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The Cost of Child Maltreatment to the Alabama Economy in 2013

For the Department of Child Abuse and Neglect Prevention
The Children's Trust Fund

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Executive Summary

The cost of child maltreatment to the Alabama economy in 2013 is conservatively estimated in this report to be \$2.3 billion and shown below by cost category. Child abuse is defined by the Federal Child Abuse Prevention and Treatment Act as any recent act or failure to act on the part of a parent or caretaker that results in death, serious physical or emotional harm, sexual abuse, or exploitation; or an act or failure to act that presents an imminent risk of serious harm. Four common types of child maltreatment—physical, sexual, emotional, and neglect—are recognized by the Centers for Disease Control and Prevention (CDC). The \$2.3 billion cost is conservative because it is based on the child maltreatment victim cohort for 2013 and does not include associated costs to families (including extended ones) and communities that are known to occur.

Cost Category	Cost (2013 dollars)
Low Birth-Weight	\$75,697,992
Chronic Illness (Childhood Asthma)	\$14,928,002
Childhood Mental Health Care	\$8,488,808 - \$16,977,617
Child Welfare System	\$404,799,168
Law Enforcement (Maltreatment-Related Interventions)	\$523,848
Other Childhood Medical Costs	\$1,558,097
Special Education	\$4,831,699 - \$8,858,115
Juvenile Delinquency	\$11,543,471 - \$29,095,871
Adult Criminality	\$47,084,631
Adult Mental Health and Health Care	\$2,875,385 - \$3,141,002
Adult Homelessness	\$2,932,402
Lost Worker Productivity of Victims	\$1,685,511,616
Lost Worker Productivity due to Mortality	\$42,596,768
Total Cost due to Child Maltreatment in 2013	\$2,303,371,887 - \$2,333,705,129

Preventing child maltreatment in Alabama will reduce the cost on the state economy and contribute to economic growth, but resources will be needed to accomplish this. The 2013 Annual Report of the Alabama Department of Child Abuse and Neglect Prevention/The Children's Trust Fund (CTF) notes that the agency's budget in Fiscal year 2013 (FY2013) was about \$7.0 million; slightly more than \$500,000 was from the state's Education Trust Fund and the General Fund. The \$2.3 billion cost of child maltreatment to the state economy is roughly 1.2 percent of the \$193.6 billion Alabama gross domestic product (GDP) in 2013. Applying this 1.2 percent ratio to the nearly \$9.3 billion state tax collections in FY2013 yields \$110 million, which is 15.6 times the CTF budget and suggests a serious underfunding of child maltreatment prevention in the state.

Introduction and Review

This report presents the cost of child maltreatment (or child abuse and neglect) to the Alabama economy in 2013. Child abuse is defined by the Federal Child Abuse Prevention and Treatment Act as any recent act or failure to act on the part of a parent or caretaker that results in death, serious physical or emotional harm, sexual abuse, or exploitation; or an act or failure to act that presents an imminent risk of serious harm. Four common types of child maltreatment—physical, sexual, emotional, and neglect—are recognized by the Centers for Disease Control and Prevention (CDC).

According to the Administration for Children and Families (ACF) at the U.S. Department of Health and Human Services report, *Child Maltreatment 2013*, the average response time as collected under the Child Abuse Prevention and Treatment Act (CAPTA) between receipt of a maltreatment report and Child Protective Services (CPS) response has risen from 24 hours in 2009 to 48 hours in 2013, giving Alabama the 16th lowest response time of the 39 reporting states. The same study ranks Alabama 22nd in terms of the number of intake, screening, investigation, and alternative response workers among the 45 states that reported with approximately 1 worker for every 2,000 children in the state. Alabama ranks last among the 47 reporting states in terms of the number of days to initiation of services, with an average wait time of 104 days.

