

# Money matters: Does the minimum wage affect child maltreatment rates?

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Center on Wage and Employment Dynamics:  
A Symposium to Celebrate a Decade of Important Minimum Wage Research  
University of California, Berkeley  
December 8, 2017



**SCHOOL OF PUBLIC AND  
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# Motivation – Child Maltreatment

*3.4 million  
child  
maltreatment  
referrals in  
2015*



*~37% of  
children are  
the subject of  
an  
investigation*

*Depression,  
worse health,  
unemployment,  
poverty, use of  
social services,  
crime*

*DHHS 2017; Kim et al., 2017; Fletcher 2009; Thornberry et al. 2010; Zielinski 2009; Currie and Widom 2010; Currie and Tekin 2012*

# Motivation – Economic Hardship

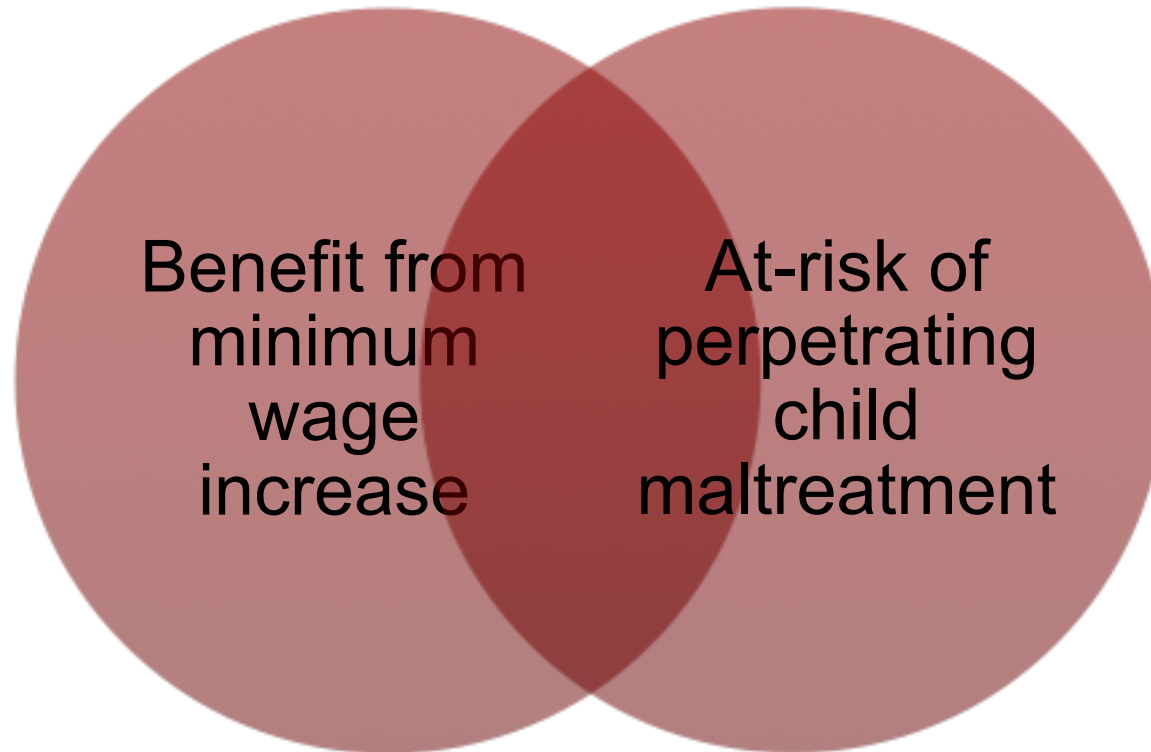
- Children living in low-income families are at a greater risk of child maltreatment
- Children in single, female-headed households are at the highest risk
- Causal evidence for the relationship between income and child maltreatment is scarce
- Potential causal mechanisms
  - Direct: providing a child with basic needs
  - Indirect:
    - Stress, depression, psychological well-being, and substance abuse
    - Family structure (e.g. single-parent families) → greater time constraints, stress, and family conflict

# Motivation – Minimum Wage

- Minimum wage policy is designed to increase incomes of those in low-paying jobs
- Increasing the minimum wage can substantially improve the financial situation of those in poverty, especially poor families with children
- “The typical minimum wage earner is a provider and a breadwinner—most likely a woman—responsible for paying bills, running a household and raising children.”-- Thomas Perez, United States Secretary of Labor (2014)

*Dube, 2014; National Economic Council et al. 2014; Sedlak et al. 2010*

# Research Question



Do changes in the minimum wage affect child maltreatment?

