

TWFE Sensitivity — Raw Summaries (Selectable Outcomes)

Joe White

November 03, 2025

SCENARIO: pre_pandemic_2017_2019

SAMPLE: with_anticipation

[info] rows=256,622 | CCNs=7665

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 256,622

Fixed-effects: cms_certification_number: 7,665, year_month: 36

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.08597	0.019198	-4.478	0.0000767510407513 ***
government	0.00381	0.026504	0.144	0.8865749760402450
non_profit	-0.03042	0.034059	-0.893	0.3778509659023068
chain	-0.01543	0.014134	-1.091	0.2825700660849799
beds	-0.00331	0.000650	-5.098	0.0000119141584465 ***
occupancy_rate	-0.01124	0.000981	-11.461	0.00000000000002131 ***
pct_medicare	0.00507	0.001394	3.637	0.0008788073665611 ***
pct_medicaid	-0.00020	0.000371	-0.538	0.5938654507626122
cm_q_state_2	-0.00387	0.007550	-0.512	0.6116522625612657
cm_q_state_3	0.00121	0.010256	0.118	0.9066243484756895
cm_q_state_4	0.00675	0.014511	0.466	0.6444507785196041

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.855979 Adj. R2: 0.443296

Within R2: 0.004536

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 256,520

Fixed-effects: cms_certification_number: 7,665, year_month: 36

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.026062	0.006280	-4.150	0.0002019579195395278 ***
government	-0.002852	0.008885	-0.321	0.7501619824047027763

non_profit	-0.003287	0.010251	-0.321	0.7504177096218498377
chain	-0.005082	0.004268	-1.191	0.2418328733753461468
beds	-0.000742	0.000143	-5.190	0.0000090402818647552 ***
occupancy_rate	-0.002603	0.000193	-13.497	0.0000000000000019493 ***
pct_medicare	0.001037	0.000342	3.029	0.0045920096708091636 **
pct_medicaid	-0.000021	0.000114	-0.183	0.8557251666586394023
cm_q_state_2	0.004505	0.001719	2.621	0.0128832066474654627 *
cm_q_state_3	0.008225	0.002027	4.057	0.0002644801345540953 ***
cm_q_state_4	0.010402	0.002490	4.177	0.0001866030756160370 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.118151 Adj. R2: 0.741477

Within R2: 0.012805

SAMPLE: without_anticipation_I

[info] rows=252,976 | CCNs=7664

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 252,976

Fixed-effects: cms_certification_number: 7,664, year_month: 36

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.110677	0.024326	-4.550	0.00006199655664264 ***
government	0.007062	0.028223	0.250	0.80386915537610693
non_profit	-0.014846	0.032516	-0.457	0.65079270277534040
chain	-0.021494	0.014358	-1.497	0.14336584968740007
beds	-0.003289	0.000676	-4.867	0.00002395535369500 ***
occupancy_rate	-0.011338	0.001006	-11.267	0.000000000000034142 ***
pct_medicare	0.005187	0.001426	3.637	0.00088019852931707 ***
pct_medicaid	-0.000203	0.000381	-0.535	0.59620710867745708
cm_q_state_2	-0.003468	0.007603	-0.456	0.65114992709207575
cm_q_state_3	0.001108	0.010454	0.106	0.91620625342857964
cm_q_state_4	0.006229	0.014840	0.420	0.67725580710302236

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.860298 Adj. R2: 0.442094

Within R2: 0.004485

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 252,885

Fixed-effects: cms_certification_number: 7,664, year_month: 36

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.034039457	0.007323	-4.64811	0.0000462205184649090 ***

government	-0.000092194	0.008821	-0.01045	0.9917206094708890252
non_profit	0.000200107	0.010145	0.01972	0.9843757480139403437
chain	-0.006834169	0.004188	-1.63177	0.1116937541535839573
beds	-0.000721727	0.000147	-4.90545	0.0000213390196566608 ***
occupancy_rate	-0.002620778	0.000193	-13.60337	0.0000000000000015461 ***
pct_medicare	0.001074563	0.000347	3.09252	0.0038835366557413600 **
pct_medicaid	-0.000000512	0.000116	-0.00442	0.9964962336954883426
cm_q_state_2	0.004534247	0.001701	2.66599	0.0115388469665724455 *
cm_q_state_3	0.008244360	0.002009	4.10352	0.0002311564672117095 ***
cm_q_state_4	0.010329605	0.002521	4.09720	0.0002354562681597010 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.117021 Adj. R2: 0.745589

