

“The Rent Eats First:” Did Ending the National Eviction Moratorium Increase Food Insufficiency Among Renters in the United States?

Supplementary Materials

Appendix A: Household Pulse Survey Documentation

Table 4: Household Pulse Survey Collection Periods, Response Rates, and Sample Sizes by Survey Wave

Survey Wave	Collection Start	Collection End	Weighted Response Rate	Sample Size
Wave 45	April 27, 2022	May 9, 2022	5.8%	61,767
Wave 44	March 30, 2022	April 11, 2022	6.0%	63,769
Wave 43	March 2, 2022	March 14, 2022	7.9%	84,158
Wave 42	Jan. 26, 2022	Feb 7, 2022	7.2%	68,347
Wave 41	Dec. 29, 2021	Jan 10, 2022	7.2%	68,782
Wave 40	Dec. 1, 2021	Dec. 13, 2021	5.8%	54,663
Wave 39	Sept. 29, 2021	Oct. 11, 2021	5.4%	50,849
Wave 38	Sept. 15, 2021	Sept. 27, 2021	5.6%	53,355
Wave 37	Sept. 1, 2021	Sept. 13, 2021	6.0%	56,739
Wave36	Aug. 18, 2021	Aug. 30, 2021	6.5%	61,644
Wave 35	Aug. 4, 2021	Aug. 16, 2021	6.5%	61,243
Wave 34	July 21, 2021	Aug. 2, 2021	6.1%	57,559

Source: Household Pulse Survey (see CDC, 2024; U.S. Census Bureau, 2024).

Appendix B: Eviction Tracking System

The states for which eviction filing data can be tracked and are collected in the Eviction Lab’s (2025) Eviction Tracking system include: Delaware, Indiana, Minnesota, Missouri, New Mexico, Pennsylvania, Rhode Island, Virginia, and Wisconsin.

The cities for which eviction filing information is collected include: Albuquerque, NM; Austin, TX; Boston, MA; Bridgeport, CT; Charleston, SC; Cincinnati, OH; Cleveland, OH; Columbus, OH; Dallas, TX; Fort Worth, TX; Gainesville, FL; Greenville, SC; Hartford, CT; Houston, TX; Indianapolis, IN; Jacksonville, FL; Kansas City, MO; Las Vegas, NV; Memphis, TN; Miami-Ft. Lauderdale, FL; Milwaukee, WI; Minneapolis-Saint Paul, MN; Nashville, TN; New Orleans, LA; New York, NY; Philadelphia, PA; Phoenix, AZ; Pittsburgh, PA; Providence, RI; Richmond, VA; South Bend, IN; St. Louis, MO; Tampa, FL; and Wilmington, DE.

Appendix C: Main Difference-in-Differences Analysis

Table 5: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure: Weighted and Emergency Rental Assistance (ERA) Models

	Model 3: Weighted	Model 4: ERA
Renter x Post-Treatment	0.0185*** (0.0039)	0.0099** (0.0029)
Renter	0.0478*** (0.0035)	0.0415*** (0.0031)
Post-Treatment	0.0089*** (0.0014)	0.0071*** (0.0008)
Post-Treatment	0.1265*** (0.0104)	0.1604*** (0.0070)
Num.Obs.	460474	332116
R2	0.134	0.127
R2 Adj.	0.134	0.127
Std.Errors	State	State
Covariates: All	Y	Y

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Notes: Weighted model incorporates HPS person weights; ERA incorporates county-level ERA disbursement in the month prior to data collection aggregated to the state-level. All covariates included. State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses. Sources: HPS: Waves 34-45 (Post-Treatment: Waves 38-45); Eviction Lab, 2025.

Table 5 presents sensitivity tests of the main difference-in-differences analysis (Model 2 in the main text); Model 3 incorporates person weights and Model 4 includes a control for the disbursement of emergency rental assistance in the month prior to data collection. When the data collection period was split over two months, the month in which the majority of data collection occurred is termed the month of data collection. We note that the effect estimate in the weighted model is larger, meaning that our focal unweighted model constitutes a conservative estimate. We further note that the inclusion of ERA disbursement reduces our sample size due to incomplete ERA data but is not substantially different from our focal effect estimate.

Table 6: Event Study: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure

	Model 5
Difference-in-Differences Estimate (Wave -4)	0.0009 (0.0053)
Difference-in-Differences Estimate (Wave -3)	0.0068 (0.0052)

	Model 5
Difference-in-Differences Estimate (Wave -2)	-0.0008 (0.0059)
Difference-in-Differences Estimate (Wave 0)	0.0027 (0.0043)
Difference-in-Differences Estimate (Wave 1)	0.0083 (0.0051)
Difference-in-Differences Estimate (Wave 2)	0.0039 (0.0057)
Difference-in-Differences Estimate (Wave 3)	0.0091 (0.0054)
Difference-in-Differences Estimate (Wave 4)	0.0200** (0.0059)
Difference-in-Differences Estimate (Wave 5)	0.0114** (0.0042)
Difference-in-Differences Estimate (Wave 6)	0.0164** (0.0058)
Difference-in-Differences Estimate (Wave 7)	0.0270*** (0.0059)
Diff. between Renters and Homeowners in Reference Wave	0.0384*** (0.0037)
Constant (Prob. of Food Insuff. Among Homeowners in Reference Wave)	0.1613*** (0.0060)
Num.Obs.	460,474
R2	0.124
R2 Adj.	0.124
Std.Errors	State
Covariates: All	Y

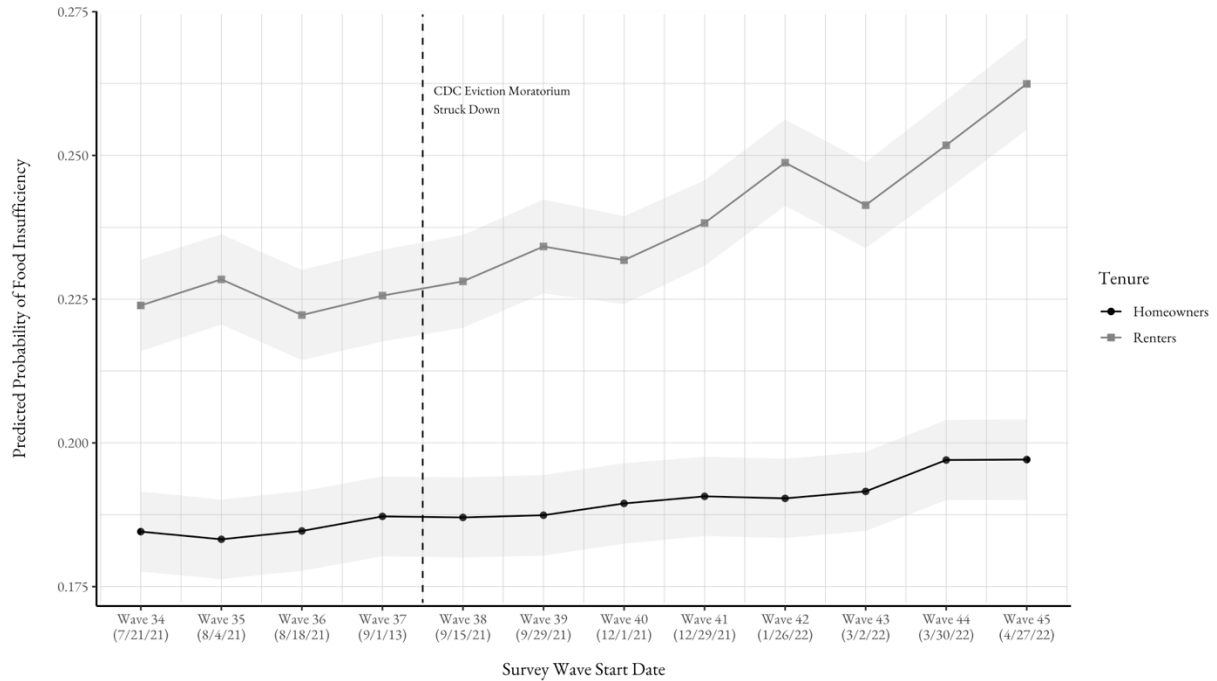
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Note: Survey Wave 38 = Wave 0; Survey Wave 37 omitted as reference variable. State and survey wave fixed effects included for all models. Source: Household Pulse Survey: Waves 34-45.

