

# TWFE Sensitivity — Raw Console Summaries

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November 03, 2025

**SCENARIO:** pre\_pandemic\_2017\_2019

**SAMPLE:** with\_anticipation

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

**OUTCOME:** rn\_hppd (level)

```
OLS estimation, Dep. Var.: rn_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      -0.026325  0.005731 -4.593 0.00005446048450 ***
government  0.008672  0.008706  0.996 0.32605797637793
non_profit -0.003100  0.009292 -0.334 0.74067153345991
chain       0.015920  0.004201  3.790 0.00057101422752 ***
beds        -0.000665  0.000190 -3.498 0.00129652801477 **
occupancy_rate -0.002574  0.000300 -8.575 0.00000000040214 ***
pct_medicare   0.001153  0.000496  2.323 0.02609967078567 *
pct_medicaid    0.000040  0.000123  0.324 0.74761759836355
cm_q_state_2   -0.003599  0.003146 -1.144 0.26040709248842
cm_q_state_3   -0.003353  0.004044 -0.829 0.41260343060507
cm_q_state_4   -0.001922  0.006069 -0.317 0.75336314934964
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.412704      Adj. R2: 0.38694
           Within R2: 0.001066
```

**OUTCOME:** rn\_hppd (log)

```
OLS estimation, Dep. Var.: ln_rn
Observations: 253,536
Fixed-effects: cms_certification_number: 7,652, year_month: 36
Standard-errors: Clustered (cms_certification_number & year_month)

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

post      -0.059429  0.021936 -2.709 0.0103681854932 *
government  0.047559  0.038144  1.247 0.2207389017343
```

non_profit	0.008437	0.028701	0.294	0.7705200330186
chain	0.042178	0.014887	2.833	0.0075965174478 **
beds	-0.000170	0.000477	-0.356	0.7240170695232
occupancy_rate	-0.003919	0.000516	-7.592	0.0000000066803 ***
pct_medicare	0.001680	0.000945	1.777	0.0841900992054 .
pct_medicaid	0.000133	0.000369	0.362	0.7194368085673
cm_q_state_2	0.009955	0.006386	1.559	0.1280135464638
cm_q_state_3	0.014805	0.008010	1.848	0.0730329561619 .
cm_q_state_4	0.022263	0.009691	2.297	0.0277070003012 *
<hr/>				
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				
RMSE: 0.371845      Adj. R2: 0.789787				
Within R2: 0.003535				

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	-0.0111417	0.008020	-1.389	0.173535873536735
government	-0.0146189	0.012085	-1.210	0.234500261744094
non_profit	-0.0207511	0.013254	-1.566	0.126421262693665
chain	-0.0069694	0.005912	-1.179	0.246422571084772
beds	-0.0007710	0.000210	-3.665	0.000811940142849 ***
occupancy_rate	-0.0034022	0.000364	-9.353	0.00000000047364 ***
pct_medicare	0.0014869	0.000472	3.148	0.003355631671476 **
pct_medicaid	-0.0000072	0.000156	-0.046	0.963551084666761
cm_q_state_2	-0.0017198	0.002845	-0.605	0.549373479999908
cm_q_state_3	-0.0031377	0.003624	-0.866	0.392553106177610
cm_q_state_4	0.0014657	0.004456	0.329	0.744150678863269
<hr/>				
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				
RMSE: 0.195721      Adj. R2: 0.696941				
Within R2: 0.007662				

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 253,399  
 Fixed-effects: cms\_certification\_number: 7,634, year\_month: 36  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.007184	0.010703	-0.671	0.50651463666140
government	-0.023613	0.017907	-1.319	0.19585926668159
non_profit	-0.021497	0.020147	-1.067	0.29327663233434
chain	-0.012194	0.007941	-1.536	0.13363384921242

beds	-0.000551	0.000275	-2.002	0.05306757268147	.						
occupancy_rate	-0.003101	0.000351	-8.842	0.00000000019164	***						
pct_medicare	0.001320	0.000671	1.967	0.05719384975549	.						
pct_medicaid	-0.000058	0.000242	-0.240	0.81188006297970							
cm_q_state_2	0.005149	0.003880	1.327	0.19305311571613							
cm_q_state_3	0.008110	0.004742	1.710	0.09606742908855	.						
cm_q_state_4	0.013816	0.005487	2.518	0.01652318817521	*						
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.218922		Adj.	R2:	0.788925						
			Within	R2:	0.005259						

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.048504	0.013825	-3.508	0.0012589360884370 **							
government	0.009755	0.020038	0.487	0.6294045949491716							
non_profit	-0.006571	0.023597	-0.278	0.7822924853630044							
chain	-0.024377	0.010256	-2.377	0.0230605131389895 *							
beds	-0.001879	0.000396	-4.741	0.0000349772829952 ***							
occupancy_rate	-0.005267	0.000524	-10.052	0.0000000000074058 ***							
pct_medicare	0.002429	0.000800	3.036	0.0045022067352143 **							
pct_medicaid	-0.000233	0.000253	-0.918	0.3647817114066046							
cm_q_state_2	0.001451	0.004188	0.346	0.7310457019895509							
cm_q_state_3	0.007702	0.005502	1.400	0.1703717893849376							
cm_q_state_4	0.007211	0.007270	0.992	0.3280185876397645							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.370439		Adj.	R2:	0.627278						
			Within	R2:	0.005642						

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
 Observations: 256,403  
 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	-0.029691	0.006990	-4.24793	0.0001514986019776 ***
government	0.004115	0.010312	0.39902	0.6923027343941697
non_profit	-0.000054	0.011405	-0.00474	0.9962416625197652
chain	-0.013032	0.004978	-2.61776	0.0129873346084975 *
beds	-0.000710	0.000155	-4.58271	0.0000561948565842 ***
occupancy_rate	-0.001957	0.000194	-10.06296	0.0000000000071923 ***

pct_medicare	0.000895	0.000342	2.62104	0.0128837690428305	*						
pct_medicaid	-0.000067	0.000130	-0.51652	0.6087398006733749							
cm_q_state_2	0.003721	0.002001	1.85950	0.0713795383059251	.						
cm_q_state_3	0.008822	0.002335	3.77729	0.0005915007359209	***						
cm_q_state_4	0.009360	0.002861	3.27126	0.0024100220958427	**						
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.133584		Adj. R2:	0.727362							
			Within R2:	0.006611							

### 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	0.0000000000002131 ***							
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	0.00000000000000019493 ***
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

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### SAMPLE: without\_anticipation\_I

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

### OUTCOME: rn\_hppd (level)

```

OLS estimation, Dep. Var.: rn_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      -0.032495  0.007300  -4.451 0.00008307713867 ***
government 0.006392  0.009493   0.673 0.50514429142935
non_profit -0.005469  0.009877  -0.554 0.58330123033418
chain      0.015840  0.004246   3.730 0.00067600457012 ***
beds       -0.000669  0.000197  -3.402 0.00168842451899 **
occupancy_rate -0.002596  0.000311  -8.335 0.00000000079215 ***
pct_medicare 0.001201  0.000507   2.370 0.02344174522441 *
pct_medicaid 0.000027  0.000123   0.218 0.82857189658548
cm_q_state_2   -0.003619  0.003171  -1.141 0.26150702772339
cm_q_state_3   -0.002943  0.004115  -0.715 0.47921739637399
cm_q_state_4   -0.001340  0.006177  -0.217 0.82947767787616
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.415321   Adj. R2: 0.38492
                           Within R2: 0.001054

```

### OUTCOME: rn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_rn
Observations: 249,968
Fixed-effects: cms_certification_number: 7,651, year_month: 36
Standard-errors: Clustered (cms_certification_number & year_month)
      Estimate Std. Error t value     Pr(>|t|)
post      -0.083084  0.029183  -2.847 0.0073362862356 **
government 0.029423  0.036928   0.797 0.4309592714339
non_profit -0.006173  0.029350  -0.210 0.8346299194630
chain      0.042571  0.015657   2.719 0.0101224126000 *
beds       -0.000165  0.000492  -0.335 0.7392669870262
occupancy_rate -0.003949  0.000524  -7.542 0.0000000077363 ***
pct_medicare 0.001789  0.000958   1.867 0.0703414200544 .

```

pct_medicaid	0.000120	0.000361	0.331	0.7424257963918							
cm_q_state_2	0.009155	0.006401	1.430	0.1614712465319							
cm_q_state_3	0.015573	0.007987	1.950	0.0592416547536 .							
cm_q_state_4	0.023413	0.009670	2.421	0.0207954963054 *							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.369561	Adj.	R2:	0.791615							
		Within	R2:	0.003704							

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	-0.015309	0.010420	-1.469	0.150698916837718							
government	-0.011975	0.012680	-0.944	0.351412392779857							
non_profit	-0.012235	0.012428	-0.985	0.331623221043813							
chain	-0.009631	0.006016	-1.601	0.118367857080705							
beds	-0.000721	0.000216	-3.335	0.002027316944598 **							
occupancy_rate	-0.003431	0.000374	-9.168	0.000000000078154 ***							
pct_medicare	0.001550	0.000482	3.215	0.002801803822487 **							
pct_medicaid	-0.000017	0.000161	-0.106	0.916053160045655							
cm_q_state_2	-0.001453	0.002872	-0.506	0.616010188995011							
cm_q_state_3	-0.003243	0.003689	-0.879	0.385362080065707							
cm_q_state_4	0.001207	0.004493	0.269	0.789851861359499							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.195972	Adj.	R2:	0.697648							
		Within	R2:	0.007637							

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 249,778  
 Fixed-effects: cms\_certification\_number: 7,633, year\_month: 36  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.010949	0.013699	-0.799	0.42954357448311
government	-0.020436	0.017962	-1.138	0.26296471932892
non_profit	-0.013248	0.020107	-0.659	0.51428608049145
chain	-0.014044	0.007994	-1.757	0.08770402295099 .
beds	-0.000503	0.000282	-1.785	0.08289979565621 .
occupancy_rate	-0.003095	0.000347	-8.914	0.00000000015704 ***
pct_medicare	0.001407	0.000689	2.042	0.04876816101980 *
pct_medicaid	-0.000040	0.000241	-0.168	0.86778403248278
cm_q_state_2	0.005755	0.003867	1.488	0.14564737712846

```

cm_q_state_3    0.008180   0.004772   1.714 0.09531802987920 .
cm_q_state_4    0.013655   0.005449   2.506 0.01700925828916 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.217676      Adj. R2: 0.791738
                           Within R2: 0.005226

```

### OUTCOME: cna\_hppd (level)

```

OLS estimation, Dep. Var.: cna_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            -0.062873  0.017680  -3.556 0.0011026594809049 **
government      0.012646  0.022699   0.557 0.5809983528370404
non_profit      0.002858  0.023305   0.123 0.9030996032637068
chain           -0.027703  0.010700  -2.589 0.0139293436407483 *
beds            -0.001900  0.000414  -4.586 0.0000556475820584 ***
occupancy_rate -0.005311  0.000534  -9.938 0.00000000000099731 ***
pct_medicare    0.002437  0.000814   2.993 0.0050366931169618 **
pct_medicaid    -0.000213  0.000260  -0.821 0.4171895518970470
cm_q_state_2    0.001604  0.004221   0.380 0.7061724254144849
cm_q_state_3    0.007294  0.005606   1.301 0.2017204589321130
cm_q_state_4    0.006363  0.007476   0.851 0.4005397141135534
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.371228      Adj. R2: 0.627162
                           Within R2: 0.005605

```

### OUTCOME: cna\_hppd (log)