Within R2: 0.013056

SAMPLE: without_anticipation_II

[info] rows=254,776 | CCNs=7665

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 254,776

Fixed-effects: cms_certification_number: 7,665, year_month: 36

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.101739	0.021012	-4.8420	0.00002583445149775 ***
government	0.001585	0.027857	0.0569	0.95494894971691635
non_profit	-0.026922	0.034428	-0.7820	0.43948393259410645
chain	-0.015883	0.014350	-1.1069	0.27590296379175216
beds	-0.003268	0.000660	-4.9498	0.00001867002309086 ***
occupancy_rate	-0.011320	0.000994	-11.3877	0.00000000000025442 ***
pct_medicare	0.005178	0.001407	3.6805	0.00077811555901732 ***
pct_medicaid	-0.000186	0.000371	-0.5016	0.61910071506306619
cm_q_state_2	-0.003685	0.007538	-0.4889	0.62798121449168254
cm_q_state_3	0.001177	0.010370	0.1135	0.91026746779571321
cm_q_state_4	0.005763	0.014772	0.3902	0.69878164516688912

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.858379 Adj. R2: 0.442587

Within R2: 0.004538

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 254,677

Fixed-effects: cms_certification_number: 7,665, year_month: 36

Standard-errors: Clustered (cms_certification_number & year_month)

Estimate	Std. Error	t value	Pr(> t)
----------	------------	---------	----------

post	-0.031354	0.006806	-4.606	0.0000523480556289035	***
government	-0.001512	0.008719	-0.173	0.8633443652343804064	
non_profit	-0.002053	0.010404	-0.197	0.8446740553958903552	
chain	-0.005100	0.004282	-1.191	0.2416546156388942324	
beds	-0.000726	0.000145	-5.004	0.0000158439273068992	***
occupancy_rate	-0.002609	0.000193	-13.485	0.00000000000000020006	***
pct_medicare	0.001064	0.000345	3.085	0.0039574959045441012	**
pct_medicaid	-0.000013	0.000113	-0.112	0.9118006989657027050	
cm_q_state_2	0.004533	0.001708	2.654	0.0118809563912008372	*
cm_q_state_3	0.008272	0.002007	4.122	0.0002192333539252505	***
cm_q_state_4	0.010192	0.002517	4.049	0.0002708098911481125	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.117889 Adj. R2: 0.742595

Within R2: 0.012913

SCENARIO: pandemic_2020q2_2024q2

SAMPLE: with_anticipation

[info] rows=363,450 | CCNs=7506

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 363,450

Fixed-effects: cms_certification_number: 7,506, year_month: 51

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)	
post	-0.00598	0.021399	-0.279	0.78116710479621	
government	-0.01400	0.033150	-0.422	0.67456575243486	
non_profit	0.19218	0.049168	3.909	0.00027974257056	***
chain	-0.03338	0.020599	-1.620	0.11148134194388	
beds	-0.00172	0.000529	-3.262	0.00199937158549	**
occupancy_rate	-0.01044	0.001307	-7.988	0.00000000017383	***
pct_medicare	0.00374	0.002304	1.622	0.11118468516017	
pct_medicaid	0.00022	0.000395	0.557	0.58031560284137	
cm_q_state_2	-0.01843	0.012126	-1.519	0.13494014143156	
cm_q_state_3	-0.01299	0.024332	-0.534	0.59592009377132	
cm_q_state_4	0.00606	0.036464	0.166	0.86876299278723	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 3.27991 Adj. R2: 0.072546

