MINIMUM WAGES AND POVERTY:
NEW EVIDENCE FROM DYNAMIC DIFFERENCE-IN-DIFFERENCES ESTIMATES

ONLINE APPENDIX

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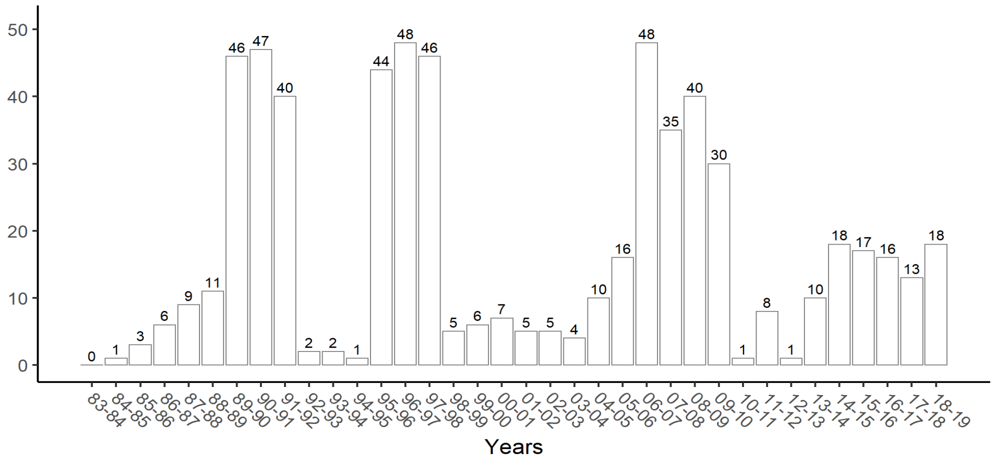
Appendix Figure 1. Effective Real Minimum Wage (2019$) and Poverty Rate, All Individuals, 1983-2019

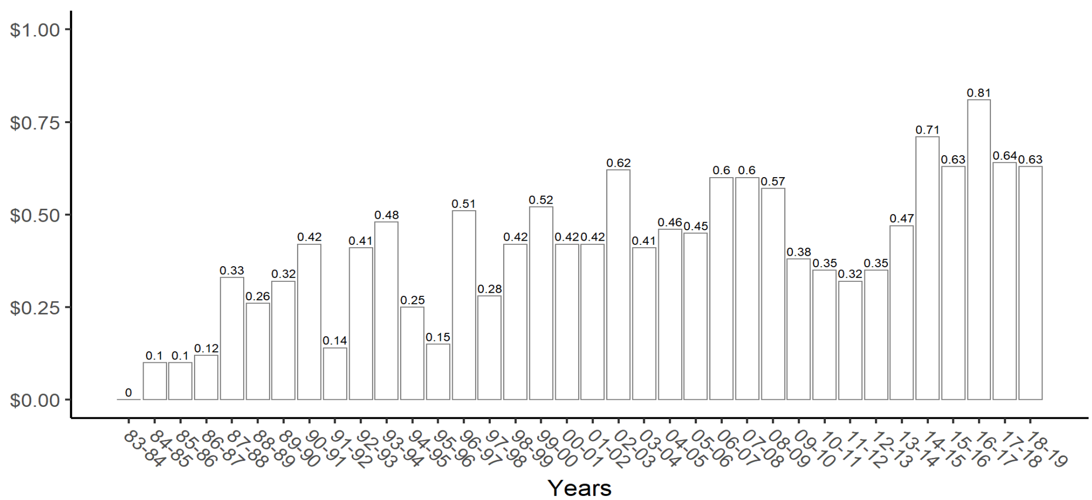
Note: Poverty rate in this figure is measured using official poverty measure.

Appendix Figure 2. Frequency and Magnitude of Nominal State Minimum Wage Increases >=2.5% of Prior Year, 1983-2019

Panel (a): Number of Minimum Wage Increases



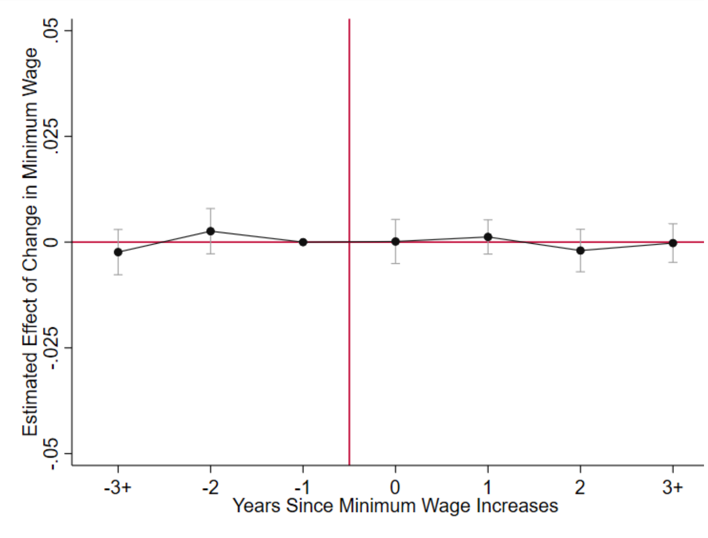
Panel (b): Average Magnitude of Nominal Increase Among States that Increase MW



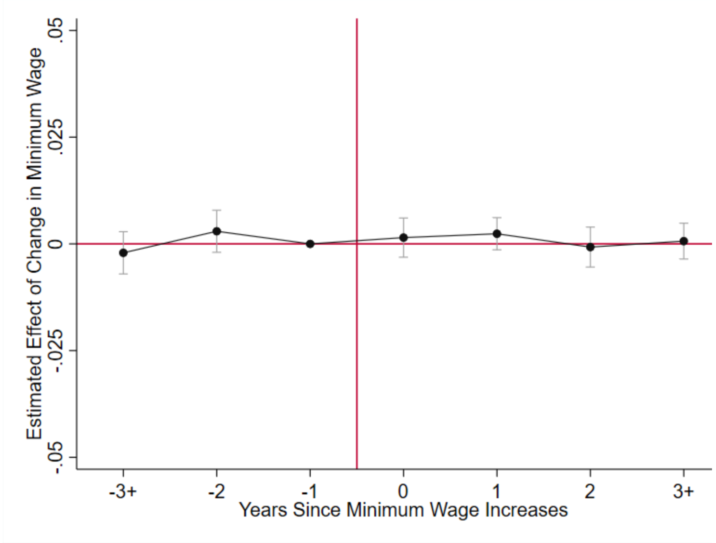
Note: Magnitudes are based on average year-over-year increases.

Appendix Figure 3. Event-Study Analyses of Minimum Wage Increases and Poverty, 1983-2012

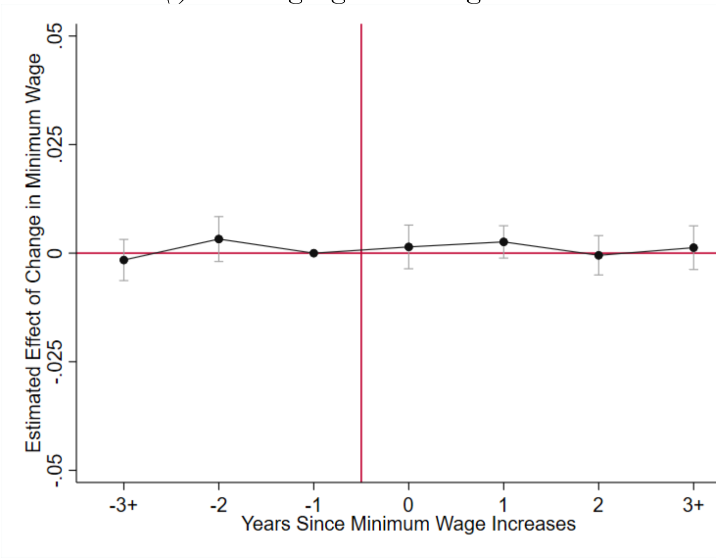
Panel (a): All Non-Elderly



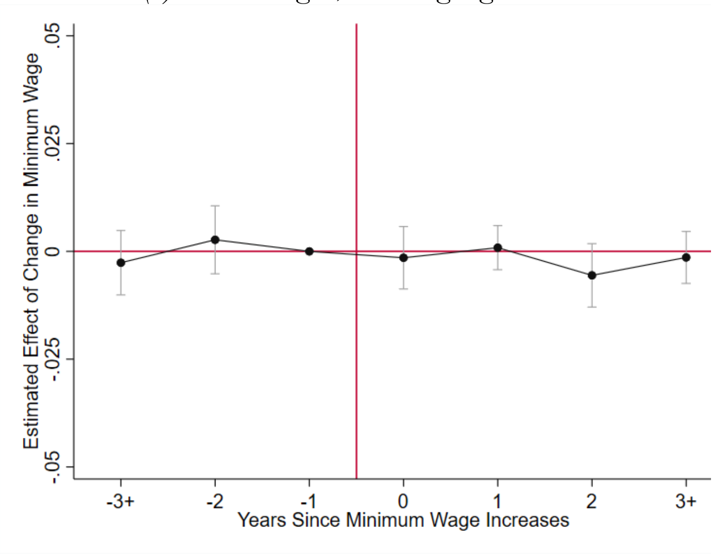
Panel (b): All Individuals, Including Elderly