```

OLS estimation, Dep. Var.: ln_cna
Observations: 252,770
Fixed-effects: cms_certification_number: 7,663, year_month: 36
Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value      Pr(>|t|)
post            -0.036688  0.007904  -4.641 0.0000471507755916 ***
government      0.003388  0.011081   0.306 0.7615910339371641
non_profit      0.003217  0.011390   0.282 0.7792844921513055
chain           -0.014509  0.004979  -2.914 0.0061820505482841 **
beds            -0.000710  0.000160  -4.428 0.0000889574339327 ***
occupancy_rate -0.001974  0.000194 -10.181 0.000000000052841 ***
pct_medicare    0.000911  0.000343   2.653 0.0119251838975124 *
pct_medicaid    -0.000034  0.000132  -0.254 0.8007274432820088
cm_q_state_2    0.003608  0.001990   1.813 0.0783569310276669 .
cm_q_state_3    0.008508  0.002347   3.625 0.0009100602000923 ***
cm_q_state_4    0.008791  0.002918   3.012 0.0047904987739633 **

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
RMSE: 0.132816      Adj. R2: 0.729813  
Within R2: 0.00666

### 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	0.00000000000034142 ***
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

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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	0.00000000000000015461 ***
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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.028526	0.006175	-4.620	0.00005032910651 ***							
government	0.004453	0.009218	0.483	0.63202077797870							
non_profit	-0.006334	0.009725	-0.651	0.51913942189386							
chain	0.015543	0.004239	3.667	0.00080870213662 ***							
beds	-0.000653	0.000194	-3.371	0.00184029297527 **							
occupancy_rate	-0.002583	0.000306	-8.438	0.00000000059118 ***							
pct_medicare	0.001204	0.000503	2.395	0.02212368019796 *							
pct_medicaid	0.000032	0.000122	0.260	0.79644718665470							
cm_q_state_2	-0.003569	0.003152	-1.132	0.26514812366528							
cm_q_state_3	-0.003211	0.004099	-0.783	0.43869061433071							
cm_q_state_4	-0.001820	0.006155	-0.296	0.76923374015295							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1

RMSE: 0.414055      Adj. R2: 0.385861  
                           Within R2: 0.001058

### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn  
  Observations: 251,721  
  Fixed-effects: cms\_certification\_number: 7,652, year\_month: 36  
  Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.068875	0.023645	-2.913	0.0061987451543 **
government	0.020970	0.037939	0.553	0.5839618049333
non_profit	-0.004384	0.029250	-0.150	0.8817236225209
chain	0.041899	0.015016	2.790	0.0084660055968 **
beds	-0.000099	0.000487	-0.203	0.8401535991551
occupancy_rate	-0.003940	0.000522	-7.543	0.0000000077237 ***
pct_medicare	0.001822	0.000951	1.917	0.0634376464504 .
pct_medicaid	0.000138	0.000364	0.380	0.7059592725675
cm_q_state_2	0.009480	0.006414	1.478	0.1483624446365
cm_q_state_3	0.015087	0.008049	1.874	0.0692390631936 .
cm_q_state_4	0.022372	0.009677	2.312	0.0267958916238 *
---				

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
 RMSE: 0.37115      Adj. R2: 0.790289  
 Within R2: 0.003607

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	-0.014484	0.008691	-1.667	0.104513732099798
government	-0.012514	0.012569	-0.996	0.326269272238772
non_profit	-0.017404	0.013148	-1.324	0.194201933473871
chain	-0.007558	0.005957	-1.269	0.212868099568137
beds	-0.000735	0.000212	-3.461	0.001434596673713 **
occupancy_rate	-0.003431	0.000368	-9.323	0.00000000051355 ***
pct_medicare	0.001517	0.000477	3.182	0.003062281576256 **
pct_medicaid	-0.000018	0.000156	-0.114	0.909977631242475
cm_q_state_2	-0.001760	0.002839	-0.620	0.539372798434603
cm_q_state_3	-0.003303	0.003653	-0.904	0.372154175568118
cm_q_state_4	0.001107	0.004482	0.247	0.806277930740479
---				
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.' 0.1 ' ' 1
RMSE:	0.195997	Adj. R2:	0.696915	
		Within R2:	0.007685	

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 251,561  
 Fixed-effects: cms\_certification\_number: 7,634, year\_month: 36  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.008718	0.011827	-0.737	0.46594418502919
government	-0.022991	0.018689	-1.230	0.22684055169030
non_profit	-0.017982	0.020223	-0.889	0.37996731036146
chain	-0.012244	0.008055	-1.520	0.13749361541308
beds	-0.000487	0.000282	-1.728	0.09278739039910 .
occupancy_rate	-0.003092	0.000343	-9.013	0.00000000011964 ***
pct_medicare	0.001371	0.000682	2.010	0.05213321888404 .
pct_medicaid	-0.000075	0.000241	-0.310	0.75856884982735
cm_q_state_2	0.005035	0.003892	1.294	0.20424525760066
cm_q_state_3	0.007750	0.004759	1.629	0.11238655610756
cm_q_state_4	0.012936	0.005463	2.368	0.02354563982149 *
---				
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.' 0.1 ' ' 1
RMSE:	0.218777	Adj. R2:	0.789612	

Within R2: 0.005192

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.05873	0.015304	-3.838	0.0004981814370352 ***
government	0.00965	0.021459	0.449	0.6558696853156620
non_profit	-0.00318	0.023841	-0.134	0.8944949287409156
chain	-0.02387	0.010511	-2.271	0.0294204146971520 *
beds	-0.00188	0.000404	-4.653	0.0000455098285938 ***
occupancy_rate	-0.00531	0.000530	-10.011	0.0000000000082275 ***
pct_medicare	0.00246	0.000804	3.056	0.0042745286036797 **
pct_medicaid	-0.00020	0.000254	-0.787	0.4364195816851948
cm_q_state_2	0.00164	0.004184	0.393	0.6967063438655525
cm_q_state_3	0.00769	0.005549	1.386	0.1745017552377856
cm_q_state_4	0.00648	0.007421	0.873	0.3887998113947781
---				
Signif. codes:	0	'***'	0.001	'**'
RMSE:	0.371045	Adj. R2:	0.627073	
Within R2: 0.005659				

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna

Observations: 254,562

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	-0.034782	0.007459	-4.663	0.000044194635508 ***
government	0.001553	0.010681	0.145	0.885259137751773
non_profit	0.001411	0.011361	0.124	0.901847104775311
chain	-0.012531	0.005014	-2.499	0.017299042853660 *
beds	-0.000710	0.000157	-4.510	0.000069802004520 ***
occupancy_rate	-0.001961	0.000195	-10.062	0.000000000007219 ***
pct_medicare	0.000915	0.000341	2.685	0.011019597742659 *
pct_medicaid	-0.000045	0.000130	-0.348	0.729772211071175
cm_q_state_2	0.003702	0.001994	1.856	0.071859597265160 .
cm_q_state_3	0.008777	0.002332	3.763	0.000615850632957 ***
cm_q_state_4	0.008940	0.002914	3.068	0.004145534837677 **
---				
Signif. codes:	0	'***'	0.001	'**'
RMSE:	0.133591	Adj. R2:	0.727539	
Within R2: 0.006649				

### 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	0.000000000000000020006 ***		
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: rn\_hppd (level)**

OLS estimation, Dep. Var.: rn\_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	-0.008733	0.006775	-1.2890	0.203330
government	0.017864	0.013576	1.3158	0.194226
non_profit	0.054990	0.021246	2.5883	0.012597 *
chain	-0.000251	0.007199	-0.0348	0.972338
beds	-0.000395	0.000332	-1.1899	0.239716
occupancy_rate	-0.001753	0.000952	-1.8421	0.071397 .
pct_medicare	0.002940	0.002115	1.3900	0.170698
pct_medicaid	0.000323	0.000262	1.2327	0.223453
cm_q_state_2	-0.011162	0.006918	-1.6134	0.112952
cm_q_state_3	-0.021049	0.019133	-1.1001	0.276551
cm_q_state_4	-0.026321	0.030635	-0.8592	0.394348
---				
Signif. codes:	0 ***	0.001 **	0.01 *	0.05 .
RMSE:	2.88334	Adj. R2:	0.039152	
		Within R2:	3.773e-5	

**OUTCOME: rn\_hppd (log)**

OLS estimation, Dep. Var.: ln\_rn  
Observations: 359,974  
Fixed-effects: cms\_certification\_number: 7,504, year\_month: 51  
Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.049630	0.020460	-2.4257	0.0189283263928141 *
government	-0.013387	0.045603	-0.2935	0.7703169562475729
non_profit	0.137689	0.043865	3.1389	0.0028435219926399 **
chain	0.005059	0.019962	0.2534	0.8009689989147291
beds	-0.000848	0.000316	-2.6797	0.0099507136515187 **
occupancy_rate	-0.004164	0.000426	-9.7660	0.0000000000003544 ***
pct_medicare	0.001949	0.000638	3.0570	0.0035844221417300 **
pct_medicaid	0.000374	0.000266	1.4095	0.1648721566562259
cm_q_state_2	-0.000452	0.004958	-0.0911	0.9277691180973039
cm_q_state_3	0.007978	0.006153	1.2967	0.2006844545808311
cm_q_state_4	0.020874	0.007738	2.6976	0.0094964183927652 **
---				
Signif. codes:	0 ***	0.001 **	0.01 *	0.05 .

RMSE: 0.4136      Adj. R2: 0.723093  
Within R2: 0.00584

#### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	0.013124	0.008012	1.6379	0.10771434							
government	0.009724	0.013132	0.7405	0.46244718							
non_profit	0.011918	0.016032	0.7434	0.46073252							
chain	0.000570	0.007842	0.0726	0.94237938							
beds	-0.000162	0.000173	-0.9329	0.35533057							
occupancy_rate	-0.003619	0.000244	-14.8101	< 2.2e-16 ***							
pct_medicare	0.000906	0.000366	2.4757	0.01672967 *							
pct_medicaid	-0.000085	0.000116	-0.7317	0.46773966							
cm_q_state_2	-0.001455	0.002603	-0.5589	0.57870058							
cm_q_state_3	0.003918	0.003382	1.1585	0.25215528							
cm_q_state_4	0.016296	0.004475	3.6419	0.00064213 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1

RMSE: 0.373034      Adj. R2: 0.374411  
Within R2: 0.004182

#### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
Observations: 360,967  
Fixed-effects: cms\_certification\_number: 7,490, year\_month: 51  
Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )							
post	0.010128	0.010617	0.9540	0.3446947536							
government	0.014084	0.019150	0.7355	0.4654932263							
non_profit	0.001866	0.028912	0.0645	0.9487951622							
chain	0.008565	0.010719	0.7991	0.4280231364							
beds	0.000098	0.000261	0.3748	0.7093996842							
occupancy_rate	-0.003299	0.000261	-12.6515	< 2.2e-16 ***							
pct_medicare	0.000768	0.000433	1.7731	0.0823071269 .							
pct_medicaid	-0.000168	0.000160	-1.0480	0.2996716435							
cm_q_state_2	0.007962	0.003199	2.4892	0.0161769450 *							
cm_q_state_3	0.017918	0.004288	4.1791	0.0001173895 ***							
cm_q_state_4	0.030514	0.005480	5.5684	0.0000010171 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1

