



## THE RECESSION AND CHILD MALTREATMENT

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### Overview

Examining child maltreatment trends over time is a difficult task due to the challenge of detection and the inconsistency across states and cities of how child maltreatment is defined. The 2003 reauthorization of the federal Child Abuse Prevention and Treatment Act (CAPTA), (P.L. 108-36), defines child maltreatment as: “1) Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or 2) An act or failure to act which presents an imminent risk of serious harm.”<sup>133</sup> This legislation sets the minimum standards for states’ child abuse and neglect definitions, with most states recognizing four forms of maltreatment: physical abuse, sexual abuse, emotional abuse, and neglect. While any of these types of maltreatment may occur independently, they often occur in combination.

Child maltreatment data is reported from a variety of sources, from annual statistics of child welfare systems, to periodic surveys. According to the 2005-2006 *National Incidence Study of Child Abuse and Neglect* (NIS-4), a comprehensive federal survey of child maltreatment, 2.9 million children were harmed or endangered by abuse and neglect in the study year.<sup>134</sup> Seventy-seven percent of maltreated children were

neglected, and 29 percent were abused. For abused children, most experienced physical abuse (57 percent), while approximately one-third were emotionally abused (36 percent) and one-quarter were sexually abused (22 percent). Less than half of these instances were reported to child protective services (CPS).<sup>135</sup> In the majority of cases where CPS is involved, the child remains in the home and the family receives preventive services; however, a subset of approximately 300,000 children enter foster care each year.<sup>136</sup>

There is no single factor, but rather the combination of individual, familial, and community risk factors that increase the risk for maltreatment within families.<sup>137 138</sup> Risk factors at the family level include caregiver stress, depression, a caregiver’s history of maltreatment, limited social supports, and the experience of stressful life events.<sup>139</sup> Parental substance abuse is estimated to be a contributing factor in one-third to two-thirds of all maltreatment cases,<sup>140</sup> and both neighborhood and familial poverty are two of the strongest predictors of abuse and neglect.<sup>134</sup> Protective factors, which reduce the likelihood of maltreatment, include social supports, nurturing parenting skills, stable familial relations,



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adequate housing, and parental employment.<sup>141</sup>

Maltreatment can have long-standing impacts beyond the immediate acute injuries to children. Long-term consequences of abuse and neglect may include mental health disorders, low educational attainment, welfare receipt, and drug and alcohol problems.<sup>142-145</sup> In a national study of children in foster care, 50 percent of children were identified as having a special health care need,<sup>146</sup> and 48 percent reported signs of an emotional or behavioral problem.<sup>147</sup> Children who are maltreated are also more likely to have greater physical health problems, functional disabilities, and health risk behaviors as adults.<sup>145, 148</sup> A social safety net for families to moderate the risks for maltreatment at the familial and community levels is critical.

## Prior Recessions

### *Risk Factors for Child Maltreatment*

Our limited understanding of the relationship between recession and child maltreatment is gleaned mostly from data that examines the impact of parental economic status and child well-being. Prior studies have found a link between changing parenting styles and changing economic conditions.<sup>20, 149</sup> Sociologist Glen Elder's longitudinal study of the Great Depression provides the basis for much of this work. Studying a cohort of children from before the Great Depression into adulthood, Elder found no direct correlation between parental job loss and child maltreatment. In contrast, children's outcomes were mediated by increases in caregiver distress and punitive and inconsistent parenting.<sup>149</sup> Later research continues to tease apart the finding that the cumulative stresses associated with economic hardship - and not poverty per se - bears greatest responsibility for a child's risk of maltreatment.<sup>19, 20</sup>

The onset of job loss, housing instability, and more limited access to goods and services that characterize

recessions can hinder a parent's ability to provide sufficient material and psychological support to their child. Caregivers in poverty are more likely to struggle with substance abuse and mental health problems, experience greater cumulative negative life events, and live in substandard housing, factors all associated with increased maltreatment.<sup>150</sup> The 2005-2006 NIS-4 data highlights how poverty is predictive of child abuse and neglect, as children in lower socioeconomic households were three times more likely to be abused and seven times more likely to be neglected.<sup>134</sup>

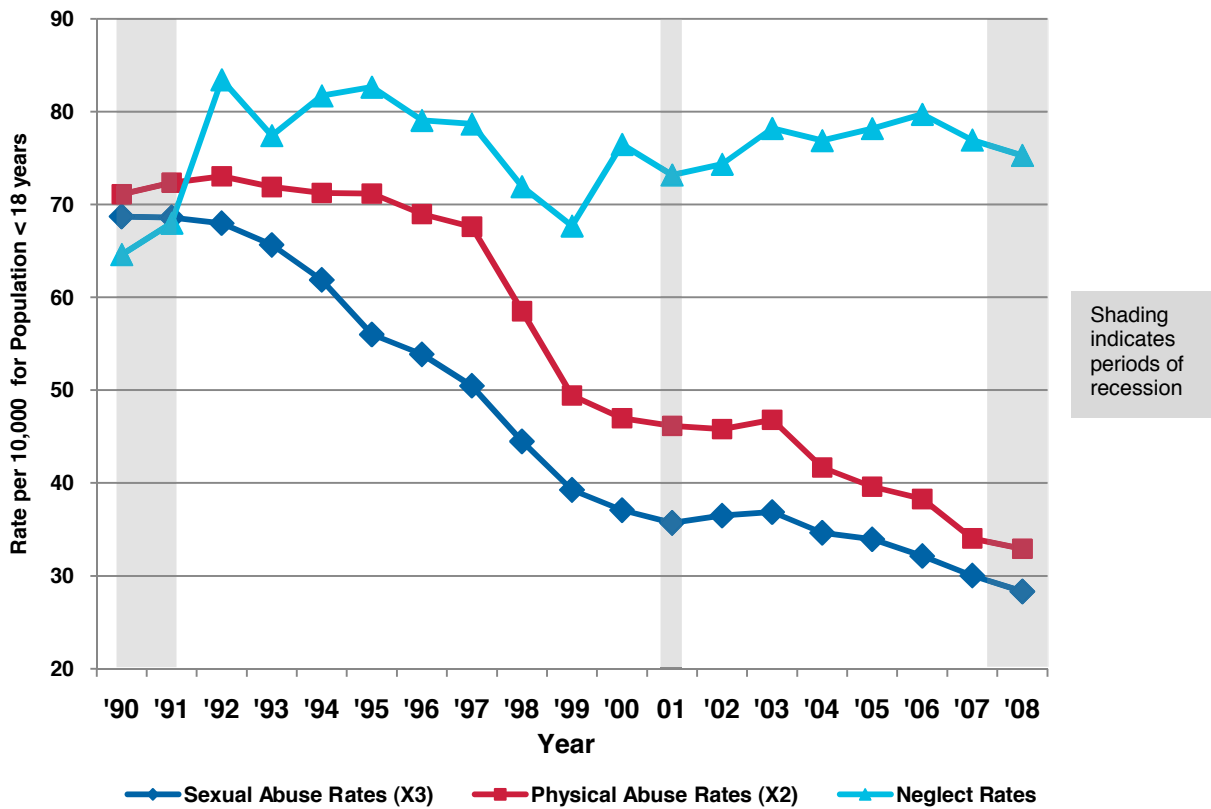
### *The Economy and Maltreatment Trends*