Panel (c): Working-Age Adults Ages 16-64

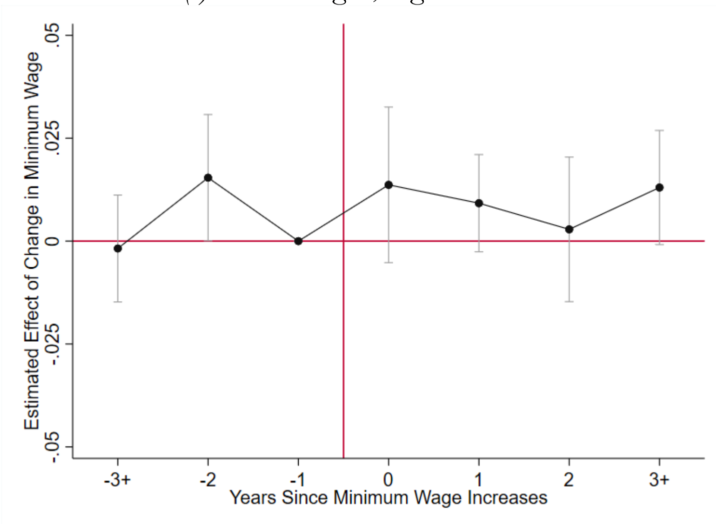


Panel (d): ≤ HS Degree, Working-Age Adults

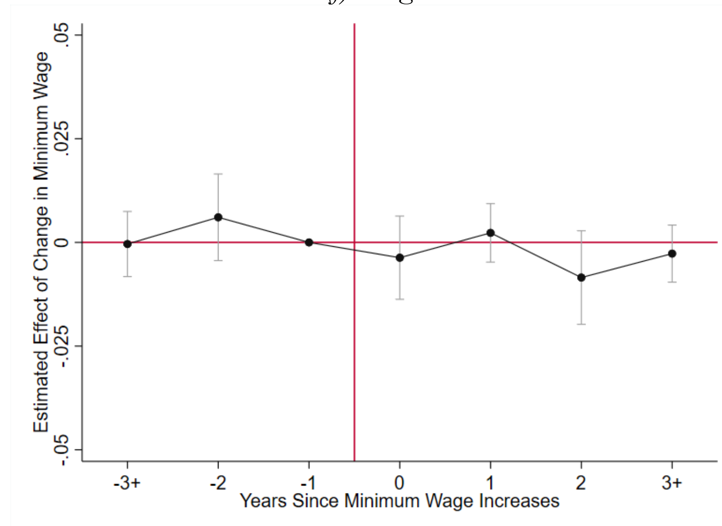


Appendix Figure 4, Continued

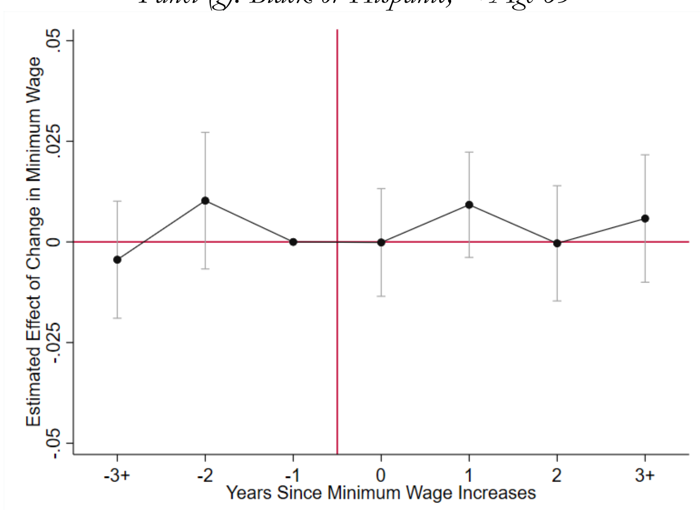
Panel (e): < HS Degree, Ages 16-24



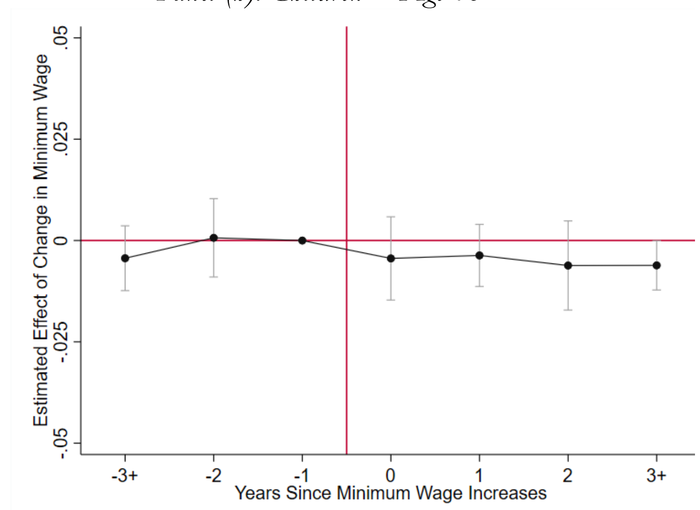
Panel (f): Single Mothers



Panel (g): Black or Hispanic, < Age 65

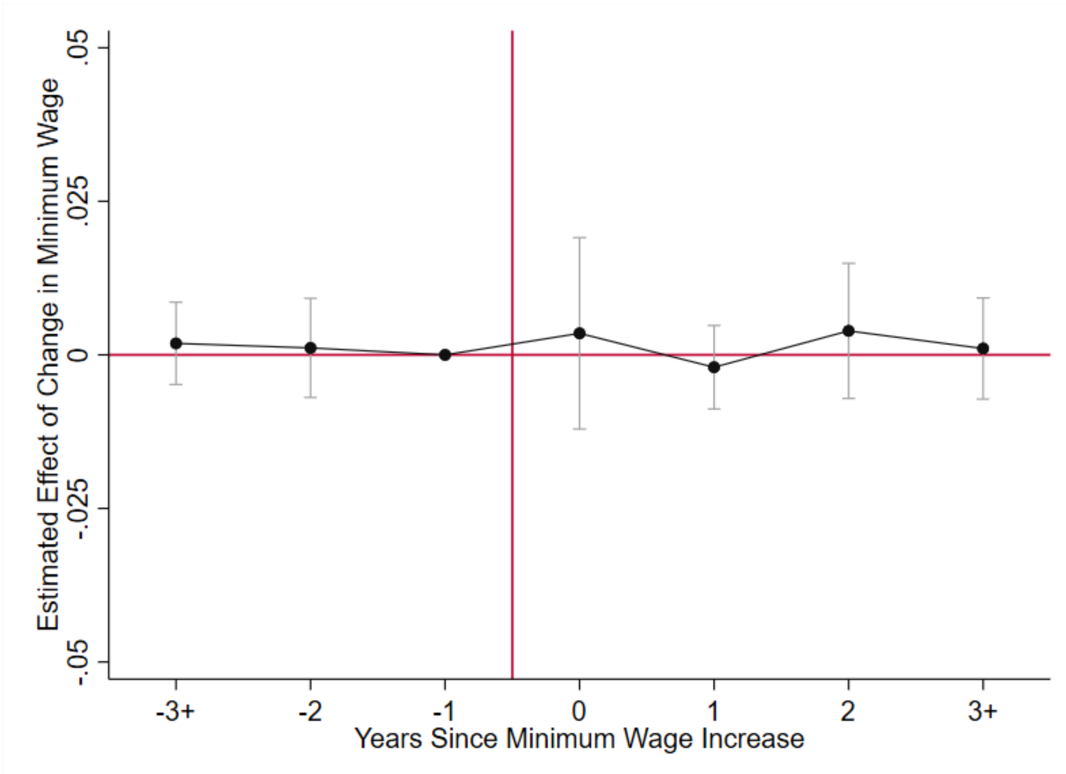


Panel (h): Children < Age 16



Notes: Data used to generate estimates are from the March 2011 through March 2020 CPS. All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. Demographic controls include indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, and a cubic in age. Macroeconomic controls include housing price index, unemployment rate and wage rate for those with a college degree or higher. Social welfare policy controls include the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP) benefits for family of four, and Affordable Care Act Medicaid expansions.

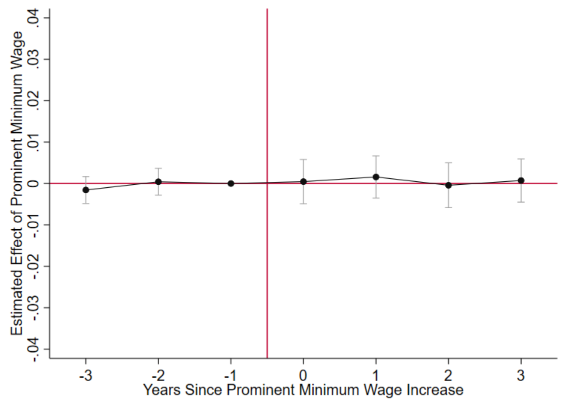
Appendix Figure 4. Sensitivity of Poverty Effects to Use of Supplemental Poverty Measure, All Non-Elderly, 2010-2019



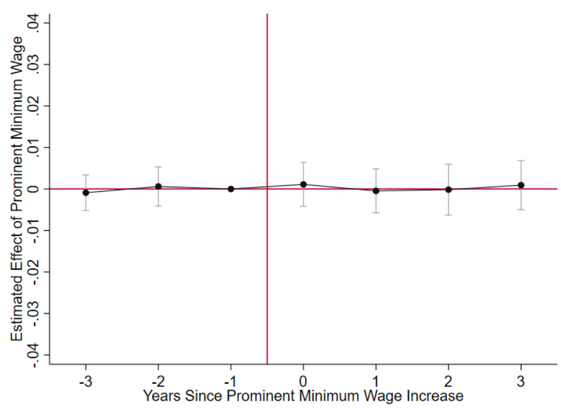
Notes: Data used to generate estimates are from the March 2011 to March 2020 CPS. All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. Demographic controls include indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, and a cubic in age. Macroeconomic controls include housing price index, unemployment rate and wage rate for those with a college degree or higher. Social welfare policy controls include the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP) benefits for family of four, and Affordable Care Act Medicaid expansions.