RMSE: 0.272123      Adj. R2: 0.69026  
Within R2: 0.007089

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.010368	0.016090	-0.6443	0.52230311263551976		
government	-0.041590	0.024803	-1.6769	0.09981343535487952 .		
non_profit	0.125273	0.033147	3.7793	0.00041992978125483 ***		
chain	-0.033694	0.015388	-2.1896	0.03325039291677820 *		
beds	-0.001168	0.000287	-4.0683	0.00016805306028260 ***		
occupancy_rate	-0.005070	0.000480	-10.5533	0.00000000000002545 ***		
pct_medicare	-0.000109	0.000731	-0.1492	0.88196842468822678		
pct_medicaid	-0.000019	0.000215	-0.0871	0.93095695812977031		
cm_q_state_2	-0.005808	0.006693	-0.8677	0.38968600971630563		
cm_q_state_3	0.004145	0.009437	0.4393	0.66235613660464565		
cm_q_state_4	0.016081	0.011680	1.3767	0.17473448596625621		
---						
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' '	1
RMSE:	1.17057	Adj. R2:	0.161532	Within R2:	8.38e-4	

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
Observations: 362,706  
Fixed-effects: cms\_certification\_number: 7,503, year\_month: 51  
Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )		
post	-0.00954084	0.008423	-1.1327	0.2627325379145692419		
government	-0.03719830	0.016911	-2.1997	0.0324777709531576045 *		
non_profit	0.05431236	0.016075	3.3787	0.0014185843404702400 **		
chain	-0.01635591	0.008517	-1.9203	0.0605296744152224522 .		
beds	-0.00041467	0.000122	-3.4015	0.0013260785713841130 **		
occupancy_rate	-0.00175057	0.000152	-11.5183	0.000000000000011197 ***		
pct_medicare	0.00000292	0.000274	0.0107	0.9915402316997281584		
pct_medicaid	0.00006248	0.000107	0.5844	0.5615736179366297431		
cm_q_state_2	0.00669417	0.002225	3.0091	0.0040966619506004410 **		
cm_q_state_3	0.01537110	0.002933	5.2410	0.0000032172424836965 ***		
cm_q_state_4	0.02270854	0.003595	6.3163	0.000000704070769596 ***		
---						
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' '	1
RMSE:	0.182508	Adj. R2:	0.64808	Within R2:	0.005361	

### 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	0.00000078121 ***
---				
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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.013652	0.007753	-1.761	0.084392 .							
government	0.019001	0.014273	1.331	0.189126							
non_profit	0.054015	0.022264	2.426	0.018912 *							
chain	-0.002436	0.007557	-0.322	0.748549							
beds	-0.000400	0.000337	-1.188	0.240560							
occupancy_rate	-0.001750	0.000974	-1.796	0.078467 .							
pct_medicare	0.003015	0.002166	1.392	0.169988							
pct_medicaid	0.000332	0.000264	1.257	0.214733							
cm_q_state_2	-0.011456	0.006970	-1.644	0.106509							
cm_q_state_3	-0.021386	0.019333	-1.106	0.273915							
cm_q_state_4	-0.026993	0.030929	-0.873	0.386980							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	2.90203	Adj. R2:	0.038806	Within R2:	3.78e-5						

### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn  
 Observations: 355,438  
 Fixed-effects: cms\_certification\_number: 7,504, year\_month: 51  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )							
post	-0.064546	0.023409	-2.7573	0.0081149688440715 **							
government	-0.020422	0.045727	-0.4466	0.6570861788478487							
non_profit	0.134761	0.044274	3.0438	0.0037190227720985 **							
chain	-0.001037	0.020923	-0.0496	0.9606587235737496							
beds	-0.000821	0.000311	-2.6369	0.0111183847494497 *							
occupancy_rate	-0.004168	0.000428	-9.7466	0.0000000000003786 ***							
pct_medicare	0.002022	0.000643	3.1429	0.0028117496022900 **							
pct_medicaid	0.000375	0.000268	1.4000	0.1676732322906611							
cm_q_state_2	-0.001079	0.004898	-0.2203	0.8265532425352592							
cm_q_state_3	0.007510	0.006187	1.2138	0.2305185832551655							
cm_q_state_4	0.019513	0.007727	2.5253	0.0147768788700429 *							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	0.411872	Adj. R2:	0.724736	Within R2:	0.005921						

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	0.003631	0.008844	0.411	0.68313648		
government	0.013509	0.013225	1.021	0.31194399		
non_profit	0.015790	0.016750	0.943	0.35038286		
chain	-0.002576	0.008236	-0.313	0.75575080		
beds	-0.000159	0.000175	-0.907	0.36867245		
occupancy_rate	-0.003613	0.000243	-14.851	< 2.2e-16 ***		
pct_medicare	0.000963	0.000370	2.602	0.01217746 *		
pct_medicaid	-0.000070	0.000118	-0.594	0.55506631		
cm_q_state_2	-0.001331	0.002574	-0.517	0.60740101		
cm_q_state_3	0.003579	0.003411	1.049	0.29910294		
cm_q_state_4	0.016074	0.004492	3.579	0.00077917 ***		
---						
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' '	1
RMSE:	0.374414	Adj. R2:	0.373557	Within R2:	0.00412	

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 356,393  
 Fixed-effects: cms\_certification\_number: 7,490, year\_month: 51  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )		
post	0.001099	0.011892	0.0925	0.9267089533		
government	0.018260	0.019748	0.9246	0.3595909710		
non_profit	0.007035	0.030951	0.2273	0.8211252836		
chain	0.005661	0.011432	0.4952	0.6226477945		
beds	0.000110	0.000267	0.4109	0.6829178372		
occupancy_rate	-0.003297	0.000258	-12.7567	< 2.2e-16 ***		
pct_medicare	0.000862	0.000442	1.9499	0.0568052343 .		
pct_medicaid	-0.000134	0.000160	-0.8381	0.4059541617		
cm_q_state_2	0.008285	0.003180	2.6052	0.0120614336 *		
cm_q_state_3	0.017695	0.004286	4.1282	0.0001384896 ***		
cm_q_state_4	0.030227	0.005471	5.5246	0.0000011876 ***		
---						
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' '	1
RMSE:	0.270956	Adj. R2:	0.692519	Within R2:	0.007114	

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.02835816	0.018427	-1.5390	0.130118232129612488
government	-0.04079895	0.025059	-1.6281	0.109791625406294460
non_profit	0.13130742	0.034708	3.7832	0.000414898482535022 ***
chain	-0.03766056	0.015977	-2.3571	0.022372146857251224 *
beds	-0.00119041	0.000290	-4.1057	0.000148957257605072 ***
occupancy_rate	-0.00510916	0.000489	-10.4505	0.000000000000035743 ***
pct_medicare	-0.00007214	0.000740	-0.0975	0.922724692888402642
pct_medicaid	-0.00000848	0.000217	-0.0392	0.968916522011669556
cm_q_state_2	-0.00644627	0.006727	-0.9582	0.342550940315383246
cm_q_state_3	0.00307697	0.009549	0.3222	0.748620147947043346
cm_q_state_4	0.01441916	0.011871	1.2146	0.230222203796385555
---				
Signif. codes:	0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1			
RMSE:	1.17708	Adj. R2:	0.160335	
		Within R2:	8.468e-4	

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
 Observations: 358,112  
 Fixed-effects: cms\_certification\_number: 7,503, year\_month: 51  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.017083	0.009087	-1.8800	0.0659455416249599691 .
government	-0.040082	0.017241	-2.3248	0.0241836519772471378 *
non_profit	0.053120	0.015702	3.3830	0.0014008220209923150 **
chain	-0.015520	0.008748	-1.7741	0.0821336935764941933 .
beds	-0.000418	0.000121	-3.4505	0.0011461787254961175 **
occupancy_rate	-0.001743	0.000152	-11.4390	0.000000000000014411 ***
pct_medicare	0.000022	0.000276	0.0786	0.9376946128175390749
pct_medicaid	0.000068	0.000107	0.6401	0.5250433941319534448
cm_q_state_2	0.006297	0.002208	2.8520	0.0062997968773398682 **
cm_q_state_3	0.014959	0.002917	5.1287	0.0000047584917566730 ***
cm_q_state_4	0.021730	0.003633	5.9804	0.000002347535933265 ***
---				
Signif. codes:	0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1			
RMSE:	0.179838	Adj. R2:	0.654994	
		Within R2:	0.00548	

### 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
<hr/>				
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 ***
<hr/>				
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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.011636	0.007323	-1.589	0.118359
government	0.017535	0.013884	1.263	0.212481
non_profit	0.052356	0.021695	2.413	0.019517 *
chain	-0.001445	0.007255	-0.199	0.842930
beds	-0.000408	0.000333	-1.226	0.225840
occupancy_rate	-0.001749	0.000964	-1.815	0.075564 .
pct_medicare	0.002989	0.002142	1.396	0.169027
pct_medicaid	0.000329	0.000263	1.250	0.217159
cm_q_state_2	-0.011218	0.006954	-1.613	0.113001
cm_q_state_3	-0.021105	0.019235	-1.097	0.277812
cm_q_state_4	-0.026670	0.030790	-0.866	0.390533
---				
Signif. codes:	0 ***	0.001 **	0.01 *	0.05 .
RMSE:	2.89253	Adj. R2:	0.038982	
		Within R2:	3.773e-5	

### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn  
 Observations: 357,739  
 Fixed-effects: cms\_certification\_number: 7,504, year\_month: 51  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.059901	0.021316	-2.8102	0.00705030408642337 **
government	-0.025170	0.045062	-0.5586	0.57895319855627447
non_profit	0.132146	0.044239	2.9871	0.00435461435918167 **
chain	0.001452	0.020315	0.0715	0.94330290534898809
beds	-0.000861	0.000314	-2.7459	0.00836467622203410 **
occupancy_rate	-0.004149	0.000432	-9.6035	0.00000000000061614 ***
pct_medicare	0.001985	0.000641	3.0994	0.00318121602164212 **
pct_medicaid	0.000370	0.000265	1.3941	0.16946166514103456
cm_q_state_2	-0.000337	0.004907	-0.0687	0.94551466707414700
cm_q_state_3	0.008384	0.006190	1.3545	0.18166842768222066
cm_q_state_4	0.020480	0.007733	2.6484	0.01079224111966856 *
---				
Signif. codes:	0 ***	0.001 **	0.01 *	0.05 .
RMSE:	0.412874	Adj. R2:	0.723803	
		Within R2:	0.005879	

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	0.006224	0.008287	0.7511	0.45611053
government	0.013623	0.013376	1.0185	0.31335652

```

non_profit      0.015579   0.016494   0.9445  0.34945897
chain        -0.000689   0.008003  -0.0861  0.93176310
beds         -0.000166   0.000175  -0.9501  0.34664710
occupancy_rate -0.003646   0.000245 -14.9004 < 2.2e-16 ***
pct_medicare    0.000933   0.000369   2.5263  0.01473802 *
pct_medicaid    -0.000089   0.000116  -0.7722  0.44361943
cm_q_state_2    -0.001487   0.002586  -0.5748  0.56800950
cm_q_state_3     0.003715   0.003363   1.1046  0.27462578
cm_q_state_4     0.016001   0.004445   3.5996  0.00073088 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.373766      Adj. R2: 0.374051
                           Within R2: 0.004218

