HHS Public Access

Author manuscript

J Interpers Violence. Author manuscript; available in PMC 2023 July 01.

Published in final edited form as:

J Interpers Violence. 2023 July ; 38(13-14): 7893–7910. doi:10.1177/08862605221150458.

The Impact of Increased Minimum Wage on Child Neglect Varies by Developmental Age of Child

Marcia J. Ash[1], **Melvin D. Livingston**[1], **Kelli Komro**[1], **Rachael A. Spencer**[1], **Andrew Walker**[1], **Briana Woods-Jaeger**[1]

[1]Emory University, Atlanta, GA, USA

Abstract

Children in poverty are at significantly greater risk of experiencing child maltreatment. Family economic security policies, such as minimum wage laws, offer a promising prevention strategy to support low-income families. This study utilized data from the Fragile Families and Child Wellbeing Study, a longitudinal birth cohort study, to examine the effect of changes in state-specific minimum wage laws on maternal self-reported child maltreatment and material hardship as it varies by developmental age of the child. A series of fixed effects models with an interaction between the minimum wage and the age of the focal child were used to estimate if there was variation by developmental period of the impact of minimum wage laws on the following outcome variables: all domains of child maltreatment, maternal work-related stress, reported material hardship, aggravation in parenting, and maternal depression. Results revealed significant effects of increased minimum wage on maternal self-reported child neglect and material hardship when children are 3 years of age, and this relationship became non-significant as children aged. No effect was observed by age for other forms of child maltreatment nor any other outcome variables. Study findings suggest minimum wage laws may have differential effects on child neglect depending on the developmental period in which they are received.

Keywords

child maltreatment; neglect; minimum wage; child development

Introduction

Child maltreatment, including experiences of child neglect, physical abuse, or sexual abuse, has harmful consequences for children's health and wellbeing throughout their life course (Cicchetti & Toth, 2005). In 2019, 3.476 million children in the United States received a child protective service (CPS) response investigation (U.S. Department of Health & Human Services et al., 2021). Infants and young children in their first few years of life are most at-risk for child maltreatment (Kim & Drake, 2019; Kim et al., 2017; Sabol et al., 2004;

Corresponding Author: Marcia J. Ash, Department of Behavioral, Social, and Health Education Sciences, Rollins School of Public Health, Emory University, 1534 Clifton Road NE, Office 549, Atlanta, GA 30322, USA., mjash@emory.edu.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

Wildeman et al., 2014). In 2019, the number of child abuse and neglect victims under the age of one was 25.7 per 1,000 children, which is over double the total rate of victimization for children in the United States (U.S. Department of Health & Human Services et al., 2021). Effective policies to reduce child maltreatment, especially for younger children who are most at-risk, are critically needed.

A large body of research has found that family income is strongly associated with risk for child maltreatment (Berger, 2004; Conrad-Hiebner & Byram, 2020; Eckenrode et al., 2014; Stith et al., 2009). Previous research finds that children of lower socioeconomic status are five times more likely to be abused or neglected (Sedlak et al., 2010). These findings are consistent with the Family Stress Model, which posits that parental psychological stress and related disrupted parenting mediates the relationship between economic hardship and child and adolescent adjustment problems (Conger & Donnellan, 2007; Masarik & Conger, 2017). There is a large body of research that supports the Family Stress Model's theory that economic hardships are associated with disrupted parenting as well as interparental relationship problems, which in turn influence child development and adjustment (Masarik & Conger, 2017). Child maltreatment has been shown to partially mediate the relationship between financial stress and child internalizing behavior (Liu & Merritt, 2018). Furthermore, the impact of financial stress on later child and adult outcomes has been found to be particularly harmful among those who experience poverty early in life (Duncan et al., 2012; National Academies of Sciences, Engineering, and Medicine et al., 2019).

Consistent with the Family Stress Model, family economic policies and programs to reduce poverty have been shown to improve health and wellbeing outcomes among children (National Academies of Sciences, Engineering, and Medicine et al., 2019; Spencer & Komro, 2017). For example, increases in the Earned Income Tax Credit (EITC), a federal tax credit for low-income working people, have been associated with improved school performance and likelihood of attending college (Dahl & Lochner, 2012; Manoli & Turner, 2018; Raj Chetty et al., 2011). It appears that the impacts of some economic programs and policies, however, depend on the developmental age of the child. For instance, welfare-to-work programs are associated with better educational outcomes among younger children (ages 2–5); however, no effect was observed among adolescents (Gennetian et al., 2004). Similarly, a study examined the educational impacts of providing housing vouchers for families to move out of high-poverty neighborhoods; they found that younger children (less than 13 years of age) whose family received a voucher had increased college attendance and later earnings. In contrast, no effect was observed among adolescents (Chetty, Hendren, et al., 2016). Together, these data suggest the timing of programs and policies to reduce poverty may be an important factor when considering long-term benefits for children.

