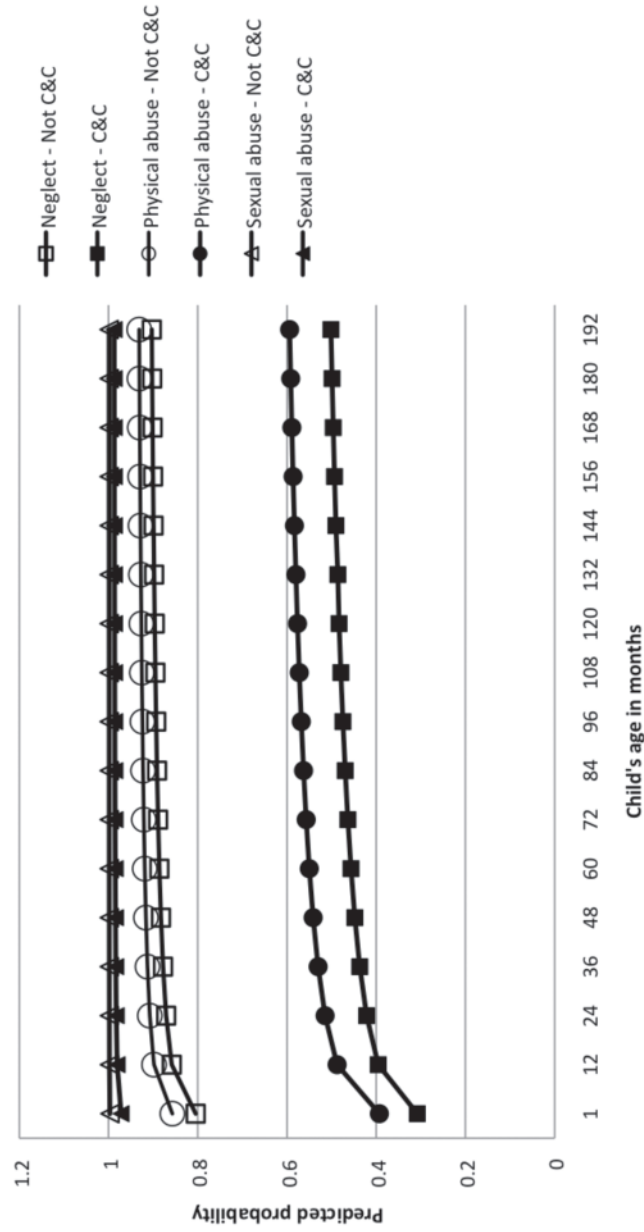
A case is less likely to be substantiated in states with a clear and convincing (C&C) standard of proof at adjudication, regardless of type of abuse or age of the child

Figure 4
 Predicted Probability of Reaching Adjudication Hearing, Conditional on Substantiation, by Type of Abuse and Age of Child



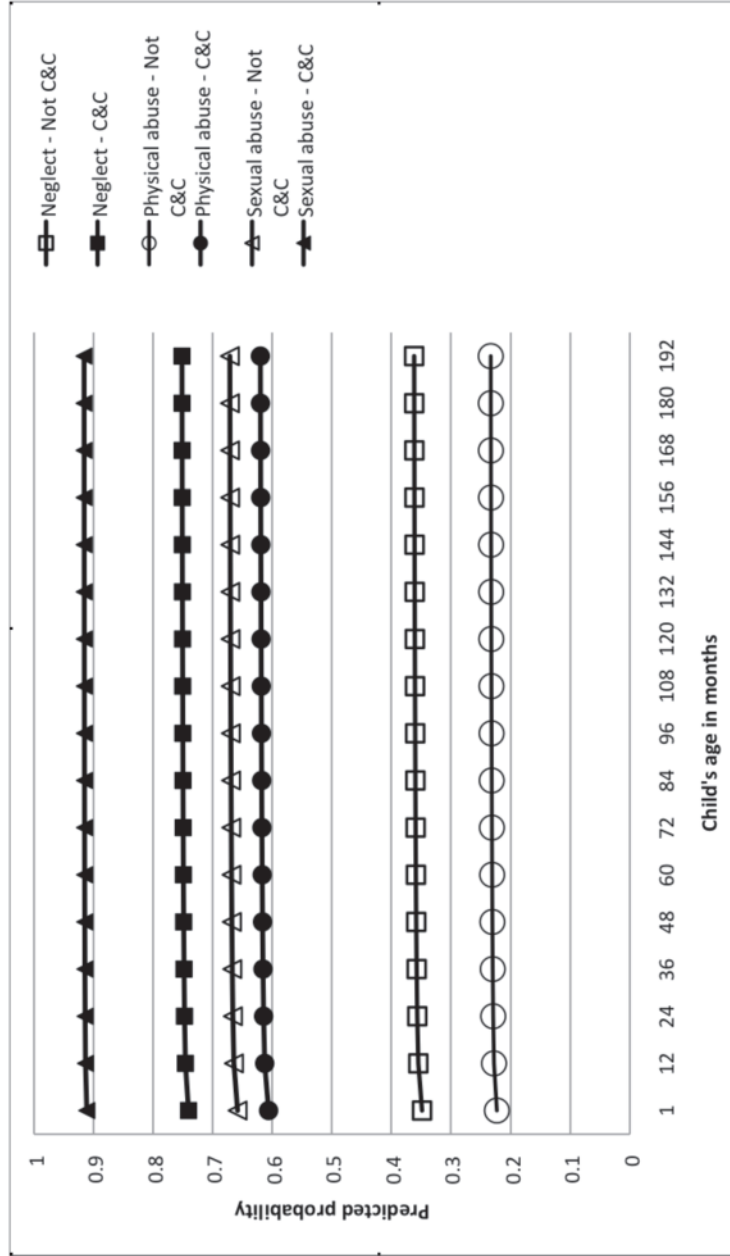
A case is less likely to reach an adjudication hearing in states with a clear and convincing (C&C) standard of proof at adjudication, especially for cases of alleged physical abuse and neglect.