```

### OUTCOME: lpn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_lpn
Observations: 358,713
Fixed-effects: cms_certification_number: 7,490, year_month: 51
Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value Pr(>|t|)
post            0.004144   0.011030   0.3757 0.708762554
government      0.016809   0.019560   0.8594 0.394235024
non_profit      0.001683   0.029619   0.0568 0.954908032
chain           0.008072   0.011061   0.7298 0.468911627
beds            0.000101   0.000267   0.3795 0.705959473
occupancy_rate -0.003321   0.000260 -12.7793 < 2.2e-16 ***
pct_medicare    0.000823   0.000438   1.8805 0.065872581 .
pct_medicaid    -0.000157   0.000159  -0.9842 0.329773328
cm_q_state_2    0.007998   0.003196   2.5023 0.015656360 *
cm_q_state_3    0.017865   0.004285   4.1690 0.000121340 ***
cm_q_state_4    0.030280   0.005445   5.5613 0.000001043 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.271456      Adj. R2: 0.691583
                           Within R2: 0.007203

```

### OUTCOME: cna\_hppd (level)

```

OLS estimation, Dep. Var.: cna_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            -0.023955   0.016874  -1.420 0.161925605009812373
government     -0.041030   0.024912  -1.647 0.105826746871298727
non_profit      0.130255   0.033609   3.876 0.000310474866116835 ***
chain           -0.034805   0.015631  -2.227 0.030500876061631099 *

```

```

beds           -0.001206   0.000290   -4.156  0.000126658803759057 ***
occupancy_rate -0.005121   0.000484  -10.576  0.000000000000023611 ***
pct_medicare   -0.000080   0.000735   -0.109  0.913535176593800458
pct_medicaid    -0.000027   0.000215   -0.125  0.900954283211962137
cm_q_state_2    -0.006159   0.006698  -0.920  0.362199987337087359
cm_q_state_3     0.003466   0.009474   0.366  0.716017181880444054
cm_q_state_4     0.015281   0.011736   1.302  0.198852520800164217
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 1.17374      Adj. R2: 0.160948
                           Within R2: 8.583e-4

```

### OUTCOME: cna\_hppd (log)

```

OLS estimation, Dep. Var.: ln_cna
Observations: 360,444
Fixed-effects: cms_certification_number: 7,503, year_month: 51
Standard-errors: Clustered (cms_certification_number & year_month)

              Estimate Std. Error t value Pr(>|t|)
post          -0.014945  0.008629 -1.7320 0.0894484114292245780 .
government    -0.040040  0.017046 -2.3490 0.0228150481350018614 *
non_profit     0.052089  0.015797  3.2973 0.0018013797535367626 **
chain          -0.014381  0.008577 -1.6767 0.0998388530632135091 .
beds           -0.000426  0.000122 -3.5027 0.0009801640476139340 ***
occupancy_rate -0.001758  0.000153 -11.5249 0.00000000000000010965 ***
pct_medicare   0.000018  0.000273  0.0643 0.9490018204654784295
pct_medicaid    0.000059  0.000106  0.5602 0.5778173765728821243
cm_q_state_2    0.006482  0.002219  2.9220 0.0052094028659868180 **
cm_q_state_3    0.015192  0.002932  5.1813 0.0000039630910704913 ***
cm_q_state_4    0.022365  0.003604  6.2061 0.0000001045732149021 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.18137      Adj. R2: 0.651058
                           Within R2: 0.005485

```

### 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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.024110	0.005452	-4.422	0.0000275695154 ***
chain	0.005241	0.004933	1.062	0.2909325975386
beds	-0.000561	0.000172	-3.264	0.0015605628825 **

```

occupancy_rate -0.002371  0.000196 -12.067      < 2.2e-16 ***
pct_medicare   0.001973  0.000289   6.830 0.0000000010124 ***
pct_medicaid    0.000100  0.000090   1.104 0.2726792966133
cm_q_state_2   -0.002624  0.002410  -1.089 0.2791513782321
cm_q_state_3    0.000343  0.003017   0.114 0.9096329382625
cm_q_state_4    0.008250  0.004287   1.924 0.0575213018831 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.208972      Adj. R2: 0.601352
                           Within R2: 0.010333

```

### OUTCOME: rn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_rn
Observations: 459,754
Fixed-effects: cms_certification_number: 6,018, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value Pr(>|t|)
post            -0.083843  0.017404  -4.82 0.000005935400261377 ***
chain           0.022159  0.015073   1.47 0.145043140096433876
beds            -0.000668  0.000298  -2.24 0.027733920122688546 *
occupancy_rate -0.003585  0.000389  -9.22 0.000000000000013062 ***
pct_medicare    0.003926  0.000655   5.99 0.000000042972602520 ***
pct_medicaid    0.000455  0.000260   1.75 0.084088836272808276 .
cm_q_state_2   0.014267  0.006056   2.36 0.020688772788489067 *
cm_q_state_3   0.029051  0.007340   3.96 0.000151754478751383 ***
cm_q_state_4   0.051707  0.009003   5.74 0.000000127315227467 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.451334      Adj. R2: 0.679799
                           Within R2: 0.007601

```

### OUTCOME: lpn\_hppd (level)

```

OLS estimation, Dep. Var.: lpn_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            0.001120  0.006341   0.177 0.86014883
chain           -0.013958  0.006128  -2.278 0.02513828 *
beds            -0.000168  0.000167  -1.006 0.31692727
occupancy_rate -0.003671  0.000248 -14.823 < 2.2e-16 ***
pct_medicare    0.000997  0.000341   2.923 0.00439291 **
pct_medicaid    -0.000293  0.000122  -2.398 0.01855008 *
cm_q_state_2   -0.001880  0.002566  -0.733 0.46572541
cm_q_state_3    0.002063  0.003109   0.664 0.50864047
cm_q_state_4    0.014762  0.003953   3.734 0.00033192 ***

```

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
RMSE: 0.346281      Adj. R2: 0.382813  
Within R2: 0.00663

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
Observations: 460,314  
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	0.002401	0.008948	0.268	0.789022230313
chain	-0.008699	0.008377	-1.038	0.301887297628
beds	0.000202	0.000315	0.641	0.523056424726
occupancy_rate	-0.003495	0.000271	-12.886	< 2.2e-16 ***
pct_medicare	0.000448	0.000413	1.085	0.280738693578
pct_medicaid	-0.000591	0.000183	-3.234	0.001716045410 **
cm_q_state_2	0.006583	0.003453	1.907	0.059787424435 .
cm_q_state_3	0.014686	0.004065	3.613	0.000500345043 ***
cm_q_state_4	0.030415	0.005020	6.059	0.000000032195 ***

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
RMSE: 0.270935      Adj. R2: 0.658757  
Within R2: 0.01041

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.046840	0.010391	-4.51	0.000019882 ***
chain	-0.038755	0.009558	-4.05	0.000107353 ***
beds	-0.000968	0.000305	-3.18	0.002045886 **
occupancy_rate	-0.004394	0.000360	-12.22	< 2.2e-16 ***
pct_medicare	0.001123	0.000532	2.11	0.037754200 *
pct_medicaid	-0.000710	0.000189	-3.75	0.000310860 ***
cm_q_state_2	0.005647	0.005541	1.02	0.310941962
cm_q_state_3	0.022739	0.006919	3.29	0.001452851 **
cm_q_state_4	0.035853	0.009261	3.87	0.000206182 ***

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
RMSE: 1.05115      Adj. R2: 0.140474  
Within R2: 0.001263

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
 Observations: 464,027  
 Fixed-effects: cms\_certification\_number: 6,018, year\_month: 90  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )							
post	-0.024199	0.005554	-4.36	0.00003526994767811 ***							
chain	-0.017964	0.005160	-3.48	0.00077504891149116 ***							
beds	-0.000351	0.000154	-2.27	0.02563395772500955 *							
occupancy_rate	-0.001631	0.000153	-10.66	< 2.2e-16 ***							
pct_medicare	0.000255	0.000241	1.06	0.29192835503311032							
pct_medicaid	-0.000368	0.000095	-3.87	0.00020577413813902 ***							
cm_q_state_2	0.009138	0.002135	4.28	0.00004685506372019 ***							
cm_q_state_3	0.021163	0.002567	8.24	0.000000000000136806 ***							
cm_q_state_4	0.027779	0.003176	8.75	0.00000000000012565 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.175968	Adj. R2:	0.593621	Within R2:	0.007805						

### 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  0.00000000000000040621  ***
---
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: rn\_hppd (level)

```

OLS estimation, Dep. Var.: rn_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      -0.026181  0.005957 -4.395 0.0000304943219 ***
chain      0.004701  0.005069  0.928 0.3561595206543
beds      -0.000553  0.000173 -3.188 0.0019750202306 **
occupancy_rate -0.002395  0.000200 -11.966 < 2.2e-16 ***
pct_medicare   0.001979  0.000292   6.769 0.000000013331 ***
pct_medicaid    0.000100  0.000091   1.095 0.2766107726689
cm_q_state_2    -0.002894  0.002456  -1.178 0.2417428731380
cm_q_state_3    0.000305  0.003080   0.099 0.9213336528924
cm_q_state_4    0.008299  0.004338   1.913 0.0589566431810 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.209596      Adj. R2: 0.600673
                           Within R2: 0.010339