Table 6 presents the event study specification of the main difference-in-differences analysis (see Figure 3). Figure 6 presents the predicted probability of food insufficiency by tenure by survey wave when all covariates are at reference levels; a slight disturbance in parallel trends in Wave 35 is noted, but a steady post-treatment increase in the gap between outcomes for renters and homeowners is evidenced. Figure 7 presents an alternative view of the difference-in-differences analysis: the change in the probability of food insecurity between the pre- and post-treatment periods is plotted for both

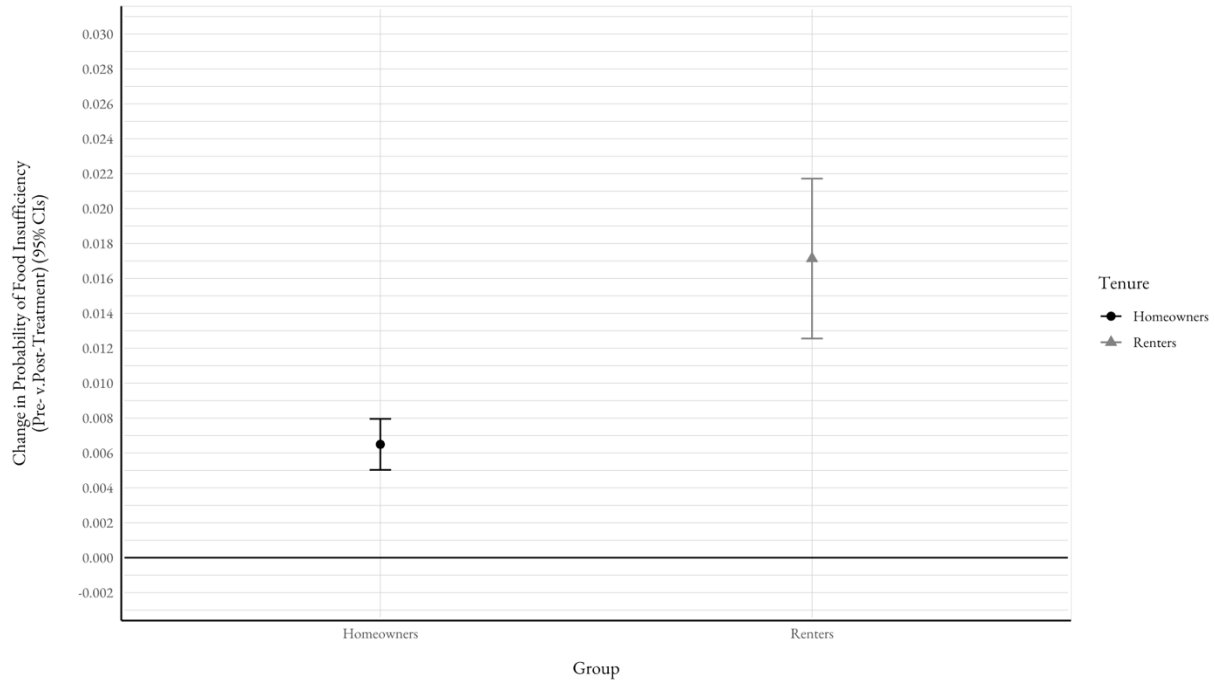
renters and homeowners, and the gap between these estimates reflects the disparity in differences by housing tenure.

Figure 6: Predicted Probability of Food Inefficiency by Survey Wave



Note: Based on estimates from Model 2 (remodeled using 'wave' as time variable), including all listed covariates.
Source: Household Pulse Survey.

Figure 7: Change in Probability of Food Insufficiency (Pre- v. Post-Treatment) by Tenure



Note: Figure based on Model 2 estimates, including all covariates listed.
Source: Household Pulse Survey

Appendix E: Robustness Checks

Table 7: Falsification Tests: Probability of Food Insufficiency by Tenure by Period

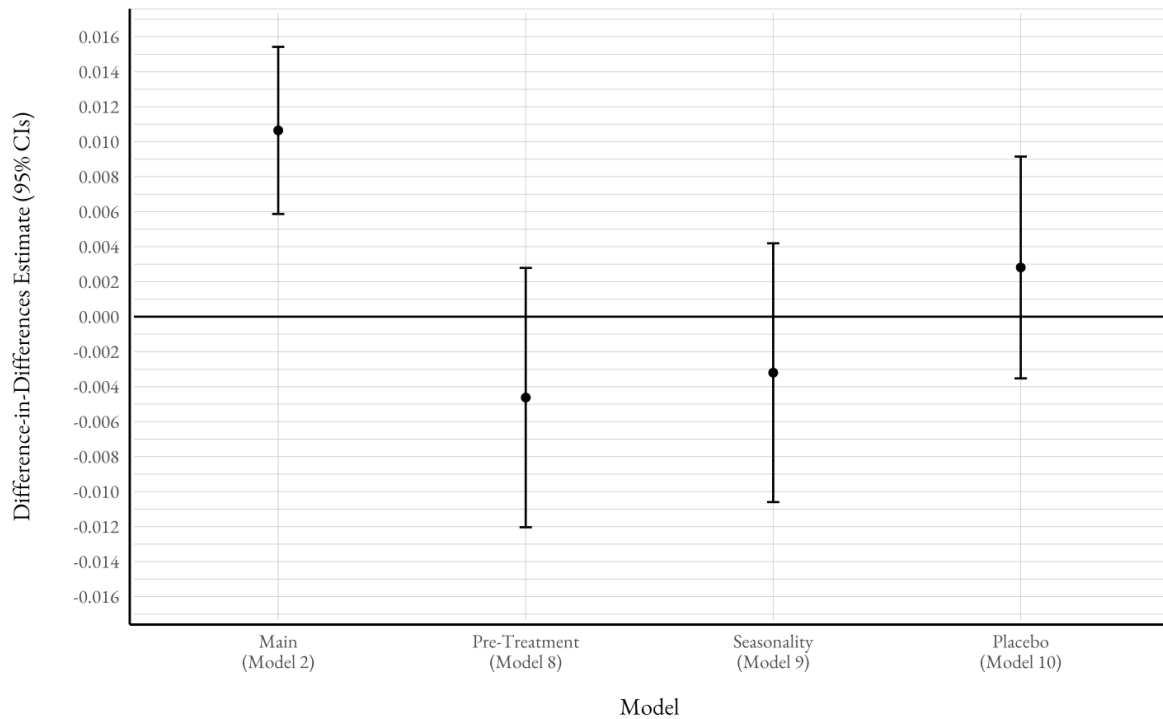
	Model 6: Pre-Treatment	Model 7: Seasonality	Model 8: Placebo
Renter x Post-Treatment	-0.0046 (0.0037)	-0.0032 (0.0037)	0.0028 (0.0031)
Renter	0.0471*** (0.0029)	0.0553*** (0.0036)	0.0289*** (0.0030)
Post-Treatment	0.0021* (0.0010)	0.0030** (0.0010)	0.0078*** (0.0018)
Constant	0.1364*** (0.0094)	0.1692*** (0.0053)	0.3993*** (0.0075)
Num.Obs.	150679	398806	453071
R2	0.117	0.128	0.066
R2 Adj.	0.116	0.128	0.065
Std.Errors	State	State	State

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses. Pre-Treatment: Period before eviction moratorium lifted; HPS (Waves 34-37) with intervention set at Wave 36. Seasonality: Same period one year later; HPS (Waves 47-54) with intervention set at Wave 49. Placebo: Alternative outcome; HPS (outcome is ‘limitations in seeing’) (Post-Treatment: Waves 38-45).

Table 7 presents the results of three falsification tests, including all covariates; the outcome of interest is the coefficient for Renter x Post-Treatment. First, conducting the difference-in-differences analysis using only pre-treatment survey waves (Waves 34-37) garners a statistically insignificant result at conventional alpha levels, providing further evidence for pre-treatment parallel trends (Model 6). Second, conducting the difference-in-differences analysis in a similar study period one year later (Waves 47-57, June 29, 2023 – May 8, 2023) also yields an insignificant result, defending against concerns that seasonal patterns drive the difference in outcomes between renters and homeowners (Model 7). Third, conducting the difference-in-differences analysis using an alternate outcome (“limitations in seeing”) likewise produces an insignificant result, indicating that the main analysis does not reflect spurious associations unrelated to the eviction moratorium (Model 8). In Figure 8, these three estimates are plotted alongside the estimate from the main analysis.

Figure 8: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insecurity by Tenure for Falsification Analyses



Note: Figure includes all covariates listed.
Source: Household Pulse Survey

Table 8: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure (Excluding Mortgaged Ownership)

	Model 9: No Covariates	Model 10: All Covariates
Renter x Post-Treatment	0.0102*** (0.0028)	0.0111*** (0.0025)
Renter	0.1066*** (0.0039)	0.0410*** (0.0030)
Post-Treatment	0.0070*** (0.0010)	0.0065*** (0.0009)
Constant	0.0458*** (0.0015)	0.1431*** (0.0078)
Num.Obs.	237877	237877
R2	0.047	0.135
R2 Adj.	0.047	0.134
Std.Errors	State	State
Covariates: All	N	Y

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses. Households omitted if classified as homeowners with a mortgage.

Source: HPS: Waves 34-45 (Post-Treatment: Waves 38-45).

Table 8 presents the results of the difference-in-differences analysis when homeowners with mortgages are removed from the sample. After adjustment for covariates (which increases the value of R^2 , explaining 13.4% of the total variance), the coefficient for Renter x Post-Treatment – representing a 1.11 percentage point (95% CI: 0.61 – 1.61) increase in the prevalence of food insufficiency among renters after the moratorium is lifted — is similar in magnitude to that of the main analysis and remains statistically significant at $p < 0.001$ (Model 10). Thus, potential spill-over effects due to confusion about eviction moratorium protection coverage appear to be negligible.

Table 9: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure (Coarsened Exact Matching)

	Model 11: No Covariates	Model 12: All Covariates
Renter x Post-Treatment	0.0107*** (0.0026)	0.0101*** (0.0025)
Renter	0.1008*** (0.0038)	0.0397*** (0.0027)

	Model 11: No Covariates	Model 12: All Covariates
Post-Treatment	0.0068*** (0.0007)	0.0062*** (0.0007)
Constant	0.0473*** (0.0009)	0.2632*** (0.0120)
Num.Obs.	444037	444037
R2	0.042	0.123
R2 Adj.	0.042	0.123
Std.Errors	State	State
Covariates: All	N	Y

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses. See Appendix H for details of Coarsened Exact Matching.

