Two Way Fixed Effect OLS Results

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With Anticipation — Level Outcomes

	RN	LPN	CNA	Total
	(1)	(2)	(3)	(4)
Treatment	-0.0290***	0.0023	-0.0446***	-0.0713***
	(0.0051)	(0.0061)	(0.0095)	(0.0136)
Government	-0.0022	-0.0171*	-0.0263*	-0.0456**
	(0.0082)	(0.0095)	(0.0158)	(0.0200)
Non-profit	0.0163	0.0024	0.0421^{*}	0.0608*
	(0.0121)	(0.0130)	(0.0214)	(0.0310)
Chain	0.0015	-0.0144**	-0.0410***	-0.0540***
	(0.0046)	(0.0057)	(0.0090)	(0.0128)
Beds	-0.0008***	-0.0001	-0.0009***	-0.0018***
	(0.0002)	(0.0001)	(0.0003)	(0.0004)
Occupancy rate	-0.0025***	-0.0033***	-0.0040***	-0.0098***
	(0.0002)	(0.0002)	(0.0003)	(0.0005)
% Medicare	0.0012^*	0.0013^{***}	0.0010^{**}	0.0035^{***}
	(0.0007)	(0.0003)	(0.0005)	(0.0010)
% Medicaid	-8.78×10^{-6}	-0.0002*	-0.0007***	-0.0009***
	(9.74×10^{-5})	(0.0001)	(0.0002)	(0.0003)
Case-mix Q2 (state)	-0.0047	-0.0002	0.0062	0.0013
	(0.0031)	(0.0022)	(0.0044)	(0.0071)
Case-mix Q3 (state)	-0.0055	0.0038	0.0245^{***}	0.0228^{**}
	(0.0068)	(0.0027)	(0.0058)	(0.0113)
Case-mix Q4 (state)	-0.0107	0.0152^{***}	0.0370^{***}	0.0415^{*}
	(0.0201)	(0.0034)	(0.0077)	(0.0241)
Observations	638,048	638,048	638,048	638,048
$ m R^2$	0.03706	0.43667	0.21965	0.09237

With Anticipation — Log Outcomes

	Log RN (1)	Log LPN (2)	Log CNA (3)	Log Total (4)
Treatment	-0.0835***	0.0048	-0.0233***	-0.0212***
110001110110	(0.0157)	(0.0087)	(0.0051)	(0.0044)
Government	0.0112	-0.0198	-0.0285***	-0.0209***
	(0.0296)	(0.0153)	(0.0103)	(0.0073)
Non-profit	0.0671**	-0.0148	0.0194^{*}	0.0202**
1	(0.0294)	(0.0246)	(0.0106)	(0.0098)
Chain	$0.0152^{'}$	-0.0085	-0.0180***	-0.0122***
	(0.0131)	(0.0079)	(0.0045)	(0.0039)
Beds	-0.0007***	0.0003	-0.0003**	-0.0004***
	(0.0002)	(0.0003)	(0.0001)	(0.0001)
Occupancy rate	-0.0038***	-0.0034***	-0.0015***	-0.0024***
	(0.0003)	(0.0002)	(0.0001)	(0.0001)
% Medicare	0.0037***	0.0010**	0.0002	0.0009***
	(0.0005)	(0.0004)	(0.0002)	(0.0002)
% Medicaid	0.0002	-0.0005***	-0.0003***	-0.0003***
	(0.0002)	(0.0002)	(8.7×10^{-5})	(7.47×10^{-5})
Case-mix Q2 (state)	0.0100**	0.0088***	0.0091***	0.0078***
	(0.0050)	(0.0032)	(0.0018)	(0.0016)
Case-mix Q3 (state)	0.0220***	0.0167^{***}	0.0210***	0.0180***
	(0.0062)	(0.0037)	(0.0023)	(0.0020)
Case-mix Q4 (state)	0.0400***	0.0310^{***}	0.0282***	0.0282***
	(0.0076)	(0.0045)	(0.0029)	(0.0026)
Observations	631,246	632,179	637,034	637,425
R^2	0.69053	0.66221	0.62501	0.62729

${\bf Excluding\ Anticipation-Level\ Outcomes}$

	RN	LPN	CNA	Total
	(1)	(2)	(3)	(4)
Treatment	-0.0318***	-0.0009	-0.0527***	-0.0853***
	(0.0057)	(0.0067)	(0.0103)	(0.0147)
Government	-0.0040	-0.0171^*	-0.0288^*	-0.0499**
	(0.0086)	(0.0097)	(0.0162)	(0.0202)
Non-profit	0.0143	0.0042	0.0418^{*}	0.0603^{*}