The number of Alabama children who received an investigation or alternative response rose 6.2 percent, from 26,246 in 2009 to 27,861 in 2013. Investigations substantiated 9,013 (duplicate count) incidences. Among maltreated children in Alabama, 3,383 suffered abuse in the form of neglect, 4,473 suffered physical abuse, 32 suffered psychological maltreatment, and 1,793 were victims of sexual abuse. The number of victims (unique count) rose from 8,123 in 2009 to 8,809 in 2013, an 8.4 percent increase; the rate of child victims went from 7.2 per 1,000 children to 7.9. The number of first-time victims reached 7,232 in 2013 from 6,828 in 2009 (a 5.9 percent increase) and took the rate of first-time victims in Alabama to 6.5 per 1,000 children.

In 2013, 32 Alabama children died as a result of abuse or neglect, up from 14 in 2009, a 128.6 percent increase, according to the ACF report. The Alabama Department of Public Health's Alabama Child Death Review System, 2008-09 annual report, noted that of 54 child death cases reviewed, two involved underage drivers (i.e., under age 16) and eight child deaths were caused by driver inexperience. In nine cases, lap and shoulder belts were not used and child seats were either not used or used incorrectly in three instances. Speeding was the culprit in 14 child deaths, reckless driving caused 12 child deaths, and 6 child deaths were caused by drug or alcohol use.

Child abuse and neglect cost the U.S. \$80.3 billion each year in direct costs and lost productivity, according to the Children's Defense Fund report, *The State of America's Children in 2014*. Over a lifetime, a single case of nonfatal child abuse and neglect is estimated to cost \$210,012 and a case of

fatal child abuse and neglect \$1.27 million, mostly due to lost productivity. Prevent Child Abuse America's (PCAA) 2012 State Estimates publication predicted 19,260 abused and neglected children (NIS4 rate) in Alabama in 2010 (Harding, 2012). PCAA estimated the cost of this abuse and neglect to be \$1,122,641,000 for the state in 2010, but range from a low of \$963 million to as high as \$1.3 billion. The PCAA report estimated lost worker productivity for one year of adult work-life (Gelles & Perlman, 2012), which is a small part of total cost of lost productivity and results in a conservative cost estimate since childhood maltreatment affects the whole adult work-life.

For Alabama's fiscal year 2013 (FY2013, from October 1, 2012 to September 30, 2013) 3,077 children entered foster care and 1,076 children were waiting to be adopted, according to the Children's Bureau; 4,532 children were in foster care at year-end. About 65.6 percent of the 518 children who were adopted through a public agency received an adoption subsidy. The Child Trends' publication reported that the State of Alabama spent \$332,684,924 on child welfare, including \$42,673,404 for Title VI-E on foster care, adoption assistance, and guardianship programs during FY 2010 (DeVooght et al, 2012). Federal expenditures for child welfare in the state totaled \$182,841,165. For FY 2010, approximately 44 percent of Alabama's total child welfare expenditures were from state and local sources according to the Children's Defense Fund.

Preventable infant mortality and low birth-weight babies are a form of child abuse. The CDC reported that infant mortality rates in Alabama rose from 6.8 to 7.0 per 1,000 births from 2001 to 2002, the first significant rate increase in over 40 years. Since that time, Alabama's infant mortality rate increased further to 8.73 per 1,000 births in 2010 and ranked Alabama second worst for infant deaths in the country; only Mississippi ranked worse. Nationally, the CDC reports that 8.0 percent of babies are born with low birth-weight (less than 2,500 grams)—1.4 percent of births are considered to be very low birth-weight. In 2013, 447,361 babies were born preterm. Kidscount.org estimates that 5,853 low birth-weight babies were born in Alabama in 2012. The Children's Defense Fund estimates that 16.3 percent of low birthweights are the result of prenatal neglect. Noor and Caldwell (2005) estimated that in 2004 the additional cost of care associated with each such baby was \$54,510 in 2002 dollars. The Central Intelligence Agency (CIA) ranks the United States 169th for infant mortality among 224 nations, which places the United States 25th in the world among industrialized nations in preventing infant mortality. In addition to increased infant mortality, the percentage of children born at low birth-weight has increased. Prenatal care is available for pregnant women, but those who do not take advantage of this care are not changing harmful behaviors that cause low weight births. Prenatal care for pregnant women is important in reducing the incidence of infant mortality and low birth-weight; it is consequently a critical component in preventing the abuse and neglect that works against the healthy development of infants and children.