The effects of family economic policies, including the EITC, Temporary Assistance for Needy Families (TANF), and minimum wage laws, on rates of child maltreatment by age is an important area that warrants further research. A prior study found that increases in minimum wage lead to decreases in CPS-reported cases of child maltreatment, where a $1 increase in minimum wage was associated with a 9.6% drop in neglect cases (Raissian & Bullinger, 2017). This effect was most pronounced in children less than 5 years old, where a $1 increase in minimum wage was associated with a 10.8% drop in neglect reports.

In contrast, no effect was observed between minimum wage and neglect reports among adolescents aged 13 to 17 years old (Raissian & Bullinger, 2017).

The present study aims to build on this area of research by examining the effect of changes in state-specific minimum wage laws on maternal self-reported child maltreatment and as it varies by developmental age of the child. Unlike the study by Raissian and Bullinger that studied formal CPS reports of neglect, this study will utilize maternal self-reported accounts of maltreatment measured from the Fragile Families and Child Wellbeing Study (FFCWS), which contains a birth cohort of nearly 5,000 children. Prior research has found there is often a lack of concordance between CPS records and self-reported accounts of maltreatment (Kobulsky et al., 2018; Tabone, 2019), where self-report measures are associated with higher prevalence of maltreatment (Smith et al. 2008). This study will also examine the impact of minimum wage on material hardship (e.g., ability to meet basic needs), maternal work-related stress, aggravation in parenting, and maternal depression. The additional outcome variables were selected to be indicators of economic pressure and parental psychological distress, which are both constructs expected to mediate the relationship between economic hardship and disrupted parenting in the Family Stress Model (Masarik & Conger, 2017). As such, the current study will complement prior work by assessing if the impact of changes in minimum wage laws on maternal self-reported maltreatment varies by developmental age of the child; based on prior empirical literature, the study hypothesis is that the effect of increased minimum wage on maternal self-reported child maltreatment and material hardship will be most pronounced among younger aged children.

Methods

Sample

All family data were taken from the FFCWS. The FFCWS follows a cohort of 4,898 children born between 1998 and 2000. The majority of participating parents were unmarried at initiation of the FFCWS, and are at higher risk of experiencing poverty and low educational attainment when compared to the general population (McLanahan et al., n.d.). Families were followed over six waves corresponding to when the child was born as well as ages 1, 3, 5, 9, and 15 years old. At the 3, 5, and 9 years old waves (2001–2010), FFCWS primary caregivers of the focal child were invited to take part in a supplemental in-home study focusing on parental resources. As part of the in-home study, maternal self-reported, behaviorally approximated acts of child maltreatment were measured. The analysis sample was constructed by first restricting to any families participating in the in-home study at age 3; this restriction is necessary as the outcomes of interest were only measured as part of the in-home study starting at age 3. The sample was then further restricted to mothers who reported being single at the time of the age 3 survey ($n = 916$) to focus on the group for whom minimum wage effects are most likely to be salient, minimizing potential bias. Single mothers are particularly sensitive to changes in the minimum wage as they are overrepresented among workers at or near the minimum wage compared to other women (Belman et al., 2015). Of note, prior research has shown that changes in laws governing the

minimum wage impact those not just at the prior minimum, but up to approximately 1.5 times the prior wage as the labor market adjusts to the new minimum (Neumark et al., 2004).

Families were sampled from 20 cities across 15 states (CA, FL, IL, IN, MA, MD, MI, NJ, NY, OH, PA, TN, TX, VA, and WI), allowing for variation in exposure to state minimum wage laws. From 2001 to 2010, there were 30 legal changes in state minimum wage (independent of federal changes) in FFCWS states. Four states maintained the federal minimum wage throughout the study period. Of the 11 states with minimum wages above the federal, the average number of legal changes was 2.7 per state and ranged from 1 to 5 changes. For state-years in which the state minimum wage differed from the federal standard, the difference averaged $1.49 ($SD$ = 0.66) and ranged from $0.05 to $2.75.

Measures

Outcomes

Child maltreatment.: To assess child maltreatment, the Parent–Child Conflict Tactics Scale (CTSPC) was used as self-reported by the mother in the FFCWS (Straus et al., 1998). The CTSPC includes subscales measuring behaviorally approximated domains of child maltreatment: child neglect (five items), physical assault (five items), and severe psychological aggression (three items). Severe psychological aggression was preferred over the larger set of psychological aggression items due to it being a clearer indicator of abuse (Black et al., 2001; Straus & Field, 2003; Straus et al., 1998). Each domain inquired about the frequency of each item within the past 12 months. For example, on the neglect subscale, participants rate frequency that they: “Had to leave their child home alone, even when they thought some adult should be with him/her.” Domain-specific counts of maltreatment in the past year were created by summing the number of reported incidents of maltreatment reported across each individual item within each domain. Where the response indicated a range for the number of incidents, the midpoint was assigned (Geller et al., 2017).