	(0.0125)	(0.0132)	(0.0219)	(0.0318)
Chain	0.0005	-0.0167***	-0.0436***	-0.0598***
	(0.0048)	(0.0060)	(0.0092)	(0.0132)
Beds	-0.0008***	-0.0001	-0.0008***	-0.0017***
	(0.0002)	(0.0001)	(0.0003)	(0.0004)
Occupancy rate	-0.0025***	-0.0033***	-0.0040***	-0.0099***
	(0.0002)	(0.0002)	(0.0003)	(0.0005)
% Medicare	0.0013^*	0.0013^{***}	0.0010^{**}	0.0036^{***}
	(0.0008)	(0.0003)	(0.0005)	(0.0010)
% Medicaid	-1.08×10^{-5}	-0.0002*	-0.0007***	-0.0009***
	(9.88×10^{-5})	(0.0001)	(0.0002)	(0.0003)
Case-mix Q2 (state)	-0.0049	-5.95×10^{-5}	0.0059	0.0009
	(0.0031)	(0.0022)	(0.0044)	(0.0072)
Case-mix Q3 (state)	-0.0056	0.0036	0.0239^{***}	0.0220^{*}
	(0.0069)	(0.0027)	(0.0058)	(0.0114)
Case-mix Q4 (state)	-0.0109	0.0152^{***}	0.0366***	0.0409^*
	(0.0203)	(0.0034)	(0.0078)	(0.0245)
Observations	629,587	629,587	629,587	629,587
\mathbb{R}^2	0.03692	0.43649	0.21858	0.09190

Excluding Anticipation — Log Outcomes

	Log RN (1)	Log LPN (2)	Log CNA (3)	Log Total (4)
Treatment	-0.0933***	0.0021	-0.0266***	-0.0251***
Treatment	(0.0171)	(0.0021)	(0.0054)	(0.0047)
Government	0.0007	-0.0200	-0.0311***	-0.0222***
Government	(0.0303)	(0.0158)	(0.0106)	(0.0074)
Non-profit	0.0623**	-0.0128	0.0186*	0.0198**
ron prono	(0.0299)	(0.0253)	(0.0104)	(0.0097)
Chain	0.0120	-0.0101	-0.0185***	-0.0137***
Chain	(0.0135)	(0.0081)	(0.0046)	(0.0039)
Beds	-0.0007***	0.0003	-0.0003**	-0.0004***
2000	(0.0002)	(0.0003)	(0.0001)	(0.0001)
Occupancy rate	-0.0038***	-0.0034***	-0.0015***	-0.0024***
0 00 or or position just the contract of the c	(0.0003)	(0.0002)	(0.0001)	(0.0001)
% Medicare	0.0037***	0.0010***	0.0002	0.0009***
, , , = = = = = = = = = = = = = = = = =	(0.0005)	(0.0004)	(0.0002)	(0.0002)
% Medicaid	0.0002	-0.0005***	-0.0003***	-0.0003***
, •	(0.0002)	(0.0002)	(8.71×10^{-5})	(7.51×10^{-5})
Case-mix Q2 (state)	0.0096*	0.0091***	0.0089***	0.0077***
• ()	(0.0050)	(0.0032)	(0.0018)	(0.0016)
Case-mix Q3 (state)	0.0222***	0.0165***	0.0207***	0.0180***
• ()	(0.0062)	(0.0037)	(0.0023)	(0.0020)
Case-mix Q4 (state)	0.0403***	0.0312***	0.0279***	0.0281***
• (/	(0.0076)	(0.0045)	(0.0029)	(0.0026)
Observations	$623,\!012$	$623,\!851$	$628,\!674$	$629,\!057$
\mathbb{R}^2	0.69221	0.66427	0.63014	0.63544

Raw Summaries

```
##
##
## RN - With Anticipation (Level)
## ==========
## OLS estimation, Dep. Var.: rn_hppd
## Observations: 638,048
## Fixed-effects: cms_certification_number: 7,814, year_month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
            Estimate Std. Error t value
                                Pr(>|t|)
## post
          ## government
          -0.00224200 0.008227 -0.2725 0.78586283917
## non_profit
          ## chain
          ## beds
```

```
0.000741 1.6853 0.09544023757 .