Within R2: 4.673e-4

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 362,967

Fixed-effects: cms_certification_number: 7,505, year_month: 51
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.008417	0.006872	-1.225	0.226364312305
government	-0.012003	0.012478	-0.962	0.340721200322
non_profit	0.050108	0.015398	3.254	0.002042396833 **
chain	-0.008485	0.006663	-1.274	0.208703385800
beds	-0.000493	0.000114	-4.325	0.000072911167 ***
occupancy_rate	-0.002566	0.000149	-17.183	< 2.2e-16 ***
pct_medicare	0.000413	0.000248	1.667	0.101777308126
pct_medicaid	0.000025	0.000083	0.306	0.760787162127
cm_q_state_2	0.004978	0.002091	2.381	0.021117186264 *
cm_q_state_3	0.013586	0.002759	4.925	0.000009627850 ***
cm_q_state_4	0.023285	0.003703	6.287	0.000000078121 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.169238 Adj. R2: 0.630965

Within R2: 0.011142

SAMPLE: without_anticipation_I

[info] rows=358,770 | CCNs=7506

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 358,770

Fixed-effects: cms_certification_number: 7,506, year_month: 51

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.038378	0.024191	-1.586	0.11894272745259
government	-0.008289	0.032973	-0.251	0.80254951611223
non_profit	0.201113	0.051578	3.899	0.00028821086936 ***
chain	-0.042673	0.021194	-2.013	0.04947246826841 *
beds	-0.001749	0.000537	-3.259	0.00201588507546 **
occupancy_rate	-0.010473	0.001336	-7.839	0.00000000029509 ***
pct_medicare	0.003906	0.002347	1.664	0.10228212052207
pct_medicaid	0.000254	0.000395	0.643	0.52346008191334
cm_q_state_2	-0.019233	0.012155	-1.582	0.11987779872798
cm_q_state_3	-0.014730	0.024535	-0.600	0.55096577217161
cm_q_state_4	0.003500	0.036834	0.095	0.92467989412316

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 3.30033 Adj. R2: 0.071958

Within R2: 4.669e-4

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 358,367

Fixed-effects: cms_certification_number: 7,505, year_month: 51

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)	
post	-0.018238	0.007095	-2.571	0.01317542925	*
government	-0.012208	0.012619	-0.967	0.33800701650	
non_profit	0.049585	0.014931	3.321	0.00168131664	**
chain	-0.010056	0.006665	-1.509	0.13762775685	
beds	-0.000493	0.000114	-4.325	0.00007281942	***
occupancy_rate	-0.002555	0.000148	-17.250	< 2.2e-16	***
pct_medicare	0.000446	0.000248	1.798	0.07818216225	.
pct_medicaid	0.000032	0.000083	0.386	0.70092639183	
cm_q_state_2	0.004959	0.002055	2.413	0.01951042616	*
cm_q_state_3	0.013500	0.002717	4.969	0.00000826621	***
cm_q_state_4	0.022555	0.003688	6.115	0.00000014491	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.16546 Adj. R2: 0.642084

Within R2: 0.011616

SAMPLE: without_anticipation_II

[info] rows=361,137 | CCNs=7506

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 361,137

Fixed-effects: cms_certification_number: 7,506, year_month: 51

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)	
post	-0.029367	0.022547	-1.302	0.19871541999291	
government	-0.009873	0.033178	-0.298	0.76726853579518	
non_profit	0.198190	0.050490	3.925	0.00026532529114	***
chain	-0.036939	0.020675	-1.787	0.08006313588355	.
beds	-0.001780	0.000535	-3.330	0.00163557010236	**
occupancy_rate	-0.010516	0.001324	-7.944	0.00000000020315	***
pct_medicare	0.003841	0.002326	1.651	0.10491721701115	
pct_medicaid	0.000213	0.000392	0.542	0.58988933005716	
cm_q_state_2	-0.018864	0.012143	-1.553	0.12662281789175	
cm_q_state_3	-0.013924	0.024389	-0.571	0.57061085449510	
cm_q_state_4	0.004612	0.036584	0.126	0.90018643127447	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 3.28993 Adj. R2: 0.072264