2013 Cost Estimate

Child maltreatment strains the state's social, health, and judicial services and adversely affects the economy. In order to estimate the costs of child abuse on the Alabama economy, research studies look at both the costs of intervention (those costs associated with the immediate needs of abused or neglected children) and costs associated with the long-term and/or secondary effects of child abuse and neglect. The act of abuse or neglect not only affects children's present status but continues to affect their way of living throughout their course of life. Child abuse and neglect cause severe damage to the child as an individual and to society as a whole. Year 2013 was chosen because it is the most recent year for which a complete set of data is available to conduct the analysis.

The 7,232 number of first-time victims whose investigations or alternative responses were substantiated in 2013 is used as basis in this report for determining most of the costs of child maltreatment to the state economy. Although the costs estimated will occur over time, tying the costs to when victims were first abused is appropriate because it uses a properly identified cohort. It is important to note that in any given year, costs of maltreatment for different cohorts of victims (first-time victims of many prior years) occur. Our method specifically determines the cost over time in 2013 dollars of child maltreatment for the year 2013 victim cohort¹. The full 2013 child maltreatment victim cohort comprises the 7,232 first-time victims, the 32 child deaths resulting from abuse or neglect, the 5,853 low birth-weight babies (assumed to be the same as for 2012), and maltreated children who (i) had child welfare spending attributed to abuse and neglect, (ii) had police child maltreatment intervention cases, and (iii) other medical costs not elsewhere accounted for. The cost we estimate is conservative because it is based on the cohort for 2013 and does not include associated costs to families (including extended ones) and communities that are known to occur.

Child maltreatment causes preventable infant mortality and low birth-weight, chronic health and mental health problems, developmental and educational delays, lower work productivity, and higher involvement with the criminal justice system. This report uses the best available secondary data as well as primary data from the Healthcare Cost and Utilization Project (HCUP), a Federal-State-Industry partnership sponsored by the Agency for Healthcare Research and Quality (AHRQ) to estimate the costs of child maltreatment for Alabama. Information from state agencies such as the Alabama Department of Labor, Alabama Department of Youth Services, and Alabama Department of Corrections were collected for specific state cost estimates.

This report uses an "additional cost" concept to estimate the cost of child maltreatment on the Alabama economy by considering costs above those that would normally have been incurred for

¹ The average Consumer Price Index from the Bureau of Labor Statistics was used to adjust for inflation and convert costs to 2013 dollars unless otherwise mentioned.

non-maltreated children. The sections following describe estimations of components to the total cost of child abuse and neglect on the state economy. Due to the lack of appropriate data, we do not include the cost of early intervention services that are required to manage developmental delays. The total cost of child maltreatment in 2013 to the Alabama economy is estimated to be \$2.3 billion with a range of \$2,303,371,887 to \$2,333,705,129.

Low Birth-Weight

To estimate the cost of newborn hospitalization, re-hospitalization within the first year, and other health costs associated with low birth-weight babies for 2013, it is assumed that the same number (5,853) of low birth-weight babies were born in Alabama as Kidscount.org estimated for 2012. The Children's Defense Fund estimate that 16.3 percent of low birth-weights are the result of prenatal neglect and the Noor and Caldwell (2005) estimate that in 2004 the additional cost of care associated with each such baby was \$54,510 in 2002 dollars are also used. The Consumer Health Consumption Inflation Chained Price Index factor to express 2002 dollars in terms of 2013 dollars is 145.56, thus the additional cost in 2013 dollars is \$79,345 (i.e., $\$54,510 * 145.56 / 100$) per low birth-weight baby. For the assumed 5,853 low birth-weight babies in 2013, the total additional cost is \$75.7 million (derived from $5,853 * 16.3\% * \$79,345 = \$75,697,992$).