Appendix Figure 5. Event-Study Analyses of Prominent State & Federal MW Increases, Using Stacked Difference-in-Differences Estimates, 1983-2019, Counterfactuals are Not-Yet Adopters of Prominent MWs

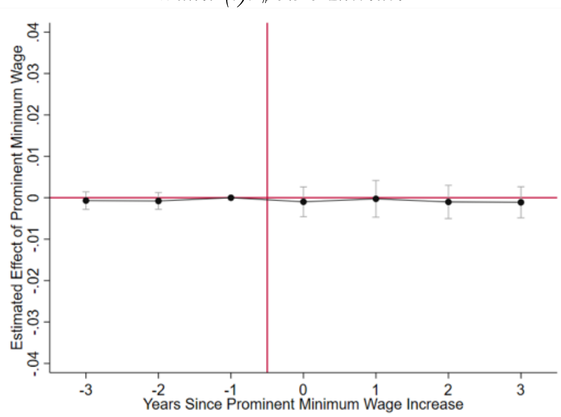
Panel (a): $0.75 Increase



Panel (b): $1.00 Increase



Panel (c): $0.50 Increase



Notes: Estimates are generated using a stacked difference-in-difference approach following Cengiz et al. (2019). Control states are restricted to states that had not yet enacted a prominent MW increase during the event window nor had they enacted an increase of $0.50 or higher (including Federal increases). All regressions include state and year fixed effects and are weighted using the CPS person weight. All estimates include the full set of controls from our fully saturated model. In addition, panels (a) and (b) include controls for smaller minimum wage increases of 10 to 50 cents, and panels (c) include controls for smaller minimum wage increases of 10 to 25 cents. The bar lines represent 95% confidence intervals generated using standard errors clustered at the state-level.

Appendix Table 1. Mean Poverty Rates, Using OPM Measure

	Non-Elderly, < 65	*All (Including Elderly)*	*≤ HS Degree, Ages <65*	*< HS Degree, Ages 16-24*	*Single Mothers, 16-55*	*Black or Hispanic, < 65*	*Children Under Age 16*
Panel I: Dube (2019) Sample Period, 1983-2012							
INR<0.5	0.0549	0.0510	0.0738	0.0928	0.1044	0.1122	0.0892
INR<1.0	0.1301	0.1270	0.1755	0.2053	0.2297	0.2585	0.2028
INR<1.5	0.2134	0.2170	0.2829	0.3174	0.3467	0.3968	0.3152
INR<2.0	0.3003	0.3097	0.3895	0.4215	0.4558	0.5163	0.4237
INR<3.0	0.4722	0.4867	0.5833	0.6019	0.6425	0.6948	0.6160
N	4,662,782	5,238,863	3,019,445	262,481	965,823	1,211,366	1,330,246
Panel II: Post-Great Recession Era, 2010-2019							
INR<0.5	0.0660	0.0608	0.0862	0.0943	0.1771	0.1018	0.0892
INR<1.0	0.1435	0.1360	0.1944	0.1970	0.3344	0.2315	0.1997
INR<1.5	0.2311	0.2267	0.3106	0.3070	0.4807	0.3656	0.3157
INR<2.0	0.3181	0.3175	0.4187	0.4091	0.6046	0.4845	0.4185
INR<3.0	0.4758	0.4791	0.5946	0.5765	0.7704	0.6639	0.5828
N	1,651,463	1,893,930	965,087	90,214	88,059	520,275	454,141
Panel III: Full Period, 1983-2019							
INR<0.5	0.0603	0.0559	0.0780	0.0945	0.1747	0.1107	0.0873
INR<1.0	0.1381	0.1336	0.1820	0.2032	0.3466	0.2531	0.1992
INR<1.5	0.2249	0.2260	0.2930	0.3162	0.4910	0.3927	0.3126
INR<2.0	0.3141	0.3201	0.4014	0.4224	0.6113	0.5141	0.4200
INR<3.0	0.4856	0.4956	0.5930	0.6049	0.7816	0.6943	0.6062
N	5,774,315	6,524,964	3,694,167	382,149	288,546	1,567,894	1,633,986

Note: Data used to generate estimates are from the March 2011 to March 2020 CPS. The means are weighted using the CPS population weight.

Appendix Table 2A. Percent of Younger, Less Educated Individuals or Single Mothers Employed, Earning a Low Wage, or Earning at or Near Minimum Wage, by Income-to-Needs Ratios of Families or Households, 1983-2019

	% Working	% Steady Employment	Annual Work Hours	% Employed and Earning Low Wage	% Employed and Earning Min Wage	Min Wage Annual Work Hours |Min Wage Workers
	(1)	(2)	(3)	(4)	(5)	(6)
Income-to-Needs Ratio						
Panel I: Ages 16-to-24 with Less than HS Degree, RSU = Family						
Less than 0.50	28.7	19.1	177	26.6	13.0	799
0.50 to 0.99	38.7	30.4	373	38.3	13.6	1,101
1.00 to 1.49	44.8	36.4	501	35.7	12.9	1,262
1.50 or above	52.8	41.7	515	31.3	11.8	872
Panel II: Ages 16-to-24 with Less than HS Degree, RSU = Household						
Less than 0.50	25.7	16.5	161	28.3	13.4	896
0.50 to 0.99	34.9	26.1	311	31.7	12.5	997
1.00 to 1.49	42.5	33.6	436	35.4	12.4	1,156
1.50 or above	53	42	523	31.8	12	893
Panel III: Single Mothers, RSU = Family						
Less than 0.50	35.1	25.9	274	23.1	8.4	978
0.50 to 0.99	64.7	59.8	879	31.2	6.8	1,583
1.00 to 1.49	81.9	79.4	1,397	23.8	4.8	1,734
1.50 or above	91.7	90.2	1,803	9.1	1.6	1,753
Panel IV: Single Mothers, RSU = Household						
Less than 0.50	35.8	26.7	289	25	9.0	965
0.50 to 0.99	60.2	54.8	806	29.9	6.9	1,622
1.00 to 1.49	76.3	73.1	1,262	22.7	4.5	1,655
1.50 or above	89.2	87.3	1,713	10.7	2.0	1,682

Source: Current Population Survey, March 1984 through 2013

Notes: Data used to generate estimates are from the March 1984 to March 2013 CPS. All estimates are weighted. The sample is restricted to individuals ages 16 to 64. A worker is defined as an individual who works a positive number of hours in the last year. A steady worker is defined as an individual that worked at least 10 weeks last year and at least 10 hours a week. Columns (1) through (3) uses data from the full March CPS. Columns (4) through (6) uses data from the Outgoing Rotation Groups (so as to construct hourly wage rates). A low-wage worker is defined as an individual whose wages fall below 50% of the national average private wage for a given year. A minimum wage worker is defined as in individual whose wage is 25 cents below and 50 cents above the binding state minimum wage.

Appendix Table 2B. Percent of Working-Age Individuals (Ages 16-to-64) Employed, Earning a Low Wage, or Earning at or Near Minimum Wage, by Income-to-Needs Ratios of Families or Households, 2010-2019

	% Employed	% Steady Employment	Annual Work Hours	% Employed and Earning Low Wage	% Employed and Earning Min Wage	Min Wage Annual Work Hours |Min Wage Workers
	(1)	(2)	(3)	(4)	(5)	(6)
Income-to-Needs Ratio						
				Panel I: Families		
Less than 0.50	27.1	20.6	221	21.6	6.4	903
0.50 to 0.99	49.7	45.7	665	30	7.9	1,407
1.00 to 1.49	63.2	60.2	1,016	26	6.2	1,561
1.50 or above	83.4	81.4	1,657	10.1	2	1,502
				Panel II: Households		
Less than 0.50	27.3	21	240	21.5	6.1	930
0.50 to 0.99	44.4	40.5	605	27.8	7.4	1,433
1.00 to 1.49	57.1	53.7	905	24.4	5.6	1,464
1.50 or above	82	79.8	1,614	10.6	2.2	1,497

Source: Current Population Survey, March 2011 through 2013

Notes: Data used to generate estimates are from the March 2011 to March 2020 CPS. All estimates are weighted. The sample is restricted to individuals ages 16 to 64. A worker is defined as an individual who works a positive number of hours in the last year. A steady worker is defined as an individual that worked at least 10 weeks last year and at least 10 hours a week. Columns (1) through (3) uses data from the full March CPS. Columns (4) through (6) uses data from the Outgoing Rotation Groups (so as to construct hourly wage rates). A low-wage worker is defined as an individual whose wages fall below 50% of the national average private wage for a given year. A minimum wage worker is defined as in individual whose wage is 25 cents below and 50 cents above the binding state minimum wage.