Within R2: 4.738e-4

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total
Observations: 360,700
Fixed-effects: cms_certification_number: 7,505, year_month: 51
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.015672	0.006975	-2.247	0.029086846915 *
government	-0.013019	0.012586	-1.034	0.305930746989
non_profit	0.047148	0.015166	3.109	0.003098048790 **
chain	-0.007962	0.006578	-1.210	0.231825014731
beds	-0.000502	0.000114	-4.399	0.000057001907 ***
occupancy_rate	-0.002570	0.000149	-17.205	< 2.2e-16 ***
pct_medicare	0.000430	0.000246	1.749	0.086404828528 .
pct_medicaid	0.000021	0.000082	0.257	0.797975641731
cm_q_state_2	0.005069	0.002090	2.425	0.018964806113 *
cm_q_state_3	0.013715	0.002752	4.983	0.000007882798 ***
cm_q_state_4	0.023043	0.003672	6.275	0.000000081533 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.167263 Adj. R2: 0.636824
Within R2: 0.011502

SCENARIO: for_profit_only

SAMPLE: with_anticipation

[info] rows=464,794 | CCNs=6022

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd
Observations: 464,793
Fixed-effects: cms_certification_number: 6,021, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.069830	0.014722	-4.743	0.0000079538 ***
chain	-0.047472	0.013071	-3.632	0.0004699112 ***
beds	-0.001697	0.000503	-3.371	0.0011080619 **
occupancy_rate	-0.010435	0.000626	-16.672	< 2.2e-16 ***
pct_medicare	0.004093	0.000832	4.920	0.0000039434 ***
pct_medicaid	-0.000903	0.000283	-3.196	0.0019296147 **
cm_q_state_2	0.001143	0.008217	0.139	0.8897333544
cm_q_state_3	0.025145	0.010352	2.429	0.0171511029 *
cm_q_state_4	0.058864	0.014097	4.176	0.0000690740 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 1.42791 Adj. R2: 0.17249
Within R2: 0.003529

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total
Observations: 464,330
Fixed-effects: cms_certification_number: 6,020, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.021734	0.004839	-4.49	0.00002115827107744963 ***
chain	-0.012154	0.004456	-2.73	0.00768969736660407230 **
beds	-0.000393	0.000147	-2.68	0.00888594937310563382 **
occupancy_rate	-0.002511	0.000148	-16.99	< 2.2e-16 ***
pct_medicare	0.000809	0.000222	3.65	0.00044358172295432392 ***
pct_medicaid	-0.000272	0.000082	-3.32	0.00131128836316580068 **
cm_q_state_2	0.007981	0.001903	4.19	0.00006456374361506987 ***
cm_q_state_3	0.018362	0.002338	7.85	0.000000000000865978972 ***
cm_q_state_4	0.028916	0.002906	9.95	0.000000000000000040621 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.160348 Adj. R2: 0.597836
Within R2: 0.017371

SAMPLE: without_anticipation_I

[info] rows=457,231 | CCNs=6003

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd
Observations: 457,230
Fixed-effects: cms_certification_number: 6,002, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.082425	0.015994	-5.1535	0.0000015264 ***
chain	-0.053195	0.013428	-3.9615	0.0001498952 ***
beds	-0.001618	0.000503	-3.2152	0.0018168759 **
occupancy_rate	-0.010565	0.000636	-16.6148	< 2.2e-16 ***
pct_medicare	0.004122	0.000843	4.8873	0.0000044924 ***
pct_medicaid	-0.000932	0.000285	-3.2709	0.0015259683 **
cm_q_state_2	0.000541	0.008305	0.0651	0.9482225234
cm_q_state_3	0.024004	0.010593	2.2659	0.0258819126 *
cm_q_state_4	0.058272	0.014463	4.0292	0.0001176543 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 1.43754 Adj. R2: 0.171169
Within R2: 0.003543