Work-related stress.: The work-related stress scale measures the mother’s stress particularly as it relates to the balancing of child care responsibilities and employment. Mothers are asked three Likert items corresponding to how often: “my shift/schedule causes extra stress for me and my child,” “child care problems are difficult to deal with at my job,” and “my schedule is flexible to handle family problems.” Mothers can respond with always, often, sometimes, or never. These responses were recoded from 1 to 4 so that higher values consistently correspond with an increase in stress. The scale was then created by summing these Likert responses.

Material hardship.: Mothers were asked about their experience of specific material hardship events based on items originally developed in the 1999 New York City Social Indicators Survey. Nine of these items were consistently asked across the sample waves and include: not being able to pay the full rent or mortgage, being unable to pay a full utility bill, having their telephone disconnected, not seeking medical care due to cost, moving in with other people due to financial problems, staying in a shelter or car, and needing to borrow money from family or friends. These items were dichotomized and summed into an index of the number of material hardship events experienced.

Aggravation in parenting.: The aggravation in parenting scale measures stress specific to parenting, and uses four items developed for the Child Development Supplement of the Panel Study of Income Dynamics. A 4-point Likert scale was used for responses to the items: being a parent is harder than I thought it would be, I feel trapped by my responsibilities as a parent, taking care of my child is more work than pleasure, and I often feel tired or worn out from raising a family. These items were recoded and summed so that an increase in the scale reflects an increase in parenting aggravation.

Maternal depression.: The FFCWS provides two alternatives for defining a likely case of maternal depression referred to as a liberal and conservative definition of likely depression based on the Mental Health Depression section of the Composite International Diagnostic Interview—Short Form (CIDI-SF) scale. Based on the FFCWS documentation, the conservative definition includes adjustments advocated for by the original designers of the CIDI-SF depression measure, and so is used here (Geller et al. 2017). Under this definition, a participant is classified as having a probable case of major depression if they respond positively to having feelings of dysphoria (depression) or anhedonia (inability to enjoy what is usually pleasurable) in the past year that lasted for 2 weeks or more. And if yes, whether the symptoms lasted most of the day and occurred every day of the 2-week period.

Minimum Wage Exposure—State-specific minimum wage was adjusted for inflation by expressing all minimum wage variables in terms of 2020 dollars. All minimum wage data were collected in collaboration with legal coding scholars and housed on the Law Atlas website (Kaufman et al., 2020; Komro et al., 2016).

Moderators—The focal child's age was the primary moderator of interest and was reported in months.

Individual Level Covariates—Mother's age was self-reported in years. Mother's education at wave 3 was self-reported and categorized as less than high school education, high school education or equivalent, some college or technical school, or college graduate. Mother's race-ethnicity was self-reported and categorized as non-Hispanic White, non-Hispanic Black, Hispanic, or other. Mother's household income (total income in the house where mother resides) was reported in dollars. Mother's household income was measured at each study wave. Whether the child received regular care from someone other than the mother was included as an additional indicator of economic support; it was coded as a binary indicator.

Economic Covariates—Additional economic covariates were obtained from the University of Kentucky Center for Poverty Research (University of Kentucky Center for Poverty Research, 2021). Economic covariates included the state unemployment rate, state poverty rate, gross state product, rate of uninsured low-income residents, number of TANF recipients, and state EITC rate.

Analytic Methods

The demographic distributions, mean number of reported maltreatment events by domain, and maternal outcomes were first estimated. The mother's study survey weights were utilized, and accounted for other features of the complex survey design using PROC SURVEYFREQ and PROC SURVEYMEANS in SAS 9.4.

To estimate whether the relationship between outcomes and minimum wage varied across the developmental periods, a series of state fixed effects models with an interaction between the minimum wage and the age of the focal child were estimated. The use of state fixed effects is a common way to account for state-specific confounding that does not vary over time when evaluating policy effects at the state level. Separate models were estimated for each domain of child maltreatment, mother's work-related stress, reported material hardship, aggravation in parenting, and maternal depression. All estimated models were of the following general form:

$$Y_{ist} = \beta_0 + \beta_1 MW_{st} + \beta_2 CAge_{ist} + \beta_3 MW_{st} CAge_{ist} + X_{ist} + Z_{st} + State_s$$

Y is the outcome for person "i" in state "s" at time t. MW is the state-specific minimum wage at time t. CAge is the age of the focal child at time t, X is the series of previously described individual level covariates, Z is a vector of state-specific and time-varying economic policies and covariates. State is a series of state fixed effects. The state fixed effects control for time invariant differences between states. The coefficient β_3 estimates the extent to which the association between minimum wage and the outcome varies by age of the focal child. From these models, a test of significance for the moderating effects of the focal child's age as well as an estimate of the minimum wage effect for children at the ages of 36, 60, and 108 months old (the target age of children at each survey wave) was conducted. For any models where the interaction between a child's age and the minimum wage was not statistically significant, the interaction was dropped and the model re-estimated to estimate the overall effect of minimum wage on outcomes were there was no evidence of differential effects by age. This approach in which non-significant interactions are dropped is common in secondary data analyses where explicit assignment within an experimental design is not made (see Muller & Fetterman, 2003).