Appendix Table 3. Sensitivity of Estimates to Accounting for Local (City and County) Minimum Wages in Calculation of Effective State Minimum Wage

	1983-2012		2010-2019		1983-2019	
	(1)	(2)	(3)	(4)	(5)	(6)
Minimum Wage	0.001	0.002	-0.001	-0.004	0.009	0.001
	(0.011)	(0.011)	(0.014)	(0.015)	(0.013)	(0.010)
Elasticity	[0.004]	[0.016]	[-0.004]	[-0.034]	[0.062]	[0.011]
N	4,662,781	4663452	1,651,463	1,651,463	5,774,313	5,774,984
Resource Sharing Unit	Family	Household	Family	Household	Family	Household

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 1984 to March 2013 CPS for columns 1 and 2, March 2011 to March 2020 CPS for columns 3 and 4, and the March 1984 to March 2020 CPS for columns 5 and 6. All regressions include state and year fixed effects and are weighted using the CPS household weight. Standard errors are clustered at the state level. All models also include controls for, indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, cubic in age, housing price index, unemployment rate and wage rate for those with a college degree or higher, the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP) benefits for family of four, and Affordable Care Act Medicaid expansions.

Appendix Table 4. Sensitivity of Dube's Results Using His Macroeconomic Controls to Inclusion of Great Recession-Specific Year Effects, State Linear Time Trends, and Census Division-Specific Year Fixed Effects (Forcing "Close Controls"), 1983-2012

	(1)	(2)	(3)	(4)	(5)
			Panel I: Contemporaneous Effects		
Minimum Wage	-0.0101	-0.0102	-0.0094	-0.0340**	-0.0315**
	(0.0084)	(0.0084)	(0.0078)	(0.0129)	(0.0145)
Elasticity	[-0.074]	[-0.075]	[-0.069]	[-0.250]	[-0.232]
			Panel II: Long-Run Effects		
Minimum Wage	-0.0299**	-0.0379***	-0.0308***	-0.0421**	-0.0605***
	(0.0114)	(0.0110)	(0.0104)	(0.0195)	(0.0186)
Elasticity	[-0.220]	[-0.279]	[-0.227]	[-0.310]	[-0.446]
N	4,662,781	4,662,781	4,662,781	4,662,781	4,662,781
Great Recession State Dummies	N	Y	N	N	Y
State-Specific Linear Time Trend	N	N	Y	N	Y
Census Division Specific Year Effect	N	N	N	Y	Y

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 1984 to March 2013 CPS. All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. All models also include controls for indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, a cubic in age and per capita state Gross Domestic Product (GDP) and the state unemployment rate.

Appendix Table 5. Sensitivity of Synthetic Control Analysis to Longer Four-Year Pre-Treatment Period, 1983-2012

	Proportion of weight on states in same division					
	Match on Poverty Rate in Each Pre-Treat Year	Match on Mean Pre-Treat Poverty Rate & Preferred Macro Trends	Match on Mean Pre-Treat Poverty Rate & Dube's Macro Trends	Match on Mean Pre-Treat Poverty Rate, Preferred Macro Trends, & Policies	Average number of donor states	Average number of donor states in same division
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel I: $0.75 Minimum Wage Increase			
East North Central	0.000	0.144	0.000	0.055	38.000	3.000
Middle Atlantic	0.015	0.000	0.000	0.000	38.000	1.000
New England	0.201	0.605	0.602	0.400	4.667	1.667
Pacific	0.331	0.191	0.439	0.000	4.000	1.667
South Atlantic	0.025	0.061	0.016	0.349	39.200	6.600
			Panel II: $1.00 Minimum Wage Increase			
East North Central	0.000	0.144	0.000	0.055	38.000	3.000
New England	0.000	0.486	0.500	0.000	5.000	2.000
South Atlantic	0.127	0.167	0.079	0.349	4.000	1.000
			Panel III: $0.50 Minimum Wage Increase			
East North Central	0.000	0.000	0.000	0.000	30.000	2.000
Middle Atlantic	0.018	0.000	0.000	0.000	30.000	1.000
New England	0.057	0.608	0.000	0.398	33.000	1.000
Pacific	0.150	0.171	0.161	0.000	22.750	1.500
South Atlantic	0.003	0.041	0.018	0.046	38.000	6.846
			Panel IV: $0.10 Minimum Wage Increase			
East North Central	0.174	0.108	0.000	0.034	31.800	2.600
Middle Atlantic	0.210	0.327	0.417	0.150	17.000	1.000

	Proportion of weight on states in same division					
	Match on Poverty Rate in Each Pre-Treat Year	Match on Mean Pre-Treat Poverty Rate & Preferred Macro Trends	Match on Mean Pre-Treat Poverty Rate & Dube's Macro Trends	Match on Mean Pre-Treat Poverty Rate, Preferred Macro Trends, & Policies	Average number of donor states	Average number of donor states in same division
	(1)	(2)	(3)	(4)	(5)	(6)
New England	0.235	0.250	0.014	0.298	18.500	1.500
Pacific	0.011	0.086	0.019	0.000	37.000	1.000
South Atlantic	0.011	0.049	0.025	0.050	30.000	5.615
West North Central	0.023	0.080	0.079	0.094	30.000	5.000
West South Central	0.212	0.124	0.000	0.056	23.000	3.000

Notes: Data used to generate estimates are from the March 1984 to March 2013 CPS. Weights are generated using synthetic control estimate. Donor pool is comprised of states without a minimum wage increase, 4 years before the treatment, during the treatment year, and 1 year after the treatment. Preferred macro trends include pre- and post- treatment trend of housing price index, unemployment rate, and wage among high education. Dube's macro trends include pre- and post-treatment trend of unemployment rate and per capita income. Social trends include pre- and post- treatment trend of EITC and TANF benefit.

Appendix Table 6A. Synthetic Control Estimates of the Effects of Prominent Minimum Wage Increases of $0.75 or More on Poverty Among Non-Elderly Individuals, 1983-2012

State	Treatment Year	Division	Match on Poverty Rate in Each Pre-Treat Year	Match on Dube's Preferred Controls	Match on Mean Pre-Treat Poverty Rate, Macro & Policies
Alaska [a]	2004	Pacific	0.003	-0.0098	-0.0119
P-Value			[0.6744]	[0.186]	[0.2558]
California [a]	2008	Pacific	0.0131	0.0185	0.0251
P-Value			[0.2857]	[0.1429]	[0.4286]
Oregon [a]	1998	Pacific	0.024	0.0421	0.0234
P-Value			[0.5]	[0.3333]	[0.3333]
Washington [a]	2001	Pacific	0.0349	0.0261	0.0000
P-Value			[0.2]	[0.4]	[1]
Arizona	2008	Mountain	0.0239	0.0234	0.0255
P-Value			[0.1429]	[0.2857]	[0.1429]
Colorado	2008	Mountain	0.0118	-0.0003	0.0077
P-Value			[0.1429]	[0.8571]	[0.4286]
Montana	2008	Mountain	0.0003	0.0074	0.0099
P-Value			[0.8571]	[1]	[0.7143]
Nevada	2008	Mountain	0.0059	0.0001	-0.0059
P-Value			[0.1429]	[0.8571]	[0.5714]
New Mexico	2009	Mountain	0.0742	0.0751	0.0742
P-Value			[0.75]	[0.625]	[0.75]
Arkansas	2008	West South Central	0.0049	0.0305	0.026
P-Value			[0.8571]	[0.7143]	[0.8571]
District of Columbia [a]	1989	South Atlantic	0.0546	0.0536	0.000
P-Value			[0.8776]	[0.7755]	[0.1837]
Maryland [a]	2008	South Atlantic	0.0011	-0.0184	-0.0398
P-Value			[0.8571]	[0.2857]	[0.5714]
North Carolina [a]	2008	South Atlantic	0.0224	0.0307	0.0573
P-Value			[0.7143]	[0.2857]	[0.4286]
Iowa	2008	West North Central	-0.0087	-0.014	-0.0018
P-Value			[0.1429]	[0.1429]	[1]
Missouri	2008	West North Central	0.021	0.0189	0.0502
P-Value			[0.2857]	[0.1429]	[0.2857]
Illinois [a]	2006	East North Central	-0.0197	-0.0192	-0.0222
P-Value			[0.35]	[0.225]	[0.1]
Michigan	2008	East North Central	1.00E-04	0.004	-0.002
P-Value			[0.7143]	[0.5714]	[0.5714]
Ohio	2008	East North Central	0.0204	0.0179	0.0316
P-Value			[0.2857]	[0.2857]	[0.1429]
New Jersey	2007	Middle Atlantic	-0.00001	-0.0023	-0.0499
P-Value			[1]	[0.9583]	[0.7083]
New York [a]	2006	Middle Atlantic	-0.0065	0.0039	-0.0199*
P-Value			[0.275]	[0.65]	[0.075]
Pennsylvania	2008	Middle Atlantic	-0.0023	-0.009	-7.00E-04
P-Value			[0.7143]	[0.8571]	[1]
Massachusetts	2001	New England	0.0037	0.0075	-0.0019
P-Value			[0.8]	[0.6]	[0.4]

State	Treatment Year	Division	Match on Poverty Rate in Each Pre-Treat Year	Match on Dube's Preferred Controls	Match on Mean Pre-Treat Poverty Rate, Macro & Policies
Massachusetts [a]	2008	New England	0.0176	0.0092	0.0036
P-Value			[0.8571]	[0.8571]	[1]
New Hampshire [a]	2009	New England	-0.0165	-0.0153	-0.0165
P-Value			[1]	[1]	[1]

Notes: P-values are reported in [brackets]. Dube's preferred controls include pre- and post- treatment trend of GDP and unemployment rate. Macro trends include pre- and post- treatment trend of housing price index, unemployment rate, and wage among high education. Social trends include pre- and post- treatment trend of EITC and TANF benefit.