```

### OUTCOME: rn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_rn
Observations: 452,383
Fixed-effects: cms_certification_number: 6,000, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value Pr(>|t|)
post      -0.091936  0.019024  -4.83 0.000005585618432445 ***
chain      0.019773  0.015569   1.27 0.207371124420038383
beds      -0.000643  0.000300  -2.14 0.035086613072087970 *
occupancy_rate -0.003643  0.000393  -9.26 0.000000000000010882 ***

```

pct_medicare	0.003939	0.000662	5.95	0.00000051040679923	***						
pct_medicaid	0.000448	0.000264	1.70	0.092436140246981158	.						
cm_q_state_2	0.013543	0.006046	2.24	0.027569547190831711	*						
cm_q_state_3	0.029175	0.007374	3.96	0.000152714105183511	***						
cm_q_state_4	0.052008	0.009009	5.77	0.000000112019311711	***						
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.449576		Adj. R2:	0.681619							
		Within R2:	0.007795								

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	-0.001766	0.006974	-0.253	0.80066412							
chain	-0.016696	0.006403	-2.607	0.01069840 *							
beds	-0.000130	0.000167	-0.777	0.43933653							
occupancy_rate	-0.003703	0.000249	-14.889	< 2.2e-16 ***							
pct_medicare	0.001020	0.000345	2.955	0.00400227 **							
pct_medicaid	-0.000297	0.000122	-2.429	0.01716537 *							
cm_q_state_2	-0.001792	0.002560	-0.700	0.48572291							
cm_q_state_3	0.001738	0.003139	0.554	0.58110584							
cm_q_state_4	0.014626	0.003972	3.682	0.00039603 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.347903		Adj. R2:	0.381973							
		Within R2:	0.006647								

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 452,866  
 Fixed-effects: cms\_certification\_number: 5,984, year\_month: 90  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.000808	0.009875	-0.0818	0.934989918673
chain	-0.010518	0.008639	-1.2176	0.226610832943
beds	0.000242	0.000324	0.7461	0.457574036975
occupancy_rate	-0.003531	0.000271	-13.0167	< 2.2e-16 ***
pct_medicare	0.000474	0.000417	1.1358	0.259107442746
pct_medicaid	-0.000578	0.000186	-3.1044	0.002556601562 **
cm_q_state_2	0.006948	0.003458	2.0095	0.047514161731 *
cm_q_state_3	0.014494	0.004097	3.5377	0.000643668735 ***
cm_q_state_4	0.030583	0.005062	6.0422	0.000000034691 ***
---				

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
 RMSE: 0.26967      Adj. R2: 0.661534  
 Within R2: 0.010621

#### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.054478	0.011342	-4.803	0.000006275 ***
chain	-0.041200	0.009853	-4.181	0.000067683 ***
beds	-0.000935	0.000305	-3.062	0.002911895 **
occupancy_rate	-0.004467	0.000366	-12.210	< 2.2e-16 ***
pct_medicare	0.001122	0.000538	2.088	0.039663628 *
pct_medicaid	-0.000734	0.000191	-3.843	0.000227927 ***
cm_q_state_2	0.005227	0.005576	0.937	0.351083227
cm_q_state_3	0.021960	0.007036	3.121	0.002429049 **
cm_q_state_4	0.035347	0.009480	3.729	0.000338000 ***
---				

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
 RMSE: 1.05852      Adj. R2: 0.139041  
 Within R2: 0.001278

#### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
 Observations: 456,550  
 Fixed-effects: cms\_certification\_number: 6,000, year\_month: 90  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.027395	0.005972	-4.59	0.00001465155011947 ***
chain	-0.018191	0.005285	-3.44	0.00088106957964837 ***
beds	-0.000339	0.000156	-2.18	0.03217529227413089 *
occupancy_rate	-0.001657	0.000153	-10.80	< 2.2e-16 ***
pct_medicare	0.000245	0.000243	1.01	0.31594415496592787
pct_medicaid	-0.000373	0.000095	-3.91	0.00017814953969125 ***
cm_q_state_2	0.008847	0.002126	4.16	0.00007279230852584 ***
cm_q_state_3	0.020819	0.002570	8.10	0.000000000000268592 ***
cm_q_state_4	0.027363	0.003217	8.51	0.00000000000039315 ***
---				

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
 RMSE: 0.173506      Adj. R2: 0.60052  
 Within R2: 0.008126

#### 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	0.0000400511007730031 ***
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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.025504	0.005646	-4.518	0.00001914113337 ***
chain	0.004875	0.004977	0.979	0.33005772890263
beds	-0.000562	0.000173	-3.246	0.00165241686441 **
occupancy_rate	-0.002387	0.000199	-12.017	< 2.2e-16 ***
pct_medicare	0.001994	0.000291	6.856	0.0000000089835 ***
pct_medicaid	0.000102	0.000090	1.124	0.26387982024317
cm_q_state_2	-0.002683	0.002436	-1.101	0.27378948429453
cm_q_state_3	0.000355	0.003048	0.116	0.90759380570929
cm_q_state_4	0.008292	0.004326	1.917	0.05848116401352 .
---				
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'
RMSE:	0.209342	Adj. R2:	0.600912	
	Within R2:	0.010397		

### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn  
 Observations: 456,029  
 Fixed-effects: cms\_certification\_number: 6,004, year\_month: 90  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	-0.088880	0.018014	-4.93	0.000003724302193260 ***
chain	0.020344	0.015223	1.34	0.184820077538757399
beds	-0.000667	0.000300	-2.23	0.028480379597700212 *
occupancy_rate	-0.003606	0.000392	-9.21	0.00000000000000014085 ***
pct_medicare	0.003959	0.000658	6.02	0.000000038977707967 ***
pct_medicaid	0.000457	0.000261	1.75	0.083243257533171272 .
cm_q_state_2	0.014223	0.006038	2.36	0.020690810670537605 *
cm_q_state_3	0.029651	0.007370	4.02	0.000120098805058747 ***
cm_q_state_4	0.052202	0.009021	5.79	0.00000105528788983 ***
---				
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'
RMSE:	0.450544	Adj. R2:	0.680498	
	Within R2:	0.007726		

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	-0.000596	0.006630	-0.0899	0.92857258
chain	-0.014607	0.006250	-2.3371	0.02167691 *
beds	-0.000160	0.000167	-0.9543	0.34253013
occupancy_rate	-0.003708	0.000249	-14.8906	< 2.2e-16 ***
pct_medicare	0.001002	0.000343	2.9198	0.00443649 **

```

pct_medicaid -0.000295 0.000121 -2.4302 0.01709873 *
cm_q_state_2 -0.001981 0.002560 -0.7741 0.44093390
cm_q_state_3 0.001833 0.003105 0.5903 0.55648090
cm_q_state_4 0.014474 0.003934 3.6792 0.00040029 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.347169      Adj. R2: 0.382383
                           Within R2: 0.006684

```

### OUTCOME: lpn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_lpn
Observations: 456,545
Fixed-effects: cms_certification_number: 5,988, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value Pr(>|t|)
post            0.000613 0.009311 0.0658 0.947673749301
chain          -0.008926 0.008479 -1.0527 0.295308472310
beds            0.000218 0.000322 0.6748 0.501557422799
occupancy_rate -0.003525 0.000272 -12.9602 < 2.2e-16 ***
pct_medicare   0.000459 0.000415 1.1062 0.271632834058
pct_medicaid   -0.000582 0.000185 -3.1515 0.002213539184 **
cm_q_state_2   0.006628 0.003456 1.9176 0.058369121591 .
cm_q_state_3   0.014689 0.004084 3.5970 0.000528172617 ***
cm_q_state_4   0.030304 0.005026 6.0292 0.000000036728 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.270437      Adj. R2: 0.660015
                           Within R2: 0.010535

```

### OUTCOME: cna\_hppd (level)

```

OLS estimation, Dep. Var.: cna_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           -0.051006 0.010819 -4.714 0.0000089151 ***
chain          -0.039003 0.009754 -3.999 0.0001312130 ***
beds           -0.000984 0.000306 -3.211 0.0018439202 **
occupancy_rate -0.004452 0.000363 -12.256 < 2.2e-16 ***
pct_medicare   0.001133 0.000534 2.121 0.0367040216 *
pct_medicaid   -0.000710 0.000190 -3.744 0.0003206395 ***
cm_q_state_2   0.005417 0.005564 0.974 0.3328934226
cm_q_state_3   0.022474 0.006982 3.219 0.0017968481 **
cm_q_state_4   0.035568 0.009369 3.796 0.0002677410 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

RMSE: 1.0549      Adj. R2: 0.139733  
Within R2: 0.001279

#### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
Observations: 460,250  
Fixed-effects: cms\_certification\_number: 6,004, year\_month: 90  
Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )							
post	-0.025752	0.005756	-4.47	0.00002263483454687 ***							
chain	-0.017283	0.005250	-3.29	0.00142775341261732 **							
beds	-0.000361	0.000156	-2.31	0.02294229756712125 *							
occupancy_rate	-0.001649	0.000154	-10.73	< 2.2e-16 ***							
pct_medicare	0.000259	0.000241	1.08	0.28517920078771963							
pct_medicaid	-0.000362	0.000095	-3.82	0.00024511759962406 ***							
cm_q_state_2	0.008999	0.002129	4.23	0.00005716611445811 ***							
cm_q_state_3	0.021195	0.002569	8.25	0.000000000000132763 ***							
cm_q_state_4	0.027728	0.003200	8.66	0.00000000000018632 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.175057	Adj. R2:	0.596155	Within R2:	0.007961						

#### 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	0.000000000000000030146 ***		
---						
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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.029670	0.006433	-4.6122	0.00001328576041441066 ***		
government	-0.001618	0.010425	-0.1552	0.87700860786804069047		
non_profit	0.035435	0.015866	2.2334	0.02802705973969308456 *		
chain	0.001333	0.006881	0.1938	0.84680929981428443298		
beds	-0.000944	0.000203	-4.6511	0.00001141701423872387 ***		
occupancy_rate	-0.002086	0.000213	-9.7785	0.00000000000000091855 ***		
pct_medicare	0.002187	0.000403	5.4286	0.00000048643954024942 ***		
pct_medicaid	0.000069	0.000116	0.5898	0.55683861296115744199		
cm_q_state_2	-0.002175	0.003022	-0.7196	0.47367808038813219440		
cm_q_state_3	-0.000327	0.003890	-0.0842	0.93310437520171873871		
cm_q_state_4	0.005466	0.005343	1.0229	0.30914791898774601764		
---						
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' '	1
RMSE:	0.396818	Adj. R2:	0.347741	Within R2:	0.002461	

### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn

Observations: 322,053  
 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	-0.096178	0.020255	-4.748	0.00000779612667 ***							
government	0.020149	0.039173	0.514	0.60828322618434							
non_profit	0.144037	0.046194	3.118	0.00245248452927 **							
chain	0.021854	0.020267	1.078	0.28380537222306							
beds	-0.001159	0.000409	-2.837	0.00563286448565 **							
occupancy_rate	-0.003369	0.000469	-7.189	0.00000000019318 ***							
pct_medicare	0.004372	0.000852	5.129	0.00000168759110 ***							
pct_medicaid	0.000533	0.000336	1.586	0.11624786142019							
cm_q_state_2	0.004586	0.006774	0.677	0.50012606753201							
cm_q_state_3	0.012606	0.008289	1.521	0.13185967135932							
cm_q_state_4	0.022902	0.010036	2.282	0.02486909287886 *							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	0.438008	Adj. R2:	0.67666	Within R2:	0.008275						

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	0.005326	0.008144	0.6540	0.514781286							
government	-0.024360	0.012494	-1.9497	0.054358305 .							
non_profit	0.003180	0.019621	0.1621	0.871626075							
chain	-0.009841	0.009561	-1.0293	0.306109855							
beds	-0.000455	0.000236	-1.9285	0.056981751 .							
occupancy_rate	-0.003029	0.000269	-11.2803	< 2.2e-16 ***							
pct_medicare	0.002313	0.000526	4.4009	0.000029848 ***							
pct_medicaid	-0.000041	0.000159	-0.2583	0.796739354							
cm_q_state_2	0.000145	0.003130	0.0463	0.963175913							
cm_q_state_3	0.005017	0.003990	1.2572	0.211982188							
cm_q_state_4	0.015514	0.005201	2.9830	0.003683344 **							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	0.29096	Adj. R2:	0.450457	Within R2:	0.007226						

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 322,411  
 Fixed-effects: cms\_certification\_number: 3,815, year\_month: 90

```

Standard-errors: Clustered (cms_certification_number & year_month)
                Estimate Std. Error t value      Pr(>|t|)

post            0.009604   0.012082   0.795 0.4288018591277614755
government     -0.019915   0.020596  -0.967 0.3361923226560685762
non_profit     -0.036721   0.037935  -0.968 0.3356625582597752011
chain           0.016146   0.013035   1.239 0.2187448311923721467
beds            -0.000186   0.000312  -0.594 0.5539208041408809624
occupancy_rate -0.003170   0.000329  -9.640 0.00000000000000017778 ***
pct_medicare    0.002531   0.000615   4.118 0.0000853954511420959 ***
pct_medicaid    -0.000305   0.000195  -1.559 0.1225414350050392370
cm_q_state_2    0.007716   0.004285   1.801 0.0751299570348232248 .
cm_q_state_3    0.018331   0.005207   3.521 0.0006809787921850768 ***
cm_q_state_4    0.031534   0.006122   5.151 0.0000015427129666639 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.275931      Adj. R2: 0.645218
                  Within R2: 0.009925

```

### OUTCOME: cna\_hppd (level)