To account for the complex survey design of the FFCWS, all models were estimated using PROC SURVEYREG in SAS v9.4. These models account for geographic clustering in the estimation of the standard errors. The city weights for the primary caregiver study provided by FFCWS were used for all analyses and provide representative estimates for the originally sampled cities. As part of the FFCW weighting process, these city weights are additionally adjusted to account for loss to follow up, and efficiently account for attrition in the study sample (Fragile Families & Child Wellbeing Study: A Brief Guide to Using the Weights for Waves 1–6, 2008). Relative to the 916 participants at wave 3, 697 were present at wave 4 and 773 were present at wave 5. A linear probability model was used when estimating the relationship between minimum wage and the binary measure of maternal depression due to the known problem of statistically inconsistent estimates when using a large number of fixed effects in logistic regression (Charbonneau, 2017). However, given that linear models have

known limitations for binary data, an equivalent logistic regression model was estimated as a sensitivity analysis. Results from the logistic regression models were similar to the linear probability model, and are not discussed further.

Results

At baseline, the population of single mothers from the FFCWS cities had an estimated mean age of 27.5 years and had an average income of $19,544 per year. Sixty-three percent of the population reported a high school education or less. Sixty-one percent of the population was non-Hispanic Black, 15% was non-Hispanic White, and 21% Hispanic. As shown in Table 1, physical assault was the most common form of reported maltreatment (14 incidents per caregiver in the past year), followed by severe psychological aggression (two incidents per caregiver in the past year), and neglect (less than one reported per caregiver in the past year).

Study models found a statistically significant difference in the effect of minimum wage by child age for both maternal self-reported child neglect ($F = 7.28$, $p = .01$) and material hardship ($F = 5.67$, $p = .02$). A $1 increase in the state-specific minimum wage was associated with a 0.39 decrease of maternal self-reported child neglect events for children aged 36 months ($B = -0.39$, 95% CI [−0.68, −0.11]) per family per year. Subsequent estimates as the children aged attenuated and were not statistically significant. A similar pattern was seen in the association between minimum wage and material hardship with minimum wage being protective when the child was younger and attenuating as the child aged. See Table 2. Re-analysis of outcomes where there was no significant interaction between minimum wage and the child's age found no significant association between minimum wage and physical assault ($B = 0.64$, 95% CI [−1.24, 2.53]), severe psychological aggression ($B = 0.76$, 95% CI: [−0.06, 1.59]), work-related stress ($B = 0.00$, 95% CI [−0.38, 0.39]), aggravation in parenting ($B = 0.28$, 95% CI [−0.32, 0.88]), or maternal depression ($B = 0.44$, 95% CI [−4.77, 5.66]). Associations from other modeled predictors are treated as nuisance variables and not interpreted to avoid the "Table 2" fallacy (Westreich & Greenland, 2013).

Discussion

This study examined if there is variation in the effect of minimum wage on child maltreatment and material hardship by children's developmental age. Consistent with study hypotheses, results indicate that the impact of increased minimum wage on child neglect is most protective among younger aged children (age 3), where a $1 increase in state-specific minimum wage was associated with a 0.39 decrease of maternal self-reported child neglect events. As children aged, however, we found no statistically significant effects of increased minimum wage on child neglect. A similar relationship was observed when estimating the impact of minimum wage on material hardship, where increased state-specific minimum wage was associated with reduced material hardship among children at age 3; there were no statistically significant effects among children at ages 5 and 9. These findings contribute to the literature indicating that economic policies may be most beneficial for families with younger children.