[a] States with at least one donor states within the same census division and outside.

Appendix Table 6B. Synthetic Control Estimates of the Effects of Prominent Minimum Wage Increases of $1.00 or More on Poverty Among Non-Elderly Individual, 1983-2012

State	Treatment Year	Division	Match on Poverty Rate in Each Pre-Treat Year	Match on Dube's Preferred Controls	Match on Mean Pre-Treat Poverty Rate, Macro & Policies
Alaska [a]	2004	Pacific	0.003	-0.0098	-0.0119
P-Value			[0.6744]	[0.186]	[0.2558]
Arizona	2008	Mountain	0.0239	0.0234	0.0255
P-Value			[0.1429]	[0.2857]	[0.1429]
Colorado	2008	Mountain	0.0118	-3.00E-04	0.0077
P-Value			[0.1429]	[0.8571]	[0.4286]
Montana	2008	Mountain	3.00E-04	0.0074	0.0099
P-Value			[0.8571]	[1]	[0.7143]
New Mexico	2009	Mountain	0.0742	0.0751	0.0742
P-Value			[0.75]	[0.625]	[0.75]
Maryland [a]	2008	South Atlantic	0.0011	-0.0184	-0.0398
P-Value			[0.8571]	[0.2857]	[0.5714]
North Carolina [a]	2008	South Atlantic	0.0224	0.0307	0.0573
P-Value			[0.7143]	[0.2857]	[0.4286]
Iowa	2009	West North Central	-0.0195	0.0034	0.0012
P-Value			[0.375]	[1]	[0.875]
Missouri	2008	West North Central	0.021	0.0189	0.0502
P-Value			[0.2857]	[0.1429]	[0.2857]
Illinois [a]	2006	East North Central	-0.0197	-0.0192	-0.0222
P-Value			[0.35]	[0.225]	[0.1]
Michigan	2008	East North Central	1.00E-04	0.004	-0.002
P-Value			[0.7143]	[0.5714]	[0.5714]
Ohio	2008	East North Central	0.0204	0.0179	0.0316
P-Value			[0.2857]	[0.2857]	[0.1429]
New Jersey	2007	Middle Atlantic	-1.00E-04	-0.0023	-0.0499
P-Value			[1]	[0.9583]	[0.7083]
Pennsylvania	2008	Middle Atlantic	-0.0023	-0.009	-7.00E-04
P-Value			[0.7143]	[0.8571]	[1]
New Hampshire [a]	2009	New England	-0.0165	-0.0153	-0.0165
P-Value			[1]	[1]	[1]

Notes: P-values are reported in [brackets]. Dube's preferred controls include pre- and post- treatment trend of GDP and unemployment rate. Macro trends include pre- and post- treatment trend of housing price index, unemployment rate, and wage among high education. Social trends include pre- and post- treatment trend of EITC and TANF benefit.

[a] States with at least one donor states within the same census division and outside.

Appendix Table 6C. Synthetic Control Estimates of the Effects of Prominent Minimum Wage Increases of $0.50 or More on Poverty Among Non-Elderly Individuals, 1983-2012

State	Treatment Year	Division	Match on Poverty Rate in Each Pre-Treat Year	Match on Dube's Preferred Controls	Match on Mean Pre-Treat Poverty Rate, Macro & Policies
Alaska [a]	1998	Pacific	0.0032	0.0032	0.1815
P-Value			[1]	[1]	[1]
Alaska	2004	Pacific	0.0031	-0.0051	-0.0146
P-Value			[0.6]	[0.225]	[0.325]
California [a]	1998	Pacific	0.0363	0.0382	0.2575
P-Value			[1]	[0.6667]	[1]
Hawaii [a]	1989	Pacific	0.0144	0.0215	0.0000
P-Value			[0.5909]	[0.4318]	[0.2045]
Hawaii [a]	1994	Pacific	-0.0334	-0.0153	0.0000
P-Value			[0.5]	[0.75]	[0.75]
Hawaii	2003	Pacific	0.0052	-0.0051	0.0004
P-Value			[0.2439]	[0.7073]	[0.4878]
Oregon [a]	1998	Pacific	0.0074	0.0074	0.2287
P-Value			[1]	[1]	[1]
Washington	1990	Pacific	-0.0092	-0.0119	0.0000
P-Value			[0.6]	[0.4]	[1]
Washington [a]	1995	Pacific	0.0125	0.0071	0.0000
P-Value			[0.5]	[0.5]	[1]
Washington [a]	2000	Pacific	0.0203	0.0207	0.1777
P-Value			[0.3333]	[0.3333]	[0.3333]
Arizona	1998	Mountain	0.047	0.047	0.2683
P-Value			[1]	[1]	[1]
Colorado	1998	Mountain	-0.0239	-0.0218	0.1781
P-Value			[0.3333]	[0.3333]	[1]
Idaho	1998	Mountain	0.0105	0.0105	0.2318
P-Value			[1]	[1]	[0.6667]
Montana	1998	Mountain	0.0372	0.0372	0.2584
P-Value			[1]	[1]	[0.6667]
Nevada	1998	Mountain	0.0053	0.0106	0.199
P-Value			[1]	[1]	[0.6667]
New Mexico	1998	Mountain	0.0831	0.0955	0.3043
P-Value			[1]	[0.6667]	[1]
Utah	1998	Mountain	0.0039	0.0039	0.1822
P-Value			[1]	[1]	[1]

State	Treatment Year	Division	Match on Poverty Rate in Each Pre-Treat Year	Match on Dube's Preferred Controls	Match on Mean Pre-Treat Poverty Rate, Macro & Policies
Wyoming	1998	Mountain	-0.0082	-0.0082	0.2131
P-Value			[1]	[1]	[1]
Arkansas	1998	West South Central	0.0398	0.0398	0.261
P-Value			[1]	[1]	[1]
Louisiana	1998	West South Central	0.0459	0.0714	0.2671
P-Value			[1]	[1]	[0.6667]
Oklahoma	1998	West South Central	0.0113	0.0113	0.2325
P-Value			[1]	[1]	[1]
Texas	1998	West South Central	0.0274	0.0274	0.2486
P-Value			[1]	[1]	[1]
Alabama	1998	East South Central	0.0226	0.0226	0.2439
P-Value			[1]	[1]	[1]
Kentucky	1998	East South Central	0.0164	0.0164	0.2377
P-Value			[1]	[1]	[0.6667]
Mississippi	1998	East South Central	0.036	0.0609	0.2572
P-Value			[1]	[1]	[0.6667]
Tennessee	1998	East South Central	0.0093	0.0093	0.2305
P-Value			[1]	[1]	[1]
District of Columbia [a]	1989	South Atlantic	0.0546	0.0536	0.0000
P-Value			[0.8636]	[0.75]	[0.1591]
District of Columbia	1998	South Atlantic	0.0931	0.1361	0.3144
P-Value			[1]	[1]	[1]
Florida	1998	South Atlantic	0.0142	0.0142	0.2354
P-Value			[1]	[1]	[1]
Florida [a]	2006	South Atlantic	-0.0145*	-0.0086	-0.0244
P-Value			[0.0909]	[0.4545]	[0.1212]
Georgia	1998	South Atlantic	0.012	0.012	0.2332
P-Value			[1]	[1]	[1]
Maryland	1998	South Atlantic	-0.0439	-0.0529	0.1628
P-Value			[0.6667]	[0.3333]	[0.6667]
North Carolina	1998	South Atlantic	-0.0041	-0.0041	0.2172
P-Value			[1]	[1]	[1]
South Carolina	1998	South Atlantic	0.0026	0.0026	0.2238
P-Value			[1]	[1]	[1]
Virginia	1998	South Atlantic	-0.0217	-0.0243	0.1964
P-Value			[0.6667]	[0.3333]	[1]

State	Treatment Year	Division	Match on Poverty Rate in Each Pre-Treat Year	Match on Dube's Preferred Controls	Match on Mean Pre-Treat Poverty Rate, Macro & Policies
West Virginia	1998	South Atlantic	0.0426	0.0515	0.2638
P-Value			[1]	[1]	[1]
Kansas	1998	West North Central	-0.0178	-0.0347	0.1865
P-Value			[1]	[1]	[0.6667]
Minnesota	1998	West North Central	-0.0017	-0.0154	-0.0189
P-Value			[1]	[0.6667]	[0.6667]
Missouri	1998	West North Central	0.0066	-0.0037	0.1995
P-Value			[1]	[1]	[0.6667]
Nebraska	1998	West North Central	0.001	0.0076	0.1993
P-Value			[0.3333]	[0.3333]	[0.6667]
North Dakota	1998	West North Central	0.0164	0.0165	0.2363
P-Value			[0.6667]	[0.6667]	[1]
South Dakota	1998	West North Central	0.0062	0.0062	0.2275
P-Value			[1]	[1]	[1]
Illinois	1998	East North Central	-0.0261	-0.0261	0.1951
P-Value			[1]	[1]	[0.6667]
Illinois [a]	2006	East North Central	-0.0301	-0.0202*	-0.0258*
P-Value			[0.1212]	[0.0606]	[0.0606]
Indiana	1998	East North Central	0.0013	-0.0007	0.1812
P-Value			[1]	[1]	[0.6667]
Michigan	1998	East North Central	-0.0235	-0.0235	0.1977
P-Value			[1]	[1]	[0.6667]
Ohio	1998	East North Central	-0.0179	-0.0179	0.2034
P-Value			[1]	[1]	[1]
Wisconsin	1998	East North Central	-0.002	-0.0038	-0.0157
P-Value			[0.6667]	[1]	[0.3333]
New York [a]	1998	Middle Atlantic	0.0382	0.047	0.0382
P-Value			[1]	[0.6667]	[1]
New York [a]	2006	Middle Atlantic	-0.0069	-0.0043	0.0139
P-Value			[0.2424]	[0.9394]	[0.8182]
Pennsylvania [a]	1998	Middle Atlantic	-0.0148	-0.0148	0.2064
P-Value			[1]	[1]	[1]
Connecticut	1998	New England	-0.0356	-0.0262	0.1857
P-Value			[0.6667]	[0.6667]	[1]
Maine	1998	New England	-0.0301	-0.03	0.1851
P-Value			[0.6667]	[0.6667]	[0.6667]