Figure 5
 Predicted Probability of Adjudication for the State, Conditional on Reaching Adjudication Hearing, by Type of Abuse and Age of Child



In cases involving allegations of physical abuse and neglect, a case is less likely to be adjudicated in favor of the state in states with a clear and convincing (C&C) standard of proof at adjudication.

Figure 6
 Predicted Probability of Out-of-Home Placement, Conditional on Reaching Adjudication Hearing, by Age of Child



A child is more likely to be placed in out-of-home care (conditional upon adjudication in favor of the state) in states with a clear and convincing (C&C) standard of proof at adjudication, regardless of type of abuse or age of the child.

Figure 2 illustrates that, for each type of alleged abuse, the total effect of the standard of proof and its interaction with type of abuse and neglect predicts more visits per case. Moreover, cases of alleged neglect in states with a clear and convincing standard of proof received the most visits during an investigation, while cases of alleged physical abuse in states with a preponderance of the evidence standard received the fewest visits.

Figure 3 shows that if the trial standard of proof is 'clear and convincing,' administrative substantiation is less likely for each type of abuse or neglect, even though the interaction term between clear and convincing standard and alleged neglect increases the odds of substantiation. For cases alleging physical abuse or neglect, the difference in the predicted probability of substantiation is about 5 percentage points, which means that substantiation could be up to 25 percent more likely in states with a lower standard of proof than in a state with a higher one. We note again, however, that we are unable to detect statistical significance.

Figure 4 shows that the probability of reaching an adjudication trial for a case involving alleged physical abuse or neglect is many times higher than for allegations of sexual abuse. Cases in states with a higher standard of proof have lower predicted difference in probabilities of reaching trial. The difference is negligible for alleged sexual abuse, but for alleged physical abuse or neglect reaching trial is on average about 5 percentage points (here 50 percent) more likely in states with the lower standard of proof. For an infant, the probability that the case reaches trial after an allegation of neglect is about 0.41 if the standard of proof is preponderance of the evidence; the probability is .32 if the standard is clear and convincing. For a 48-month old child in a neglect case, the predicted probability of the case reaching trial is about 0.15 with the lower standard and about 0.11 with a higher standard.

Figure 5 shows the results that are central to the argument of this paper: A higher standard of proof results in a lower probability of adjudication in favor of the state. Again the difference between high and low standards of proof is quite small for cases involving sexual abuse. Nearly all cases involving alleged sexual abuse that make it to trial are adjudicated in favor of the state no matter what the standard of proof. But the effect of higher standards is quite large for physical abuse and neglect. For a one year old, the probability of adjudication in favor of the state after an allegation of neglect is about 0.81 if the standard of proof is preponderance of the evidence; the probability is 0.40 if the standard is clear and convincing. For a 48-month-old child in a neglect case, the predicted probability of CPS filing a court case is about 0.88 with the lower standard and about 0.44 with a higher standard. Averaging across all ages of children in neglect cases, the predicted probability of an adjudication in favor of the state is 90 percent higher in states with the lower standard of proof. For physical abuse cases, the pattern is similar, but the differences are smaller in size. Averaging across all ages, the predicted probability of adjudication in favor of the state in physical abuse cases

is 65 percent higher in states with the lower standard.

Figure 5 shows large differences in out-of-home placements by standard of proof for all types of abuse and neglect. Children in states with a clear and convincing standard of proof at adjudication are more likely to be in out-of-home placements after their cases are adjudicated. For sexual abuse the probability of placement in long-term foster care after an adjudication trial is about 0.9 in states with the higher standard, while the probability is about .66 in states with the lower standard. For neglect, the probability of long term placement is about .75 after an adjudication trial in states with the higher standard, but .35 in states with the lower standard. For physical abuse, placement rates are just over 0.6 if the standard of proof is higher, and just over 0.2 if they are lower. Once again we must caution that the variation in outcomes is large, while the measurable variation in the standard of proof is small, so the differences are not statistically significant.