Chronic Illness (Childhood Asthma)

Fromm (2004) estimated that 30 percent of maltreated children will suffer from asthma, meaning that 2,170 of Alabama's 7,232 maltreated children will likely suffer from asthma. HCUP estimated in 2004 that the cost of treatment associated with an asthmatic child was \$5,493, according to Kelly Myles' paper "Disabilities Caused by Child Maltreatment: Incidence, Prevalence, and Financial Data." The Consumer Health Consumption Inflation Chained Price Index factor to express 2004 dollars in terms of 2013 dollars is 125.26. Thus the cost of chronic illness among maltreated children using asthma as proxy on the Alabama economy in 2013 dollars is \$14.9 million (calculated as $30\% * 7,232 * \$5,493 * 125.26 / 100 = \$14,928,002$). Actually, the difference between the occurrence of chronic illnesses among maltreated children and non-maltreated children is what is needed to properly calculate this cost, but the 30 percent rate used can be thought of as allowing for other chronic illnesses. The \$14.9 million cost calculated is negligible relative to the total \$2.3 billion cost of child maltreatment on the state economy.

Childhood Mental Health Care

The National Institute of Justice (NIJ) reports that 25 to 50 percent of all abuse victims will need some form of mental health treatment (Gelles and Perlman, 2012). The average cost of treating the mental health issues of an abused child is \$4,695 in 2013 dollars. This average cost is obtained by

averaging cost of treatment for the five forms of child abuse reported by the NIJ: physical abuse (\$4,227), emotional abuse (\$4,227), sexual abuse (\$9,079), emotional neglect (\$4,227), and educational neglect (\$1,425), all expressed in 2013 dollars. The cost of childhood mental health care on the Alabama economy thus ranges from \$8.5 million (i.e., 25% * 7,232 * \$4,695 = \$8,488,808) if 25 percent of abused children need treatment to nearly \$17 million (i.e., 50% * 7,232 * \$4,695 = \$16,977,617) if 50 percent of these children need mental health care.

Child Welfare System

A 2004 study by the Urban Institute entitled “State Variation in Child Welfare Financing” calculated the total spending on child welfare attributed to abuse and neglect by the State of Alabama to be \$278,097,807 in 2002 dollars. The Overall State and Local Purchases Inflation Chained Price Index factor of 145.56 was used to express 2002 dollars in terms of 2013 dollars. Thus, the cost in 2013 dollars is found to be $\$278,097,807 * 145.56 / 100 = \$404,799,168$.

Law Enforcement (Maltreatment-Related Interventions)

The NIJ estimates the cost per police case of each of the following child maltreatment interventions to be:

Description	1996 Dollars	2013 Dollars
Physical Abuse	\$20	\$34.93
Emotional Abuse	\$20	\$34.93
Sexual Abuse	\$56	\$97.82
Emotional Neglect	\$20	\$34.93
Educational Neglect	\$2	\$3.49

The Overall State and Local Purchases Inflation Chained Price Index factor of 174.67 was used to express 1996 dollars in terms of 2013 dollars. Based on the number of victims and cost estimates, the NIJ estimated the total cost of law enforcement to be \$34,279,048 in 2012 dollars. Using the state and local government purchases inflation factor of 101.32, the 2013 cost is calculated to be \$34.7 million (i.e., $\$34,279,048 * 101.32/100 = \$34,731,531$). The known proportion of Alabama children relative to the United States is 0.015082784, based on U.S. Census data. The total cost to law enforcement for Alabama is calculated as $\$34,731,531 * 0.015082784 = \$523,848$.