```

OLS estimation, Dep. Var.: cna_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            -0.029731   0.011438  -2.60 0.01093320269181171 *
government     -0.021566   0.019653  -1.10 0.27544832787188006
non_profit      0.097908   0.028436   3.44 0.00087856312906546 ***
chain           -0.034655   0.015082  -2.30 0.02391597943702198 *
beds            -0.001126   0.000401  -2.81 0.00611044867324535 **
occupancy_rate -0.003367   0.000384  -8.77 0.00000000000011196 ***
pct_medicare    0.001837   0.000663   2.77 0.00680121182104214 **
pct_medicaid    -0.000715   0.000217  -3.30 0.00140702383908280 **
cm_q_state_2    0.009396   0.006277   1.50 0.13795827308425834
cm_q_state_3    0.025359   0.007989   3.17 0.00206367718004893 **
cm_q_state_4    0.029720   0.011186   2.66 0.00935115246937914 **
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.552804      Adj. R2: 0.363875
                  Within R2: 0.003099

```

### OUTCOME: cna\_hppd (log)

```

OLS estimation, Dep. Var.: ln_cna
Observations: 324,742
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          -0.016303   0.005777   -2.82 0.0058859744105502 ** 
government    -0.031059   0.013108   -2.37 0.0199748821446122 *  
non_profit     0.046714   0.016319    2.86 0.0052386233228502 ** 
chain          -0.010540   0.006721   -1.57 0.1203871985447944 
beds           -0.000413   0.000181   -2.28 0.0251815995556952 *  
occupancy_rate -0.001225   0.000156   -7.86 0.0000000000085668 *** 
pct_medicare    0.000684   0.000310    2.21 0.0299376028325446 *  
pct_medicaid    -0.000460   0.000110   -4.17 0.0000696958558067 *** 
cm_q_state_2    0.010088   0.002264    4.46 0.0000242126876762 *** 
cm_q_state_3    0.020204   0.002771    7.29 0.0000000001208849 *** 
cm_q_state_4    0.024954   0.003496    7.14 0.0000000002460678 *** 
--- 
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 
RMSE: 0.161912      Adj. R2: 0.60687 
                  Within R2: 0.007633

```

### 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: rn\_hppd (level)

```

OLS estimation, Dep. Var.: rn_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            -0.033160  0.007068 -4.6917 0.00000974416867093389 *** 
government     -0.004075  0.010856 -0.3754 0.70824550940919528408
non_profit      0.033386  0.016183  2.0631 0.04202015448522158220 * 
chain           -0.000730  0.007249 -0.1007 0.92001263519065590302
beds            -0.000937  0.000202 -4.6327 0.00001226462620184453 *** 
occupancy_rate -0.002107  0.000216 -9.7725 0.000000000000000094507 *** 
pct_medicare    0.002249  0.000404  5.5664 0.00000027165285413201 *** 
pct_medicaid    0.000065  0.000117  0.5589 0.57763209187100394981
cm_q_state_2    -0.002566  0.003076 -0.8340 0.40652893878490914403
cm_q_state_3    -0.000382  0.003959 -0.0964 0.92340683887932173413
cm_q_state_4     0.005645  0.005424  1.0409 0.30074116586310001287
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.399518      Adj. R2: 0.34604
                           Within R2: 0.002468

```

### OUTCOME: rn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_rn
Observations: 317,008
Fixed-effects: cms_certification_number: 3,823, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value      Pr(>|t|) 
post            -0.106022  0.022517 -4.708 0.0000091242003 *** 

```

government	0.009489	0.040423	0.235	0.8149468121874
non_profit	0.140732	0.047482	2.964	0.0038974171253 **
chain	0.016452	0.021437	0.767	0.4448418446506
beds	-0.001133	0.000410	-2.764	0.0069420924246 **
occupancy_rate	-0.003442	0.000470	-7.330	0.0000000001008 ***
pct_medicare	0.004526	0.000856	5.284	0.000008886211 ***
pct_medicaid	0.000525	0.000339	1.548	0.1251467956415
cm_q_state_2	0.003993	0.006755	0.591	0.5559962935285
cm_q_state_3	0.013445	0.008251	1.629	0.1067592452362
cm_q_state_4	0.024356	0.009973	2.442	0.0165724288962 *
<hr/>				
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				
RMSE: 0.436213      Adj. R2: 0.678378				
Within R2: 0.008527				

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	0.001542	0.009030	0.1707	0.864840537
government	-0.025709	0.012778	-2.0119	0.047252729 *
non_profit	0.006911	0.020168	0.3427	0.732658465
chain	-0.014432	0.010363	-1.3926	0.167213817
beds	-0.000416	0.000238	-1.7457	0.084313183 .
occupancy_rate	-0.003022	0.000268	-11.2598	< 2.2e-16 ***
pct_medicare	0.002403	0.000530	4.5363	0.000017812 ***
pct_medicaid	-0.000025	0.000157	-0.1611	0.872366674
cm_q_state_2	0.000161	0.003137	0.0515	0.959081941
cm_q_state_3	0.004747	0.004028	1.1784	0.241770595
cm_q_state_4	0.015113	0.005210	2.9010	0.004686365 **
<hr/>				
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				
RMSE: 0.291824      Adj. R2: 0.450428				
Within R2: 0.007173				

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 317,305  
 Fixed-effects: cms\_certification\_number: 3,814, year\_month: 90  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	0.008378	0.013378	0.626	0.5327780747568046094
government	-0.021725	0.021309	-1.020	0.3107277078245571644
non_profit	-0.033070	0.039389	-0.840	0.4033951644124386116

chain	0.015984	0.013937	1.147	0.2545217964286534684							
beds	-0.000166	0.000316	-0.525	0.6010052740345919187							
occupancy_rate	-0.003170	0.000327	-9.693	0.00000000000000013822 ***							
pct_medicare	0.002643	0.000617	4.281	0.0000467921230007114 ***							
pct_medicaid	-0.000268	0.000198	-1.357	0.1780681948629861122							
cm_q_state_2	0.008082	0.004308	1.876	0.0639123251276493415 .							
cm_q_state_3	0.018151	0.005255	3.454	0.0008469724053580174 ***							
cm_q_state_4	0.031403	0.006142	5.113	0.0000018026851711486 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.275281		Adj. R2:	0.646924							
			Within R2:	0.009927							

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.036844	0.012505	-2.95	0.00410371997052062 **							
government	-0.022153	0.020124	-1.10	0.27392914896003040							
non_profit	0.107416	0.028694	3.74	0.00032125157740050 ***							
chain	-0.039869	0.016040	-2.49	0.01480191856205844 *							
beds	-0.001095	0.000403	-2.72	0.00790776294505930 **							
occupancy_rate	-0.003381	0.000390	-8.67	0.00000000000018417 ***							
pct_medicare	0.001921	0.000666	2.88	0.00491625977069962 **							
pct_medicaid	-0.000703	0.000216	-3.25	0.00160811292982906 **							
cm_q_state_2	0.008402	0.006376	1.32	0.19094522151871524							
cm_q_state_3	0.024006	0.008118	2.96	0.00397557585458451 **							
cm_q_state_4	0.028461	0.011417	2.49	0.01451906223367671 *							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.555066		Adj. R2:	0.362644							
			Within R2:	0.003129							

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
 Observations: 319,617  
 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	-0.018444	0.006178	-2.99	0.003658918423173 **
government	-0.032681	0.013337	-2.45	0.016229285792125 *
non_profit	0.049441	0.015708	3.15	0.002240269978600 **
chain	-0.011730	0.006924	-1.69	0.093752098128296 .
beds	-0.000405	0.000182	-2.22	0.028724234423210 *

```

occupancy_rate -0.001218  0.000156  -7.81 0.00000000010597 ***
pct_medicare    0.000720  0.000313   2.30 0.023580005482810 *
pct_medicaid    -0.000448  0.000111  -4.03 0.000119333565175 ***
cm_q_state_2    0.009485  0.002308   4.11 0.000087723337076 ***
cm_q_state_3    0.019592  0.002792   7.02 0.00000000430007 ***
cm_q_state_4    0.024209  0.003531   6.86 0.00000000894002 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.159333      Adj. R2: 0.61453
                           Within R2: 0.007853

```

### 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 0.00000000017801 ***
---
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: rn\_hppd (level)

```

OLS estimation, Dep. Var.: rn_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            -0.030635  0.006677 -4.5881 0.00001458398801388744 ***
government     -0.004236  0.010610 -0.3992 0.69068313571407657925
non_profit      0.033198  0.016038  2.0700 0.04134687870687033667 *
chain           0.001455  0.007020  0.2073 0.83626006419114007340
beds            -0.000941  0.000203 -4.6308 0.00001235960145969458 ***
occupancy_rate -0.002095  0.000214 -9.7923 0.000000000000000086025 ***
pct_medicare    0.002235  0.000404  5.5294 0.00000031778827199336 ***
pct_medicaid    0.000073  0.000116  0.6261 0.53286655321843534594
cm_q_state_2   -0.002286  0.003045 -0.7509 0.45470688776745693538
cm_q_state_3   -0.000274  0.003920 -0.0698 0.94449591278834399422
cm_q_state_4    0.005554  0.005381  1.0322 0.30477920326608537449
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.398186      Adj. R2: 0.346861
                           Within R2: 0.00246