State	Treatment Year	Division	Match on Poverty Rate in Each Pre-Treat Year	Match on Dube's Preferred Controls	Match on Mean Pre-Treat Poverty Rate, Macro & Policies
Maine [a]	2003	New England	0.0179	0.0112	0.0361*
P-Value			[0.3415]	[0.2927]	[0.0732]
Massachusetts	1997	New England	0.016	0.0163	0.2033
P-Value			[0.3333]	[0.3333]	[0.6667]
New Hampshire	1998	New England	0.0071	0.0071	0.1854
P-Value			[1]	[1]	[0.6667]
Rhode Island	1998	New England	0.0127	0.0098	0.2135
P-Value			[1]	[1]	[1]
Rhode Island [a]	2005	New England	0.0054	-0.0023	0.0204
P-Value			[0.4286]	[0.7714]	[0.3429]
Vermont	2002	New England	0.0049	0.0049	0.0049
P-Value			[0.3333]	[0.3333]	[0.3333]

Notes: P-values are reported in [brackets]. Dube's preferred controls include pre- and post- treatment trend of GDP and unemployment rate. Macro trends include pre- and post- treatment trend of housing price index, unemployment rate, and wage among high education. Social trends include pre- and post- treatment trend of EITC and TANF benefit.

[a] States with at least one donor states within the same census division and outside.

Appendix Table 7. Difference-in-Differences Estimates of the Effect of Prominent Minimum Wage Increases on Poverty

	$0.75 MW Increase	$1 MW Increase	$0.50 MW Increase	$0.25 MW Increase
	Panel I: 1983-2012, Callaway and Sant'Anna (2021) Estimates			
Minimum Wage	0.0061	0.0021	-0.0048	-0.0105
	(0.0081)	(0.0049)	(0.0060)	(0.0091)
Δ in Prob of Poverty from Prominent MW	*[0.0466]*	*[0.0161]*	*[-0.0363]*	*[-0.0788]*
	Panel II: 2010-2019, Callaway and Sant'Anna (2021) Estimates			
Minimum Wage	0.0030	0.0023	-0.0036	-0.0031
	(0.0073)	(0.0081)	(0.0055)	(0.0046)
Δ in Prob of Poverty from Prominent MW	*[0.0229]*	*[0.0182]*	*[-0.0278]*	*[-0.0237]*
	Panel III: 1983-2019, Callaway and Sant'Anna (2021) Estimates			
Minimum Wage	0.0019	-0.0001	-0.0048	-0.0105
	(0.0051)	(0.0042)	(0.0064)	(0.0086)
Δ in Prob of Poverty from Prominent MW	*[0.0146]*	*[-0.0007]*	*[-0.0363]*	*[-0.0789]*

***Significant at 1% level **at 5% level *at 10% level

Note:. Estimated average effect of the treatment on the treated are obtained using Callaway and Sant'Anna (2021) estimates, which rely on not-yet-adopters of minimum wage increases as counterfactuals. All estimates include controls for HPI. Estimates in columns (1), (2) and (3) consider a control state treated in the period when it adopts a minimum wage increase of $0.25 or greater. For column (4), a control state is considered treated when it adopts a minimum wage increase of $0.10 or greater.

Appendix Table 8. Sensitivity of Estimated Long-Run Poverty Effects to Definition of Poverty, 1983-2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Non-Elderly, < 65	*All Ages, Including Elderly*	*Working Age Adults, Ages 16-64*	*≤ HS Degree, Ages <65*	*< HS Degree, Ages 16-24*	*Single Mothers*	*Black or Hispanic, < 65*	*Children Under Age 16*
INR<0.5	0.0052	0.0058	0.0032	0.0013	0.0878***	0.0083	0.0315	0.0140
	(0.0106)	(0.0094)	(0.0082)	(0.0150)	(0.0280)	(0.0287)	(0.0360)	(0.0233)
Elasticity	[0.0945]	[0.1128]	[0.0750]	[0.0178]	[0.9457]	[0.0791]	[0.2808]	[0.1569]
INR<1.0	-0.0115	-0.0069	-0.0057	-0.0324	0.1270**	-0.0561*	-0.0170	-0.0244
	(0.0167)	(0.0164)	(0.0156)	(0.0233)	(0.0578)	(0.0294)	(0.0487)	(0.0257)
Elasticity	[-0.0881]	[-0.0545]	[-0.0546]	[-0.1847]	[0.6187]	[-0.2441]	[-0.0658]	[-0.1206]
INR<1.5	0.0252	0.0260	0.0238	0.0136	0.1710***	0.0128	-0.0018	0.0327
	(0.0167)	(0.0159)	(0.0174)	(0.0221)	(0.0598)	(0.0315)	(0.0433)	(0.0266)
Elasticity	[0.1182]	[0.1200]	[0.1340]	[0.0482]	[0.5388]	[0.0370]	[-0.0046]	[0.1039]
N	4,662,781	5,238,862	3,332,535	3,019,445	262,481	965,820	1,211,366	1,330,242

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 1984 to March 2013 CPS. All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. All models also include controls for, indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, cubic in age, housing price index, unemployment rate and wage rate for those with a college degree or higher, the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP) benefits for family of four.

Appendix Table 9. Callaway-Sant'Anna (2021) Estimates of the Effect of Prominent Minimum Wage Increases on Poverty, 2010-2019

	(1)	(2)	(3)
	$0.75 Minimum Wage Increase	*$1 Minimum Wage Increase*	*$0.50 Minimum Wage Increase*
	Panel I: Restricted Control Group		
Minimum Wage	-0.0007	0.0004	-0.0042
	(0.005)	(0.0066)	(0.0055)
Δ in Prob of Poverty from MW	[-0.0051]	[-0.0029]	[-0.0304]
	Panel II: Expanded Control Group, Controlling for Smaller Minimum Wage		
Minimum Wage	-0.0022	-0.0017	-0.0039
	(0.0046)	(0.0053)	(0.0057)
Δ in Prob of Poverty from MW	[-0.0163]	[-0.0126]	[-0.0284]

***Significant at 1% level **at 5% level *at 10% level

Note: Data used to generate estimates are from the March 2011 through March 2020 CPS. Estimates are generated using Callaway & Sant'Anna estimator, controlling for the state house price index. Restricted control group includes states without any minimum wage increases between 2010 and 2019 and expanded control group includes states without any prominent minimum wage increases between 2010 and 2019. Column (1), Panel II includes controls for smaller minimum wage increases between $0.25 and $0.74 per hour; column (2), Panel II includes controls for smaller minimum wage increases between $0.25 and $0.99 per hour, and column (3), Panel II includes controls for smaller minimum wage increases between $0.25 and $0.49 per hour. Bootstrapped standard errors are reported inside the parenthesis.

Appendix Table 10. Sensitivity of Poverty Estimates to Use of Supplemental Poverty Measure (SPM), 2010-2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Non-Elderly, < 65	*All Ages, Including Elderly*	*Working Age Adults, Ages 16-64*	*≤ HS Degree, Ages <65*	*< HS Degree, Ages 16-24*	*Single Mothers*	*Black or Hispanic, < 65*	*Children Under Age 16*
	Panel I: Contemporaneous Effects							
Minimum Wage	-0.0073	-0.0060	-0.0109	-0.0102	0.0019	-0.0486	-0.0404	-0.0046
	(0.0199)	(0.0183)	(0.0177)	(0.0329)	(0.0710)	(0.0369)	(0.0409)	(0.0294)
Elasticity	[-0.0497]	[-0.0407]	[-0.0774]	[-0.0544]	[0.0095]	[-0.1841]	[-0.1725]	[-0.0283]
	Panel II: Long-Run Effects							
Minimum Wage	0.000	0.0046	-0.0065	-0.0030	0.0823	0.0069	-0.0259	0.0112
	(0.019)	(0.0174)	(0.0179)	(0.0340)	(0.1238)	(0.0549)	(0.0506)	(0.0324)
Elasticity	[0.002]	[0.032]	[-0.046]	[-0.016]	[0.416]	[0.026]	[-0.111]	[0.069]
N	1,839,014	2,103,337	1,331,655	1,079,397	101,281	98,413	576,360	507,359

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 2011 to March 2020 CPS. All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. All models also include controls for, indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, cubic in age, housing price index, unemployment rate and wage rate for those with a college degree or higher, the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP) benefits for family of four, and Affordable Care Act Medicaid expansions.