Population-level research on how changing economic conditions relate to maltreatment is more equivocal. Economic status of families tracks most closely with neglect rates, which appear to be more sensitive to economic cycles than other reported forms of maltreatment.<sup>151, 152</sup> Over the last twenty years, the annual reporting of national maltreatment data, which began in 1990, documents a sharp decline in abuse rates, but not neglect [see Figure 6].<sup>153</sup> Since 1992, child physical and sexual abuse rates have steadily declined, decreasing 55 percent and 58 percent respectively. For both the 1990-1991 and 2001 recession periods, physical abuse and sexual abuse continued to decline at a pace similar to pre-recession. In contrast, neglect rates have stayed relatively stable during the same period with noticeable spikes upward following both the 1990-1991 and 2001 recessions.

Interpreting these disparate findings has been the subject of wide debate. Hypothesized reasons for declines in abuse are attributed to the general economic expansion of the 1990s, increased training of mandated reporters, and more prevention services.<sup>153, 154</sup> The fact that neglect trends have not followed suit is more poorly understood. In part, there is more ambiguity and inconsistency in how neglect is defined across jurisdictions. In addition, during this same period

FIGURE 6:

**U.S. Maltreatment Trends, 1990 - 2008**



**Source:** National Child Abuse and Neglect Data System (NCANDS), U.S. Maltreatment Trends, 1990-2008, 2010. This chart was reprinted with permission from Finkelhor, D., Jones, L, and Shattuck, A. of the Crimes Against Children Research Center, University of New Hampshire.

many jurisdictions have broadened case definitions for neglect (e.g., adding subcategories like “educational neglect” or “newborns exposed to drugs”), which may have led to greater detection of this form of maltreatment. Neglect may also be more sensitive to changing economic conditions, as it encompasses a parent’s ability to materially provide for their child.

**Recent Recession**

The recession that began in December 2007 appears little different from prior recessions in that the rates of reported neglect have remained steady, despite falling rates for other forms of maltreatment.

The recent release of the 2008 *National Child Abuse and Neglect Data System* (NCANDS) data capturing substantiated child maltreatment reports a year into the

recession enables a beginning comparison with pre-recession numbers. In 2008, the overall maltreatment rate was 10.3 substantiated maltreatment cases per 1000 children, a three percent decline from the year before; this is the lowest overall rate since the tracking began in 1990. Broken down, there was a six percent decline in sexual abuse, a three percent decline in physical abuse, and two percent decline in neglect from the year before.

Another indicator useful in examining the impact of the recession on child well-being is the number of children in out-of-home care. According to the 2009 *Adoption and Foster Care Analysis and Reporting System* (AFCARS) data, the number of children in foster care is declining. In 2009, there were 423,993 children in out-of-home placements, a decline from the high point of 511,000 children in 2005. Beginning in 2007, the number of

exits from foster care has exceeded the number of entries, and the size of this gap has increased each year since. In 2007, 2,000 more children exited foster care than entered, in 2008 this difference grew to 14,000 children, and in 2009 there were 21,000 more entries than exits into the system. Additionally, there were fewer overall families served, meaning the rate of reporting and the rate of removal both declined. These rates, in conjunction with NCANDS data, are suggestive of a general reduction in maltreatment at the population level.

### *The Challenge of Interpreting Maltreatment Data*

A challenge in drawing inferences on maltreatment data from the recent or prior recessions is concerns about data quality and challenges in data interpretation. A macroscopic view of the data reveals persistent concerns about child neglect during recession, but potentially falling rates of other types of abuse in recent years, despite worsening economic conditions. However, data such as NCANDS, for example, rely on substantiated reports of maltreatment, which are very sensitive to how systems screen in calls to state hotlines for subsequent investigation and triage. Faced with significant budget shortfalls in recent years, state child welfare systems have faced increasing pressure to reduce the size of their child welfare systems, diverting cases to alternative community response mechanisms. Such shifts could explain the falling rates of reported maltreatment, even if the true underlying incidence is unchanged or worsening.