Source: HPS: Waves 34-45 (Post-Treatment: Waves 38-45)

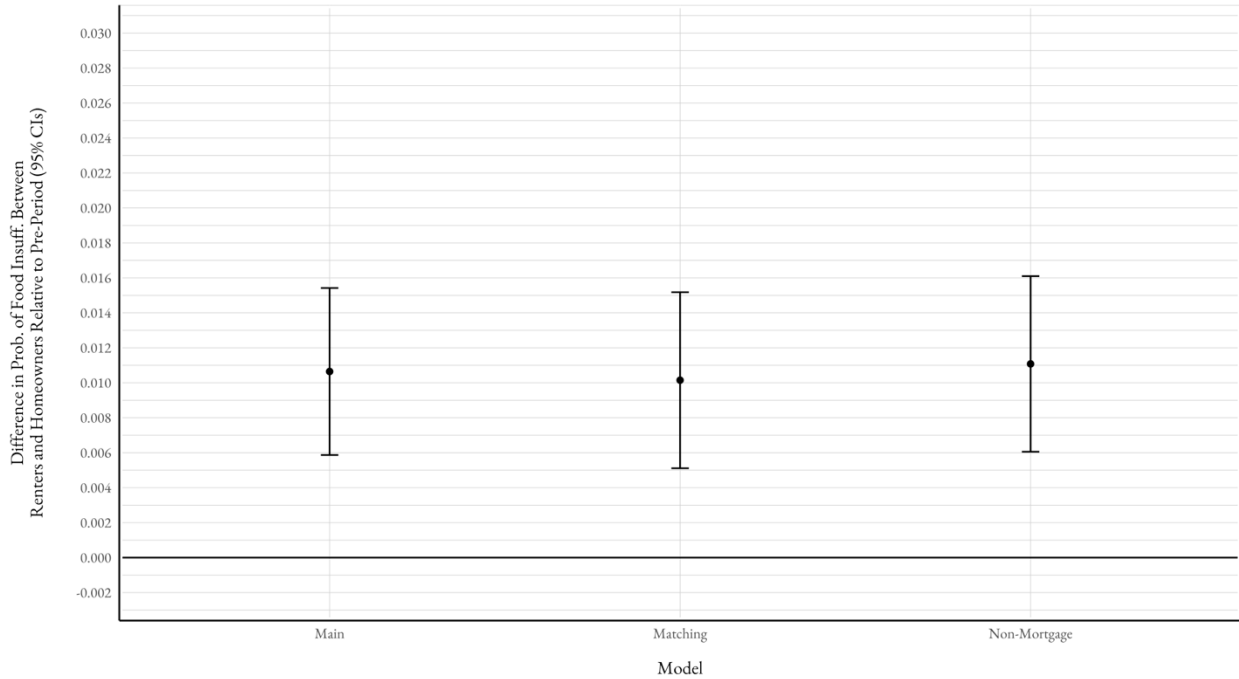
Table 9 presents the results of the difference-in-differences analysis conducted after coarsened exact matching was employed to improve balance on covariates between renters and homeowners. While matching failed to fully balance the groups, improvements in substantive differences in covariates between renters and homeowners were made.

Matching was coarsened as follows. Income groups included 1) “less than 25k” and “25k to 34,999;” 2) “35k to 49,999” and “50k to 74,999,” and 3) “150k to 199,999” and “200k or more.” Racial groups included 1) “Asian,” and “Other or Multiple.” Age groups included 1) “18 to 24,” and “25 to 34” and 2) “75 to 84” and “85 or More.” Education groups included 1) “Less than HS” and “Some HS,” 2) “Some College” and “Associates Degree;” and 3) “Bachelor’s Degree” and “Graduate Degree.” Unweighted descriptive statistics by period and tenure before and after matching are presented below (see Tables 10-13). While the groups remain imbalanced on tenure post-matching, the differences between values of covariates have substantially decreased in many cases. 14,366 units are dropped from the control group, and 2,101 units are dropped from the treatment group. Standardized mean differences and relevant visualizations are available upon request.

After both matching and adjustment for covariates (which improves the adjusted R² value, explaining 12.3% of the total variance) the coefficient for *Renter x Post-Treatment* — representing a 1.01 percentage point (95% CI: 0.51 – 1.52) increase in the prevalence of food insufficiency among renters after the moratorium is lifted — is similar in magnitude to that of the main analysis and remains statistically significant at p < 0.001. That a model drawing on a sample with improved balance between comparison groups performs similarly to the main analysis helps to defend against concerns that underlying differences in the characteristics of renters and homeowners might be responsible for measured differences in outcomes.

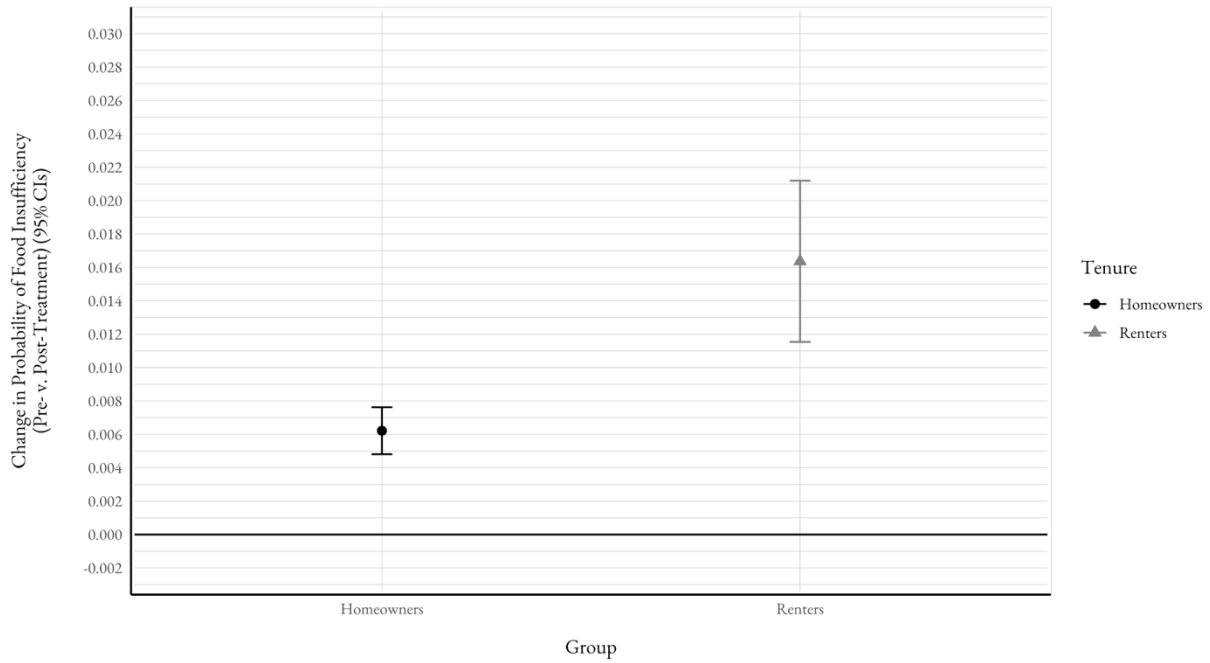
Figure 9 displays the similar difference-in-differences estimates from the main (Model 2), matching (Model 12) and non-mortgage (Model 10) analyses. Figures 10 and 11 present alternative visualizations of the matching and mortgage estimates.

Figure 9: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure for Main, Non-Mortgage, and Matching Analyses



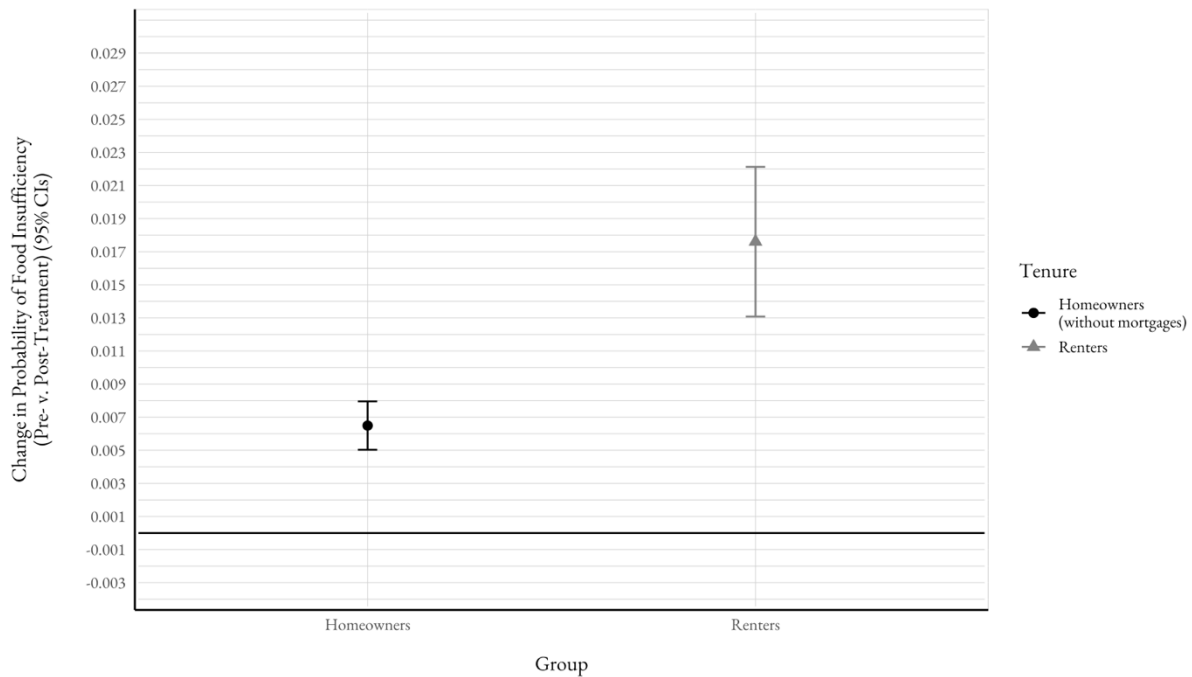
Note: Figure based estimates from Models 2, 7, and 9, including all covariates listed (see appendix).
Source: Household Pulse Survey