Appendix Table 11. Sensitivity of Estimates of Effect of Minimum Wages on Poverty in Post-Great Recession Era (2010-2019) to Use of Higher Income-to-Needs Cutoffs to Define Poverty and Use of Continuous Income-to-Needs Ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Non-Elderly, < 65	*All Ages, Including Elderly*	*Working Age Adults, Ages 16-64*	*≤ HS Degree, Ages <65*	*< HS Degree, Ages 16-24*	*Single Mothers*	*Black or Hispanic, < 65*	*Children Under Age 16*
	Panel I: "Contemporaneous" Effects Using Family as Resource Sharing Unit							
INR<2.0	0.0238	0.0231	0.0095	0.0269	0.0514	0.0397	0.0290	0.0522
	(0.0272)	(0.0235)	(0.0232)	(0.0395)	(0.0565)	(0.0443)	(0.0472)	(0.0403)
Elasticity	*[0.0750]*	*[0.0727]*	*[0.0332]*	*[0.0642]*	*[0.1256]*	*[0.0657]*	*[0.0598]*	*[0.1248]*
INR<3.0	0.0105	0.0150	0.0009	0.0100	0.0488	-0.0171	0.0086	0.0242
	(0.0216)	(0.0201)	(0.0196)	(0.0273)	(0.0478)	(0.0275)	(0.0360)	(0.0305)
Elasticity	*[0.0221]*	*[0.0314]*	*[0.0021]*	*[0.0168]*	*[0.0846]*	*[-0.0223]*	*[0.0129]*	*[0.0416]*
Continuous INR	0.2749	0.2344	0.3532	0.0961	0.2086	0.1546	-0.0293	0.1229
	(0.2157)	(0.1864)	(0.2584)	(0.1624)	(0.3877)	(0.1969)	(0.1785)	(0.2132)
Elasticity	*[0.4522]*	*[0.3835]*	*[0.6121]*	*[0.1327]*	*[0.2977]*	*[0.1781]*	*[-0.0374]*	*[0.1741]*
	Panel II: "Long-Run" Effects Using Family as Resource Sharing Unit							
INR<2.0	0.0008	0.0021	-0.0171	-0.0079	0.0420	0.0227	-0.0201	0.0417
	(0.0235)	(0.0199)	(0.0217)	(0.0370)	(0.0603)	(0.0500)	(0.0530)	(0.0351)
Elasticity	*[0.0025]*	*[0.0066]*	*[-0.0598]*	[-0.0188]	*[0.1026]*	*[0.0375]*	*[-0.0416]*	*[0.0996]*
INR<3.0	-0.0100	0.0024	-0.0281	-0.0133	-0.0096	-0.0349	-0.0009	0.0313
	(0.0196)	(0.0182)	(0.0186)	(0.0285)	(0.0662)	(0.0368)	(0.0398)	(0.0282)
Elasticity	*[-0.0210]*	*[0.0050]*	*[-0.0635]*	[-0.0223]	*[-0.0166]*	*[-0.0453]*	*[-0.0013]*	*[0.0538]*
Continuous INR	0.3148	0.2550	0.4211	0.1703	0.1241	0.0496	0.1158	0.0667
	(0.2373)	(0.2165)	(0.2829)	(0.2494)	(0.4427)	(0.2858)	(0.3015)	(0.2532)
Elasticity	*[0.5178]*	*[0.4171]*	*[0.7298]*	[0.2352]	*[0.1771]*	*[0.0571]*	*[0.1480]*	*[0.0945]*

	Panel III: "Longer-Run" Effects Using Household as Resource Sharing Unit							
INR<2.0	0.0068	0.0055	-0.0072	-0.0078	0.0357	-0.0005	-0.0228	0.0382
	(0.0256)	(0.0218)	(0.0251)	(0.0373)	(0.0692)	(0.0433)	(0.0529)	(0.0355)
Elasticity	*[0.0234]*	*[0.0188]*	*[-0.0283]*	[-0.0198]	*[0.0926]*	*[-0.0010]*	*[-0.0496]*	*[0.0938]*
INR<3.0	-0.0037	0.0083	-0.0183	-0.0189	-0.0337	0.0125	-0.0124	0.0300
	(0.0213)	(0.0197)	(0.0218)	(0.0290)	(0.0887)	(0.0362)	(0.0421)	(0.0291)
Elasticity	*[-0.0082]*	*[0.0181]*	*[-0.0446]*	[-0.0329]	*[-0.0603]*	*[0.0173]*	*[-0.0194]*	*[0.0520]*
Continuous INR	0.4040	0.3332	0.5383	0.1836	0.1380	0.0323	0.1723	0.0306
	(0.2627)	(0.2371)	(0.3201)	(0.2577)	(0.4501)	(0.3191)	(0.3023)	(0.2641)
Elasticity	*[0.6890]*	*[0.5632]*	*[0.9805]*	[0.2584]	*[0.2002]*	*[0.0389]*	*[0.2252]*	*[0.0434]*
N	1,651,463	1,893,930	1,197,322	965,087	90,214	88,059	520,275	454,141

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 2011 to March 2020 CPS. All regressions include state and year fixed effects and are weighted using the CPS household weight. Standard errors are clustered at the state level. All models also include controls for, indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, cubic in age, housing price index, unemployment rate and wage rate for those with a college degree or higher, the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP) benefits for family of four, and Affordable Care Act Medicaid expansion.

Appendix Table 12. Robustness of Table 9 Estimates to Alternate Definitions of Poverty, 2010-2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Non-Elderly, < 65	*All Ages, Including Elderly*	*Working Age Adults, Ages 16-64*	*≤ HS Degree, Ages <65*	*< HS Degree, Ages 16-24*	*Single Mothers*	*Black or Hispanic, < 65*	*Children Under Age 16*
INR<0.5	-0.0094	-0.0083	-0.0065	-0.0106	-0.0085	0.0032	-0.0224	-0.0206
	(0.0079)	(0.0072)	(0.0073)	(0.0117)	(0.0212)	(0.0305)	(0.0173)	(0.0157)
Elasticity	*[-0.1417]*	*[-0.1372]*	*[-0.1111]*	[-0.1229]	*[-0.0907]*	*[0.0179]*	*[-0.2198]*	*[-0.2311]*
INR<1.0	-0.0170	-0.0161	-0.0167	-0.0236	-0.0038	0.0220	-0.0234	-0.0229
	(0.0160)	(0.0137)	(0.0145)	(0.0221)	(0.0472)	(0.0350)	(0.0310)	(0.0248)
Elasticity	*[-0.1185]*	*[-0.1186]*	*[-0.1325]*	[-0.1216]	*[-0.0194]*	*[0.0658]*	*[-0.1010]*	*[-0.1148]*
INR<1.5	-0.0107	-0.0047	-0.0164	-0.0119	-0.0303	0.0187	-0.0128	0.0020
	(0.0206)	(0.0184)	(0.0187)	(0.0297)	(0.0579)	(0.0395)	(0.0373)	(0.0321)
Elasticity	*[-0.0462]*	*[-0.0208]*	*[-0.0802]*	[-0.0385]	*[-0.0987]*	*[0.0390]*	*[-0.0350]*	*[0.0065]*
INR<2.0	0.0075	0.0097	-0.0036	0.0176	0.0134	0.0582	0.0063	0.0376
	(0.0235)	(0.0209)	(0.0195)	(0.0348)	(0.0500)	(0.0401)	(0.0464)	(0.0391)
Elasticity	*[0.0237]*	*[0.0305]*	*[-0.0126]*	[0.0420]	*[0.0328]*	*[0.0963]*	*[0.0131]*	*[0.0898]*
INR<3.0	-0.0119	-0.0053	-0.0208	-0.0053	0.0237	-0.0223	-0.0063	0.0100
	(0.0192)	(0.0188)	(0.0166)	(0.0285)	(0.0406)	(0.0291)	(0.0393)	(0.0320)
Elasticity	*[-0.0251]*	*[-0.0110]*	*[-0.0470]*	[-0.0089]	*[0.0411]*	*[-0.0290]*	*[-0.0095]*	*[0.0171]*
N	1,651,463	1,893,930	1,197,322	965,087	90,214	88,059	520,275	454,141

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 2011 to March 2020 CPS. All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. All models also include controls for, indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, cubic in age, housing price index, unemployment rate and wage rate for those with a college degree or higher, the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families.