4. Discussion

4.1 Discussion of findings on standards of proof

It is often said that ‘absence of evidence is not evidence of absence.’ Despite our inability to separate out other state-specific policies and therefore our inability to detect a statistically significant influence of the standard of proof with these data, the magnitude of the impact of a higher standard of proof on the movement of children through the child welfare system is large enough to warrant continued study. By controlling for case-specific characteristics, we are able to detect statistical significance in important interaction terms, indicating that a child-level analysis that includes additional state controls or fixed effects holds more promise than the aggregate approaches in prior work such as Levine (1998) and Flango (1991).

Our data also goes further than prior research in suggesting that the trial standard of proof may affect decision making both at trial and much earlier in the life of a CPS case. If supported by further research, this conclusion would demonstrate that CPS is sensitive to the trial standard of proof from the investigation of a maltreatment allegation through the decision whether to remove a child and petition a court case, and that the effect of the trial standard of proof has the potential to affect a large number of children, families, and CPS systems in ways that today are not fully appreciated. For example, our results suggest the possibility that the standard of proof affects decisions in thousands of cases annually. Consider how many children and families are affected by a difference in the probability of substantiation as small as five percentage points. The 2012 NCANDS Child File shows that there were 2,044,924 reports of alleged abuse or neglect in states with a preponderance of the evidence standard.¹² Of these reports, 23 percent, or 470,562, were substantiated.

Our results suggest that if these states had the higher clear and convincing standard of proof, only 18 percent, or 368,315, cases might have been substantiated. In states with the lower standard of evidence, CPS systems had to make decisions about filing court cases for more than 100,000 more cases than they would have if the standard of proof were higher.

We note again that, while we do not take a position here on whether the standard of proof should be higher or lower, our findings do imply that states should be more conscious of the costs and benefits of staking their own positions regarding the standard of proof. Continuing with the example from the previous paragraph: On one hand, since it is becoming clear that the substantiation is not a good measure of severity of current abuse or a strong predictor of future abuse (Drake et al., 2003; Hussey et al., 2005, Kohl et al., 2009) it is possible to argue that moving forward with the additional cases might better reflect the high risks that children subject to CPS investigations face. On the other hand, one could argue that resources would be more efficiently allocated by limiting the number of cases that move forward in the court system, unhitching the provision of services from the movement of cases from stage to stage, and providing effective services to families regardless of substantiation status.

Our findings also raise the possibility that the standard of proof affects decisions after adjudication. Among cases that reach adjudication, a higher standard of proof correlates with increased odds of an out-of-home placement. Cases that reach this stage in states with higher standards of proof are likely to have a stronger evidence base and may be seen as being more serious cases. The higher standard of proof may focus out-of-home placements on cases involving children most in need of protection. Since children who are on the margin of placement and enter foster care have worse outcomes than similarly-maltreated children who CPS leaves at home (Doyle, 2011), it is not clear what the cost or benefit of the higher standard might be. Perhaps the greater likelihood of post-adjudication out-of-home placement risks placing more children with marginal cases in out-of-home care. Or perhaps the higher standard of proof screens out the more marginal cases by reducing the odds of substantiation, court filings, and court adjudications. It is noteworthy that Doyle (2011) studied cases in Illinois, a state with a lower standard of proof. Thus the cases identified as marginal cases for out-of-home placement in that study may not be marginal in states with higher standards of proof.

4.2 Discussion of findings on other covariates

4.2.2 *Child characteristics.*

While race was not a focus of this study, we capture disproportionality in the data as an increasing share of Black children in the estimation samples for later stages of child

welfare decision-making, but early-stage outcomes are not statistically significantly different for Black children as compared to White children. This is consistent with studies that report that there are more false positives for Black children than White children in initial reports (Mumpower, 2010). At final stage of out-of-home placement, we do find that outcomes for Black children are statistically different from outcomes for White children. However, while the literature on disproportionality might suggest that Black children have higher odds of placement after adjudication, we find that Black children are less likely to be placed in long-term foster care, all other things equal. Our findings are consistent with the view that the disproportional representation of Black children in foster care is driven by their longer stays in care (for a recent review of this literature, see Chibnall, Dutch, Jones-Harden, Brown, & Gourdine, 2010). Because children identified as another race is a subgroup comprised of multi-racial children and children whose racial groups have very small numbers, we cannot form a story interpreting the coefficients.

The negative association between the age of the child and the probabilities of substantiation and of reaching an adjudication trial confirms our expectation that the state acts most conservatively in the cases of the youngest children. In light of statistically strong results for the probability of reaching an adjudication trial, it is somewhat surprising that the probability of out-of-home placements is not higher for infants. Age of the victim, however, is seldom found to be a strong predictor of out-of-home placements (for example, Horwitz et al., 2011).