Yet dismissing the falling maltreatment rates out of hand does not seem appropriate either. A chorus of data coming from multiple sources beyond NCANDS, including NIS, AFCARS, and law enforcement numbers all demonstrate similar trends in the reduction of abuse levels. The congressionally mandated NIS has collected four cycles of data between 1979 and 2006 to measure incidence of child abuse and neglect,

and captures cases not reported to CPS by surveying professionals working with children. Although the lack of annual data collection precludes inferences with respect to recessions, NIS data indicate similar reductions in physical and sexual abuse, and no decline in neglect rates. Since these data include both substantiated and unreported instances of abuse and neglect, it is possible that true underlying rates may be changing as well.

However, if maltreatment rates have not declined as much as reported data would suggest, then it is possible that some children may be slipping through the cracks. A recent study, for example, of four geographically disparate pediatric hospitals, detected a nearly two-fold increase in abusive head trauma (from 4.8 cases per month to 9.3 cases per month) since the start of the recent recession.<sup>155</sup> Another recent study documented a correlation between rising unemployment and rising rates of reported maltreatment. Using state-level unemployment statistics and NCANDS child abuse data from the past 18 years, researchers found that each percentage point increase in state-level unemployment was associated with an increase in child abuse reports of approximately .50 per 1000 children.<sup>156</sup> The study also noted a lag in reporting; child abuse reports increased the year after the state unemployment rate rose. Further, representatives of child welfare agencies and hospitals across the country are reporting considerable increases in cases of child maltreatment. Although anecdotal, these reports hint at potential gaps between the occurrence of maltreatment and reporting, and underscore the challenges of interpreting system-derived data for a problem that is under-detected historically. Further study will certainly be needed to better understand population-level data trends and whether they are reflecting the true nature of the problem on the ground.

**Key Points:**

**The Recession and Child Maltreatment**

- Child neglect rose during prior recessions and remained high in their aftermath, indicating that child neglect tracks closely with economic hardship.
- While child maltreatment rates have decreased over the last decade, this decline may be confounded by several factors, including the downsizing of some child welfare systems due to state fiscal constraints.
- A recent report of rising serious physical abuse cases being seen in pediatric hospitals and research suggesting a link between unemployment and maltreatment in the years after recession require further study as they may tell that serious abuse and neglect are on the rise.



## PART II: DISCUSSION AND NEXT STEPS

While the negative relationship between poverty and child well-being is well-documented, the influence of economic recession on well-being outcomes is both understudied and difficult to disentangle. A variety of factors, including pre-recession circumstances, the sectors of the economy most impacted by recession, and government responses to recession, have a considerable impact on the welfare of children and families during an economic downturn.

Teasing apart the relationship between recession and child well-being is highly complex. First, it is important to avoid being overly broad when examining national economic and social trends. The recession has not impacted all states or localities equally – and there is considerable variation when it comes to the severity and specific consequences of the recent recession in a given location. Second, each recession is unique, emphasizing the need to examine each one individually with respect to the social, economic, and political context in which the economic downturn occurred. The level and nature of hardship induced by a recession depends in large measure upon the economic decisions made during non-recessionary periods.<sup>15</sup> Finally, on a practical note, our ability to identify trends related to child well-being during the recent economic recession is seriously constrained by the limited availability of data. For instance, the most recent mortality figures from the *National Vital Statistics System* are from 2007. Federal government data frequently lags a year or more behind – well before many families felt the full effects of the recent recession. In addition, most studies are done using aggregate data, leaving very little information available about the individual impact of the recession on family and child well-being.

As a result of the data challenges, much of the literature pertaining to the recent recession's effect on children relies on projections. While we do not question the quality of these projections, they would not supersede individual-level data that directly examined the recession's impact on families. The United States Government Accountability Office, in particular, could commission a report to survey families. Such a report would provide valuable information on the impact recessions may have on families, and may enhance our framework for understanding the relationship between macroeconomic conditions and child well-being.

Nevertheless, while the individual-level impact on children during a recession is difficult to discern, it is clear that the relative strength of the safety net available from the government during recessions can blunt the negative impact of a recession on children and families. The recent recession in particular saw large increases in the number of children covered by public health insurance, whether through Medicaid or the Children's Health Insurance Program (CHIP). The 2009 reauthorization of CHIP was particularly timely in relationship to the recession, allowing families with job insecurity to find alternative methods of maintaining health insurance for their children. Similarly, in the area of food security, the availability of benefits through the Supplemental Nutrition Assistance Program (SNAP) and the National School Lunch Program (NSLP) appear to have been highly responsive to the dramatic increase in demand. If SNAP benefits were counted as income, 3.6 million fewer people would have been classified as poor in 2009.<sup>157</sup>

At the same time, while the numbers of families seeking assistance through public means swelled during the recent recession, it is not fully known how states managed this increasing pressure on their budgets – particularly as their revenues declined. The American Recovery and Reinvestment Act (ARRA) helped narrow state budget gaps, but did not fully close them. Without these federal funds states may not have been able to meet increased demand in areas such as unemployment insurance, food and nutrition assistance, and the Medicaid and CHIP programs. On average, the additional federal funds provided through ARRA allowed states to cover 30 to 40 percent of their deficits. Still, since the start of the recent recession, critical social services have been cut in at least 46 states.<sup>158</sup> As stimulus funding expires, further reductions in state spending are projected, including cuts to education, medical, and child welfare services.<sup>159, 160</sup>

States have been put in increasingly difficult positions as they struggle to balance their budgets. Some have created new barriers (e.g., caps on enrollment, or more frequent and complicated re-enrollment processes) to slow the growth in public services and others have reduced the staff positions devoted to these programs.<sup>161</sup> Therefore, while enrollment in public health insurance programs was certainly up, so too might have been barriers to enrollment, an area that will require increasing state and federal attention to ensure that children and families are able to obtain and retain access to programs for which they are eligible. For SNAP as well, while enrollment numbers increased, it remains less certain what types of food families had access to or could readily afford. This uncertainty is not purely a function of recession. The relationship between income and diet quality – as well as the role of safety net programs such as SNAP in that relationship – warrants sustained attention in all macroeconomic climates.