## pct_medicare
                 0.00124872
## pct_medicaid
               ## cm_q_state_2
              ## cm_q_state_3 -0.00553493
                            0.006849 -0.8081 0.42119270869
## cm q state 4
                -0.01073208
                            0.020069 -0.5348 0.59415068234
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## RMSE: 2.22729
                   Adj. R2: 0.02497
                 Within R2: 9.666e-5
##
##
## ===========
## RN - With Anticipation (Log)
## ============
## OLS estimation, Dep. Var.: ln_rn
## Observations: 631,246
## Fixed-effects: cms_certification_number: 7,811, year_month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                Estimate Std. Error t value
                                                Pr(>|t|)
## post
                -0.083535
                           0.015692 -5.323 0.0000007556088 ***
## government
                 0.011208
                           0.029603
                                    0.379 0.7058760974862
## non profit
                 0.067143
                          0.029404
                                     2.283 0.0247842339591 *
## chain
                 0.015203
                           0.013113 1.159 0.2494111939137
## beds
                -0.000694
                          0.000247 -2.805 0.0061715387045 **
## occupancy_rate -0.003793
                           0.000320 -11.870
                                                < 2.2e-16 ***
## pct_medicare
                           0.000544
                                     6.729 0.000000016047 ***
                 0.003663
                                    0.710 0.4793870359859
## pct_medicaid
                 0.000170
                           0.000239
## cm_q_state_2
                 0.010003
                           0.004968 2.014 0.0470808282975 *
                           0.006219
## cm_q_state_3
                 0.021977
                                     3.534 0.0006520004276 ***
## cm_q_state_4
                 0.039993
                           0.007567
                                     5.285 0.0000008855981 ***
## ---
                 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Signif. codes:
## RMSE: 0.448656
                   Adj. R2: 0.686603
##
                  Within R2: 0.008158
##
##
## ==========
  LPN - With Anticipation (Level)
## ===========
## OLS estimation, Dep. Var.: lpn_hppd
## Observations: 638,048
## Fixed-effects: cms certification number: 7,814, year month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                 Estimate Std. Error t value
## post
                 0.002252
                           0.006062
                                    0.3714 0.711199246
## government
                -0.017113
                           0.009456 -1.8098 0.073704808 .
## non_profit
                0.002411
                          0.012960 0.1860 0.852843209
## chain
                -0.014414
                          0.005738 -2.5122 0.013801980 *
```

```
## beds
                -0.000140
                           0.000141 -0.9974 0.321262048
## occupancy_rate -0.003296
                           0.000199 -16.5272 < 2.2e-16 ***
## pct_medicare
                           0.000292 4.3026 0.000043195 ***
                 0.001258
## pct_medicaid
                           0.000112 -1.8590 0.066335078 .
                -0.000208
## cm q state 2
                -0.000205
                           0.002195 -0.0936 0.925641188
## cm_q_state_3
               0.003838
                           0.002692 1.4258 0.157414764
## cm q state 4
                 0.015215
                           ## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
## RMSE: 0.322696
                    Adj. R2: 0.429597
                  Within R2: 0.006927
##
##
##
## ===========
## LPN - With Anticipation (Log)
## ============
## OLS estimation, Dep. Var.: ln_lpn
## Observations: 632,179
## Fixed-effects: cms_certification_number: 7,797, year_month: 90
## Standard-errors: Clustered (cms certification number & year month)
                 Estimate Std. Error t value
##
## post
                 0.004786
                           0.008749
                                     0.547 0.58575992934183
## government
                -0.019817
                           0.015278 -1.297 0.19797081212015
## non_profit
                ## chain
                -0.008535
                           0.007856 -1.086 0.28023546501474
## beds
                           0.000281 1.058 0.29310344833738
                 0.000297
                           0.000246 -13.788
## occupancy_rate -0.003395
                                                 < 2.2e-16 ***
## pct_medicare
                 0.001002
                           0.000392 2.558 0.01220692978884 *
                           0.000170 -2.797 0.00632931781171 **
## pct_medicaid
                -0.000476
## cm_q_state_2
                 0.008850
                           0.003154 2.806 0.00616044442672 **
## cm_q_state_3
                           0.003734 4.460 0.00002383352032 ***
                 0.016653
## cm_q_state_4
                 0.031025
                           0.004463
                                     6.952 0.0000000057744 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## RMSE: 0.284587
                    Adj. R2: 0.657937
                  Within R2: 0.010015
##
##
## CNA - With Anticipation (Level)
## ============
## OLS estimation, Dep. Var.: cna_hppd
## Observations: 638,048
## Fixed-effects: cms certification number: 7,814, year month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                 Estimate Std. Error t value
                                              Pr(>|t|)
## post
                -0.044578
                           0.009510
                                     -4.69 0.0000099121 ***
## government
                -0.026288
                           0.015771
                                    -1.67 0.0990623428 .