Comparable to prior research (Raissian & Bullinger, 2017), the only type of maltreatment that had statistically significant effects of minimum wage by age was neglect; no statistically significant effects by age with respect to other domains of child maltreatment including physical assault or psychological aggression were detected. In addition, no statistically significant associations between minimum wage were observed in main effects models for physical assault, psychological aggression, work-related stress, aggravation in parenting, or maternal depression. The age-related findings of this study are consistent with another study that found the effect of minimum wage on CPS reports of neglect was most concentrated among children 0 to 5 years old and becomes non-significant by adolescence (Raissian & Bullinger, 2017). Similar age-related patterns have been observed when assessing the relationship between child maltreatment and other types of economic policies and programs, including welfare-to-work programs and housing voucher programs (Chetty, Hendren, et al., 2016). The mechanisms by which these programs and policies appear to offer greater benefit to younger children is not fully understood. Given that there is substantial evidence that risk for child maltreatment is greatest in the first 3 years of life (Kim & Drake, 2019; Kim et al., 2017; Sabol et al., 2004; Wildeman et al., 2014), reducing financial stress and increasing financial resources may be most helpful during these times. There is additional evidence that parental stress is most prevalent when children are in early childhood compared with later development (Crnic & Low, 2002; Williford et al., 2007). Parenting infants and young children requires intensive caretaking responsibilities that can induce additional stress; for instance, parents in the first month post-partum report increased fatigue and sleep disturbances (Gay et al., 2004). In contrast, as children age they become better adept at self-regulating and as a result the type of parental caretaking responsibilities can shift (Montroy et al., 2016). It has been shown that mothers' perceptions of their own parenting involvement decrease over time as children transition to being school-aged (Wood & Repetti, 2004). Not only does school attendance likely lessen parental burdens related to child care, but schools may also provide additional material resources for low-income families including free or reduced meals. As such, given the variety of caregiving and financial demands that parents of infants and young children face, it is perhaps unsurprising that this study found that increases in minimum wage appear to have the strongest protective effect against child neglect and experiences of material hardship.

It is well established that experiences of child maltreatment are associated with deleterious health consequences later in life, including increased risk for mental health disorders (Norman et al., 2012), substance abuse (Halpern et al., 2018), and financial security in adulthood (Henry et al., 2018). There is also increasing evidence that the timing of child maltreatment may impact later outcomes, where children who experience maltreatment earlier in life fare worse for many outcomes (Bell et al., 2018; Dunn et al., 2013; Lupien et al., 2009; Rossen et al., 2019). For example, one study found that children who experience substantiated or unsubstantiated cases of child neglect prior to kindergarten have worse academic outcomes than children who experience their first incident of child neglect after kindergarten (Fantuzzo et al., 2011). Given that younger children are most at-risk for child maltreatment and the consequences of maltreatment appear to be most harmful when maltreatment occurs earlier in a child's life, it is critical to implement intervention strategies that specifically target children aged 0 to 3. The current study findings indicate that increases

to minimum wage laws present a viable policy strategy to reduce neglect among children during this developmental period.

This study is subject to several strengths and limitations. Maternal self-reported cases of child maltreatment and material hardship were utilized as our outcomes of interest. Due to social desirability biases, maternal self-reported accounts of maltreatment likely underestimate prevalence of actual maltreatment-related behaviors. For instance, child neglect is often considered the most prevalent form of maltreatment (Bullinger et al., 2020); however, in this study it was found to be the least common. That being said, there is not reason to expect that under-reporting of any form of maltreatment would be associated with changes in state-specific minimum wage laws. And while self-report measures of maltreatment likely under-report actual maltreatment behavior, alternative measurement approaches, like CPS reports, are similarly subject to bias and under-reporting (Smith et al., 2008). This study is strengthened by our use of longitudinal data allowing to efficiently control for time invariant selection factors that may be associated with the state minimum wage at multiple levels of influence, as well as time-varying state-level economic covariates that may confound the association between state minimum wage and child maltreatment. The use of state level fixed effects, efficiently controls for baseline differences in state level factors that may be associated with child maltreatment while the use of individual level covariates adjusts for confounding effects that may vary within the individual over time.

In conclusion, this study finds significant effects of increased minimum wage on maternal self-reported child neglect and material hardship when children are 3 years of age; and this relationship was not significant for older children at ages 5 and 9. Study findings highlight that economic interventions can impact incidence of child maltreatment; however, we see diminishing returns as children age. Future research should investigate the mechanisms by which minimum wage laws and other economic policies have differential effects on child neglect depending on the developmental age of the child. Furthermore, the results of this study indicate that economic policies as they currently exist are not sufficient means of intervening on child maltreatment, particularly in the context of material hardship; interventions utilizing a wider safety net will be important to protect children of varying developmental ages.

Funding

The author(s) disclosed receipt of the following financial support for the research and/or authorship of this article: All phases of this study were supported by funds from the National Center for Injury Prevention and Control (Grant No.: R01CE003104). The viewpoints represented in this article are those of the authors and do not represent those of the funding agency. The Fragile Families and Child Wellbeing Study was supported by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) of the National Institutes of Health under award numbers R01HD036916, R01HD039135, and R01HD040421, as well as a consortium of private foundations.

Biographies

Marcia J. Ash, MPH is a PhD student at the Emory Rollins School of Public Health. Her research focusses on addressing maternal and child health equity and access to mental health care as well as organizational drivers of burnout and wellbeing. Her research uses

a theory-driven, mixed-methods approach to design, implement, and evaluate behavioral interventions to promote mental health.

Melvin D. Livingston, PhD, is a Research Associate Professor in the Emory Rollins School of Public Health. His research focuses on the application of quasi-experimental design and econometric methods to the evaluation of the health effects of state and federal policy. He is interested in how economic policy interventions can be used to improve maternal and child health outcomes.