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total
Observations: 456,847
Fixed-effects: cms_certification_number: 6,002, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.025309	0.005148	-4.92	0.00000400511007730031 ***
chain	-0.013587	0.004487	-3.03	0.00322212971958105122 **
beds	-0.000373	0.000148	-2.51	0.01380710947186464428 *
occupancy_rate	-0.002538	0.000148	-17.16	< 2.2e-16 ***
pct_medicare	0.000814	0.000225	3.62	0.00048252171869558511 ***
pct_medicaid	-0.000274	0.000083	-3.32	0.00131464652884825560 **
cm_q_state_2	0.007939	0.001870	4.25	0.00005326822571327289 ***
cm_q_state_3	0.018295	0.002324	7.87	0.000000000000795300667 ***
cm_q_state_4	0.028754	0.002920	9.85	0.00000000000000066659 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.156947 Adj. R2: 0.608756

 Within R2: 0.018356

SAMPLE: without_anticipation_II

[info] rows=460,975 | CCNs=6011

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 460,971

Fixed-effects: cms_certification_number: 6,007, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.077106	0.015268	-5.0500	0.0000023303 ***
chain	-0.048735	0.013233	-3.6828	0.0003953135 ***
beds	-0.001705	0.000505	-3.3762	0.0010910621 **
occupancy_rate	-0.010548	0.000632	-16.6858	< 2.2e-16 ***
pct_medicare	0.004129	0.000837	4.9338	0.0000037281 ***
pct_medicaid	-0.000903	0.000282	-3.1966	0.0019253550 **
cm_q_state_2	0.000753	0.008272	0.0911	0.9276517281
cm_q_state_3	0.024662	0.010460	2.3577	0.0205778983 *
cm_q_state_4	0.058334	0.014254	4.0926	0.0000935877 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 1.43281 Adj. R2: 0.171822

 Within R2: 0.00356

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 460,548

Fixed-effects: cms_certification_number: 6,006, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.023757	0.004991	-4.76	0.00000745521292353673 ***

```

chain          -0.012039    0.004472   -2.69  0.00847616167464016607 **
beds           -0.000396    0.000148   -2.68  0.00884441469602877291 **
occupancy_rate -0.002529    0.000149  -17.02                < 2.2e-16 ***
pct_medicare   0.000823    0.000222    3.70  0.00036892630396142092 ***
pct_medicaid -0.000268    0.000082   -3.27  0.00153000698698895128 **
cm_q_state_2   0.008064    0.001876    4.30  0.00004388067861841809 ***
cm_q_state_3   0.018622    0.002328    8.00  0.000000000000434296853 ***
cm_q_state_4   0.029036    0.002900   10.01  0.00000000000000030146 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.158734      Adj. R2: 0.603091
                Within R2: 0.017919

```

SCENARIO: baseline_chain_2017q1

SAMPLE: with_anticipation

[info] rows=325,038 | CCNs=3825

OUTCOME: total_hppd (level)

```

OLS estimation, Dep. Var.: total_hppd
Observations: 325,038
Fixed-effects: cms_certification_number: 3,825, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

              Estimate Std. Error t value      Pr(>|t|)
post         -0.054074   0.016425  -3.292  0.001426592707 **
government   -0.047544   0.022879  -2.078  0.040579841629 *
non_profit    0.136522   0.040258   3.391  0.001039668355 **
chain        -0.043163   0.022258  -1.939  0.055643643818 .
beds         -0.002525   0.000647  -3.900  0.000186364268 ***
occupancy_rate -0.008482  0.000653 -12.982    < 2.2e-16 ***
pct_medicare   0.006337   0.001090   5.811  0.000000094928 ***
pct_medicaid -0.000688   0.000337  -2.038  0.044507664169 *
cm_q_state_2   0.007366   0.009811   0.751  0.454758628893
cm_q_state_3   0.030048   0.012715   2.363  0.020297450445 *
cm_q_state_4   0.050699   0.017882   2.835  0.005666633968 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 1.03018      Adj. R2: 0.297808
                Within R2: 0.004964