The existence of safety net programs is not, in and of itself, a guarantee of improved child well-being; effective program implementation is crucial. This is especially important in relation to the recent passage of the Patient Protection and Affordable Care Act, which aims to expand children's access to essential health care services. As these measures move forward, careful attention should be paid to how they are rolled out at the state level, and how successful they are in improving health care access and health outcomes for children.

The challenge of understanding the long-term effects of government program participation on families using population-based data is one that has received little attention to date. Indeed, perhaps the most important lesson from this synthesis is that federal – and to some degree state and city – governments will need to provide better oversight into how access to programs is facilitated, so as to minimize downstream effects as much as possible. Doing this will require policymakers to better appraise the variation across systems in how programs are accessed, how systems collaboratively share resources across programs, and whether the programs provide the continuity in services required to assist families through difficult times. If nothing else, the recent recession provides an opportunity to identify lessons learned and a responsibility – given that more than one in five children are living in poverty – to be more planful about child well-being for the future.

## References

1. DeNavas-Walt C, Proctor B, Smith J. *Income, poverty, and health insurance coverage in the United States, 2008*. Washington, DC: U.S. Government Printing Office;2009.
2. DeNavas-Walt C, Proctor B, Smith J. *Income, poverty, and health insurance coverage in the United States, 2009*. Washington, DC: U.S. Government Printing Office;2010.
3. Acs G, Nichols A. *America insecure: Changes in the economic security of American families*. Washington, DC: The Urban Institute;2010.
4. Rosenbaum D. *The food stamp program is efficient and effective*. Washington, DC: Center on Budget and Policy Priorities; 2010.
5. Feaster SW. Long road ahead to regaining lost jobs. *New York Times*. 2010. [http://www.nytimes.com/interactive/2010/10/13/business/economy/economy\\_graphic.html?ref=economy](http://www.nytimes.com/interactive/2010/10/13/business/economy/economy_graphic.html?ref=economy).
6. Acs G. *Unemployment and income in a recession*. Washington, DC: The Urban Institute;2008.
7. The Henry J. Kaiser Family Foundation. Measures of state economic distress: Housing foreclosures and changes in unemployment and food stamp participation. *State Health Facts*. Washington, DC: The Henry J. Kaiser Family Foundation, <http://www.statehealthfacts.org/comparetable.jsp?cat=1&ind=649>; 2009.
8. Federal Interagency Forum on Child and Family Statistics. *America's children in brief: Key national indicators of well-being*. Washington, DC: U.S. Government Printing Office.;2010.
9. Kresin M, Schwartz M. *Rental housing market condition measures: 2009*. Washington, DC: U.S. Department of Commerce, Census Bureau;2010.
10. American Recovery and Reinvestment Act of 2009.
11. National Bureau of Economic Research. *U.S. business cycle expansions and contractions*. 2010; <http://www.nber.org/cycles/recessions.html>.
12. Irons J. *Economic scarring: The long term impacts of the recession*. Washington, DC: Economic Policy Institute;2009.
13. Greenstein R, Parrott S, Sherman A. *Poverty and share of Americans without health insurance were higher in 2007 - and median income for working age households was lower - than at bottom of last recession*. Washington, DC: Center on Budget and Policy Priorities;2008.
14. Holzer H, Schanzenback D, Duncan G, Ludwig J. The economic costs of childhood poverty in the United States. *Journal of Children and Poverty*. 2008;14(1):41-61.
15. Bezruchka S. The effect of economic recession on population health. *Canadian Medical Association Journal*. 2009;185(5):281.
16. Gerdtham U, Ruhm C. Deaths rise in good economic times: Evidence from the OECD. *Economics & Human Biology*. 2006;4(3):298-316.
17. Case A, Lubotsky, D, Paxson, C. Economic status and health in childhood: The origins of the gradient. *American Economic Review*. 2002;92(5):1308-1334.
18. U.S. Government Accountability Office. *Poverty in America: Economic research shows adverse impacts on health and other social conditions as well as the economic growth rate*. Washington, DC2007. GAO 07-344.
19. Frank D, Casey P, Black M, et al. Cumulative hardship and wellness of low-income, young children: Multisite surveil-