Kelli Komro, PhD, MPH, is a Professor in the Emory Rollins School of Public Health. Dr Komro is a social and behavioral epidemiologist focused on promoting child and adolescent health and reducing health disparities driven by racial and economic inequities.

Rachael A. Spencer, PhD, uses community-based participatory research methods to study the effect of programs and policies on family and gender-based violence. She is a former Fulbright Scholar to Jordan with violence-related research or direct services experience in six countries. Her dissertation research examined the relationship between generosity of the U.S. welfare system, minimum wage, EITC, and family violence.

Andrew Walker, MS, is a PhD student in the Behavioral, Social, and Health Education Sciences in the Emory Rollins School of Public Health. His research interests focus on the application of data science methods to enhance program intervention development and assess social determinants of health for marginalized adolescents and young adults.

Briana Woods-Jaeger, PhD, is an Assistant Professor in the Emory Rollins School of Public Health. Her research focuses on partnering with communities to reduce and eliminate disparities associated with stress and trauma. Using a social-ecological framework, her research has examined how social, cultural, and structural factors influence mental health and health risk behaviors among children and adolescents exposed to trauma and chronic stress.

References

Bell MF, Bayliss DM, Glauert R, & Ohan JL (2018). School readiness of maltreated children: Associations of timing, type, and chronicity of maltreatment. Child Abuse & Neglect, 76, 426–439. [PubMed: 29245140]

Belman D, Wolfson P, & Nawakitphaitoon K (2015). Who is affected by the minimum wage? Industrial Relations, 54(4), 582–621.

Berger LM (2004). Income, family structure, and child maltreatment risk. Children and Youth Services Review, 26(8), 725–748.

Black DA, Smith Slep AM, & Heyman RE (2001). Risk factors for child psychological abuse. Aggression and Violent Behavior, 6(2), 189–201.

Bullinger LR, Feely M, Raissian KM, & Schneider W (2020). Heed neglect, disrupt child maltreatment: A call to action for researchers. International Journal on Child Maltreatment: Research, Policy and Practice, 3(1), 93–104.

Charbonneau KB (2017). Multiple fixed effects in binary response panel data models. The Econometrics Journal, 20(3), S1–S13.

Chetty R, Hendren N, & Katz LF (2016). The effects of exposure to better neighborhoods on children: New evidence from the moving to opportunity experiment. The American Economic Review, 106(4), 855–902. [PubMed: 29546974]

Cicchetti D, & Toth SL (2005). Child maltreatment. Annual Review of Clinical Psychology, 1, 409–438.

Conger RD, & Donnellan MB (2007). An interactionist perspective on the socioeconomic context of human development. Annual Review of Psychology, 58, 175–199.

Conrad-Hiebner A, & Byram E (2020). The temporal impact of economic insecurity on child maltreatment: A systematic review. Trauma, Violence & Abuse, 21(1), 157–178.

Crnic K, & Low C (2002). Everyday stresses and parenting. In Bornstein MH (Ed.), Handbook of parenting: Practical issues in parenting (Vol. 5, pp. 243–267). Mahwah.

Dahl GB, & Lochner L (2012). The impact of family income on child achievement: Evidence from the earned income tax credit. The American Economic Review, 102(5), 1927–1956.

Duncan GJ, Magnuson K, Kalil A, & Ziol-Guest K (2012). The importance of early childhood poverty. Social Indicators Research, 108(1), 87–98.

Dunn EC, McLaughlin KA, Slopen N, Rosand J, & Smoller JW (2013). Developmental timing of child maltreatment and symptoms of depression and suicidal ideation in young adulthood: Results from the National longitudinal study of adolescent health. Depression and Anxiety, 30(10), 955–964. [PubMed: 23592532]

Eckenrode J, Smith EG, McCarthy ME, & Dineen M (2014). Income inequality and child maltreatment in the United States. Pediatrics, 133(3), 454–461. [PubMed: 24515511]

Fantuzzo JW, Perlman SM, & Dobbins EK (2011). Types and timing of child maltreatment and early school success: A population-based investigation. Children and Youth Services Review, 33(8), 1404–1411.

Fragile Families & Child Wellbeing Study: A Brief Guide to Using the Weights for Waves 1–6. (2008). Retrieved October 3, 2022 from https://fragilefamilies.princeton.edu/sites/g/files/toruqf2001/files/using_the_fragile_families_weights_waves_1_6.pdf

Gay CL, Lee KA, & Lee S-Y (2004). Sleep patterns and fatigue in new mothers and fathers. Biological Research for Nursing, 5(4), 311–318. [PubMed: 15068660]

Geller A, Jaeger K, & Pace G (2017). Using the fragile families and child wellbeing study (FFCWS) in life course health development research. In Halfon N, Forrest CB, Lerner RM, & Faustman EM (Eds.), Handbook of Life Course Health Development (pp. 601–620). Springer.