Figure 10: Change in Probability of Food Insufficiency (Pre- v. Post-Treatment) by Tenure (Matching Model)



Note: Figure based on Model 9 estimates, including all covariates listed; Coarsened Exact Matching used. Source: Household Pulse Survey

Figure 11: Change in Probability of Food Insufficiency (Pre- v. Post-Treatment) by Tenure (Excluding Mortgaged Ownership)



Note: Figure based on Model 6 estimates, including all covariates listed. Source: Household Pulse Survey

Table 10: Descriptive Statistics by Tenure (Unweighted Original Sample)

	Homeowner N = 357,308 ¹	Renter N = 103,166 ¹
Gender		
Male	149,378 (42%)	37,294 (36%)
Female	207,930 (58%)	65,872 (64%)
Race		
White	311,221 (87%)	78,596 (76%)
Black	20,615 (5.8%)	14,024 (14%)
Asian	12,646 (3.5%)	3,766 (3.7%)
Other or Multiple	12,826 (3.6%)	6,780 (6.6%)
Hispanic		
Not Hispanic	335,578 (94%)	92,430 (90%)
Hispanic	21,730 (6.1%)	10,736 (10%)
Age		
18 to 24	4,279 (1.2%)	5,496 (5.3%)
25 to 34	27,454 (7.7%)	23,766 (23%)
35 to 44	60,909 (17%)	22,392 (22%)
45 to 54	65,736 (18%)	18,226 (18%)
55 to 64	79,566 (22%)	16,439 (16%)
65 to 74	84,859 (24%)	12,123 (12%)
75 to 84	30,864 (8.6%)	3,927 (3.8%)
85 or More	3,641 (1.0%)	797 (0.8%)
Education		
HS Graduate	35,348 (9.9%)	16,216 (16%)
< HS	1,153 (0.3%)	972 (0.9%)
Some HS	2,616 (0.7%)	2,396 (2.3%)
Some College	68,807 (19%)	27,611 (27%)
Associate's Degree	37,765 (11%)	11,762 (11%)
Bachelor's Degree	108,496 (30%)	26,134 (25%)
Graduate Degree	103,123 (29%)	18,075 (18%)
Employed	212,121 (59%)	65,689 (64%)
Income		
less than 25k	23,660 (6.6%)	27,590 (27%)
25k to 34,999	25,727 (7.2%)	16,934 (16%)
35k to 49,999	35,878 (10%)	16,690 (16%)
50k to 74,999	63,191 (18%)	18,700 (18%)
75k to 99,999	57,267 (16%)	10,244 (9.9%)
100k to 149,999	75,237 (21%)	8,127 (7.9%)
150k to 199,999	35,674 (10.0%)	2,749 (2.7%)
200k or more	40,674 (11%)	2,132 (2.1%)
Marital Status		
Married	238,624 (67%)	31,460 (30%)
Widowed	21,654 (6.1%)	5,330 (5.2%)
Divorced	49,922 (14%)	24,862 (24%)

	Homeowner	Renter
	N = 357,308 ¹	N = 103,166 ¹
Separated	3,912 (1.1%)	3,685 (3.6%)
Never Married	43,196 (12%)	37,829 (37%)
Household Size	2.70 (1.40)	2.40 (1.50)
Children Present	112,081 (31%)	31,505 (31%)
Child Tax Credit	69,353 (19%)	20,320 (20%)
SNAP Receipt	14,689 (4.1%)	18,856 (18%)

Notes: Source: HPS: Waves 34-45 (U.S. Census Bureau, 2025); Median (Q1, Q3); overall N = 460,474.

Table 11: Descriptive Statistics by Tenure (Unweighted Matched Sample)

	Homeowner	Renter
	N = 342,942 ¹	N = 101,095 ¹
Gender		
Female	199,953 (58%)	64,536 (64%)
Male	142,989 (42%)	36,559 (36%)
Race		
Asian	11,073 (3.2%)	3,625 (3.6%)
Black	18,150 (5.3%)	13,104 (13%)
Other or Multiple	10,418 (3.0%)	6,240 (6.2%)
White	303,301 (88%)	78,126 (77%)
Hispanic		
Hispanic	17,311 (5.0%)	9,703 (9.6%)
Not Hispanic	325,631 (95%)	91,392 (90%)
Age		
18 to 24	3,803 (1.1%)	5,351 (5.3%)
25 to 34	26,531 (7.7%)	23,207 (23%)
35 to 44	58,865 (17%)	21,841 (22%)
45 to 54	63,295 (18%)	17,883 (18%)
55 to 64	76,481 (22%)	16,221 (16%)
65 to 74	81,742 (24%)	11,959 (12%)
75 to 84	28,864 (8.4%)	3,856 (3.8%)
85 or More	3,361 (1.0%)	777 (0.8%)
Education		
Less than HS	807 (0.2%)	783 (0.8%)
Associate's Degree	36,202 (11%)	11,624 (11%)
Bachelor's Degree	105,676 (31%)	25,925 (26%)
Graduate Degree	100,134 (29%)	17,959 (18%)
HS Graduate	32,491 (9.5%)	15,619 (15%)
Some College	65,765 (19%)	27,257 (27%)

	Homeowner	Renter
	N = 342,942 ¹	N = 101,095 ¹
Some HS	1,867 (0.5%)	1,928 (1.9%)
Employed	205,599 (60%)	64,774 (64%)
Income		
less than 25k	23,136 (6.7%)	26,722 (26%)
25k to 34,999	25,226 (7.4%)	16,551 (16%)
35k to 49,999	34,891 (10%)	16,443 (16%)
50k to 74,999	61,916 (18%)	18,532 (18%)
75k to 99,999	54,559 (16%)	10,060 (10.0%)
100k to 149,999	71,216 (21%)	8,007 (7.9%)
150k to 199,999	33,429 (9.7%)	2,694 (2.7%)
200k or more	38,569 (11%)	2,086 (2.1%)
Marital Status		
Divorced	48,493 (14%)	24,541 (24%)
Married	228,257 (67%)	30,790 (30%)
Never Married	41,806 (12%)	36,982 (37%)
Separated	3,709 (1.1%)	3,542 (3.5%)
Widowed	20,677 (6.0%)	5,240 (5.2%)
Household Size	3 (1)	2 (1)
Children Present	104,058 (30%)	30,289 (30%)
Child Tax Credit	65,189 (19%)	19,579 (19%)
SNAP Receipt	13,553 (4.0%)	18,013 (18%)

Notes: Source: HPS: Waves 34-45 (U.S. Census Bureau, 2025); Median (Q1, Q3); overall N = 460,474.

Table 10 and Table 11 enable comparison between descriptive statistics by tenure for the original and matched unweighted samples, respectively.

Table 12: Descriptive Statistics by Period (Unweighted Original Sample)

Characteristic	Pre-Treatment	Post-Treatment
	N = 150,679	N = 309,795
Tenure		
Homeowner	119,470 (79%)	237,838 (77%)
Renter	31,209 (21%)	71,957 (23%)
Gender		
Male	60,161 (40%)	126,511 (41%)
Female	90,518 (60%)	183,284 (59%)
Race		
White	127,698 (85%)	262,119 (85%)
Black	11,313 (7.5%)	23,326 (7.5%)

Characteristic	Pre-Treatment	Post-Treatment
	N = 150,679	N = 309,795
Asian	5,266 (3.5%)	11,146 (3.6%)
Other or Multiple	6,402 (4.2%)	13,204 (4.3%)
Hispanic		
Not Hispanic	139,978 (93%)	288,030 (93%)
Hispanic	10,701 (7.1%)	21,765 (7.0%)
Age		
18 to 24	3,413 (2.3%)	6,362 (2.1%)
25 to 34	15,750 (10%)	35,470 (11%)
35 to 44	27,960 (19%)	55,341 (18%)
45 to 54	28,081 (19%)	55,881 (18%)
55 to 64	31,898 (21%)	64,107 (21%)
65 to 74	31,194 (21%)	65,788 (21%)
75 to 84	10,869 (7.2%)	23,922 (7.7%)
85 or More	1,514 (1.0%)	2,924 (0.9%)
Education		
HS Graduate	16,535 (11%)	35,029 (11%)
< HS	621 (0.4%)	1,504 (0.5%)
Some HS	1,545 (1.0%)	3,467 (1.1%)
Some College	31,670 (21%)	64,748 (21%)
Associate's Degree	16,351 (11%)	33,176 (11%)
Bachelor's Degree	44,311 (29%)	90,319 (29%)
Graduate Degree	39,646 (26%)	81,552 (26%)
Employed	90,405 (60%)	187,405 (60%)
Income		
less than 25k	15,875 (11%)	35,375 (11%)
25k to 34,999	13,379 (8.9%)	29,282 (9.5%)
35k to 49,999	16,862 (11%)	35,706 (12%)
50k to 74,999	26,630 (18%)	55,261 (18%)
75k to 99,999	22,256 (15%)	45,255 (15%)
100k to 149,999	28,068 (19%)	55,296 (18%)
150k to 199,999	13,029 (8.6%)	25,394 (8.2%)
200k or more	14,580 (9.7%)	28,226 (9.1%)
Marital Status		
Married	90,661 (60%)	179,423 (58%)
Widowed	8,623 (5.7%)	18,361 (5.9%)
Divorced	23,672 (16%)	51,112 (16%)
Separated	2,407 (1.6%)	5,190 (1.7%)
Never Married	25,316 (17%)	55,709 (18%)
Household Size	2.67 (1.44)	2.61 (1.42)

Characteristic	Pre-Treatment	Post-Treatment
	N = 150,679	N = 309,795
Children Present	47,949 (32%)	95,637 (31%)
Child Tax Credit	32,015 (21%)	57,658 (19%)
SNAP Receipt	10,711 (7.1%)	22,834 (7.4%)

Notes: Source: HPS: Waves 34-45 (U.S. Census Bureau, 2025); Median (Q1, Q3); overall N = 460,474.