Other Childhood Medical Costs

Cost of treatment data were obtained from the 2012 HCUP. The International Classification of Diseases, 9th Revision codes (ICD-9) related to child abuse was used. The data were read using

customized versions of sample SAS software programs provided by the HCUP distributor. The total charges for each ICD-9 code were calculated using SAS Proc Surveymeans for the derived analysis variable TOTCOST and the design variables DSCWT (the discharge weight), HOSP_KID (the hospital cluster identification variable), and KID_STRATUM (the stratum identification variable). Since hospital charges differ significantly from actual costs to the payer, the HCUP Cost-to-Charge Ratio (CCR) file was used to estimate actual costs. The analysis variable TOTCOST was calculated using the CCRs and the existing TOTCHG variable.

Nationally, two states, Alabama and Mississippi, do not provide data to HCUP. To accommodate this, estimates for Alabama were obtained by extracting data for the Southern Region of the United States (HCUP Region 3), which includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Texas, Virginia, and West Virginia. Alabama’s proportion of children relative to the participating states was calculated and applied to the total treatment cost for the South Region. It is important to note that the figures below describe costs associated with hospital visits; other health care providers, such as stand-alone clinics, are not represented. Thus, the cost estimated must be considered conservative as a portion of the total population of abuse victims and the associated medical costs are not included.

The Consumer Health Consumption Inflation Chained Price Index factor to express 2012 dollars in terms of 2013 dollars is 101.26 and this was used to calculate the cost associated with each ICD-9 code. Since Alabama does not participate in the database, the proportion of children in Alabama, relative to states in the South Region was calculated using state-level data from the 2013 American Community Survey 1-Year Estimates. The total number of children under age 18 in the South Region less Alabama and Mississippi was 26,108,576. Thus Alabama’s 1,109,891 children are about 4.5 percent (i.e., $1,109,891 / 26,108,576 = 0.0452511$). This proportion was then applied to all HCUP regional costs to estimate the Alabama cost.

ICD-9 Code	Description	Alabama Costs
99550	Child Abuse, Unspecified	\$57,459
99551	Child Emotional / Psychological Abuse	\$10,959
99552	Child Neglect (Nutritional)	\$371,762
99553	Child Sexual Abuse	\$90,696
99554	Child Physical Abuse	\$808,905
99555	Shaken Baby Syndrome	\$141,825
99559	Other Child Abuse and Neglect	\$76,491
Total		\$1,558,097

Special Education

According to the Administration for Children and Families, 21 percent of children in the U.S. receive special educational services (ACF, 2007). Between 19.9 percent and 24.8 percent of children that experienced maltreatment were eligible for special education, depending on the type of maltreatment. About 19.9 percent of sexual abuse victims, 22.3 percent of children suffering from neglect, and 24.8 percent of physical abuse victims are eligible for special education. In comparison, 13.7 percent of children that had no maltreatment reported were eligible for such education (Jason-Reid et al, 2004). This implies a range of a difference of 6-11 percent between children who suffered abuse and neglect and those who did not. The cost per child for special education for one year is about \$11,135 in 2013 dollars (\$7,791 in 1998 dollars, Reynolds et al, 2002). Due to the lack of specific data for Alabama, we assume that the state numbers are similar to the national averages. Thus, the total additional cost for special education of maltreated children in Alabama for year 2013 is estimated as ranging from \$4.8 million (i.e., $6\% * 7,232 * \$11,135 = \$4,831,699$) to \$8.9 million (i.e., $11\% * 7,232 * \$11,135 = \$8,858,115$).