Gennetian LA, Duncan G, Knox V, Vargas W, Clark-Kauffman E, & London AS (2004). How welfare policies affect adolescents' school outcomes: A synthesis of evidence from experimental studies. Journal of Research on Adolescence: The Official Journal of the Society for Research on Adolescence, 14(4), 399–423.

Halpern SC, Schuch FB, Scherer JN, Sordi AO, Pachado M, Dalbosco C, Fara L, Pechansky F, Kessler F, & Von Diemen L (2018). Child maltreatment and illicit substance abuse: A systematic review and meta-analysis of longitudinal studies. Child Abuse Review (Chichester, England: 1992), 27(5), 344–360.

Henry KL, Fulco CJ, & Merrick MT (2018). The harmful effect of child maltreatment on economic outcomes in adulthood. American Journal of Public Health, 108(9), 1134–1141. [PubMed: 30088994]

Kaufman JA, Salas-Hernández LK, Komro KA, & Livingston MD (2020). Effects of increased minimum wages by unemployment rate on suicide in the USA. Journal of Epidemiology and Community Health, 74(3), 219–224. [PubMed: 31911542]

Kim H, & Drake B (2019). Cumulative prevalence of onset and recurrence of child maltreatment reports. Journal of the American Academy of Child and Adolescent Psychiatry, 58(12), 1175–1183. [PubMed: 30851398]

Kim H, Wildeman C, Jonson-Reid M, & Drake B (2017). Lifetime prevalence of investigating child maltreatment among US children. American Journal of Public Health, 107(2), 274–280. [PubMed: 27997240]

Kobulsky JM, Kepple NJ, & Jedwab M (2018). Abuse characteristics and the concordance of child protective service determinations and adolescent self-reports of abuse. Child Maltreatment, 23(3), 269–280. [PubMed: 29793350]

Komro KA, Livingston MD, Markowitz S, & Wagenaar AC (2016). The effect of an increased minimum wage on infant mortality and birth weight. American Journal of Public Health, 106(8), 1514–1516. [PubMed: 27310355]

Liu Y, & Merritt DH (2018). Familial financial stress and child internalizing behaviors: The roles of caregivers' maltreating behaviors and social services. Child Abuse & Neglect, 86, 324–335. [PubMed: 30220424]

Lupien SJ, McEwen BS, Gunnar MR, & Heim C (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. Nature Reviews Neuroscience, 10(6), 434–445. [PubMed: 19401723]

Manoli D, & Turner N (2018). Cash-on-hand and college enrollment: Evidence from population tax data and the earned income tax credit. American Economic Journal: Economic Policy, 10(2), 242–271.

Masarik AS, & Conger RD (2017). Stress and child development: A review of the family stress model. Current Opinion in Psychology, 13, 85–90. [PubMed: 28813301]

McLanahan S, Garfinkel I, Reichman N, Teitler J, Carlson M, & Audigier CN (n.d.). The fragile families and child wellbeing study baseline national report. Retrieved January 28, 2021, from https://fragilefamilies.princeton.edu/sites/fragilefamilies/files/nationalreport.pdf

Montroy JJ, Bowles RP, Skibbe LE, McClelland MM, & Morrison FJ (2016). The development of self-regulation across early childhood. Developmental Psychology, 52(11), 1744–1762. [PubMed: 27709999]

Muller KE, & Fetterman BA (2003). Regression and ANOVA: An integrated approach using SAS software. John Wiley & Sons, Inc.

National Academies of Sciences, Engineering, and Medicine; Division of Behavioral and Social Sciences and Education; Committee on National Statistics; Board on Children, Youth, and Families; Committee on Building an Agenda to Reduce the Number of Children in Poverty by Half in 10 Years. (2019). A roadmap to reducing child poverty. In Le Menestrel S & Duncan G. (Eds.), National Academies Press (US). The National Academies Press.

Neumark D, Schweitzer M, & Wascher W (2004). Minimum wage effects throughout the wage distribution. Journal of Human Resources, 39(2), 425–450.

Norman RE, Byambaa M, De R, Butchart A, Scott J, & Vos T (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. PLoS Medicine, 9(11), e1001349. [PubMed: 23209385]

Raissian KM, & Bullinger LR (2017). Money matters: Does the minimum wage affect child maltreatment rates? Children and Youth Services Review, 72(C), 60–70.

Chetty Raj., Friedman JN, & Rockoff Jonah. (2011). New evidence on the long-term impacts of tax credits. Proceedingsof Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association, 104, 116–124.

Rossen L, Tzoumakis S, Kariuki M, Laurens KR, Butler M, Chilvers M, Harris F, Carr VJ, & Green MJ (2019). Timing of the first report and highest level of child protection response in association with early developmental vulnerabilities in an Australian population cohort. Child Abuse & Neglect, 93, 1–12. [PubMed: 31026680]

Sabol W, Coulton C, & Polousky E (2004). Measuring child maltreatment risk in communities: A life table approach. Child Abuse & Neglect, 28(9), 967–983. [PubMed: 15450762]

Sedlak AJ, Mettenburg J, Basena M, Peta I, McPherson K, Greene A, & Li S (2010). Fourth national incidence study of child abuse and neglect (NIS-4). US Department of Health and Human Services, 9, 2010.