```

OUTCOME: total_hppd (log)

```

OLS estimation, Dep. Var.: ln_total
Observations: 324,842
Fixed-effects: cms_certification_number: 3,825, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

              Estimate Std. Error t value      Pr(>|t|)

```

post	-0.016007	0.005074	-3.154	0.0021932866514025	**
government	-0.022653	0.008604	-2.633	0.0099856217994226	**
non_profit	0.046169	0.016007	2.884	0.0049189078595334	**
chain	-0.004632	0.005986	-0.774	0.4411061829423467	
beds	-0.000622	0.000167	-3.734	0.0003324681872850	***
occupancy_rate	-0.002110	0.000152	-13.905	< 2.2e-16	***
pct_medicare	0.001521	0.000287	5.300	0.0000008320581418	***
pct_medicaid	-0.000299	0.000095	-3.137	0.0023174292550630	**
cm_q_state_2	0.008742	0.001972	4.433	0.0000264576260226	***
cm_q_state_3	0.017622	0.002463	7.155	0.0000000002263816	***
cm_q_state_4	0.025206	0.003177	7.933	0.0000000000059571	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.147253 Adj. R2: 0.606812

Within R2: 0.017445

SAMPLE: without_anticipation_I

[info] rows=319,864 | CCNs=3824

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 319,864

Fixed-effects: cms_certification_number: 3,824, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)	
post	-0.068463	0.017877	-3.83	0.000238444159	***
government	-0.051938	0.022777	-2.28	0.024978414147	*
non_profit	0.147713	0.040589	3.64	0.000458254929	***
chain	-0.055031	0.023737	-2.32	0.022723980735	*
beds	-0.002447	0.000647	-3.78	0.000281923137	***
occupancy_rate	-0.008510	0.000664	-12.82	< 2.2e-16	***
pct_medicare	0.006573	0.001094	6.01	0.000000040406	***
pct_medicaid	-0.000663	0.000334	-1.99	0.050162728800	.
cm_q_state_2	0.005998	0.009991	0.60	0.549845019675	
cm_q_state_3	0.028371	0.012969	2.19	0.031321784217	*
cm_q_state_4	0.049219	0.018262	2.70	0.008409931377	**

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 1.03583 Adj. R2: 0.296744

Within R2: 0.004978

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 319,716

Fixed-effects: cms_certification_number: 3,824, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.018433	0.005271	-3.50	0.000736112257816 ***
government	-0.025155	0.008525	-2.95	0.004051270573175 **
non_profit	0.048477	0.015478	3.13	0.002350507783514 **
chain	-0.007157	0.006126	-1.17	0.245797932016229
beds	-0.000608	0.000167	-3.64	0.000454128004208 ***
occupancy_rate	-0.002112	0.000152	-13.94	< 2.2e-16 ***
pct_medicare	0.001594	0.000289	5.52	0.000000325173839 ***
pct_medicaid	-0.000285	0.000096	-2.96	0.003885618028213 **
cm_q_state_2	0.008250	0.001996	4.13	0.000080945302741 ***
cm_q_state_3	0.017168	0.002473	6.94	0.000000000601111 ***
cm_q_state_4	0.024631	0.003199	7.70	0.000000000017801 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.144402 Adj. R2: 0.616556
Within R2: 0.018218

SAMPLE: without_anticipation_II

[info] rows=322,446 | CCNs=3825

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd
Observations: 322,446
Fixed-effects: cms_certification_number: 3,825, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.059792	0.016979	-3.522	0.000678955248 ***
government	-0.052146	0.022971	-2.270	0.025619579098 *
non_profit	0.146910	0.040943	3.588	0.000544066176 ***
chain	-0.043624	0.022712	-1.921	0.057964080101 .
beds	-0.002507	0.000651	-3.848	0.000223721464 ***
occupancy_rate	-0.008529	0.000656	-13.001	< 2.2e-16 ***
pct_medicare	0.006502	0.001092	5.957	0.000000050431 ***
pct_medicaid	-0.000662	0.000333	-1.985	0.050260449934 .
cm_q_state_2	0.006547	0.009869	0.663	0.508826712461
cm_q_state_3	0.029603	0.012771	2.318	0.022741508808 *
cm_q_state_4	0.049965	0.017974	2.780	0.006634514347 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 1.03315 Adj. R2: 0.297252
Within R2: 0.005017