4.2.3. Contacts during investigation.

If an investigation involved a foster parent or a relative other than the parent or guardian, the case was more likely to be substantiated, reach trial, and be adjudicated in favor of the state. Most likely this reflects an emergency foster care or kinships placement and is likely to be a signal of the caseworker's initial opinion regarding the severity of abuse or neglect.

4.2.4. Investigator.

We expected that if police or other professionals assisted in the investigation, the evidence would be more credible and would result in a higher probability of a case moving forward at each stage. The results confirm our expectations in four of the five specifications in table 2. Puzzlingly, however, when police investigate, the case is less likely to be adjudicated in favor of the state. This finding warrants further investigation.

4.2.5. Multiple contacts with CPS.

When a new report is opened while an investigation is ongoing, it appears that the focus of CPS shifts to the new report. If, however, there had been a previous substantiated report of abuse or neglect of the child, the probabilities of substantiation, of reaching an adjudication trial, and of out-of-home placement after an adjudication

trial all increase. These results reflect the fact that CPS uses the prior substantiation as information about the likelihood that the current report is accurate and serious. The use of the information may be informal (for example, the caseworker knows the family) or formal (for example, the risk assessment tool that is used factors in prior substantiation). But the previous substantiation negatively impacts adjudication in favor of the state.

4.3 Limitations

While NSCAW data are the only ones available for this type of case-level analysis, they are limited. The most obvious limitation stems from the survey design: only eight states are identifiable, and therefore the results reported may not be generalizable to other states. However, since these eight states have the largest child welfare systems, they are the most critical to study in terms of the number of families potentially affected.

The study also covers a short time frame. This presents two problems. First, because we do not observe complete case histories, we do not know if CPS filed a case later and we do not necessarily observe all court appearances in a case. This shortcoming, however, would only result in bias if the duration of time between key junctures is itself a function of the standard of proof at adjudication. Since many states have timelines from when a case is filed to when a trial is required, this seems unlikely. Additionally, it seems unlikely that idiosyncratic delays, such as whether there are continuances, are correlated with the burden of proof.

The second problem associated with the short time frame is our inability to use panel methods. We cannot include state effects, which would capture such omitted policy variables such as the presence of court mediation programs.

Finally, NSCAW does not record all of the legal decisions in the course of a case that we would include if we designed a study for the purpose of answering our research question. For example we do not observe an admission by a parent of abuse or neglect (akin to a guilty plea), nor do we observe a decision by the government to drop a case before it reaches trial. We cannot separate direct effect of the standard of proof on the judge's decision from the shadow effect of the law on the parties' private decision-making about plea bargains.

5. Conclusions and directions for further study

The presence of some statistically significant effects from the interaction between abuse type and standard of proof in child welfare proceedings, together with the large point estimates of the effects, suggests that this area is ripe for further study.

Further study is likely have broad implications in the United States and in any legal system with analogous standards of proof for child abuse and neglect or other judicial and administrative decisions. Several specific areas warrant attention.

- First, additional research should address the standards of proof applied by CPS at substantiation (stage 2). These standards also vary from state to state within the United States. Unlike the standard of proof at court adjudication (the subject of the present study), these standards of proof have been changed in several states over the past decade, permitting before-and-after comparisons and the inclusion of state fixed effects. In light of the growing literature that concludes that there is little difference in the risks to children in substantiated and unsubstantiated cases (Kohl et al. 2009; Drake, et al. 2003), a more detailed understanding of the influence of the standard of proof at substantiation could contribute to discussions of whether and how to reform that stage of child protection cases.
- Second, research should analyze the standards of proof at disposition – the stage of a case which follows a plea by a parent or an adjudication for the state. At this stage, the judge determines whether the child – who has been judged abused or neglected – should remain at home with a parent, live with another parent or family member, or live in foster care. Some U.S. states have established relatively high standards of proof at disposition. California, for instance, requires a preponderance of the evidence to prove that a parent abused or neglected his/her child (see Cal. Wel. & Inst. Code § 355, 2006), but requires clear and convincing evidence to prove that placing the child in foster care serves the child’s best interests (see Cal. Wel. & Inst. Code § 361(c), 2006).
- Third, future research should explore whether any connection exists between the standard of proof at trial and states’ use of alternative response (also known as differential response). In states that have adopted alternative response, CPS does not automatically investigate all screened-in allegations. Rather, relatively severe allegations trigger CPS investigations while relatively mild allegations trigger CPS or a contractor to assesses families’ service needs and offers voluntary services. Alternative response systems are relatively new innovations, and are far more common today than at the time the NSCAW data used here were collected, so we do not study them here. Further research should investigate whether such an effect extends to the decision whether to assign a case to an investigation or alternative response track in those states which have created such a track.
- Research should address whether the standards of proof at substantiation, adjudication, and disposition operate as a package. A few states have the lowest standard of proof possible at all stages: they require probable cause to substantiate, preponderance of the evidence to find a parent unfit at adjudication, and preponderance of the evidence to place the child of a parent found unfit in foster care. A few states have the highest standard of proof at all stages: they require a preponderance of the evidence to substantiate, clear and convincing