- lance study. *Pediatrics*. 2010;125(5):1053-1054.
20. McLoyd V. Socioeconomic disadvantage and child development. *American Psychologist*. 1998;53(2):185-204.
  21. Duncan G, Ziol-Guest K, Kalil A. Early-childhood poverty and adult attainment, behavior, and health. *Child Development*. 2010;81(1):306-325.
  22. Center on the Developing Child. *The foundations of lifelong health are built in early childhood*. Cambridge, MA: Harvard University; 2010.
  23. Middlebrooks JS, Audage NC. *The effects of childhood stress on health across the lifespan*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2008.
  24. Kishiyama M, Boyce W, Jimenez A, Perry L, Knight R. Socioeconomic disparities affect prefrontal function in children. *Journal of Cognitive Neuroscience*. 2009;21(6):1106-1115.
  25. Wood D. Effect of child and family poverty on child health in the United States. *Pediatrics*. 2003;112(3):707-711.
  26. National Institute of Child Health, Human Development Early Child Care Research Network. Duration and developmental timing of poverty and children's cognitive and social development from birth through third grade. *Child Development*. 2005;76(4):795-810.
  27. Wagmiller R, Lennon MC, Kuang L, Alberti P, Aber JL. The dynamics of economic disadvantage and children's life chances. *American Sociological Review*. 2006;71(5):847-866.
  28. First Focus. *Turning point: The long-term effects of recession-induced child poverty*. Washington, DC: First Focus; 2009.
  29. Emerson E. Relative child poverty, income inequality, wealth, and health. *Journal of American Medical Association*. 2009;301(4):425-426.
  30. Braveman P, Cubbin C, Egerter S, Williams D, Pamuk E. Socioeconomic disparities in health in the United States: What the patterns tell us. *American Journal of Public Health*. 2010;100(S1):S186-196.
  31. Catalano R. The health effects of economic insecurity. *American Journal of Public Health*. 1991;81(9):1148-1152.
  32. Dorn S. *Health coverage in a recession*. Washington, DC: Urban Institute; 2008.
  33. Dorn S, Garrett B, Holahan J, Williams A. *Medicaid, SCHIP and economic downturn: Policy challenges and policy responses*. Washington, DC: Brookings Institution; 2008.
  34. Kaiser Commission on Medicaid and the Uninsured. *Medicaid enrollment: December 2009 data snapshot*. Washington, DC: The Henry J. Kaiser Family Foundation; 2010.
  35. Xu J, Kochanek K, Murphy S, Tejada-Vera B. *Deaths: Final data for 2007*. Washington, DC: National Center for Health Statistics; 2010.
  36. Tapia Granados J, Diez Roux A. Life and death during the Great Depression. *Proceedings of the National Academy of Sciences*. 2009;106(41):17290-17295.
  37. Ruhm C. Are recessions good for your health? *The Quarterly Journal of Economics*. 2000;115(2):617-650.
  38. Ferreira FHG, Schady N. Aggregate economic shocks, child schooling and child health. *The World Bank Research Observer*. 2009;24(2):147-181.
  39. Dehejia R, Lleras-Muney A. Boom, busts, and babies' health. *The Quarterly Journal of Economics*. 2004;119(3):1091-1130.

40. The Henry J. Kaiser Family Foundation. Nearly two-thirds of states expanded access to Medicaid and SCHIP, July 06 - January 08. *Kaiser Fast Facts*. Washington, DC: The Henry J. Kaiser Family Foundation, <http://facts.kff.org/chart.aspx?ch=265>; 2008.
41. Kaiser Fast Facts. Chart: Percentage of children without health insurance, by poverty level, 1998-2007. Washington, DC: The Henry J. Kaiser Family Foundation; 2009.
42. Kaiser Commission on Medicaid and the Uninsured. *Health coverage of children: The role of Medicaid and CHIP*. Washington, DC: The Henry J. Kaiser Family Foundation; 2010.
43. Kenney GM, Lynch V, Cook A, Phong S. Who and where are the children yet to enroll in Medicaid and the Children's Health Insurance Program? *Health Affairs*. 2010;29(10):1920-1929.
44. Cummings J, Lavarreda S, Rice T, Brown E. The effects of varying periods of uninsurance on children's access to health care. *Pediatrics*. 2009;123(3):e411-418.
45. Olson L, Tang S, Newacheck P. Children in the United States with discontinuous health insurance coverage. *New England Journal of Medicine*. 2005;353(4):382-391.
46. Currie J. Child health and mortality. In: Blume L, Durlauf S, eds. *The New Palgrave Dictionary of Economics, 2nd Edition*. London: Macmillan; forthcoming.
47. McNichol E, Oliff P, Johnson N. *Recession continues to batter state budgets; state responses could slow recovery*. Washington, DC: Center on Budget and Policy Priorities; 2010.
48. Education, Jobs and Medicaid Assistance Act of 2010. *Pub. L. No. 111-148*.
49. Kaiser Commission on Medicaid and the Uninsured. *Explaining health reform: Eligibility and enrollment processes for Medicaid, CHIP, and subsidies in the exchanges*. Washington, DC: The Henry J. Kaiser Family Foundation; 2010.
50. Kenney GM, Pelletiere JE. *How will the Patient Protection and Affordable Care Act of 2010 affect children?* Washington, DC: Urban Institute and Robert Wood Johnson Foundation; 2010.
51. Dadayan L, Boyd DJ. *Revenue now growing in most states; sales tax gains 5.7 percent in 2nd quarter*. Albany, NY: The Nelson A. Rockefeller Institute of Government; 2010.
52. U.S. Government Accountability Office. *State and local governments' fiscal outlook: March 2010 update*. Washington, DC 2010. GAO 10-358.
53. Trapp D. HHS calls for more insured children clashes with state budget troubles. *American Medical News*. 2010;53(18).
54. Angeles J, Solomon J. *Recession threatens state health care programs: Extension of recovery act relief needed to avert more drastic cuts that would swell the ranks of the uninsured and weaken the economy*. Washington, DC: Center on Budget and Policy Priorities; 2010.
55. National Association of Public Hospitals and Health Systems. All states have requested extended FMAP funding, HHS Says - October 5, 2010. 2010. <http://www.naph.org/Homepage-Sections/News/Latest-From-Newsline/Extended-FMAP.aspx>.
56. U.S. Department of Agriculture. Food Security in the United States: Measuring Household Food Security. <http://www.ers.usda.gov/Briefing/FoodSecurity/measurement.htm>.
57. Nord M. *Food insecurity in households with children: Prevalence, severity, and household characteristics*. Washington, DC; U.S. Department of Agriculture, Economic Research Service; 2009. EIB-56.
58. Slopen N, Fitzmaurice G, Williams D, Gilman S. Poverty, food insecurity, and the behavior for childhood internalizing

and externalizing disorders. *Journal of American Academy of Child and Adolescent Psychiatry*. 2010;49(5):444-452.