Table 13: Descriptive Statistics by Period (Unweighted Matched Sample)

	Pre-Treatment	Post-Treatment
	N = 142,651 ¹	N = 301,386 ¹
Renter	30,298 (21%)	70,797 (23%)
Gender		
Female	85,891 (60%)	178,598 (59%)
Male	56,760 (40%)	122,788 (41%)
Race		
Asian	4,447 (3.1%)	10,251 (3.4%)
Black	9,864 (6.9%)	21,390 (7.1%)
Other or Multiple	5,064 (3.5%)	11,594 (3.8%)
White	123,276 (86%)	258,151 (86%)
Hispanic		
Hispanic	8,179 (5.7%)	18,835 (6.2%)
Not Hispanic	134,472 (94%)	282,551 (94%)
Age		
18 to 24	3,102 (2.2%)	6,052 (2.0%)
25 to 34	15,046 (11%)	34,692 (12%)
35 to 44	26,730 (19%)	53,976 (18%)
45 to 54	26,702 (19%)	54,476 (18%)
55 to 64	30,312 (21%)	62,390 (21%)
65 to 74	29,555 (21%)	64,146 (21%)
75 to 84	9,838 (6.9%)	22,882 (7.6%)
85 or More	1,366 (1.0%)	2,772 (0.9%)
Education		
< HS	423 (0.3%)	1,167 (0.4%)
Associate's Degree	15,477 (11%)	32,349 (11%)
Bachelor's Degree	42,794 (30%)	88,807 (29%)
Graduate Degree	38,034 (27%)	80,059 (27%)
HS Graduate	14,933 (10%)	33,177 (11%)
Some College	29,936 (21%)	63,086 (21%)
Some HS	1,054 (0.7%)	2,741 (0.9%)
Employed	87,015 (61%)	183,358 (61%)
Income		
less than 25k	15,243 (11%)	34,615 (11%)
25k to 34,999	12,939 (9.1%)	28,838 (9.6%)
35k to 49,999	16,231 (11%)	35,103 (12%)
50k to 74,999	25,893 (18%)	54,555 (18%)

	Pre-Treatment N = 142,651 ¹	Post-Treatment N = 301,386 ¹
75k to 99,999	20,856 (15%)	43,763 (15%)
100k to 149,999	25,910 (18%)	53,313 (18%)
150k to 199,999	11,984 (8.4%)	24,139 (8.0%)
200k or more	13,595 (9.5%)	27,060 (9.0%)
Marital Status		
Divorced	22,848 (16%)	50,186 (17%)
Married	85,201 (60%)	173,846 (58%)
Never Married	24,256 (17%)	54,532 (18%)
Separated	2,249 (1.6%)	5,002 (1.7%)
Widowed	8,097 (5.7%)	17,820 (5.9%)
Household Size		
Children Present	43,684 (31%)	90,663 (30%)
Child Tax Credit	29,614 (21%)	55,154 (18%)
SNAP Receipt	9,806 (6.9%)	21,760 (7.2%)

Notes: Source: HPS: Waves 34-45 (U.S. Census Bureau, 2025);
Median (Q1, Q3); overall N = 460,474.

Table 12 and Table 13 enable comparison between descriptive statistics by period for the original and matched samples, respectively.

Appendix F: Secondary analyses

Race

Table 14: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Race

	White	Black	Asian	Other or Multiple
Renter x Post-Treatment	0.0095*** (0.0023)	0.0177** (0.0064)	0.0017 (0.0096)	0.0044 (0.0091)
Renter	0.0380*** (0.0027)	0.0501*** (0.0062)	0.0241* (0.0096)	0.0549*** (0.0070)
Post-Treatment	0.0056*** (0.0007)	0.0164*** (0.0040)	0.0025 (0.0026)	0.0122* (0.0050)
Constant	0.1778*** (0.0054)	0.1063*** (0.0279)	0.0807*** (0.0221)	0.2207*** (0.0242)
Num.Obs.	389817	34639	16412	19606
R2	0.116	0.122	0.082	0.124
R2 Adj.	0.116	0.120	0.078	0.121
Std.Errors	State	State	State	State

	White	Black	Asian	Other or Multiple
Covariates: All	Y	Y	Y	Y

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses.

Source: HPS: Waves 34-42 (Post-Treatment: Waves 38-45).

Table 15: Event Study: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Race

	White	Black	Asian	Other or Multiple
Wave -4	0.0051 (0.0061)	-0.0153 (0.0182)	-0.0053 (0.0217)	-0.0339 (0.0218)
Wave -3	0.0060 (0.0054)	0.0171 (0.0187)	0.0124 (0.0187)	-0.0095 (0.0239)
Wave -2	-0.0011 (0.0058)	0.0040 (0.0174)	0.0009 (0.0223)	-0.0134 (0.0207)
Wave 0	0.0006 (0.0050)	0.0154 (0.0216)	0.0127 (0.0238)	-0.0098 (0.0187)
Wave 1	0.0098+ (0.0051)	0.0042 (0.0191)	0.0329 (0.0262)	-0.0160 (0.0208)
Wave 2	0.0060 (0.0056)	0.0115 (0.0195)	-0.0079 (0.0198)	-0.0363+ (0.0211)
Wave 3	0.0099+ (0.0056)	0.0067 (0.0206)	-0.0002 (0.0224)	-0.0144 (0.0190)
Wave 4	0.0157** (0.0053)	0.0371+ (0.0213)	0.0209 (0.0174)	0.0120 (0.0206)
Wave 5	0.0130** (0.0044)	0.0095 (0.0137)	-0.0298+ (0.0166)	-0.0105 (0.0237)
Wave 6	0.0145* (0.0063)	0.0224 (0.0164)	-0.0064 (0.0162)	0.0096 (0.0308)
Wave 7	0.0259*** (0.0063)	0.0473* (0.0186)	0.0292 (0.0193)	-0.0191 (0.0213)
Renter	0.0355*** (0.0038)	0.0483** (0.0136)	0.0222 (0.0139)	0.0692*** (0.0150)
Constant	0.1809*** (0.0057)	0.1107*** (0.0279)	0.0806*** (0.0218)	0.2161*** (0.0237)

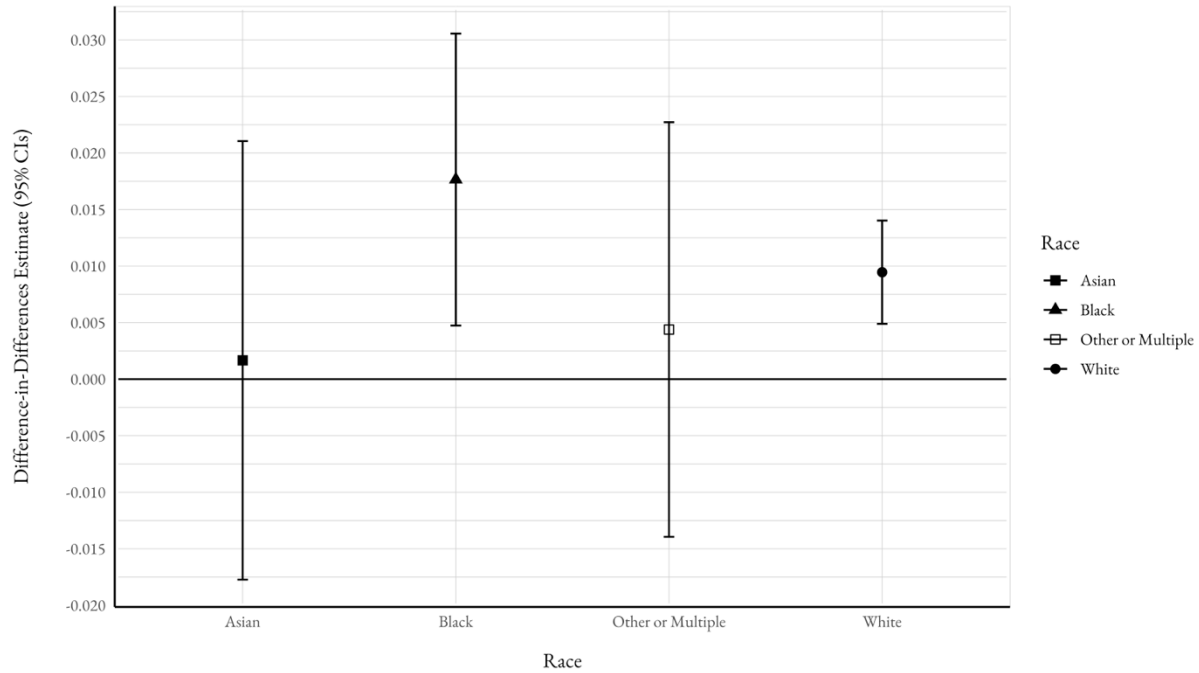
	White	Black	Asian	Other or Multiple
Num.Obs.	389817	34639	16412	19606
R2	0.116	0.124	0.085	0.125
R2 Adj.	0.116	0.121	0.079	0.121
Std.Errors	State	State	State	State
Covariates: All	Y	Y	Y	Y

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Note: Survey wave 38 = Wave 0; Survey wave 37 omitted as reference variable. State and survey wave fixed effects included for all models. Source: Household Pulse Survey: Waves 34-42.

