It's a Cruel Summer: Household Responses to Reductions in Government Nutrition Assistance
SUPPLEMENTAL ONLINE APPENDIX

Here, we present our fixed effects and FMLogit results based on raw expenditures rather than the seasonally adjusted expenditures presented in the main text. Results for our fixed effects analysis are summarized in Tables 1 and 2 (expenditures and expenditure shares, respectively). FMLogit results for budget shares are presented in Table 3. These tables correspond to the seasonally adjusted estimates in Tables 5-7 of the main text.

We see that the effects are consistently larger in absolute value among the non-seasonally adjusted expenditures relative to the seasonally adjusted data. This is as expected since there exists a common change across all households in expenditures during the summer. When we net this effect out of the underlying expenditure data, the magnitude of the coefficients is reduced, although the direction and overall qualitative findings are unchanged.

Table 1: **Fixed Effects Results for Household Expenditures**[a]

	Households with SAC		SNAP HH with SAC	
	All HH	IPR $\leq$ 1.85	Always SNAP	IPR $\leq$ 1.85
Food at Home	0.015**	0.024	0.041	0.051
	(0.006)	(0.015)	(0.046)	(0.050)
Food Away	-0.082***	-0.042	-0.068	-0.073
	(0.019)	(0.040)	(0.086)	(0.092)
Ed & Enrichment	-0.345***	-0.283***	-0.291***	-0.312***
	(0.024)	(0.038)	(0.073)	(0.078)
Entertainment	0.012	-0.069**	-0.154**	-0.159**
	(0.013)	(0.029)	(0.065)	(0.070)
Shelter	0.032***	-0.020	-0.028	-0.024
	(0.009)	(0.020)	(0.054)	(0.058)
Utilities	-0.037***	-0.009	-0.008	-0.011
	(0.005)	(0.012)	(0.028)	(0.031)
Transportation	0.060***	0.023	-0.011	0.008
	(0.012)	(0.025)	(0.06)	(0.064)
Health	-0.040**	-0.036	-0.055	-0.030
	(0.018)	(0.037)	(0.072)	(0.077)
Alc. & Tobacco	0.090***	0.123***	-0.001	0.029
	(0.020)	(0.034)	(0.061)	(0.065)
Other	-0.047***	-0.079***	-0.110***	-0.108**
	(0.007)	(0.019)	(0.042)	(0.047)
Observations	36,914	11,691	2,840	2,514

[a]Analysis limited to households with school-aged children. Each coefficient reflects a separate individual fixed effects regression on logged expenditure that includes controls for age, household size, number of children (0-17 years of age), employment status, logged income and logged income squared, and year indicators. Robust standard errors clustered at the household level in parenthesis *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 2: **Fixed Effects Results for Household Budget Share**[a]

| | Households with SAC | | SNAP HH with SAC | |
	All HH	IPR ≤ 1.85	Always SNAP	IPR ≤ 1.85
Food at Home	0.236***	0.572***	1.043**	1.043**
	(0.071)	(0.176)	(0.452)	(0.497)
Food Away	-0.163***	-0.062	-0.141	-0.158
	(0.037)	(0.070)	(0.149)	(0.138)
Ed & Enrichment	-0.420***	-0.376***	-0.074	-0.130
	(0.058)	(0.081)	(0.115)	(0.113)
Entertainment	0.102*	-0.212***	-0.490***	-0.591***
	(0.053)	(0.079)	(0.148)	(0.126)
Shelter	0.523***	0.149	0.137	0.197
	(0.095)	(0.198)	(0.495)	(0.418)
Utilities	-0.317***	-0.172*	-0.280	-0.374
	(0.044)	(0.107)	(0.264)	(0.293)
Transportation	0.953***	0.645**	0.606	0.749
	(0.156)	(0.270)	(0.513)	(0.511)
Health	-0.083*	-0.012	0.084	0.060
	(0.048)	(0.089)	(0.121)	(0.131)
Alc. & Tobacco	0.050**	0.127***	0.043	0.075
	(0.021)	(0.049)	(0.120)	(0.131)
Other	-0.879***	-0.658***	-0.928***	-0.871**
	(0.093)	(0.164)	(0.341)	(0.361)
Observations	36,914	11,691	2,840	2,514

[a]Analysis limited to households with school-aged children. Each coefficient reflects a separate individual fixed effects regression on expenditure share that includes controls for age, household size, number of children (0-17 years of age), employment status, logged income and logged income squared, and year indicators. Expenditure share is multiplied by 100 to ease interpretation. Robust standard errors clustered at the household level in parenthesis *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

<div align="center">Table 3: **FMLogit Results for Household Budget Share**[a]</div>

	Households with SAC		SNAP HH with SAC	
	All HH	IPR ≤ 1.85	Always SNAP	IPR ≤ 1.85
Food at Home	-0.007	0.024*	0.044	0.037
	(0.007)	(0.013)	(0.031)	(0.033)
	[0.0029]	[0.0059]	[0.0082]	[0.0073]
Food Away	-0.062***	-0.022	-0.028	-0.032
	(0.010)	(0.023)	(0.054)	(0.055)
	[-0.0014]	[-2.6e-04]	[-5.7e-04]	[-5.5e-04]
Ed & Enrichment	-0.220***	-0.224***	-0.052	-0.141
	(0.023)	(0.050)	(0.100)	(0.109)
	[-0.0041]	[-0.0039]	[-4.6e-04]	[-0.0012]
Entertainment	-0.045***	-0.113***	-0.184***	-0.212***
	(0.012)	(0.022)	(0.045)	(0.048)
	[-8.5e-04]	[-0.0044]	[-0.0076]	[-0.0085]
Shelter	Base Category for Coefficients			
	[0.0062]	[0.0032]	[0.0014]	[0.0016]
Utilities	-0.063***	-0.023*	-0.017	-0.026
	(0.006)	(0.013)	(0.029)	(0.031)
	[-0.0035]	[-9.0e-04]	[-0.0014]	[-0.0023]
Transportation	0.043***	0.043*	0.046	0.048
	(0.012)	(0.023)	(0.051)	(0.053)
	[0.0111]	[0.0092]	[0.0068]	[0.0079]
Health	-0.054***	-0.028	0.047	0.062
	(0.012)	(0.029)	(0.069)	(0.075)
	[-0.0014]	[-8.3e-04]	[0.0017]	[0.0022]
Alc. & Tobacco	0.016	0.068**	0.035	0.041
	(0.016)	(0.030)	(0.060)	(0.065)
	[7.3e-04]	[0.0016]	[0.0014]	[0.0016]
Other	-0.078***	-0.069***	-0.061*	-0.056
	(0.007)	(0.016)	(0.035)	(0.040)
	[-0.0096]	[-0.0096]	[-0.0095]	[-0.0082]
Observations	36,914	11,691	2,840	2,514

[a]Analysis limited to households with school-aged children. Each column reflects a separate FMLogit regression that includes controls for age, household size, number of children (0-17 years of age), employment status, logged income and logged income squared, and year indicators. Coefficients are relative to "shelter" expenditures. Robust standard errors clustered at the household level in parenthesis. Estimated discrete changes in brackets. SAC denotes school-age children, IPR denotes income to poverty line ratio, and SNAP denotes households with self-reported SNAP participation across all interview waves. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.