evidence to adjudicate, and clear and convincing evidence to place the child of an adjudicated parent into foster care. Many states fall in between – perhaps with a preponderance of the evidence standard of proof for an administrative substantiation, adjudication, and disposition. Further study has the potential to reveal the extent to which any individual effects of these standards of proof or any particular package explain the variation in substantiation, out-of-home placement, service provision, and, of course, the mental health and physical health outcomes of children.

Notes

- 1 This problem highlights the importance of teaching law to CPS workers (Braye and Preston-Shoot 1990, Dickens 2004).
- 2 Although ‘burden of proof’ and ‘standard of proof’ are sometimes used interchangeably, we use ‘standard of proof’ to refer to the degree to which a party must prove its case (that is, by a preponderance of the evidence, clear and convincing evidence, or beyond a reasonable doubt).
- 3 In the United States, federal law requires states to abide by certain conditions in exchange for federal funding. In addition, the U.S. Supreme Court has issued several decisions government child abuse and neglect cases. But no federal law or court decision directly governs the standard of proof at initial adjudications, and the standard of proof varies across the 50 states and the District of Columbia.
- 4 Some states now investigate only more severe allegations, and offer voluntary services without an investigation to families subject to less severe allegations. This triage procedure, known as *differential response*, was not prevalent at the time the data used here were collected.
- 5 Alaska Stat. § 47.10.011; Ariz. Rev. Stat. § 8-844; Ark. Code Ann. § 9-27-325(h)(2)(B); Cal. Welf. & Inst. Code §§ 355 & 355.1; Colo. Rev. Stat. § 19-3-505(1); Conn. Gen. Stat. Ann. § 46b-129; *In re Juv. App.*, 471 A.2d 1380 (Conn. 1984); Del. Fam. Ct. Rules of Civ. Proc. 213(b); D.C. Code § 16-2317(b)(2); Fla. Stat. Ann. § 39.507(1)(b); Hawaii Rev. Stat. § 587A-4; Idaho Code § 16-1619(4); 705 Il. Code Serv. § 405/2-18(1); Ind. Code § 31-34-12-3; Kent. Rev. Stat. § 620.100; La. Ch. Code Art. 665; 22 Maine Rev. Stat. Ann. § 4035(2); Md. Courts & Jud. Proc. § 3-817; Mich. Rules 3.972; *Matter of Riffe*, 382 N.W. 2d 842 (Mich. App. 1985); Miss. Code Ann. § 43-21-561; Mont. Code Ann. § 41-3-422(5)(2); Neb. Rev. Stat. § 43-279.01; Nev. Rev. Stat. § 432B.530; N.H. Rev. Stat. § 169-C:13; N.J. Stat. Ann. § 9:6-8.46; N.Y. Fam. Ct. Act § 1046(b); 10A Okl. Stat. Ann. §§ 1-4-602 & 1-3-603; Or. Rev. Stat. § 419B.310; 8 L.P.R.A. § 447h; S.C. Code § 63-7-1660; Tex. Fam. Code § 105.005; 33 Ver. Stat. Ann. § 5315; Va. Code Ann. §§ 16.1-252 & 63.2-1525; Wash. Rev. Code § 13.34.130; Wyo. Stat. 1977 § 14-3-425.
- 6 Ala. Code §§ 12-15-310 & 12-15-311; Ga. Code Ann. § 15-11-180; Iowa Code Ann. §