A series of secondary analyses implement versions of Model 2 across sub-groups. Table 14 presents the results for the secondary analysis by race, in which separate difference-in-differences estimates are obtained for each racial group identified in the study. Figure 12 displays the difference-in-differences estimates by racial group.

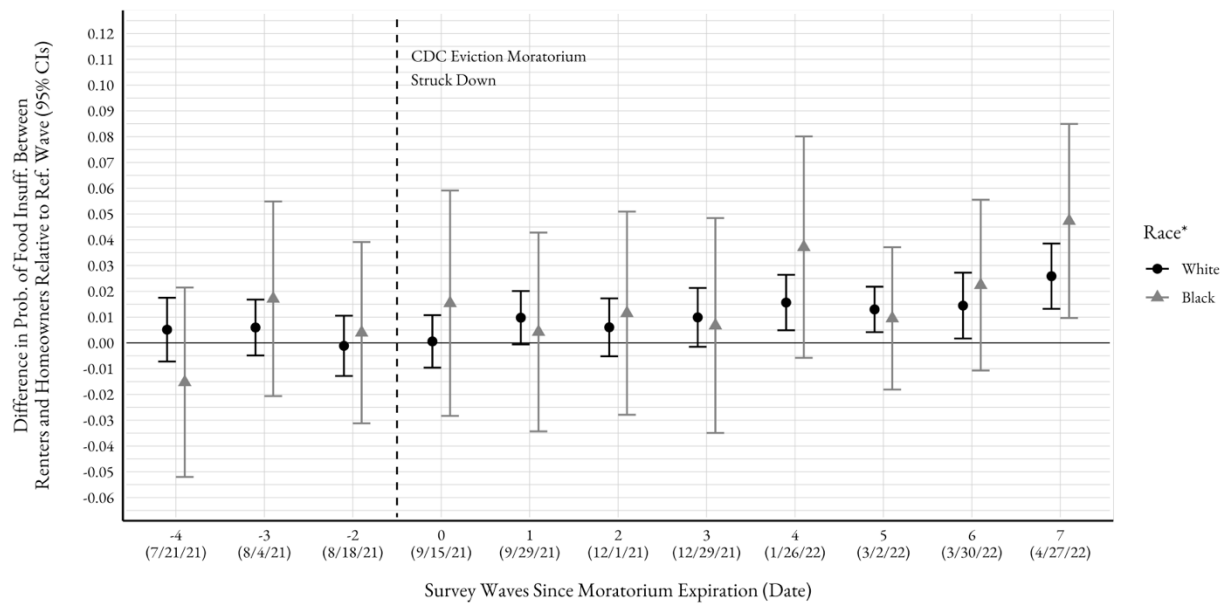
Table 15 presents the event study specification by race by racial group. Figure 13 displays the measured coefficients for each group, isolating the effects for white and Black household heads for plot legibility. Estimates, representing the difference in household food insufficiency by tenure relative to the pre-treatment reference wave, are generally higher for Black respondents but only reach statistical significance beginning in Wave 7 post-treatment. Estimates for white respondents increase in magnitude over time but are not significantly different from zero until Wave 4 post-treatment, indicating that treatment effects generally increase with prolonged exposure and emerge gradually. Differences in statistical power between groups may explain the relative imprecision of some estimates.

Figure 12: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insecurity by Tenure and Race



Note: Figure based on Table 7 estimates, including all covariates listed.
Source: Household Pulse Survey

Figure 13: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insecurity by Tenure and Race (Event Study)



*Sample restricted to white and Black household heads for plot legibility; see Appendices for table including all racial groups (Asian and Other/Multiple).
Note: Wave 37 omitted as reference.
Source: Household Pulse Survey

Gender

Table 16: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Gender

	sample: Male	sample: Female
Renter x Post-Treatment	0.0063 (0.0038)	0.0131*** (0.0030)
Renter	0.0309*** (0.0033)	0.0454*** (0.0031)
Post-Treatment	0.0043*** (0.0009)	0.0079*** (0.0009)
Constant	0.1746*** (0.0077)	0.1477*** (0.0063)
Num.Obs.	186672	273802
R2	0.110	0.130
R2 Adj.	0.110	0.130
Std.Errors	State	State
Covariates: All	Y	Y

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses. Source: HPS: Waves 34-45 (Post-Treatment: Waves 38-45).

Table 17: Event Study: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Gender

	Male	Female
Wave -4	0.0065 (0.0079)	-0.0018 (0.0076)
Wave -3	0.0156+ (0.0084)	0.0026 (0.0073)
Wave -2	0.0070 (0.0062)	-0.0046 (0.0087)
Wave 0	0.0043 (0.0089)	0.0023 (0.0062)
Wave 1	0.0188+ (0.0099)	0.0027 (0.0080)
Wave 2	0.0080 (0.0099)	0.0025 (0.0069)

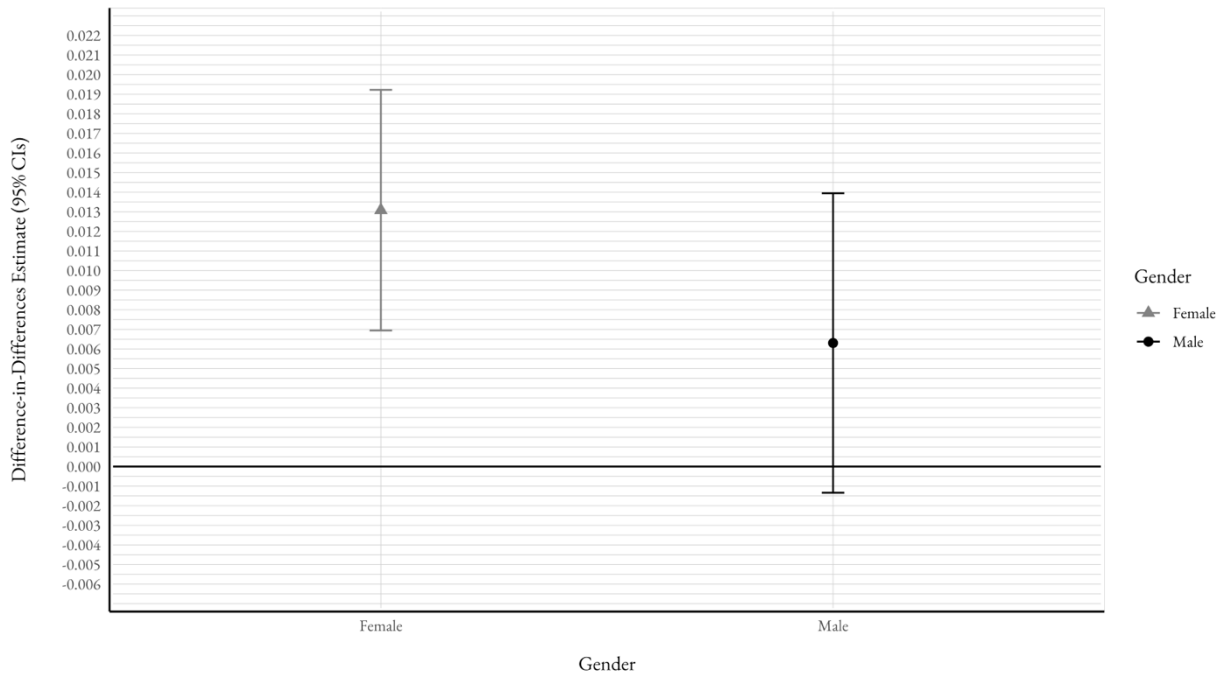
	Male	Female
Wave 3	0.0125 (0.0089)	0.0079 (0.0076)
Wave 4	0.0193* (0.0094)	0.0206** (0.0074)
Wave 5	0.0106 (0.0066)	0.0121+ (0.0065)
Wave 6	0.0167+ (0.0086)	0.0162+ (0.0088)
Wave 7	0.0216* (0.0101)	0.0305*** (0.0081)
Renter	0.0234** (0.0068)	0.0464*** (0.0051)
Constant	0.1784*** (0.0078)	0.1502*** (0.0063)
Num.Obs.	186672	273802
R2	0.111	0.130
R2 Adj.	0.110	0.130
Std.Errors	State	State
Covariates: All	Y	Y

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. Note: Survey Wave 38 = Wave 0; Survey Wave 37 omitted as reference variable. State and survey wave fixed effects included for all models. Source: Household Pulse Survey: Waves 34-45.

Table 16 presents the results for the secondary analysis by gender in which separate difference-in-differences estimates are obtained for men and women. Figure 14 displays the difference-in-differences estimates by gender.