59. Whitaker R, Phillips S, Orzol S. Food insecurity and the risks of depression and anxiety in mothers and behavior problems in their preschool-aged children. *Pediatrics*. 2006;118(3):e859-868.
60. Winicki J, Jemison K. Food insecurity and hunger in the kindergarten classroom: Its effect on learning and growth. *Contemporary Economic Policy*. 2003;21(2):145-157.
61. Rose-Jacobs R, Black M, Casey P, et al. Household food insecurity: Associations with at-risk infant and toddler development. *Pediatrics*. 2008;121(1):65-72.
62. Alaimo K, Olson, C, Frongillo, E. Food insufficiency and American school-aged children's cognitive, academic, and psychosocial development. *Pediatrics*. 2001;108(1):44-53.
63. Skalicky A, Meyers A, Adams W, Yang Z, Cook J, Frank D. Child food insecurity and iron deficiency anemia in low-income infants and toddlers in the United States. *Maternal & Child Health Journal*. 2006;10(2):177-185.
64. Cook J, Frank D, Levenson S, et al. Child food insecurity increases risks posed by household food insecurity to young children's health. *Journal of Nutrition*. 2006;136(4):1073-1076.
65. Boney CM, Verma A, Tucker R, Vohr BR. Metabolic syndrome in childhood: Association with birth weight, maternal obesity, and gestational diabetes mellitus. *Pediatrics*. 2005;115(3):e290-296.
66. Wight VR, Thampi K, Briggs J. *Who are America's poor children? Examining food insecurity among children in the United States*. New York: National Center for Children in Poverty;2010.
67. Leingerger-Jabari A, Parker D, Oberg C. Child labor, gender, and health. *Public Health Reports*. 2005;120(6):642-648.
68. Ver Ploeg M. *WIC and the battle against childhood overweight*. Washington, DC: U.S. Department of Agriculture, Economic Research Service;2009.
69. Drewnowski A, Darmon N. The economics of obesity: Dietary energy density and energy cost. *American Society for Clinical Nutrition*. 2005;80(1 Suppl):265S-273S.
70. Nord M, Hopwood H. Recent advances provide improved tools for measuring children's food security. *The Journal of Nutrition*. 2007;137(3):533-536.
71. Bhattacharya J, Currie J, Haider S. Poverty, food insecurity, and nutritional outcomes in children and adults. *Journal of Health Economics*. 2004;23(4):839-862.
72. Nord M. *Food insecurity in households with children: Food assistance research brief*. Washington, DC: U.S. Department of Agriculture, Economic Research Service;2003. 34-13.
73. Andrews M, Nord M. *Food insecurity up in recessionary times*. Washington, DC: U.S. Department of Agriculture;2009.
74. Nord M, Andrews M, Carlson. *Household food insecurity in the United States, 2004*. Washington, DC: U.S. Department of Agriculture, Economic Research Service;2005.
75. Pavetti L, Rosenbaum D. *Creating a safety net that works when the economy doesn't: The role of the food stamp and TANF programs*. Washington, DC: Center on Budget and Policy Priorities;2010.
76. Leftin J. *Trends in Supplemental Nutrition Assistance Program participation rates: 2001 to 2008*. Washington, DC: Prepared by Mathematic Policy Research, Inc. for the U.S. Department of Agriculture, Food and Nutrition Service;2010.
77. Cook J, Frank D, Berkowitz C, et al. Food insecurity is associated with adverse health outcomes among human infants and toddlers. *American Society for Nutritional Sciences*. 2004;134(6).

78. Zedlewski S, Mon E. *Many low-income working families turn to the supplemental nutrition assistance program for help*. Washington, DC: The Urban Institute;2009.
79. Isaacs J. *The effects of the recession on child poverty*. Washington, DC: Brookings Institution & First Focus; 2009.
80. Leftin J, Gothro A, Eslami E. *Characteristics of Supplemental Nutrition Assistance Program households: Fiscal Year 2009*: Prepared by Mathematic Policy Research, Inc. for the U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis;2010.
81. Hanson K, Gundersen C. *How unemployment affects the food stamp program*. Washington, DC: U.S. Department of Agriculture, Economic Research Service; 2002.
82. Rice D. *Additional housing vouchers needed to stem increase in homelessness*. Washington, DC: Center on Budget and Policy Priorities; 2009.
83. Bloch M, DeParle J, Ericson M, Gebeloff R. Food stamp usage across the country 2009.
84. Eisler P, Weise E. More students on free lunch programs. *USA Today* 2009.
85. Neuberger Z, Namian TF. *Enrolling all children in a household for free school meals*. Washington, DC: Center on Budget and Policy Priorities; 2010.
86. U.S. Department of Agriculture. WIC Fact Sheet. *Nutrition Program Facts, Food and Nutrition Service* 2009; [www.fns.usda.gov/wic/factsheets.htm](http://www.fns.usda.gov/wic/factsheets.htm).
87. U.S. Department of Agriculture. Nutrition program facts: WIC (Monthly data, FY08-FY10). <http://www.fns.usda.gov/pd/wicmain.htm>.
88. Aber L, Chaudry A. Low-income children, their families and the great recession: What's next in policy? Paper presented at: The Georgetown University and Urban Institute Conference on Reducing Poverty and Economic Distress after ARRA2010.
89. United States Department of Agriculture. <http://www.fns.usda.gov/fns/recovery/recovery-snap.htm>.
90. Mabli J, Castner L, Ohls J, Fox M, Crepinsek M, Condon E. *Food expenditures and diet quality among low-income households and individuals*. Washington, DC: Prepared by Mathematica Policy Research, Inc. for the U.S. Department of Agriculture, Food and Nutrition Service; 2010.
91. Rose D, Habicht J, Devaney B. Household participation in the Food Stamp and WIC programs increases the nutrient intakes of preschool children. *The Journal of Nutrition*. 1998;128(3):548-555.
92. U.S. Department of Agriculture. SNAP Farmers' Market Program website - Learn how you can accept SNAP Benefits at Farmers' Markets. <http://www.fns.usda.gov/snap/eat/fm.htm>.
93. Office of the Surgeon General of the United States. *The Surgeon General's call to action to promote healthy homes*: Office of the Surgeon General; 2009.
94. The Institute for Children and Poverty. *Examination of residential instability and homelessness among young children*. New York: Institute for Children, Poverty & Homelessness; 2009.
95. Kingsley G, Smith R, Price D. *The impact of foreclosures on families and communities*. Washington, DC: Urban Institute;2009.
96. Rog J, Maynard M, Weiss E. *The hidden costs of the housing crisis: The long-term impact of housing affordability and quality on young children's odds of success*. Washington, DC: Economic Policy Institute, The Partnership for America's Economic Success; 2008.