Juvenile Delinquency

About 27.4 percent of maltreated children will engage in a delinquent act as juveniles compared to 17.2 percent of children in the general population, resulting in a difference of 10 percent (Widom & Maxfield, 2001). According to David Rogers, the Deputy Director for Administration at the Alabama Department of Youth Services, the average cost of housing a juvenile offender in secure facilities ranged from \$146 to \$184 per day and the average period of stay was from three to six months during fiscal year 2014. Using an average stay of 4.5 months, the estimated average cost per stay was \$22,605, which does not include expenditures associated with arrest and adjudication. The literature suggests that the per crime cost of juvenile system including administrative, treatment, and probation expenditures is about \$27,083 in 2013 dollars (\$18,950 in 1998 dollars, Reynolds et al. 2002). Thus the average cost of only housing a juvenile offender in Alabama accounts for 83.5 percent of the all-inclusive cost estimate suggested by the literature. Based on varying costs of housing a juvenile offender from a minimal stay of three months at \$146 per day to a stay of six months at \$184 per day, estimating the comprehensive cost of juvenile system per crime, and assuming no recidivism, the cost of juvenile delinquency in Alabama due to child maltreatment is calculated to range from \$11.5 million (i.e., $10\% * 7,232 * \$15,962 = \$11,543,471$) to \$29.1 million (i.e., $10\% * 7,232 * \$40,232 = \$29,095,871$).

Adult Criminality

It is thought that more maltreated children will engage in adult criminality compared to non-maltreated children, with an estimated difference of 9 percent (Widom & Maxfield, 2001). The

Alabama Department of Corrections (DOC) annual report for FY2013 noted that the average daily system-wide inmate cost was \$41.94 and the average length of incarceration for an adult was 43 months or 3.58 years. The annual cost per adult incarceration is thus, \$15,308 and it does not include costs associated with courts or the cost of police services. Using the 32 percent recidivism rate from the DOC annual report, the cost of housing adult criminals as a result of children maltreatment in Alabama was estimated to be \$47.1 million (i.e., $9\% * 7,232 * (1+32\%) * \$15,308 * 3.58 = \$47,084,631$).

Adult Mental Health and Health Care

Children who experienced abuse and neglect have higher needs for both general health care and mental health care as adults and, consequently, higher health costs. The average annual health care cost for women who experienced physical or sexual abuse in childhood was estimated to be \$610 higher than costs for women who did not experience such abuse (\$487 in 2004 dollars, Bonomi et al, 2008); the Consumer Health Consumption Inflation Chained Price Index factor of 125.26 was used to express 2004 dollars in terms of 2013 dollars. The cost difference was estimated to vary from \$478 for women who suffered only child sexual abuse to \$990 for women who suffered both physical and sexual child abuse (\$382 and \$790 in 2004 dollars, respectively). We assume that additional health care costs attributable to childhood maltreatment are similar for men who experienced such abuse as a child, following the 2012 report by Gelles and Perlman for the Prevent Child Abuse America organization. The Administration for Children and Families reported that 50.8 percent of children in Alabama suffered from physical abuse and 20.4 percent suffered from sexual abuse in 2013 (ACF, 2015); these percentages are by maltreatment type and can overlap with some children having suffered both physical and sexual abuse. Assuming that first-time victims are similarly distributed by maltreatment type and allowing for 10 percent overlap because total percentages by type added to 110 percent, the cost of additional health care expenditures for the Alabama economy was calculated as to range from \$2.9 million to \$3.1 million (lower bound as $7,232 * [10\% * \$990 + (50.8\% - 10\%) * \$610 + (20.4\% - 10\%) * \$478] = \$2,875,385$ and upper bound as $7,232 * (50.8\% + 20.4\%) * \$610 = \$3,141,002$).

Adult Homelessness

Research shows that lack of care or abuse from a parent during childhood increases the likelihood of experiencing homelessness as an adult. About 18.4 percent of adults who experienced neglect as children have been homeless as compared to 1.7 percent of adults who did not experience neglect, for a difference of 16.7 percent. The difference is much higher for adults who suffered physical abuse as children; 27.8 percent of abuse victims will experience homelessness in adulthood compared to 2.4 percent of non-victims. Adults who suffered sexual abuse during childhood experienced less homelessness as adults who had other types of abuse, 6.4 percent. In comparison,