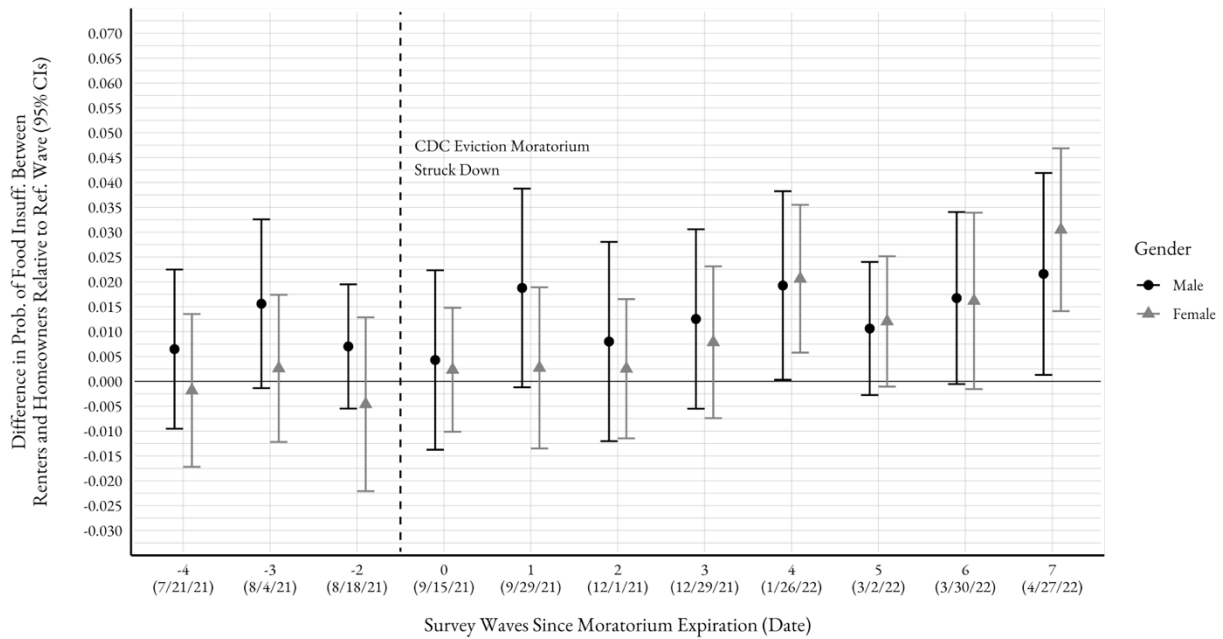
Table 17 presents the event study specification by race by gender. Figure 15 displays the measured coefficients by group. Estimates, representing the difference in household food insufficiency by tenure relative to the pre-treatment reference wave, are generally higher for male respondents in the pre-treatment period, are equivalent by Wave 4 post-treatment, and are outpaced by estimates for female respondents by Wave 7. Estimates for male respondents are less precisely estimated and follow a less steep path.

Figure 14: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure and Gender



Note: Figure based on Table 7 estimates, including all covariates listed.
Source: Household Pulse Survey

Figure 15: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure and Gender (Event Study)



Note: Wave 37 omitted as reference.
Source: Household Pulse Survey

Income

Table 18: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Income (USD)

	150k or More	75k to 149,999	Less than 75k
Renter x Post-Treatment	-0.0035 (0.0037)	0.0068* (0.0030)	0.0104** (0.0033)
Renter	0.0108** (0.0032)	0.0103*** (0.0025)	0.0660*** (0.0035)
Post-Treatment	0.0014*** (0.0004)	0.0038*** (0.0005)	0.0110*** (0.0016)
Constant	0.0330** (0.0096)	0.0293** (0.0085)	0.0785*** (0.0075)
Num.Obs.	81229	150875	228370
R2	0.026	0.020	0.085
R2 Adj.	0.025	0.019	0.085
Std.Errors	State	State	State
Covariates: All	Y	Y	Y

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. Note: State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses. Source: HPS: Waves 34-45 (Post-Treatment: Waves 38-45).

Table 19: Event Study: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Income (USD)

	150k or More	75k to 149,999	Less than 75k
Wave -4	0.0053 (0.0086)	-0.0001 (0.0052)	0.0030 (0.0065)
Wave -3	0.0044 (0.0085)	0.0157** (0.0046)	0.0057 (0.0072)
Wave -2	-0.0057 (0.0107)	0.0120* (0.0047)	-0.0001 (0.0080)
Wave 0	-0.0031 (0.0092)	0.0099+ (0.0055)	0.0027 (0.0058)
Wave 1	-0.0073 (0.0086)	0.0102 (0.0063)	0.0107 (0.0073)
Wave 2	-0.0083 (0.0085)	0.0133* (0.0054)	0.0050 (0.0078)
Wave 3	-0.0015	0.0098*	0.0094

	150k or More	75k to 149,999	Less than 75k
	(0.0092)	(0.0048)	(0.0075)
Wave 4	-0.0009	0.0151**	0.0213**
	(0.0092)	(0.0050)	(0.0075)
Wave 5	-0.0035	0.0198***	0.0114*
	(0.0097)	(0.0052)	(0.0056)
Wave 6	0.0028	0.0200**	0.0117
	(0.0072)	(0.0067)	(0.0073)
Wave 7	0.0003	0.0143*	0.0271***
	(0.0102)	(0.0064)	(0.0074)
Renter	0.0100	0.0030	0.0636***
	(0.0073)	(0.0036)	(0.0049)
Constant	0.0332***	0.0319***	0.0829***
	(0.0094)	(0.0082)	(0.0079)
Num.Obs.	81229	150875	228370
R2	0.026	0.020	0.086
R2 Adj.	0.025	0.020	0.086
Std.Errors	State	State	State
Covariates: All	Y	Y	Y

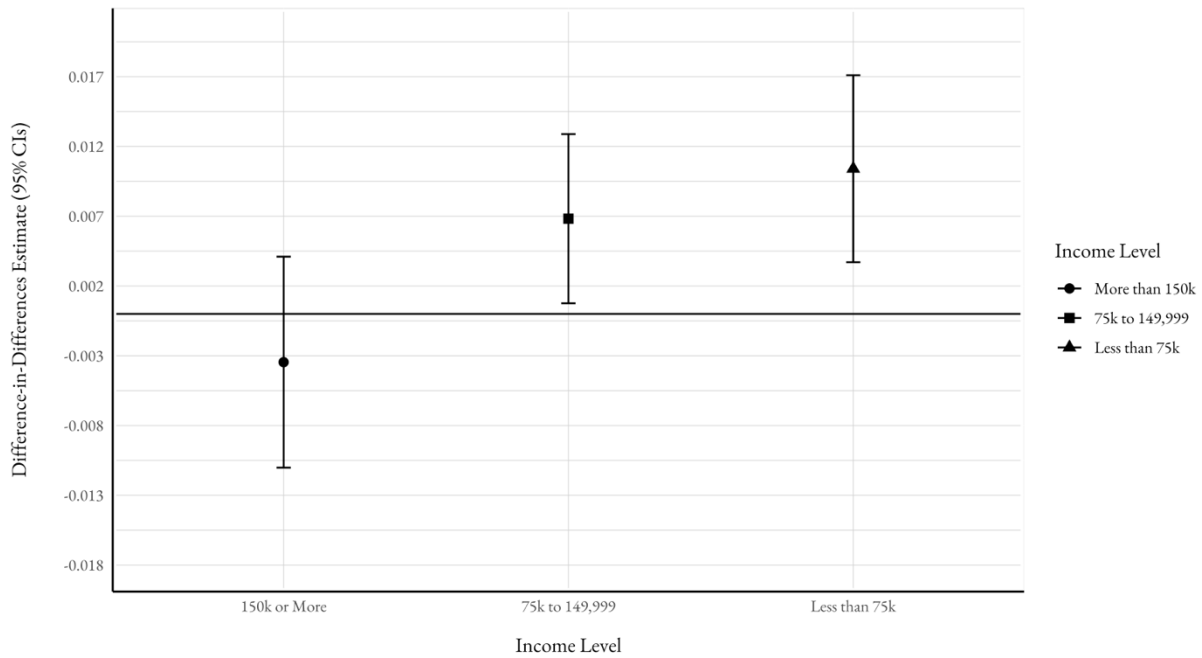
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ Note: Survey Wave 38 = Wave 0; Survey Wave 37 omitted as reference variable. State and Survey Wave fixed effects included for all models.

Source: Household Pulse Survey: Waves 34-45.

Table 18 presents the results for the secondary analysis in which separate difference-in-differences estimates are obtained for different income groups. Figure 16 displays the difference-in-differences estimates by income strata.