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total
Observations: 322,276
Fixed-effects: cms_certification_number: 3,825, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.016770	0.005256	-3.191	0.0019593067541937 **
government	-0.025240	0.008615	-2.930	0.0043068973748133 **
non_profit	0.047457	0.016086	2.950	0.0040566283193262 **
chain	-0.003913	0.006097	-0.642	0.5226397672159808
beds	-0.000618	0.000168	-3.684	0.0003942823419307 ***
occupancy_rate	-0.002110	0.000152	-13.904	< 2.2e-16 ***
pct_medicare	0.001576	0.000287	5.485	0.0000003827652615 ***
pct_medicaid	-0.000287	0.000095	-3.013	0.0033658687076001 **
cm_q_state_2	0.008538	0.001976	4.322	0.0000401919384830 ***
cm_q_state_3	0.017587	0.002453	7.169	0.0000000002121683 ***
cm_q_state_4	0.025019	0.003182	7.864	0.0000000000082665 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.146807 Adj. R2: 0.608575

 Within R2: 0.0177

SCENARIO: baseline_nonchain_2017q1

SAMPLE: with_anticipation

[info] rows=246,632 | CCNs=2976

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 246,632

Fixed-effects: cms_certification_number: 2,976, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.100795	0.028231	-3.570	0.000577428 ***
government	-0.054689	0.039994	-1.367	0.174931762
non_profit	-0.046597	0.043050	-1.082	0.282007713
chain	-0.096752	0.022868	-4.231	0.000056393 ***
beds	-0.001983	0.000569	-3.482	0.000772461 ***
occupancy_rate	-0.008453	0.000747	-11.315	< 2.2e-16 ***
pct_medicare	-0.000423	0.002028	-0.208	0.835377674
pct_medicaid	-0.001235	0.000398	-3.101	0.002581565 **
cm_q_state_2	0.015739	0.011415	1.379	0.171422430
cm_q_state_3	0.033512	0.023277	1.440	0.153467649
cm_q_state_4	0.040883	0.060500	0.676	0.500949955

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 3.86082 Adj. R2: 0.04402

 Within R2: 3.464e-4

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total
Observations: 246,341
Fixed-effects: cms_certification_number: 2,976, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.023854	0.008481	-2.813	0.0060441327984983 **
government	-0.022421	0.013570	-1.652	0.1020050594639511
non_profit	-0.009018	0.011396	-0.791	0.4308310056022026
chain	-0.030348	0.006217	-4.881	0.0000045988802582 ***
beds	-0.000447	0.000132	-3.379	0.0010821315727689 **
occupancy_rate	-0.002201	0.000191	-11.504	< 2.2e-16 ***
pct_medicare	0.000341	0.000302	1.128	0.2624878815817178
pct_medicaid	-0.000302	0.000126	-2.401	0.0184475931369802 *
cm_q_state_2	0.009661	0.002639	3.661	0.0004263417711268 ***
cm_q_state_3	0.021028	0.003195	6.582	0.0000000031176891 ***
cm_q_state_4	0.033093	0.004041	8.188	0.0000000000017822 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.164704 Adj. R2: 0.647445
Within R2: 0.015814