97. Rumberger R, Larson K. Student mobility and the increased risk of high school dropout. *American Journal of Education*. 1998;107(1):1-35.
98. Buckner J. Understanding the impact of homelessness on children: Challenges and future research directions. *American Behavioral Scientist*. 2008;51(6):721-736.
99. Grant R, Shapiro A, Joseph S, Goldsmith S, Rigual-Lynch L, Redlener I. The health of homeless children revisited. *Advances in Pediatrics*. 2007;54(1):173-187.
100. Jellyman T, Spencer N. Residential mobility in childhood and health outcomes: a systemic review. *Journal of Epidemiology and Community Health*. 2008;62(7):584-592.
101. U.S. Department of Health and Human Services. *Current statistics on the prevalence and characteristics of people experiencing homelessness in the United States*. Washington, DC: U.S. Department of Health and Human Services;2010.
102. Culhane D, Metraux S. Rearranging the deck chairs or reallocating the lifeboats? Homelessness assistance and its alternatives. *Journal of the American Planning Association*. 2008;74(1):111-121.
103. Rog DJ, Buckner JC. Homeless families and children (discussion draft). *2007 National Symposium on Homelessness Research* 2007.
104. Joint Center for Housing Studies. *The state of the nation's housing*. Cambridge, MA: Harvard University;2008.
105. Center for Responsible Lending. *Updated projections of subprime foreclosures in the United States and their impact on home values and communities*. Washington, DC: Center for Responsible Lending;2008.
106. U.S. Department of Housing and Urban Development. *Report to Congress on the root causes of the foreclosure crisis*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research;2010.
107. Evans G. The environment of childhood poverty. *American Psychologist*. 2004;59(2):77-92.
108. Samuels J, Shinn M, Buckner JC. Homeless children: Update on research, policy, programs, and opportunities. In: U.S. Department of Health and Human Services, ed: Policy Research Associates; 2010.
109. Been V, Ellen IG, Schwartz AE, Stiefel L, Weinstein M. *Kids and foreclosures, New York City*. New York: Institute for Education and Social Policy, New York University; 2010.
110. Culhane JF, Webb D, Grim S, Metraux S, Culhane DP. Prevalence of child welfare services involvement among homeless and low-income mothers: A five-year birth cohort study. *Journal of Sociology & Social Welfare*. 2003;30(3):79-95.
111. Maxwell CD, Stone RJG. The nexus between economic and family violence: The expected impact of recent economic declines on the rates and patterns of intimate, child and elder abuse: Submitted for publication to the U.S. Department of Justice; 2010.
112. Cortes A, Khadduri J, Buron L, Culhane D. *The 2009 annual homeless assessment report to Congress*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Community Planning and Development; 2010.
113. Jacobsen LA, Mather M. U.S. economic and social trends since 2000. *Population Bulletin*. 2010;65(1).
114. Bennett GG, Scharoun-Lee M, Tucker-Seeley R. Will the public's health fall victim to the home foreclosure epidemic? *PLoS Medicine*. 2009;6(6):1-5.
115. Painter G. *What happens to household formation in a recession?* Washington, DC: Mortgage Bankers Association; 2010.
116. Land KC. *Child and Youth Well-Being Index*. New York: The Foundation for Child Development;2010.



117. U.S. Department of Housing and Urban Development. Community Development and Planning Website - Affordable Housing. <http://www.hud.gov/offices/cpd/affordablehousing/index.cfm>.
118. Noss A. *Household income for states: 2008 and 2009*. Washington, DC: U.S. Department of Commerce, Census Bureau;2010.
119. Mazur C. *Property value: 2008 and 2009*. Washington, DC: U.S. Department of Commerce, Census Bureau;2010.
120. U.S. Census Bureau. Financial Characteristics (S2503). In: Data Set: 2008 American Community Survey 1-Year Estimates Survey: American Community Survey, ed. Washington, DC 2009.
121. DeCrappeo M, Pelletiere D, Crowley S, Teater E. *Out of reach 2010: Renters in the Great Recession, the crisis continues*. Washington, DC: National Low Income Housing Coalition; 2010.
122. Rice D, Sard B. *Decade of neglect has weakened federal low-income housing programs*. Washington, DC: Center on Budget and Policy Priorities; 2009.
123. U.S. Department of Housing and Urban Development. Worst case housing needs: A report to Congress. 2007.
124. Pollack C, Lynch J. Health status of people undergoing foreclosure in the Philadelphia region. *American Journal of Public Health*. 2009;99(10):1833-1839.
125. Pollack C, Lynch J, Alley D, Cannuscio C. *Foreclosure and health status*. Philadelphia, PA: Leonard Davis Institute of Health Economics;2010.
126. Lin Z, Rosenblatt E, Yao W. Spillover effects of foreclosures on neighborhood property values. *Journal of Real Estate Finance and Economics*. 2009;38(4):387-407.
127. Immergluck D, Smith G. Measuring the effect of subprime lending on neighborhood foreclosures. *Urban Affairs Review*. 2005;40(3):362-389.
128. Sard B. *Number of homeless families climbing due to recession*. Washington, DC: Center on Budget and Policy Priorities;2009.
129. Schott L. *Using TANF emergency funds to help prevent and address family homelessness*. Washington, DC: Center on Budget and Policy Priorities;2010.
130. National Housing Trust. *Housing and Related Provisions in the American Recovery and Reinvestment Act of 2009 (Pub. L. No. 111-5)*. Washington, DC2009.
131. Treasury Public Affairs, U.S. Department of Housing and Urban Development. Obama administration announces additional support for targeted foreclosure-prevention programs to help homeowners struggling with unemployment 2010; [http://portal.hud.gov/portal/page/portal/HUD/press/press\\_releases\\_media\\_advisories/2010/HUD-No.10-176](http://portal.hud.gov/portal/page/portal/HUD/press/press_releases_media_advisories/2010/HUD-No.10-176).
132. U.S. Department of Housing and Urban Development. *Summary of the Emergency Homeowner Loan Program*. Washington, DC; 2010.
133. Keeping Children and Families Safe Act of 2003. *Pub. L. No. 108-36*.
134. Sedlak AJ, Mettenburg J, Basena M, et al. Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress. In: U.S. Department of Health and Human Services AfCaF, ed. Washington, DC2010.
135. Gilbert R, Kemp A, Thoburn J, et al. Recognising and responding to child maltreatment. *Lancet*. 2009;373:167-180.
136. U.S. Department of Health and Human Services. *Preliminary Estimates for FY 2009 as of July 2010*. Washington, DC: Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau;2010.