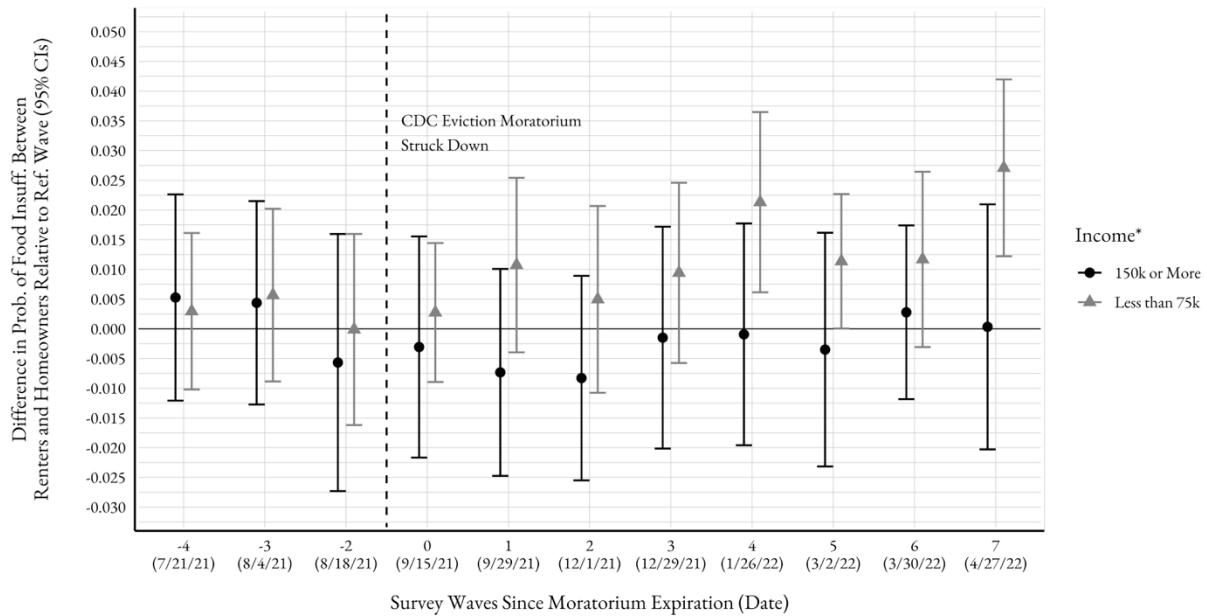
Table 19 presents the event study specification by income. Figure 17 displays the measured coefficients by group, restricted to the highest and lowest income strata for plot legibility. Estimates, representing the difference in household food insufficiency by tenure relative to the pre-treatment reference wave, are similar among the highest and lowest income renters pre-treatment, but diverge after the eviction moratorium ends. Estimates for low-income renters gradually increase, reaching statistical significance in Wave 4.

Figure 16: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure and Income



Note: incomes re-grouped from original eight categories;
 Figure based on Table 8 estimates, including all covariates listed.
 Source: Household Pulse Survey

Figure 17: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure and Income (Event Study)



Note: Wave 37 omitted as reference.
 *Sample restricted for plot legibility; see appendices for table including all income levels
 Source: Household Pulse Survey

Children Present

Table 20: Event Study: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Children Present

	No	Yes
Wave -4	-0.0025 (0.0061)	0.0075 (0.0097)
Wave -3	0.0069 (0.0057)	0.0067 (0.0099)
Wave -2	-0.0014 (0.0063)	0.0006 (0.0105)
Wave 0	-0.0059 (0.0064)	0.0227* (0.0103)
Wave 1	-0.0008 (0.0055)	0.0299** (0.0100)
Wave 2	-0.0005 (0.0068)	0.0142 (0.0106)
Wave 3	-0.0007 (0.0068)	0.0312** (0.0103)
Wave 4	0.0082 (0.0069)	0.0461*** (0.0084)
Wave 5	-0.0010 (0.0050)	0.0408*** (0.0072)
Wave 6	0.0081 (0.0067)	0.0359** (0.0105)
Wave 7	0.0126* (0.0061)	0.0576*** (0.0121)
Renter	0.0383*** (0.0050)	0.0335*** (0.0055)
Constant	0.1896*** (0.0070)	0.1114*** (0.0095)
Num.Obs.	316888	143586
R2	0.119	0.139
R2 Adj.	0.118	0.138
Std.Errors	State	State
Covariates: All	Y	Y

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. Note: Survey Wave 38 = Wave 0; Survey Wave 37 omitted as reference variable. Source: Household Pulse Survey: Waves 34-42.

Table 20 presents the event study coefficients by the presence of children in the household (see Table 3 in the main text for additional secondary analyses by the presence of children in the household). See Figures 4 and 5 in the main text for relevant visualizations.

State-Level Social Safety Net Generosity

Table 21: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Social Safety Net Generosity

	High	Low
Renter x Post-Treatment	0.0099* (0.0045)	0.0118*** (0.0025)
Renter	0.0633*** (0.0048)	0.0590*** (0.0038)
Post-Treatment	0.0069*** (0.0012)	0.0072*** (0.0009)
Constant	0.1090*** (0.0094)	0.0789*** (0.0088)
Num.Obs.	204232	256242
R2	0.100	0.097
R2 Adj.	0.100	0.097
Std.Errors	State	State
Covariates: All	Y	Y

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ Note: State and time period fixed effects included for all models; standard errors (clustered at state-level) in parentheses. Social safety net generosity refers to states providing above or below median combined cash and food benefits. Source: HPS: Waves 34-45 (Post-Treatment: Waves 38-45); SSNID.

Table 22: Event Study: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Social Safety Net Generosity

	High	Low
Wave -4)	0.0104 (0.0072)	-0.0057 (0.0070)
Wave -3)	0.0033 (0.0088)	0.0096 (0.0065)
Wave -2)	0.0006 (0.0102)	-0.0017 (0.0072)
Wave 0)	0.0048 (0.0065)	0.0015 (0.0058)
Wave 1)	0.0245* (0.0089)	-0.0032 (0.0051)
Wave 2)	0.0015 (0.0091)	0.0065 (0.0072)
Wave 3)	0.0099 (0.0088)	0.0086 (0.0069)

	High	Low
Wave 4)	0.0229+	0.0176**
	(0.0112)	(0.0055)
Wave 5)	0.0082	0.0139**
	(0.0075)	(0.0046)
Wave 6)	0.0131	0.0190*
	(0.0098)	(0.0073)
Wave 7)	0.0256*	0.0282***
	(0.0116)	(0.0057)
Renter	0.0369***	0.0381***
	(0.0059)	(0.0050)
Constant	0.1637***	0.1529***
	(0.0084)	(0.0090)
Num.Obs.	204232	256242
R2	0.125	0.123
R2 Adj.	0.125	0.122
Std.Errors	State	State
Covariates: All	Y	Y

$p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Note: Survey Wave 38 = Wave 0; Survey Wave 37 omitted as reference variable. State and Survey Wave fixed effects included for all models.

Source: Household Pulse Survey: Waves 34-45.

Table 21 presents the results for the secondary analysis stratified by state-level social safety net generosity. Separate difference-in-differences estimates are obtained for renters in states providing at/above- or below-median cash and food benefits to the average low-income, single-parent household. Figure 18 displays the difference-in-differences estimates by state-level social safety net generosity.

Table 22 presents the event study specification by social safety net generosity. Figure 19 displays the measured coefficients by groups of states (at or above median generosity v. below median generosity). A steady increase in the magnitude of estimates, representing the difference in household food insufficiency by tenure relative to the pre-treatment reference wave, over time is noted later in the pre-treatment period for both more and less generous states; estimates are more precise for less generous states, reaching significance in Wave 4.

Figure 18: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure and Social Safety Net Generosity

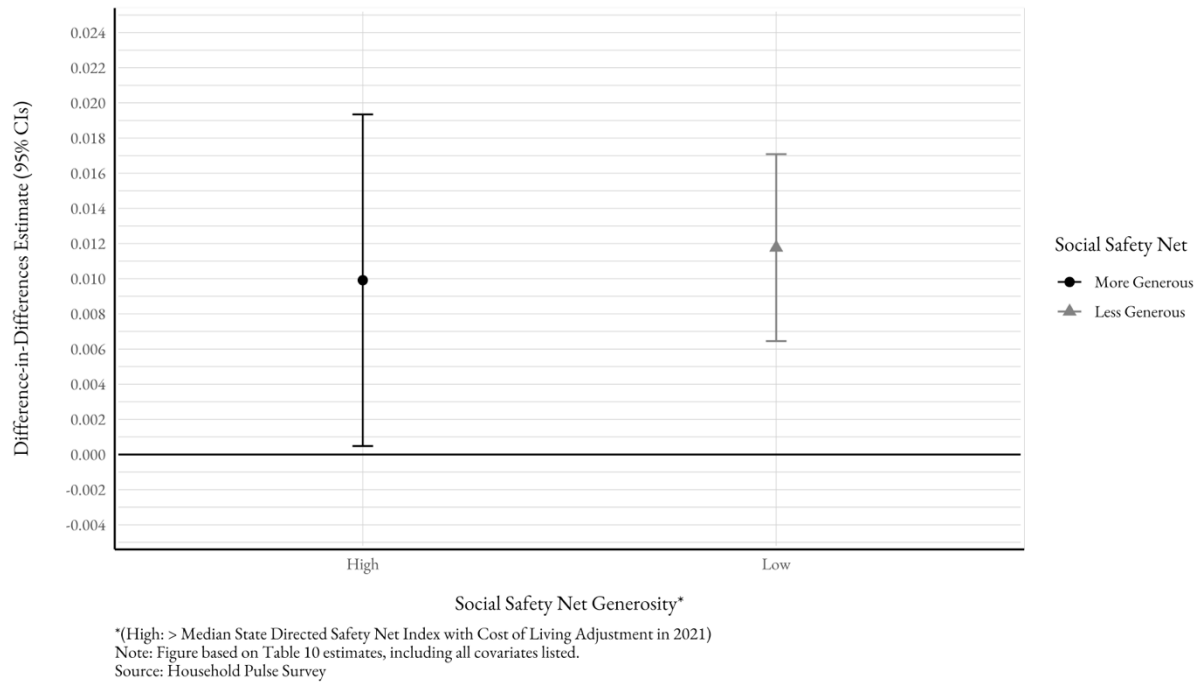


Figure 19: Difference-in-Differences Estimates of the Association Between Eviction Moratorium End and Food Insufficiency by Tenure and Income (Event Study)