SAMPLE: without_anticipation_I

[info] rows=244,228 | CCNs=2976

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd
Observations: 244,228
Fixed-effects: cms_certification_number: 2,976, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.121258	0.030867	-3.928	0.000168531 ***
government	-0.053900	0.041210	-1.308	0.194264158
non_profit	-0.054712	0.044052	-1.242	0.217506890
chain	-0.098069	0.023084	-4.248	0.000052855 ***
beds	-0.001941	0.000570	-3.404	0.000998903 ***
occupancy_rate	-0.008593	0.000754	-11.395	< 2.2e-16 ***
pct_medicare	-0.000508	0.002061	-0.247	0.805715184
pct_medicaid	-0.001294	0.000401	-3.226	0.001756557 **
cm_q_state_2	0.015920	0.011543	1.379	0.171285798
cm_q_state_3	0.032424	0.023608	1.373	0.173077141
cm_q_state_4	0.040133	0.061261	0.655	0.514086028

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 3.87923 Adj. R2: 0.043711
Within R2: 3.544e-4

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 243,961

Fixed-effects: cms_certification_number: 2,976, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.030153	0.009176	-3.286	0.0014552211239910 **
government	-0.019648	0.013826	-1.421	0.1587962161223396
non_profit	-0.010527	0.011590	-0.908	0.3661826593546772
chain	-0.029754	0.006189	-4.808	0.0000061680268784 ***
beds	-0.000429	0.000133	-3.235	0.0017100452452281 **
occupancy_rate	-0.002234	0.000191	-11.711	< 2.2e-16 ***
pct_medicare	0.000315	0.000306	1.029	0.3060719101543098
pct_medicaid	-0.000318	0.000126	-2.515	0.0136922505474050 *
cm_q_state_2	0.010150	0.002569	3.952	0.0001552839863370 ***
cm_q_state_3	0.021075	0.003144	6.704	0.0000000017944379 ***
cm_q_state_4	0.033307	0.004012	8.302	0.0000000000010416 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.162167 Adj. R2: 0.654973

Within R2: 0.016627

SAMPLE: without_anticipation_II

[info] rows=245,417 | CCNs=2976

OUTCOME: total_hppd (level)

OLS estimation, Dep. Var.: total_hppd

Observations: 245,417

Fixed-effects: cms_certification_number: 2,976, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)
post	-0.113210	0.029301	-3.864	0.000211688 ***
government	-0.057309	0.040699	-1.408	0.162571467
non_profit	-0.051411	0.043712	-1.176	0.242677627
chain	-0.098228	0.022914	-4.287	0.000045821 ***
beds	-0.002007	0.000571	-3.515	0.000694603 ***
occupancy_rate	-0.008550	0.000750	-11.396	< 2.2e-16 ***
pct_medicare	-0.000455	0.002049	-0.222	0.824769621
pct_medicaid	-0.001250	0.000400	-3.128	0.002381013 **
cm_q_state_2	0.015724	0.011460	1.372	0.173515932
cm_q_state_3	0.032585	0.023401	1.392	0.167247420
cm_q_state_4	0.040316	0.060808	0.663	0.509040038

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 3.87006 Adj. R2: 0.043867

Within R2: 3.534e-4

OUTCOME: total_hppd (log)

OLS estimation, Dep. Var.: ln_total

Observations: 245,143

Fixed-effects: cms_certification_number: 2,976, year_month: 90

Standard-errors: Clustered (cms_certification_number & year_month)

	Estimate	Std. Error	t value	Pr(> t)	
post	-0.028441	0.008708	-3.266	0.00154886810215214	**
government	-0.021008	0.013750	-1.528	0.13007924349994973	
non_profit	-0.010066	0.011516	-0.874	0.38441289294913239	
chain	-0.029566	0.006123	-4.828	0.00000567897626831	***
beds	-0.000450	0.000133	-3.389	0.00104642220094042	**
occupancy_rate	-0.002225	0.000192	-11.617	< 2.2e-16	***
pct_medicare	0.000332	0.000303	1.097	0.27553168064827399	
pct_medicaid	-0.000306	0.000126	-2.433	0.01699186811850637	*
cm_q_state_2	0.009997	0.002577	3.880	0.00019993483439642	***
cm_q_state_3	0.021130	0.003159	6.689	0.00000000192474602	***
cm_q_state_4	0.033336	0.004004	8.325	0.00000000000093366	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 0.162464 Adj. R2: 0.653923

Within R2: 0.016534

Done.