```

```
0.021410
                                       1.97 0.0523663049 .
## non_profit
                  0.042101
## chain
                 -0.041042
                             0.008953
                                       -4.58 0.0000148067 ***
## beds
                             0.000253 -3.38 0.0010774370 **
                 -0.000854
                             0.000298 -13.26
## occupancy_rate -0.003950
                                                < 2.2e-16 ***
## pct medicare
                  0.000990
                             0.000481
                                        2.06 0.0426267806 *
## pct_medicaid
                 -0.000675
                             0.000174
                                       -3.88 0.0001989536 ***
## cm_q_state_2
                  0.006193
                             0.004354
                                      1.42 0.1584137144
## cm_q_state_3
                  0.024500
                             0.005756
                                        4.26 0.0000513293 ***
## cm q state 4
                                        4.82 0.0000058181 ***
                  0.037012
                             0.007675
## ---
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Signif. codes:
## RMSE: 0.932404
                     Adj. R2: 0.209852
                   Within R2: 0.001457
##
##
##
## ============
## CNA - With Anticipation (Log)
## ============
## OLS estimation, Dep. Var.: ln_cna
## Observations: 637,034
## Fixed-effects: cms_certification_number: 7,811, year_month: 90
## Standard-errors: Clustered (cms certification number & year month)
##
                 Estimate Std. Error t value
                                                          Pr(>|t|)
                            0.005054 -4.618 0.00001297319129842628 ***
## post
                 -0.023343
## government
                 -0.028515
                            0.010322 -2.762 0.00696907054373953685 **
## non_profit
                            0.010624 1.826 0.07126015406749316994 .
                  0.019396
## chain
                            0.004496 -3.997 0.00013203260620280976 ***
                 -0.017969
## beds
                 -0.000317
                            0.000122 -2.593 0.01111318542869150529 *
                            0.000125 -11.839
## occupancy_rate -0.001483
                                                          < 2.2e-16 ***
## pct_medicare
                  0.000218
                             0.000219 0.993 0.32331413524459429176
## pct_medicaid
                            0.000087 -3.866 0.00020970369367417040 ***
                 -0.000336
## cm_q_state_2
                  0.009084
                             0.001768 5.137 0.00000163069080110780 ***
## cm_q_state_3
                  0.020968
                             0.002275
                                       9.215 0.000000000001347305 ***
## cm_q_state_4
                             0.002882
                                       9.781 0.00000000000000090871 ***
                  0.028186
## ---
## Signif. codes:
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 0.178603
                     Adj. R2: 0.620297
                   Within R2: 0.007316
##
##
## ============
  Total - With Anticipation (Level)
## ============
## OLS estimation, Dep. Var.: total_hppd
## Observations: 638,048
## Fixed-effects: cms_certification_number: 7,814, year_month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                  Estimate Std. Error t value
                                                Pr(>|t|)
```

```
0.013623 -5.235 0.000001093 ***
## post
                 -0.071309
## government
                 -0.045643
                            0.019981 -2.284 0.024730611 *
## non_profit
                            0.031014 1.959 0.053204001 .
                  0.060766
## chain
                            0.012782 -4.223 0.000058049 ***
                 -0.053978
## beds
                 -0.001758
                            0.000422 -4.168 0.000071124 ***
                            0.000543 -17.989
## occupancy_rate -0.009770
                                              < 2.2e-16 ***
## pct medicare
                  0.003497
                            0.001023
                                      3.417 0.000956207 ***
                 -0.000891
## pct_medicaid
                            0.000269 -3.316 0.001323569 **
## cm_q_state_2
                  0.001256
                            0.007144 0.176 0.860883503
## cm_q_state_3
                  0.022803
                            0.011272 2.023 0.046071650 *
## cm_q_state_4
                  0.041495
                            0.024132 1.719 0.089002021 .