Appendix Table 13. Assessing "Close Controls" Using a Synthetic Control Approach, 1983-2019

	Proportion of weight on states in same division					
	Match on Poverty Rate in Each Pre-Treat Year	Match on Mean Pre-Treat Poverty Rate & Preferred Macro Trends	Match on Mean Pre-Treat Poverty Rate & Dube's Macro Trends	Match on Mean Pre-Treat Poverty Rate, Preferred Macro Trends, & Policies	Average number of donor states	Average number of donor states in same division
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel I: $0.75 Minimum Wage Increase			
East North Central	0.018	0.157	0.000	0.056	39.000	3.000
Middle Atlantic	0.011	0.000	0.000	0.000	35.500	1.000
Mountain	0.056	0.052	0.000	0.033	29.000	6.000
New England	0.141	0.159	0.221	0.162	23.800	3.533
Pacific	0.165	0.126	0.175	0.075	17.625	2.000
South Atlantic	0.007	0.039	0.005	0.018	37.440	5.640
West North Central	0.002	0.103	0.139	0.078	34.250	4.000
West South Central	0.008	0.223	0.000	0.154	29.000	3.000
			Panel II: $1.00 Minimum Wage Increase			
East North Central	0.018	0.157	0.000	0.056	39.000	3.000
Middle Atlantic	0.000	0.000	0.000	0.000	37.000	1.000
Mountain	0.026	0.064	0.000	0.010	29.000	6.000
New England	0.163	0.123	0.182	0.165	26.538	3.769
Pacific	0.003	0.000	0.045	0.000	38.000	1.667
South Atlantic	0.023	0.056	0.004	0.044	27.429	3.857
West North Central	0.002	0.159	0.185	0.103	33.000	4.000

	Proportion of weight on states in same division					
	Match on Poverty Rate in Each Pre-Treat Year	Match on Mean Pre-Treat Poverty Rate & Preferred Macro Trends	Match on Mean Pre-Treat Poverty Rate & Dube's Macro Trends	Match on Mean Pre-Treat Poverty Rate, Preferred Macro Trends, & Policies	Average number of donor states	Average number of donor states in same division
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel III: $0.50 Minimum Wage Increase					
East North Central	0.017	0.000	0.000	0.000	32.000	2.000
Middle Atlantic	0.007	0.167	0.034	0.167	18.667	1.000
Mountain	0.056	0.050	0.000	0.038	28.000	6.000
New England	0.163	0.281	0.071	0.341	28.889	1.444
Pacific	0.320	0.323	0.295	0.000	12.500	1.250
South Atlantic	0.004	0.057	0.005	0.044	30.800	5.400
West North Central	0.059	0.114	0.147	0.100	26.000	3.800
West South Central	0.128	0.063	0.000	0.086	28.000	3.000

Notes: Data used to generate estimates are from the March 1984 to March 2019 CPS Weights are generated using synthetic control estimate. Donor pool is comprised of states without a minimum wage increase, 3 years before the treatment, during the treatment year, and 1 year after the treatment. Preferred macro trends include pre- and post- treatment trend of housing price index, unemployment rate, and wage among high education. Dube's macro trends include pre- and post-treatment trend of unemployment rate and per capita income. Social trends include pre- and post- treatment trend of EITC and TANF benefit.

Appendix Table 14. Synthetic Control Matched Difference-in-Differences Estimates of the Effect of Prominent Minimum Wage Increases on Poverty, 1983-2019

	(1)	(2)	(3)	(4)
	$0.75 MW Increase	$1.00 MW Increase	$0.50 MW Increase	$0.25 MW Increase
	Panel I: Expanded Donor Pool: At Least One Donor State Available			
Minimum Wage	0.0012	0.005	0.0025	0.0045
p-value	{0.19}	{0.143}	{0.281}	{0.226}
Δ in Prob of Poverty from MW	[0.009]	[0.037]	[0.019]	[0.034]
Maximum MW in Controls	$0.50	$0.50	$0.25	$0.10
	Panel II: Expanded Donor Pool: At Least One Donor State Available			
Minimum Wage	0.0014	0.0057	0.004*	0.0045
p-value	{0.219}	{0.1}	{0.057}	{0.226}
Δ in Prob of Poverty from MW	[0.01]	[0.043]	[0.03]	[0.034]
Maximum MW in Controls	$0.35	$0.35	$0.10	$0.05

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 1984 to March 2019 CPS. All regressions include treatment state and year fixed effects. P-values generated from wild cluster bootstrapping are reported inside the curly brackets. Restricted treatment sample (panels I and II) includes only states where there are at least one donor states within the same census division and outside the census division. Expanded treatment sample (panels III and IV) includes all states where there is at least one donor state, inside or outside of the census division.

Appendix Table 15. Sensitivity of Estimated Poverty Effects of Minimum Wage to Inclusion of Dube's preferred macroeconomic controls and Controls for Spatial Heterogeneity, Using INR < 1.5, 1983-2019

	(1)	(2)	(3)	(4)	(5)	(6)
	Resource Sharing Unit: Family			Resource Sharing Unit: Household		
			Panel I: Dube (2019) Model and Macroeconomic Controls			
Minimum Wage	-0.0079	-0.0122	-0.0171	-0.0096	-0.0096	-0.0159
	(0.0154)	(0.0167)	(0.0168)	(0.0138)	(0.0146)	(0.0157)
Elasticity	[-0.035]	[-0.054]	[-0.076]	[-0.043]	[-0.043]	[-0.071]
			Panel II: Preferred (BMS) Model			
Minimum Wage	0.0221	0.0259	0.0159	0.0233	0.0271	0.0183
	(0.0154)	(0.0159)	(0.0138)	(0.0157)	(0.0162)	(0.0139)
Elasticity	[0.098]	[0.1150]	[0.0705]	[0.1035]	[0.1204]	[0.0814]
	5,774,313	5,774,313	5,774,313	5,774,984	5,774,984	5,774,984
Great Recession State Dummies	N	Y	N	N	Y	N
State-Specific Linear Time Trend	N	N	Y	N	N	Y

***Significant at 1% level **at 5% level *at 10% level

Notes: Data used to generate estimates are from the March 1984 to March 2020 CPS. All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. All models also include controls for indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, cubic in age. The Dube model includes GDP per capita, EITC supplement, and unemployment rate. The Burkhauser, McNichols, and Sabia (BMS) model includes maximum Temporary Assistance for Needy Families (TANF), Earned Income Tax Credit (EITC) refundable rate, Supplemental Nutrition Assistance Program (SNAP) benefits for family of four, and Affordable Care Act Medicaid expansions, and housing price index. It also does not disaggregate sub-families from primary families.

Appendix Table 16. Wage Distribution of All Workers by Income-to-Needs Ratio of Their Families, March 2019 and 2020 CPS

	Hourly Wage Categories[a]									
Income-to-Needs Ratio	$0.01 to $6.99	$7.00 to $7.24	$7.25 to $10.99	$11.00 to $14.99	$15.00 to $19.99	$20.00 and over	Total	Percent of All Workers	Percent of Workers Earning More than $6.99 and Less Than $11.00	Percent of Workers Earning More than $6.99 and Less Than $15.00
Panel I: March 2019 CPS										
Less than 1.00	5.16	0.61	31.88	33.88	17.27	11.21	100.00	4.86	11.49	8.24
1.00 to 1.24	3.31	0.49	21.31	35.70	21.96	17.23	100.00	2.78	4.61	4.40
1.25 to 1.49	4.50	0.00	24.29	37.32	18.82	15.08	100.00	2.88	6.18	5.42
1.50 to 1.99	2.18	0.10	19.55	34.50	26.37	17.30	100.00	7.60	13.84	13.85
2.00 to 2.99	1.49	0.21	13.38	28.00	28.87	28.05	100.00	15.83	18.97	21.48
3.00 or above	1.01	0.12	6.64	12.48	18.56	61.19	100.00	66.05	44.91	46.61
Whole Category Share[b]	1.46	0.15	10.25	18.26	20.65	49.22	100.00	100.00	100.00	100.00
Panel II: March 2020 CPS										
Less than 1.00	4.50	0.00	30.31	27.06	22.13	16.00	100.00	4.25	12.39	7.64
1.00 to 1.24	2.79	0.00	17.22	41.70	25.75	12.55	100.00	2.35	4.17	4.43
1.25 to 1.49	5.56	0.26	21.13	34.22	21.08	17.75	100.00	2.63	6.50	5.33
1.50 to 1.99	2.49	0.22	13.86	36.01	23.56	23.86	100.00	7.02	11.78	12.81
2.00 to 2.99	1.84	0.18	9.86	24.79	30.27	33.06	100.00	14.48	18.04	20.42
3.00 or above	1.21	0.09	5.08	12.39	16.43	64.80	100.00	69.28	47.12	49.37
Whole Category Share[b]	1.63	0.11	7.82	17.33	19.40	53.71	100.00	100.00	100.00	100.00

Notes:
[a]Hourly wage rates are based on a direct question concerning earnings per hour on their current primary job. All income data used to calculate income-to-needs ratios come from retrospective information from the previous year because that is the period for which it is reported. The sample is restricted to those who report employment for at least 10 weeks last year for at least 10 hours per week (steady employment).
[b]Share of all workers with wage earnings in each category
Source: Estimated from the outgoing rotation group of the Current Population Survey, March 2019-2020.

Appendix Table 17. Sensitivity of Estimates to Omitting March 2020 Survey Due to COVID-19 Interruptions/Sampling Concerns, Non-Elderly Individuals, 1983-2018

	(1)	(2)
Resource Sharing Unit	*Individual*	*Family*
INR<0.5	0.0010	0.0014
	(0.0058)	(0.0050)
Elasticity	[0.0159]	[0.0238]
INR<1.0	-0.0037	-0.0033
	(0.0082)	(0.0075)
Elasticity	[-0.0269]	[-0.0240]
INR<1.5	0.0166	0.0166
	(0.0103)	(0.0107)
Elasticity	[0.0739]	[0.0737]
N	5,641,796	5,642,467

***Significant at 1% level **at 5% level *at 10% level

Notes: All regressions include state and year fixed effects and are weighted using the CPS person weight. Standard errors are clustered at the state level. All models also include controls for indicators for non-Hispanic white, Black, Hispanic, and gender, marital status, family size, number of children, educational attainment, a cubic in age, housing price index, unemployment rate and wage rate for those with a college degree or higher, the Earned Income Tax Credit (EITC) refundable rate, maximum Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP) benefits for family of four, and Affordable Care Act Medicaid expansions.