137. Belsky J. Etiology of child maltreatment: A developmental-ecological analysis. *Psychological Bulletin*. 1993;114(3):413-434.
138. Gil DG. Physical abuse of children: Findings and implications of a nationwide survey. *Pediatrics*. 1969;44(5):857-864.
139. Kotch J, Browne D, Dufort V, Winsor J, Catellier D. Predicting child maltreatment in the first 4 years of life from characteristics assessed in the neonatal period. *Child Abuse & Neglect*. 1999;23(4):305-319.
140. U.S. Department of Health and Human Services. *Blending perspectives and building common ground: A report to Congress on substance abuse and child protection*. Washington, DC: U.S. Department of Health and Human Services;1999.
141. U.S. Department of Health and Human Services. *Emerging practices in the prevention of child abuse and neglect*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families;2003.
142. Dube S, Felitti V, Dong M, Chapman D, Giles W, Anda R. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: The Adverse Childhood Experiences Study. *Pediatrics*. 2003;111(3):564-572.
143. De Bellis M, Thomas L. Biologic findings of post-traumatic stress disorder and child maltreatment. *Current Psychiatry Reports*. 2003;5(2):108-117.
144. Teicher MD. Wounds that time won't heal: The neurobiology of child abuse. *Cerebrum: The Dana Forum on Brain Science*. 2000;2(4):50-67.
145. Springer KW, Sheridan J, Kuo D, Carnes M. Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child Abuse & Neglect*. 2007;31(5):517-530.
146. Ringeisen H, Casanueva C, Urato M, Cross T. Special health care needs among children in the child welfare system. *Pediatrics*. 2008;122(1):e232-241.
147. Burns B, Phillips S, Wagner HR, et al. Mental health needs and access to mental health services by youths involved in child welfare: A national survey. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2004;43(8):960-970.
148. Walker E, Gelfand A, Katon W, et al. Adult health status of women with histories of childhood abuse and neglect. *The American Journal of Medicine*. 1999;107(4):332-339.
149. Elder G. *Children of the Great Depression: Social change in life experience*. Chicago, IL: University of Chicago Press; 1974.
150. Whipple E, Webster-Stratton C. The role of parental stress in physically abusive families. *Child Abuse & Neglect*. 1991;15(3):279-291.
151. Schumacher J, Slep A, Heyman R. Risk factors for child neglect. *Aggression and Violent Behavior*. 2001;6(2-3):231-254.
152. Drake B, Pandey S. Understanding the relationship between neighborhood poverty and specific types of child maltreatment. *Child Abuse & Neglect*. 1996;20(11):1003-1018.
153. Finkelhor D, Jones L, Shattuck A. *Updated trends in child maltreatment, 2008*. Durham, NH: Crimes Against Children Research Center;2010.
154. Finkelhor D, Jones L. Why have child maltreatment and child victimization declined? *Journal of Social Issues*. 2006;62(4):685-716.
155. Berger R. An increase in abusive head trauma during the current recession: A multi-center analysis. Paper presented at: The Pediatric Academic Societies' Annual Conference 2010; Van Couver, British Columbia, Canada.
156. Zagorsky J, Schlesinger M, Sege R. What happens to child maltreatment when unemployment goes up? Paper pre-

sented at: American Academy of Pediatrics 2010 National Conference and Exhibition; 3 October 2010, 2010; San Francisco, CA.

157. Nichols A. *Poverty in the United States*. Washington, DC: Urban Institute;2010.
158. Johnson N, Oliff P, Williams E. *An update on state budget cuts: At least 46 states have imposed cuts that hurt vulnerable residents and the economy*. Washington, DC: Center on Budget and Policy Priorities;2010.
159. McNichol E, Oliff P, Johnson N. *States continue to feel recession's impact*. Washington, DC: Center on Budget and Policy Priorities;2010.
160. Edelman P, Golden O, Holzer H. *Reducing poverty and economic distress after ARRA: Next steps for short-term recovery and long-term economic security*. Washington, DC: The Urban Institute;2010.
161. Smith VK, Gifford K, Ellis E. *Hoping for economic recovery, preparing for health reform: A look at Medicaid spending, coverage and policy trends*. Washington, DC: Prepared by Health Management Associates and the Kaiser Commission on Medicaid and the Uninsured for The Henry J. Kaiser Family Foundation; 2010.