# Data

## 1. National Child Abuse and Neglect Data System (NCANDS): Child File

- Demographic information of child reported to CPS
- Type of maltreatment alleged (e.g. neglect, physical abuse, sexual abuse, etc.)
- Disposition of the report (e.g. substantiated or unsubstantiated)
- Outcome: maltreatment rates (reports/child population) by age and maltreatment type
- State-quarter panel from FY2004-FY2013 (n=1,916)
  - Most states consistently report starting in 2004
  - North Dakota and Oregon omitted
  - July/October effective dates & seasonal variation in child abuse reports

# Data

## 2. National Conference of State Legislatures (NCSL)

- Effective date of state-level minimum wage changes
- Measure: greater of the federal and state nominal minimum wage for each state-quarter
- Converted to 2005 dollars

## 3. State-level time-varying characteristics (annual)

- Unemployment rate, max TANF/SNAP benefit for family of 3, state EITC rate/refundability, Democratic governor, and demographic characteristics (age, race, marital status, educational attainment, urbanicity)

# Empirical Strategy

$$Y_{sq} = \beta_1 MW_{sq} + \gamma' X_{sq} + \delta_s + \tau_t + \theta_s * q + \varepsilon_{st}$$

Where

- $Y$  = child maltreatment report rate
- $MW$  = real MW
- $X$  = vector of time-varying controls
- $\delta$  = state FE
- $\tau$  = quarter FE
- $\theta$  = state-specific linear trends
- Robust SE, clustered at state-level

→ Causal interpretation if unobservables related to maltreatment do not deviate from a state's trend when MW changes



# Results – All Children

	Report Rate	Neglect Rate	Physical Abuse Rate	Other Abuse Rate	Substantiation Rate	Removal Rate
<b>Min. Wage (2005 \$)</b>	<b>-93.39+</b>	<b>-68.44**</b>	-15.47	-11.13	-12.37	-1.267
	(55.31)	(28.30)	(10.69)	(21.25)	(13.83)	(3.762)
<b>Relative Percent Change</b>	<b>-8.76%</b>	<b>-9.61%</b>	-6.01%	-3.74%	-4.92%	-1.78%
<b>Mean Y</b>	1066	712	257	298	251	71

+ p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

# Results – Young Children (Age 0-5)

	Report Rate	Neglect Rate	Physical Abuse Rate	Other Abuse Rate	Substantiation Rate	Removal Rate
<b>Min. Wage (2005 \$)</b>	<b>-129.7+</b>	<b>-102.7***</b>	-21.71	-19.94	-25.75	-2.741
	(64.77)	(35.99)	(12.98)	(27.18)	(18.54)	(6.167)
<b>Relative Percent Change</b>	<b>-9.89%</b>	<b>-10.81%</b>	-8.09%	-6.06%	-7.47%	-2.66%
<b>Mean Y</b>	1312	950	268	329	345	103

+ p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

# Results – School-Aged Children (Age 6-12)

	Report Rate	Neglect Rate	Physical Abuse Rate	Other Abuse Rate	Substantiation Rate	Removal Rate
<b>Min. Wage (2005 \$)</b>	-89.44	<b>-62.44**</b>	-14.36	-9.896	-7.085	-0.282
	(55.19)	(27.98)	(10.54)	(20.73)	(13.06)	(2.809)
<b>Relative Percent Change</b>	-8.56%	<b>-9.24%</b>	-5.36%	-3.31%	-3.09%	-0.50%
<b>Mean Y</b>	1045	676	268	299	230	56

+ p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

# Results – Adolescents (Age 13-17)

	Report Rate	Neglect Rate	Physical Abuse Rate	Other Abuse Rate	Substantiation Rate	Removal Rate
<b>Min. Wage (2005 \$)</b>	-55.04	-34.63	-9.293	-3.348	-3.182	-0.776
	(46.63)	(22.67)	(8.582)	(16.05)	(10.21)	(2.645)
<b>Relative Percent Change</b>	-6.98%	-7.31%	-4.14%	-1.33%	-1.85%	-1.44%
<b>Mean Y</b>	789	474	225	252	172	54

+ p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

# Robustness Checks

Effects do not differ by:

- Federal vs. state policy
- Child race/ethnicity
- Linear/log models

# Discussion

- Increases in minimum wage reduce the risk of child welfare involvement (\$1 → ~10% ≈ 9700 reports)
- Results are driven by reductions in reports of neglect among young and school-aged children
  - Mechanism is likely the direct pathway
- Results consistent with increases in child support and EITC

*Cancian et al. 2013; Berger et al. 2016*

# Future Work (Bullinger, Raissian, & Schneider)

- Goal 1: Explore city-level minimum wage changes
  - NCANDS data
  - CWED city-level minimum wage data (thanks!)
- Goal 2: Determine mechanisms
  - Reduction in adverse behaviors, increase in positive behaviors, or both?
  - Parenting behaviors that precede CPS involvement
  - Individual-level data using Fragile Families and Child Well-being Study (FFCWS)

# Thank you!

Questions?  
Comments?

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