- 232.96; Kan. Stat. Ann. § 38-2250; 119 *In re Stephen*, 514 N.E.2d 1087 (Mass. 1987); Minn. Stat. Ann. § 260C.163; Mo. Sup. Ct. Rules of Juv. Proc. 124.06 Comment; *In Interest of D.D.H.*, 875 S.W.2d 184 (Mo. Ct. App. 1994); N.M. Stat. Ann. 1978, § 32A-4-20(H); N.C. Gen. Stat. Ann. § 7B-805; N.D. Code § 27-20-29; Ohio Rev. Code § 2151.35(A) (1); 42 Pa. Code § 6341(c); R.I. R. Juv. Proc. 17; *In re Jonathan*, 415 A.2d 1036, 1039 (R.I. 1980); S.D. Code § 26-7A-82; Tenn. Code Ann. § 37-1-129; Utah Code 1953 § 78A-6-311; W. Va. Code § 49-6-2; Wisc. Stat. Ann. § 48.31.
- 7 If a child is removed from and does not reunify with a parent, the state may seek to terminate the parents' rights or to place the child with a guardian. As a matter of constitutional law, the state must prove that a termination of parental rights is justified by clear and convincing evidence (Santosky, 1982, p. 455). Standards of proof for establishing guardianships are typically lower. *E.g.* D.C. Code § 16-2388(f) (preponderance of the evidence standard of proof for guardianship).
 - 8 We use only the 'CPS' sample in NSCAW. Children in the Long Term Foster Care Sample of the NSCAW are excluded because information about their initial adjudications and other experiences is not a part of NSCAW. Sample probability weights are included in model estimation to appropriately account for the survey structure and estimate standard errors. We also excluded the 73 children living in foster care at the start of the investigation from all calculations.
 - 9 Four states were excluded from the NSCAW study because they have a state law that requires that the caregiver of any child selected for the study be first contacted by the CPS agency staff rather than by NSCAW personnel. The target population subsequently is 'all children in the U.S. who are subjects of child abuse or neglect investigations (or assessments) conducted by CPS and who live in states not requiring agency first contact,' (National Data Archive on Child Abuse and Neglect (NDACAN), 2008, pp. 2-13).
 - 10 For this analysis, small sample size prevents us from simultaneously controlling for a child's state of residence and CPS agency.
 11. Available at: <http://academic2.american.edu/~mhansen/OnlineAppendix.pdf>.
 - 12 Authors' calculations using the National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2012v1.

References

State statutes

- Alaska Stat. § 47.10.011 (2012)
Ala. Code §§ 12-15-310 & 12-15-311 (2012)
Ariz. Rev. Stat. § 8-844 (2012)
Ark. Code Ann. § 9-27-325 (2009)
Cal. Welf. & Inst. Code §§ 355 & 355.1 (2006)
Cal. Wel. & Inst. Code § 361 (2006).

Colo. Rev. Stat. § 19-3-505 (2012)
Conn. Gen. Stat. Ann. § 46b-129 (2009)
16 Del. Code § 1009 (2013)
D.C. Code § 16-2317 (2001)
D.C. Code § 16-2388 (2001).
Fla. Stat. Ann. § 39.507 (2011)
Ga. Code Ann. § 15-11-181 (2012)
Hawaii Rev. Stat. § 587A-4 (2010)
Idaho Code § 16-1619 (2010)
705 Il. Code Serv. § 405/2-18 (2007)
Ind. Code § 31-34-12-3 (2012)
Iowa Code Ann. § 232.96 (2006)
Kan. Stat. Ann. § 38-2250 (2000)
Kent. Rev. Stat. § 620.100 (2006)
La. Ch. Code Art. 665 (2003)
22 Maine Rev. Stat. Ann. § 4035 (2004)
Md. Courts & Jud. Proc. § 3-817 (2013)
119 Mass. Gen. L. Ann. § 26 (2009)
Mich. Court Rules 3.972 (2007)
Minn. Stat. Ann. § 260C.163 (2007)
Miss. Code Ann. § 43-21-561 (2009)
Mo. Sup. Ct. Rules of Juv. Proc. 117.05 (2013)
Mont. Code Ann. § 41-3-422 (2011)
Neb. Rev. Stat. § 43-279.01 (2008)
Nev. Rev. Stat. § 432B.530 (2011)
N.H. Rev. Stat. § 169-C:13 (2010)
N.J. Stat. Ann. § 9:6-8.46 (2002)
N.M. Stat. Ann. § 32A-4-20 (2010)
N.Y. Fam. Ct. Act § 1046 (2009)
N.C. Gen. Stat. Ann. § 7B-805 (2011)
N.D. Code § 27-20-29 (2006)
Ohio Rev. Code § 2151.35 (2005)
10A Okl. Stat. Ann. §§ 1-4-6-2 & 1-3-603 (2009)
Or. Rev. Stat. § 419B.310 (2011)
42 Pa. Code § 6341 (2000)
8 L.P.R.A. § 447h (2006)
R.I. R. Juv. Proc. 17
S.C. Code § 63-7-1660 (2010)
S.D. Code § 26-7A-82
Tenn. Code Ann. § 37-1-129
40 Tex. Fam. Code § 105.005 (2009)
Utah Code § 78A-6-311 (2012)
33 Ver. Stat. Ann. § 5315 (2001)

Va. Code Ann. § 16.1-252 & 63.2-1525 (2010)
Wash. Rev. Code § 13.34.130 (2012)
W. Va. Code § 49-6-2 (2009)
Wisc. Stat. Ann. § 48.31 (2011)
Wyo. Stat. 1977 § 14-3-425 (2011)