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## RMSE: 2.57635
                    Adj. R2: 0.080971
##
                  Within R2: 0.001008
##
##
## ============
## Total - With Anticipation (Log)
## ============
## OLS estimation, Dep. Var.: ln_total
## Observations: 637,425
## Fixed-effects: cms_certification_number: 7,814, year_month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                 Estimate Std. Error t value
                                                        Pr(>|t|)
                 -0.021166
                            0.004389 -4.82 0.000005828037774887 ***
## post
                            0.007294 -2.87 0.005108222802274087 **
## government
                 -0.020944
## non_profit
                 0.020235
                            0.009810 2.06 0.042051428702672249 *
                            0.003914
## chain
                 -0.012239
                                       -3.13 0.002383774263367167 **
## beds
                 -0.000397
                            0.000117 -3.40 0.001020238092599342 **
## occupancy_rate -0.002357
                            0.000123 -19.17
                                                       < 2.2e-16 ***
## pct_medicare
                  0.000852
                            0.000199
                                     4.28 0.000047057691900970 ***
## pct_medicaid
                 -0.000265
                            0.000075
                                       -3.54 0.000636767677846106 ***
## cm_q_state_2
                                        4.81 0.000006179274991013 ***
                  0.007778
                            0.001618
## cm q state 3
                            0.002045
                                        8.83 0.00000000000085239 ***
                  0.018054
## cm_q_state_4
                  0.028153
                            0.002645
                                       10.64
                                                       < 2.2e-16 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## RMSE: 0.160895
                    Adj. R2: 0.622602
                   Within R2: 0.017071
##
##
##
## ==========
## RN - Excluding Anticipation (Level)
## ===========
## OLS estimation, Dep. Var.: rn_hppd
## Observations: 629,587
## Fixed-effects: cms certification number: 7,813, year month: 90
```

```
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                Estimate Std. Error t value
                                               Pr(>|t|)
## post
                -0.031751
                           0.005658 -5.612 0.00000022387 ***
## government
                           0.008587 -0.468 0.64059890112
                -0.004023
## non profit
                0.014264
                           0.012465 1.144 0.25555525772
## chain
                 0.000528
                           ## beds
                -0.000762
                           0.000169 -4.507 0.00001992833 ***
## occupancy_rate -0.002546
                           0.000211 -12.085
                                              < 2.2e-16 ***
## pct_medicare 0.001255
                           0.000751 1.671 0.09826553613 .
## pct_medicaid
               -0.000011
                           0.000099 -0.109 0.91310728208
## cm_q_state_2
               -0.004904
                           0.003138 -1.563 0.12169602492
## cm_q_state_3 -0.005582
                           0.006948 -0.803 0.42387840642
## cm_q_state_4 -0.010915
                           0.020325 -0.537 0.59257934540
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## RMSE: 2.24211
                   Adj. R2: 0.024665
##
                 Within R2: 9.612e-5
##
##
## RN - Excluding Anticipation (Log)
## ============
## OLS estimation, Dep. Var.: ln_rn
## Observations: 623,012
## Fixed-effects: cms_certification_number: 7,810, year_month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                Estimate Std. Error t value
                                                  Pr(>|t|)
                           0.017148 -5.4386 0.0000004665198 ***
## post
                -0.093262
                           0.030293 0.0228 0.9818404736826
## government
                 0.000691
## non_profit
                 0.062327
                           0.029914 2.0836 0.0400678084204 *
## chain
                           0.012022
## beds
                -0.000687
                           0.000248 -2.7730 0.0067649238393 **
## occupancy_rate -0.003840
                           0.000322 -11.9393
                                                 < 2.2e-16 ***
## pct_medicare
                           0.000547 6.7578 0.000000014047 ***
                 0.003699
## pct medicaid
                           0.000241 0.6448 0.5207033334727
                 0.000156
                           0.004950 1.9325 0.0564816320767 .
## cm_q_state_2
                 0.009565
## cm q state 3
                 0.022231
                           0.006236
                                     3.5647 0.0005883559962 ***
## cm_q_state_4
                           0.007562
                                     5.3251 0.0000007505743 ***
                 0.040266
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## RMSE: 0.446858
                  Adj. R2: 0.688253
##
                  Within R2: 0.008405
##
##
## ============
## LPN - Excluding Anticipation (Level)
## ============
## OLS estimation, Dep. Var.: lpn_hppd
```

```
## Observations: 629,587
## Fixed-effects: cms_certification_number: 7,813, year_month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value
##
                                                 Pr(>|t|)
## post
                 -0.000900
                            0.006666 -0.1349 0.892960558
## government
                            0.009716 -1.7576 0.082251428
                 -0.017077
## non profit
                 0.004185
                            0.013244 0.3160 0.752768572
## chain
                 -0.016723
                            0.005969 -2.8017 0.006236896 **
## beds
                 -0.000117
                            0.000141 -0.8334 0.406876849
## occupancy_rate -0.003316
                            0.000200 - 16.5671
                                                < 2.2e-16 ***
## pct_medicare
                            0.000295 4.3933 0.000030726 ***
                 0.001298
## pct_medicaid
                 -0.000202
                            0.000112 -1.8059 0.074311307 .