Smith CA, Ireland TO, Thornberry TP, & Elwyn L (2008). Childhood maltreatment and antisocial behavior: Comparison of self-reported and substantiated maltreatment. American Journal of Orthopsychiatry, 78(2), 173–186. [PubMed: 18954181]

Spencer RA, & Komro KA (2017). Family economic security policies and child and family health. Clinical Child and Family Psychology Review, 20(1), 45–63. [PubMed: 28176020]

Stith SM, Liu T, Davies LC, Boykin EL, Alder MC, Harris JM, Som A, McPherson M, & Dees JEMEG (2009). Risk factors in child maltreatment: A meta-analytic review of the literature. Aggression and Violent Behavior, 14(1), 13–29.

Straus MA, & Field CJ (2003). Psychological aggression by American parents: National data on prevalence, chronicity, and severity. Journal of Marriage and the Family, 65(4), 795–808.

Straus MA, Hamby SL, Finkelhor D, Moore DW, & Runyan D (1998). Identification of child maltreatment with the parent-child conflict tactics scales: Development and psychometric data for a national sample of American parents. Child Abuse & Neglect, 22(4), 249–270. [PubMed: 9589178]

Tabone JK (2019). Adolescent maltreatment and risk behaviors: A comparison of child protective service reports and youth self-reports. Child and Adolescent Social Work Journal, 36(6), 685–695.

University of Kentucky Center for Poverty Research. (2021). UKCPR National Welfare Data, 1980–2019. Retrieved December 14, 2021, from https://ukcpr.org/resources/national-welfare-data

U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2021). Child Maltreatment 2019. https://www.acf.hhs.gov/cb/report/child-maltreatment-2019

Westreich D, & Greenland S (2013). The table 2 fallacy: Presenting and interpreting confounder and modifier coefficients. American Journal of Epidemiology, 177(4), 292–298. [PubMed: 23371353]

Wildeman C, Emanuel N, Leventhal JM, Putnam-Hornstein E, Waldfogel J, & Lee H (2014). The prevalence of confirmed maltreatment among US children, 2004 to 2011. JAMA Pediatrics, 168(8), 706–713. [PubMed: 24887073]

Williford AP, Calkins SD, & Keane SP (2007). Predicting change in parenting stress across early childhood: Child and maternal factors. Journal of Abnormal Child Psychology, 35(2), 251–263. [PubMed: 17186365]

Wood JJ, & Repetti RL (2004). What gets dad involved? A longitudinal study of change in parental child caregiving involvement. Journal of Family Psychology: JFP: Journal of the Division of Family Psychology of the American Psychological Association, 18(1), 237–249.

Table 1.

Sample Descriptives at Baseline (n = 916).

Variable	Estimate (95% CI)
Neglect events	0.78 (0.54, 1.02)
Severe psychological aggression events	2.1 (1.4, 2.8)
Physical assault events	14.4 (12.7, 16.0)
Material hardship events	1.3 (1.1, 1.4)
Work-related stress scale	5.0 (4.7, 5.2)
Aggravation in parenting scale	9.0 (8.7, 9.2)
Maternal depression (%)	16.4 (13.5, 19.4)
Child's age (months)	35.4 (35.1, 35.7)
Mother's age (years)	27.5 (27.0, 28.1)
Household income ($)	19,544 (17,408, 21,700)
Child receives regular care from someone other than the mother	64.3 (60.3, 68.3)
Maternal race/ethnicity (%)	
Non-Hispanic white	15.1 (10.6, 19.5)
Non-Hispanic Black	61.3 (53.9, 68.6)
Hispanic	21.4 (15.4, 27.4)
Other	2.3 (0.9, 3.7)
Maternal education (%)	
Less than high school	29.5 (25.4, 33.6)
Highschool or equivalent	33.6 (30.1, 37.1)
Some college/technical school	32.3 (28.2, 36.3)
College	4.7 (2.9, 6.5)

Table 2.

The Effect of MW Across the Focal Child's Age*.

	Estimate (95% CI)	*p*-Value for interaction
Neglect		.0095
At age 3	−0.39 (−0.68, −0.11)	
At age 5	−0.23 (−0.49, 0.03)	
At age 9	0.10 (−0.26, 0.47)	
Material hardship		.0221
At age 3	−0.38 (−0.76, 0.00)	
At age 5	−0.23 (−0.53, 0.07)	
At age 9	0.07 (−0.20, 0.34)	

*Estimates are provided for outcomes where the interaction between child's age and minimum wage was $p < .05$.