Secondary Sources

- Addington v. Texas*, 441 U.S. 418, 423 (1979). Retrieved from <http://supreme.justia.com/cases/federal/us/441/418/case.html>
- Ben-David, V. (2011). Judicial bias in adjudicating the adoption of minors in Israel. *Children and Youth Services Review*, 33(1), 195-203. <http://dx.doi.org/10.1016/j.childyouth.2010.09.003>
- Bhatti-Sinclair, K., & Sutcliffe, C. (2013). Challenges in identifying factors which determine the placement of children in care? An international review. *Child and Adolescent Social Work Journal*, 30, 4, 345-363. <http://dx.doi.org/10.1007/s10560-012-0293-x>
- Black's Law Dictionary* (2001), 2d Pocket Edition
- Blackstone, W., *Commentaries on the Laws of England* 713 (ed. William Hardcastle Browne 1892), Retrieved from <http://books.google.com/books?id=xic0AAAIAAJ&pg> (last accessed February 25, 2013)
- Braye, S. & Preston-Shoot M. (1990). On teaching and applying the law in social work: it is not that simple. *British Journal of Social Work*, 20, 4, 333-353
- Britner, P. A., & Mossler, D. G. (2002). Professionals' decision-making about out-of-home placements following instances of child abuse. *Child Abuse & Neglect*, 26, 4, 317-332. [http://dx.doi.org/10.1016/S0145-2134\(02\)00311-3](http://dx.doi.org/10.1016/S0145-2134(02)00311-3)
- Chibnall, S., Dutch, N., Jones-Harden, B., Brown, A., & Gourdine, R. (2010). Children of color in the child welfare system: Perspectives from the child welfare community. United States Department of Health and Human Services, Children's Bureau. Retrieved from <http://www.childwelfare.gov/pubs/otherpubs/children/litreview.cfm> (last accessed February 22, 2014)
- Clermont, K.M. & Eisenberg, T. (1992). Trial by jury or judge: transcending empiricism. *Cornell Law Review*, 77, 1124-1177. Retrieved from <http://scholarship.law.cornell.edu/facpub/246> (last accessed February 25, 2014)
- Cross, T.P., & Casanueva, C. (2009). Caseworker judgments and substantiation. *Child Maltreatment*, 14, 1, 38-52
- Dickens, J.. (2004). Teaching child care law: key principles, new priorities. *Social Work Education* 23, 2, 217-230
- Doyle Jr, J.J. (2011). Causal effects of foster care: An instrumental-variables approach. *Children and Youth Services Review*, 35, 7, 1143-51. <http://dx.doi.org/10.1016/j.childyouth.2011.03.014>
- Drake, B. Jonson-Reid, M., Way, I. & Chung, S. (2003). Substantiation and recidivism. *Child Maltreatment*, 8, 248-260
- Flango, V.E. (1991). Can central registries improve substantiation rates in child abuse and neglect cases? *Child Abuse and Neglect*, 15, 403-413. [http://dx.doi.org/10.1016/0145-2134\(91\)90024-8](http://dx.doi.org/10.1016/0145-2134(91)90024-8)
- Franklin, B. (1970). Letter from Benjamin Franklin to Benjamin Vaughan 14 March 1785. In