```

#### OUTCOME: rn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_rn
Observations: 319,516
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            -0.097161  0.021021 -4.622 0.00001278056082 ***
government     0.007737  0.039536  0.196 0.84529390813240
non_profit      0.140185  0.046973  2.984 0.00366816855123 **
chain           0.024001  0.020633  1.163 0.24784555446185
beds            -0.001143  0.000410 -2.789 0.00647026364610 **
occupancy_rate -0.003403  0.000471 -7.230 0.00000000016043 ***

```

pct_medicare	0.004498	0.000857	5.251	0.00000101956483	***
pct_medicaid	0.000543	0.000336	1.617	0.10947664503425	
cm_q_state_2	0.004503	0.006756	0.667	0.50680428515762	
cm_q_state_3	0.013389	0.008292	1.615	0.10991120270006	
cm_q_state_4	0.023718	0.010013	2.369	0.02001867384245	*
---					
Signif. codes:	0	'***'	0.001	'**'	0.01
'*'	0.05	'. '	0.1	' '	1
RMSE:	0.437379		Adj. R2:	0.67729	
		Within R2:	0.008359		

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	0.003797	0.008537	0.4448	0.657563094
government	-0.024185	0.012741	-1.8982	0.060911682 .
non_profit	0.007538	0.019931	0.3782	0.706177521
chain	-0.010627	0.009828	-1.0813	0.282503298
beds	-0.000437	0.000237	-1.8467	0.068108317 .
occupancy_rate	-0.003047	0.000269	-11.3356	< 2.2e-16 ***
pct_medicare	0.002356	0.000527	4.4710	0.000022877 ***
pct_medicaid	-0.000037	0.000157	-0.2386	0.811994029
cm_q_state_2	-0.000071	0.003126	-0.0228	0.981848942
cm_q_state_3	0.004827	0.004000	1.2066	0.230771336
cm_q_state_4	0.015171	0.005181	2.9279	0.004332772 **
---				
Signif. codes:	0	'***'	0.001	'**'
'*'	0.05	'. '	0.1	' '
RMSE:	0.291551		Adj. R2:	0.450201
		Within R2:	0.007266	

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 319,848  
 Fixed-effects: cms\_certification\_number: 3,815, year\_month: 90  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )
post	0.008263	0.012602	0.656	0.5137028599083879321
government	-0.020139	0.020951	-0.961	0.3390236921543933191
non_profit	-0.033898	0.038305	-0.885	0.3785667724714930626
chain	0.017203	0.013405	1.283	0.2027107027318675037
beds	-0.000170	0.000314	-0.543	0.5886743082436869390
occupancy_rate	-0.003175	0.000329	-9.646	0.00000000000000017265 ***
pct_medicare	0.002587	0.000615	4.205	0.0000621320145237757 ***
pct_medicaid	-0.000289	0.000196	-1.473	0.1442187092733393516

cm_q_state_2	0.007627	0.004298	1.775	0.0793586546413336258	.						
cm_q_state_3	0.018234	0.005235	3.483	0.0007711121208833037	***						
cm_q_state_4	0.031326	0.006129	5.112	0.0000018131781053564	***						
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.275786	Adj.	R2:	0.64573	Within	R2:	0.009947				

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.032954	0.011782	-2.80	0.006319978318976 **							
government	-0.023725	0.019942	-1.19	0.237328112311117							
non_profit	0.106173	0.028575	3.72	0.000353470658854 ***							
chain	-0.034453	0.015445	-2.23	0.028213933703418 *							
beds	-0.001128	0.000405	-2.78	0.006567091788443 **							
occupancy_rate	-0.003387	0.000386	-8.78	0.000000000000107 ***							
pct_medicare	0.001910	0.000664	2.88	0.004991331571283 **							
pct_medicaid	-0.000697	0.000216	-3.23	0.001723938696902 **							
cm_q_state_2	0.008904	0.006307	1.41	0.161505201547501							
cm_q_state_3	0.025050	0.008001	3.13	0.002357570831234 **							
cm_q_state_4	0.029240	0.011243	2.60	0.010893198241754 *							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.554047	Adj.	R2:	0.363149	Within	R2:	0.003156				

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
 Observations: 322,176  
 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	-0.017301	0.005969	-2.90	0.0047193372567875 **
government	-0.033635	0.013384	-2.51	0.0137721046520601 *
non_profit	0.048890	0.016343	2.99	0.0035911581147954 **
chain	-0.009605	0.006851	-1.40	0.1644092093248678
beds	-0.000416	0.000183	-2.27	0.0256515873657276 *
occupancy_rate	-0.001221	0.000156	-7.84	0.000000000092196 ***
pct_medicare	0.000725	0.000311	2.33	0.0219810349595158 *
pct_medicaid	-0.000447	0.000110	-4.05	0.0001084259072770 ***
cm_q_state_2	0.009892	0.002275	4.35	0.0000364124755143 ***
cm_q_state_3	0.020176	0.002767	7.29	0.0000000001206432 ***

```

cm_q_state_4    0.024742   0.003510    7.05 0.0000000003704139 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.161375      Adj. R2: 0.60848
Within R2: 0.007798

```

### 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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.029372	0.008807	-3.335	0.0012452271181 **
government	-0.004571	0.011694	-0.391	0.6968096797295
non_profit	-0.019269	0.016769	-1.149	0.2535928786563
chain	-0.014973	0.011930	-1.255	0.2127451068947
beds	-0.000893	0.000310	-2.879	0.0049989957652 **
occupancy_rate	-0.002529	0.000374	-6.771	0.0000000013213 ***
pct_medicare	-0.000718	0.001710	-0.420	0.6756658853411
pct_medicaid	-0.000274	0.000167	-1.644	0.1036319239108
cm_q_state_2	-0.004001	0.007581	-0.528	0.5989892834815
cm_q_state_3	-0.012221	0.020223	-0.604	0.5471650262589
cm_q_state_4	-0.039601	0.058547	-0.676	0.5005394189340
---				

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
 RMSE: 3.54961      Adj. R2: 0.014457  
 Within R2: 4.045e-5

#### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn  
 Observations: 243,757  
 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	-0.064659	0.028629	-2.259	0.026355013311436 *
government	0.027265	0.042933	0.635	0.527024645180655
non_profit	-0.027727	0.037546	-0.738	0.462164225805289
chain	-0.035362	0.020793	-1.701	0.092506583743151 .
beds	-0.000738	0.000428	-1.725	0.087988001307469 .
occupancy_rate	-0.003869	0.000503	-7.698	0.000000000018001 ***
pct_medicare	0.002413	0.000861	2.802	0.006233213908099 **
pct_medicaid	-0.000362	0.000388	-0.933	0.353165717313292
cm_q_state_2	0.019323	0.007992	2.418	0.017645588512944 *

```

cm_q_state_3    0.038888   0.010305   3.774 0.000289530703363 ***
cm_q_state_4    0.064024   0.012415   5.157 0.000001504251353 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.45041      Adj. R2: 0.699542
                           Within R2: 0.007884

```

### OUTCOME: lpn\_hppd (level)

```

OLS estimation, Dep. Var.: lpn_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            -0.000720  0.011239 -0.0640 0.949093161
government     -0.005907  0.015846 -0.3728 0.710190532
non_profit      0.001841  0.018434  0.0998 0.920690966
chain           -0.015975  0.008854 -1.8042 0.074575803 .
beds            -0.000143  0.000183 -0.7845 0.434821738
occupancy_rate -0.002808  0.000245 -11.4538 < 2.2e-16 ***
pct_medicare    0.000348  0.000358  0.9712 0.334103941
pct_medicaid    -0.000195  0.000160 -1.2166 0.226970888
cm_q_state_2    0.004517  0.003002  1.5048 0.135923902
cm_q_state_3    0.009574  0.003490  2.7434 0.007353176 **
cm_q_state_4    0.021028  0.004574  4.5968 0.000014101 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.275624      Adj. R2: 0.51553
                           Within R2: 0.006508

```

### OUTCOME: lpn\_hppd (log)

```

OLS estimation, Dep. Var.: ln_lpn
Observations: 244,389
Fixed-effects: cms_certification_number: 2,971, year_month: 90
Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value Pr(>|t|)
post            0.011292  0.016320  0.6919 0.490771312507388369
government     -0.009594  0.025569 -0.3752 0.708383996667715232
non_profit     -0.000485  0.033903 -0.0143 0.988622668243292368
chain           -0.027298  0.012571 -2.1716 0.032545767581928321 *
beds            0.000048  0.000412  0.1168 0.907286214761947152
occupancy_rate -0.003513  0.000389 -9.0200 0.000000000000034146 ***
pct_medicare    0.000318  0.000563  0.5639 0.574214189830545729
pct_medicaid    -0.000393  0.000270 -1.4553 0.149106480840821343
cm_q_state_2    0.010684  0.004958  2.1550 0.033864963045961392 *
cm_q_state_3    0.016429  0.005539  2.9661 0.003871580255339025 **
cm_q_state_4    0.030258  0.006923  4.3707 0.000033452452724753 ***

```

```

---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.284458      Adj. R2: 0.683207
Within R2: 0.009888

OUTCOME: cna_hppd (level)

OLS estimation, Dep. Var.: cna_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      -0.070703  0.020151 -3.5086 0.000708744341234 ***
government -0.044211  0.030141 -1.4668 0.145961050513534
non_profit -0.029168  0.030665 -0.9512 0.344084971965814
chain      -0.065804  0.014344 -4.5875 0.000014616958948 ***
beds       -0.000946  0.000349 -2.7099 0.008074282270968 **
occupancy_rate -0.003116  0.000415 -7.4998 0.00000000045594 ***
pct_medicare -0.000053  0.000738 -0.0718 0.942929634338686
pct_medicaid -0.000766  0.000280 -2.7308 0.007617064991167 **
cm_q_state_2   0.015223  0.006307  2.4137 0.017841958807141 *
cm_q_state_3   0.036159  0.008297  4.3581 0.000035083353842 ***
cm_q_state_4   0.059456  0.009870  6.0239 0.000000037586057 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 1.22367      Adj. R2: 0.151247
Within R2: 8.127e-4

```

```

OUTCOME: cna_hppd (log)

OLS estimation, Dep. Var.: ln_cna
Observations: 246,169
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      -0.03089884  0.010755 -2.8731 0.00508168807587 **
government -0.02993917  0.018396 -1.6275 0.10717002946853
non_profit -0.01100842  0.013432 -0.8195 0.41466443148441
chain      -0.03441286  0.008002 -4.3007 0.00004350454195 ***
beds       -0.00040537  0.000144 -2.8118 0.00605984065809 **
occupancy_rate -0.00130350  0.000212 -6.1560 0.00000002100307 ***
pct_medicare 0.00000596  0.000338  0.0176 0.98596921631293
pct_medicaid -0.00031038  0.000150 -2.0707 0.04128780385309 *
cm_q_state_2   0.01035946  0.002967  3.4918 0.00074901232391 ***
cm_q_state_3   0.02306858  0.003607  6.3962 0.00000000720540 ***
cm_q_state_4   0.03244316  0.004437  7.3115 0.0000000010966 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

RMSE: 0.187185      Adj. R2: 0.635469  
Within R2: 0.007477

### 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: rn\_hppd (level)

OLS estimation, Dep. Var.: rn\_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	-0.034639	0.009724	-3.562	0.0005931906284 ***
government	-0.005032	0.012244	-0.411	0.6820693316831
non_profit	-0.020623	0.017169	-1.201	0.2328906078960
chain	-0.014680	0.011954	-1.228	0.2226743260385
beds	-0.000898	0.000314	-2.860	0.0052833422117 **
occupancy_rate	-0.002558	0.000382	-6.692	0.0000000018984 ***
pct_medicare	-0.000738	0.001741	-0.424	0.6724747810812
pct_medicaid	-0.000286	0.000170	-1.684	0.0956228384956 .
cm_q_state_2	-0.004294	0.007742	-0.555	0.5805265743883
cm_q_state_3	-0.012864	0.020556	-0.626	0.5330219215037
cm_q_state_4	-0.040912	0.059292	-0.690	0.4919860985376
---				
Signif. codes:	0 ***	0.001 **	0.01 *	0.05 .
RMSE:	3.567	Adj. R2:	0.014297	
		Within R2:	4.123e-5	

### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn  
Observations: 241,420  
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	-0.082184	0.031081	-2.644	0.009678118126729 **
government	0.016862	0.043898	0.384	0.701812432884613
non_profit	-0.031708	0.038118	-0.832	0.407730043801424
chain	-0.033778	0.021127	-1.599	0.113408212917669
beds	-0.000750	0.000425	-1.763	0.081368622064427 .
occupancy_rate	-0.003889	0.000507	-7.669	0.000000000020688 ***
pct_medicare	0.002410	0.000869	2.774	0.006749059061638 **
pct_medicaid	-0.000386	0.000391	-0.989	0.325136690055969
cm_q_state_2	0.018700	0.007945	2.354	0.020792901538667 *
cm_q_state_3	0.037722	0.010255	3.678	0.000401590307007 ***
cm_q_state_4	0.061837	0.012340	5.011	0.000002726903215 ***
---				
Signif. codes:	0 ***	0.001 **	0.01 *	0.05 .
RMSE:	0.448122	Adj. R2:	0.701492	
		Within R2:	0.008085	

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	-0.003704	0.012406	-0.2986	0.765950710							
government	-0.002070	0.016270	-0.1272	0.899044968							
non_profit	0.001682	0.018795	0.0895	0.928910296							
chain	-0.017072	0.008997	-1.8975	0.061004617 .							
beds	-0.000117	0.000180	-0.6499	0.517457025							
occupancy_rate	-0.002843	0.000245	-11.6002	< 2.2e-16 ***							
pct_medicare	0.000341	0.000363	0.9401	0.349724214							
pct_medicaid	-0.000195	0.000162	-1.2048	0.231485988							
cm_q_state_2	0.004692	0.002993	1.5678	0.120468814							
cm_q_state_3	0.009281	0.003469	2.6756	0.008878103 **							
cm_q_state_4	0.021310	0.004555	4.6784	0.000010266 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	0.276055	Adj. R2:	0.515712	Within R2:	0.006619						

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
Observations: 242,020  
Fixed-effects: cms\_certification\_number: 2,971, year\_month: 90  
Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )							
post	0.008614	0.018278	0.47126	0.638606058739039861							
government	-0.005178	0.026248	-0.19728	0.844061396186417956							
non_profit	-0.000304	0.034744	-0.00874	0.993045660442356315							
chain	-0.028693	0.012731	-2.25379	0.026664963225072072 *							
beds	0.000088	0.000415	0.21155	0.832941719792319235							
occupancy_rate	-0.003552	0.000390	-9.11425	0.000000000000021788 ***							
pct_medicare	0.000317	0.000573	0.55324	0.581488745634880844							
pct_medicaid	-0.000380	0.000272	-1.39365	0.166894425398026264							
cm_q_state_2	0.010937	0.004960	2.20514	0.030021899766164449 *							
cm_q_state_3	0.016311	0.005522	2.95391	0.004013632216326801 **							
cm_q_state_4	0.030970	0.006909	4.48229	0.000021907844277721 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	0.283391	Adj. R2:	0.685434	Within R2:	0.010139						

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.082914	0.021950	-3.777	0.00028584351969 ***							
government	-0.046798	0.031429	-1.489	0.14001768515545							
non_profit	-0.035771	0.031333	-1.142	0.25666459232446							
chain	-0.066317	0.014585	-4.547	0.00001710585051 ***							
beds	-0.000926	0.000347	-2.671	0.00899318189484 **							
occupancy_rate	-0.003192	0.000417	-7.653	0.00000000002227 ***							
pct_medicare	-0.000111	0.000744	-0.149	0.88182916081225							
pct_medicaid	-0.000813	0.000283	-2.877	0.00502767714562 **							
cm_q_state_2	0.015522	0.006334	2.450	0.01622254686453 *							
cm_q_state_3	0.036007	0.008353	4.311	0.00004188849136 ***							
cm_q_state_4	0.059734	0.009949	6.004	0.00000004105685 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	1.22888	Adj. R2:	0.150479	Within R2:	8.413e-4						

### OUTCOME: cna\_hppd (log)

OLS estimation, Dep. Var.: ln\_cna  
 Observations: 243,793  
 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	-0.035529	0.011511	-3.087	0.00269953557177 **							
government	-0.032518	0.018973	-1.714	0.09001837431677 .							
non_profit	-0.013716	0.013665	-1.004	0.31823162588701							
chain	-0.033579	0.008183	-4.104	0.00008992364796 ***							
beds	-0.000397	0.000144	-2.750	0.00721981568197 **							
occupancy_rate	-0.001338	0.000211	-6.340	0.00000000925848 ***							
pct_medicare	-0.000038	0.000341	-0.112	0.91114893785403							
pct_medicaid	-0.000333	0.000151	-2.203	0.03020028676721 *							
cm_q_state_2	0.010525	0.002965	3.550	0.00061765031159 ***							
cm_q_state_3	0.022967	0.003607	6.368	0.00000000818182 ***							
cm_q_state_4	0.032616	0.004460	7.313	0.00000000010877 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'. '	0.1	' '	1
RMSE:	0.185854	Adj. R2:	0.639022	Within R2:	0.007738						

### 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: rn\_hppd (level)

```

OLS estimation, Dep. Var.: rn_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	-0.033317	0.009242	-3.605	0.0005141633093 ***							
government	-0.006392	0.011938	-0.535	0.5936896738464							
non_profit	-0.020707	0.017000	-1.218	0.2264093748757							
chain	-0.014800	0.012029	-1.230	0.2217793888303							
beds	-0.000899	0.000312	-2.882	0.0049546873383 **							
occupancy_rate	-0.002543	0.000378	-6.730	0.0000000015926 ***							
pct_medicare	-0.000723	0.001731	-0.418	0.6769991223285							
pct_medicaid	-0.000277	0.000168	-1.646	0.1032155770005							
cm_q_state_2	-0.004005	0.007658	-0.523	0.6022946788408							
cm_q_state_3	-0.012433	0.020353	-0.611	0.5428392481170							
cm_q_state_4	-0.040143	0.058865	-0.682	0.4970421593371							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	3.55837	Adj. R2:	0.014376	Within R2:	4.097e-5						

### OUTCOME: rn\_hppd (log)

OLS estimation, Dep. Var.: ln\_rn  
 Observations: 242,582  
 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	-0.081330	0.029471	-2.760	0.007023721235554 **							
government	0.006698	0.042667	0.157	0.875622130725945							
non_profit	-0.033852	0.037814	-0.895	0.373088587600636							
chain	-0.034542	0.020899	-1.653	0.101898568006642							
beds	-0.000737	0.000426	-1.730	0.087050724492663 .							
occupancy_rate	-0.003859	0.000504	-7.658	0.000000000021712 ***							
pct_medicare	0.002428	0.000865	2.808	0.006133470184081 **							
pct_medicaid	-0.000370	0.000389	-0.952	0.343902940377021							
cm_q_state_2	0.019494	0.007968	2.446	0.016394889737504 *							
cm_q_state_3	0.038825	0.010320	3.762	0.000301350328936 ***							
cm_q_state_4	0.063305	0.012396	5.107	0.000001848332330 ***							
---											
Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'..'	0.1	' '	1
RMSE:	0.449474	Adj. R2:	0.700279	Within R2:	0.008102						

### OUTCOME: lpn\_hppd (level)

OLS estimation, Dep. Var.: lpn\_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	-0.002219	0.011702	-0.190	0.850007047		
government	-0.002869	0.016235	-0.177	0.860147946		
non_profit	0.001872	0.018632	0.100	0.920178071		
chain	-0.016621	0.008881	-1.871	0.064575149 .		
beds	-0.000144	0.000184	-0.783	0.435705503		
occupancy_rate	-0.002837	0.000245	-11.569	< 2.2e-16 ***		
pct_medicare	0.000338	0.000361	0.935	0.352100032		
pct_medicaid	-0.000195	0.000161	-1.212	0.228851190		
cm_q_state_2	0.004422	0.002999	1.474	0.143908400		
cm_q_state_3	0.009246	0.003467	2.667	0.009092978 **		
cm_q_state_4	0.020907	0.004545	4.600	0.000013922 ***		
---						
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' '	1
RMSE:	0.275822	Adj. R2:	0.515711			
	Within R2:	0.00659				

### OUTCOME: lpn\_hppd (log)

OLS estimation, Dep. Var.: ln\_lpn  
 Observations: 243,200  
 Fixed-effects: cms\_certification\_number: 2,971, year\_month: 90  
 Standard-errors: Clustered (cms\_certification\_number & year\_month)

	Estimate	Std. Error	t value	Pr(> t )		
post	0.010453	0.017083	0.6119	0.542175952392486948		
government	-0.007420	0.026318	-0.2820	0.778634936961551727		
non_profit	-0.001610	0.034824	-0.0462	0.963222333725083035		
chain	-0.028014	0.012585	-2.2260	0.028539663383200700 *		
beds	0.000064	0.000423	0.1517	0.879753582557584402		
occupancy_rate	-0.003559	0.000392	-9.0873	0.000000000000024778 ***		
pct_medicare	0.000313	0.000570	0.5499	0.583743192061268790		
pct_medicaid	-0.000381	0.000270	-1.4123	0.161342121489433860		
cm_q_state_2	0.010580	0.004973	2.1272	0.036167471843255590 *		
cm_q_state_3	0.016180	0.005539	2.9209	0.004422099427726847 **		
cm_q_state_4	0.030286	0.006896	4.3918	0.000030894780858647 ***		
---						
Signif. codes:	0 '***'	0.001 '**'	0.01 '*'	0.05 '.'	0.1 ' '	1
RMSE:	0.283944	Adj. R2:	0.684373			
	Within R2:	0.010108				

### OUTCOME: cna\_hppd (level)

OLS estimation, Dep. Var.: cna\_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	-0.077673	0.020842	-3.7268	0.000340255721819 ***

```

government      -0.048049   0.031050  -1.5475  0.125300870744256
non_profit     -0.032576   0.031018  -1.0503  0.296445435302167
chain          -0.066807   0.014383  -4.6449  0.000011696632853 ***
beds           -0.000964   0.000350  -2.7584  0.007050094679749 **
occupancy_rate -0.003170   0.000416  -7.6169  0.00000000026351 ***
pct_medicare   -0.000070   0.000739  -0.0945  0.924927873677986
pct_medicaid    -0.000778   0.000281  -2.7701  0.006820842848736 **
cm_q_state_2   0.015306   0.006305  2.4278  0.017206179178114 *
cm_q_state_3   0.035772   0.008337  4.2908  0.000045135923048 ***
cm_q_state_4   0.059553   0.009917  6.0052  0.000000040793887 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 1.22625      Adj. R2: 0.150911
                           Within R2: 8.371e-4

```

### OUTCOME: cna\_hppd (log)

```

OLS estimation, Dep. Var.: ln_cna
Observations: 244,975
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        -0.033921  0.010922 -3.1057 0.00254685395499 **
government  -0.033335  0.019047 -1.7502 0.08353720295433 .
non_profit  -0.012598  0.013541 -0.9304 0.35467538501063
chain        -0.033757  0.008021 -4.2088 0.00006118063812 ***
beds         -0.000414  0.000144 -2.8638 0.00522077962050 **
occupancy_rate -0.001328  0.000212 -6.2735 0.00000001246780 ***
pct_medicare -0.000011  0.000338 -0.0336 0.97324174237659
pct_medicaid -0.000315  0.000150 -2.0973 0.03880035199921 *
cm_q_state_2  0.010323  0.002957  3.4906 0.00075195233385 ***
cm_q_state_3  0.022978  0.003612  6.3620 0.00000000839838 ***
cm_q_state_4  0.032673  0.004459  7.3279 0.00000000010158 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
RMSE: 0.186204      Adj. R2: 0.63805
                           Within R2: 0.007719

```

### 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.