4.1 percent of adults who did not suffer sexual abuse during childhood experienced homelessness. For children who suffered both from lack of care and either type of abuse, the difference is much higher; 33.3 percent as compared to 1.9 percent of non-victims will experience homelessness (Herman et al, 1997). About 38.4 percent of children in Alabama experienced neglect, half of maltreated children suffered from physical abuse, and 20.4 percent suffered from sexual abuse in 2013 (ACF, 2015)². The estimated cost of housing an individual in the homeless system was on average \$2,428 (\$2,101 in 2006 dollars, Spellman et al, 2010). Using a conservative differential of 16.7 percent, the cost of adult homelessness as a result of child maltreatment in Alabama is \$2.9 million (i.e., $16.7\% * 7,232 * \$2,428 = \$2,932,402$).

Lost Worker Productivity of Victims

Child abuse and neglect affect the lifetime productivity of victims due to disabilities from abuse or from emotional trauma that follow later in life. Research shows that adults with documented histories of maltreatment as children have lower levels of education, employment, earnings, and fewer assets as adults, compared to those with no reported child maltreatment. On average, maltreated children earned about \$6,299 less annually as adults than those who did not suffer abuse or neglect (\$5,108 in 2004 dollars, Currie & Widom, 2010). According to the Labor Market Information Division of the Alabama Department of Labor, the average length of participation in the labor force in the U.S. can be used as a substitute for Alabama due to the lack of longitudinal studies for the state. The average work life of 39.5 years for men and 34.4 years for women was estimated by Spizman in 2012, using Skoog, Ciecka & Kruger 2011 data. Assuming male-female ratio of 50-50, which implies a mean work life of about 37 years, total cost of lost worker productivity in Alabama is estimated as \$1.7 billion (i.e., $7,232 * 37 * \$6,299 = \$1,685,511,616$).

Lost Worker Productivity due to Mortality

In 2013, 32 child fatalities occurred in Alabama as a result of maltreatment (ACF, 2015). If these children had survived, they could have joined the workforce. Adjusting an average annual pay in the state of \$42,276 in 2013 (Bureau of Labor Statistics, QCEW) for lower pay of victims of child maltreatment (Currie & Widom, 2010), yields a conservative annual pay estimate of \$35,977. Using the average length of work participation of 37 years (based on Spizman, 2012), the cost of lost productivity to the Alabama economy per child death due to maltreatment is \$1,331,149. This cost is similar to the estimated average lifetime cost per death of a child victim to society of almost \$1.4 million in 2013 dollars reported by CDC researchers (Fang et al, 2012). The cost of lost productivity

² Since the Administration for Children and Families reports these state data by maltreatment type and because children may suffer from more than one type of maltreatment, these percentages are overlapping and add up to about 110 percent.

to the Alabama economy due to child mortality resulting from maltreatment in 2013 is estimated to be \$42.6 million (i.e., $32 * \$1,331,149 = \$42,596,768$).

Concluding Comments

The cost of child maltreatment (or child abuse and neglect) to the Alabama economy in 2013 is conservatively estimated in this report to be \$2.3 billion and shown below by cost category. This \$2.3 billion cost is conservative because it is based on the child maltreatment victim cohort for 2013 and does not include associated costs to families (including extended ones) and communities that are known to occur. Preventing child maltreatment in Alabama will reduce the cost on the state economy and contribute to economic growth, but resources will be needed to accomplish this. The FY2013 budget for the Alabama Department of Child Abuse and Neglect Prevention/The Children's Trust Fund (CTF) was about \$7.0 million, with slightly more than \$500,000 coming from the state's Education Trust Fund and the General Fund. The \$2.3 billion cost of child maltreatment to the state economy is roughly 1.2 percent of the \$193.6 billion Alabama gross domestic product (GDP) in 2013. Applying this 1.2 percent ratio to the nearly \$9.3 billion state tax collections in FY2013 yields \$110 million, which is 15.6 times the CTF budget and suggests a serious underfunding of child maltreatment prevention in the state.

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