- 9 Benjamin Franklin, *Works* 9, 293
- Horwitz, S. M., Hurlburt, M. S., Cohen, S. D., Zhang, J., & Landsverk, J. (2011). Predictors of placement for children who initially remained in their homes after an investigation for abuse or neglect. *Child Abuse & Neglect*, 35, 3, 188-198. <http://dx.doi.org/10.1016/j.chiabu.2010.12.002>
- Hussey, J. M., Marshall, J. M., English, D. J., Knight, E. D., Lau, A. S., Dubowitz, H., & Kotch, J. B. (2005). Defining maltreatment according to substantiation: distinction without a difference? *Child Abuse & Neglect*, 29, 5, 479-492. <http://dx.doi.org/10.1016/j.chiabu.2003.12.005>
- In Interest of D.D.H.*, 875 S.W.2d 184 (Mo. Ct. App. 1994). Retrieved from Lexis Nexis Academic database
- In the Interest of Dimmitt*, 560 S.W.2d 368, 371 (Mo. Ct. Ap. 1977). Retrieved from Lexis Nexis Academic database
- In re Jonathan*, 415 A.2d 1036, 1039 (R.I. 1980). Retrieved from Lexis Nexis Academic database
- In re Juv. App.*, 471 A.2d 1380 (Conn. 1984). Retrieved from Lexis Nexis Academic database
- In re M.L.C.*, 548 S.E.2d 137, 138 (Ga. Ct. App. 2001). Retrieved from Lexis Nexis Academic database
- In re Tammie Z.*, 484 N.E.2d 1038 (N.Y. 1985). Retrieved from Lexis Nexis Academic database
- In re N.H.*, 569 A.2d 1179 (D.C. 1990). Retrieved from Lexis Nexis Academic database
- In re Winship*, 397 U.S. 358, 370 (1970) (Harlan, J., concurring). Retrieved from <http://supreme.justia.com/cases/federal/us/397/358/case.html>
- Kagehiro, D.K., & Stanton, W.C. (1985). Legal vs. quantified definitions of standards of proof. *Law and Human Behavior*, 9, 2, 159-178. [http:// dx.doi.org/10.1007/BF01067049](http://dx.doi.org/10.1007/BF01067049)
- Kearney, J. (2013). In the loop. *Social Work and Social Sciences Review*, 16, 3, 7-19
- Kohl, P. L., Jonson-Reid, M., & Drake, B. (2009). Time to leave substantiation behind: Findings from a national probability study. *Child Maltreatment*, 14, 1, 17-26. [http:// dx.doi.org/10.1177/1077559508326030](http://dx.doi.org/10.1177/1077559508326030)
- Levi, B.H., & S.G. Portwood (2011). Reasonable suspicion of child abuse: Finding a common language. *Journal of Law, Medicine, and Ethics*, 39, 1, 62-69. [http:// dx.doi.org/10.1111/j.1748-720X.2011.00550.x](http://dx.doi.org/10.1111/j.1748-720X.2011.00550.x)
- Levine, M. (1998). Do standards of proof affect decision making in child protection investigations? *Law and Human Behavior*, 22, 3, 341-347. [http:// dx.doi.org/10.1023/A:1025710707682](http://dx.doi.org/10.1023/A:1025710707682)
- Mandel, R. (2006). The evidence is 'clear and convincing': *Santosky v. Kramer* is harmful to children. *Children's Legal Rights Journal*, 26, 1-24
- Matter of Riffe*, 382 N.W. 2d 842 (Mich. App. 1985)
- McMahon, C. (1999). Due process: Constitutional rights and the stigma of sexual abuse allegations in child custody proceedings. *Cath. Law*, 39, 153
- Mnookin, R.N., & Kornhauser, L. (1979). Bargaining in the shadow of the law: the case of divorce. *Yale Law Journal*, 88, 950-997. [http:// dx.doi.org/10.2307/795824](http://dx.doi.org/10.2307/795824)
- Moore, K.A. (2000). Judges, juries, and patent cases – an empirical peek inside the black box. *Michigan Law Review*, 99, 365-409 (2000)
- Meyer, A.S., McWey, L.M., McKendrick, W., & Henderson, T.L. (2010). Substance using parents, foster care, and termination of parental rights: The importance of risk factors for legal

- outcomes. *Children and Youth Services Review*, 32, 5, 639-649. <http://dx.doi.org/10.1016/j.chilyouth.2009.12.011>
- Mumpower, J.L. (2010). Disproportionality at the 'front end' of the child welfare services system: an analysis of rates of referrals: 'hits,' 'misses,' and 'false alarms'. *Journal of Health and Human Services Administration*, 33, 3, 364-405. Retrieved from <http://www.jstor.org/stable/25790786> (last accessed February 25, 2014)
- National Data Archive on Child Abuse and Neglect [NDACAN] (2008). *National Survey of Child and Adolescent Well-Being (NSCAW): General Release Version User's Guide*. Ithaca: Cornell University
- Patterson, J. (2013). The Massachusetts care and protection system: is a low tolerance for risk really in the best interest of children? *Boston University Public Interest Law Journal*, 22, 165-199
- Rivera v. Minnich*, 483 U.S. 574 (1987). Retrieved from <http://supreme.justia.com/cases/federal/us/483/574/>
- Santosky v. Kramer*, 455 U.S. 745 (1982). Retrieved from <https://supreme.justia.com/cases/federal/us/455/745/case.html>
- Schwartz, D.L., & C.B. Seaman (2013). Standards of proof in civil litigation: an experiment from patent law. *Harvard Journal of Law and Technology*, i, 429-479. Retrieved from <http://jolt.law.harvard.edu/articles/pdf/v26/26HarvJLTech429.pdf> (last accessed February 25, 2014)
- Stephenson, M. (2011). Informational acquisition and institutional design. *Harvard Law Review*, 124, 1422-1483
- Solan, L.M. (1999). Refocusing the standard of proof in criminal cases: some doubt about reasonable doubt. *Texas Law Review*, 78, 105-147
- Stroud, J., & Warren-Adamson, C. (2013). Multi-agency child protection. *Social Work and Social Sciences Review*, 16, 3), 37-49
- Woodby v. Immigration & Naturalization Serv.* (1966), 385 U.S. 276. Retrieved from <http://supreme.justia.com/cases/federal/us/385/276/>
- Woody, W.D., & Greene, E. (2012). Jurors' use of standards of proof in decisions about punitive damages. *Behavioral Science and the Law*, 30, 6, 856-872. <http://dx.doi.org/10.1002/bsl.2027>
- Zuravin, S. J., Watson, B., & Ehrenschaft, M. (1987). Anonymous reports of child physical abuse: are they as serious as reports from other sources? *Child Abuse & Neglect*, 11, 4), 521-529. [http://dx.doi.org/10.1016/0145-2134\(87\)90078-0](http://dx.doi.org/10.1016/0145-2134(87)90078-0)