## cm_q_state_2
                 -0.000060
                            0.002182 -0.0273 0.978293869
## cm_q_state_3
                0.003647
                            0.002699 1.3512 0.180058119
## cm_q_state_4
                  0.015161
                            0.003411
                                     4.4444 0.000025313 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## RMSE: 0.323726
                     Adj. R2: 0.429316
##
                   Within R2: 0.006949
##
##
## LPN - Excluding Anticipation (Log)
## ============
## OLS estimation, Dep. Var.: ln_lpn
## Observations: 623,851
## Fixed-effects: cms certification number: 7,796, year month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value
##
## post
                  0.002073
                            0.009675 0.214 0.83084434788044
## government
                            0.015813 -1.267 0.20847740236111
                 -0.020034
## non_profit
                 -0.012770
                            0.025315 -0.504 0.61520204837627
## chain
                 -0.010095
                            0.008105 -1.246 0.21617216283534
                            0.000287 1.138 0.25836580945979
## beds
                  0.000326
## occupancy rate -0.003415
                            0.000246 - 13.883
                                                    < 2.2e-16 ***
## pct_medicare
                  0.001049
                            0.000397 2.644 0.00968920419889 **
## pct medicaid
                 -0.000460
                            0.000173 -2.653 0.00945068797550 **
## cm_q_state_2
                0.009145
                            0.003152 2.901 0.00468904444208 **
                            0.003743 4.417 0.00002804324069 ***
## cm_q_state_3
                  0.016535
## cm_q_state_4
                  0.031181
                            0.004475
                                       6.968 0.0000000053672 ***
## ---
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Signif. codes:
## RMSE: 0.283783
                     Adj. R2: 0.65997
                   Within R2: 0.010143
##
##
##
## ============
## CNA - Excluding Anticipation (Level)
```

```
## ============
## OLS estimation, Dep. Var.: cna_hppd
## Observations: 629,587
## Fixed-effects: cms_certification_number: 7,813, year_month: 90
## Standard-errors: Clustered (cms certification number & year month)
                  Estimate Std. Error t value
                                                  Pr(>|t|)
##
## post
                 -0.052678
                             0.010297
                                        -5.12 0.0000017802 ***
## government
                 -0.028802
                             0.016204
                                        -1.78 0.0789039984 .
## non profit
                                        1.91 0.0593526480 .
                  0.041836
                             0.021903
## chain
                 -0.043586
                             0.009204
                                        -4.74 0.0000081985 ***
## beds
                 -0.000834
                             0.000253
                                       -3.29 0.0014167246 **
## occupancy_rate -0.003994
                             0.000301 - 13.25
                                                 < 2.2e-16 ***
## pct_medicare
                             0.000486
                                         2.07 0.0413849317 *
                  0.001005
## pct_medicaid
                 -0.000686
                             0.000175
                                        -3.91 0.0001793305 ***
## cm_q_state_2
                  0.005909
                             0.004368
                                         1.35 0.1796208063
## cm_q_state_3
                  0.023950
                             0.005804
                                         4.13 0.0000827922 ***
## cm_q_state_4
                  0.036633
                             0.007813
                                         4.69 0.0000098522 ***
## ---
## Signif. codes:
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 0.937423
                     Adj. R2: 0.208635
                   Within R2: 0.001475
##
##
##
## CNA - Excluding Anticipation (Log)
## ==========
## OLS estimation, Dep. Var.: ln_cna
## Observations: 628,674
## Fixed-effects: cms certification number: 7,810, year month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
##
                  Estimate Std. Error t value
                                                           Pr(>|t|)
## post
                 -0.026606
                             0.005384 -4.941 0.0000036166169539615 ***
## government
                 -0.031050
                             0.010551 -2.943 0.0041482695535857228 **
## non_profit
                             0.010452 1.780 0.0784101371549523335 .
                  0.018610
## chain
                             0.004572 -4.049 0.0001094457232007739 ***
                 -0.018514
## beds
                 -0.000309
                             0.000123 -2.513 0.0137846871616404288 *
## occupancy rate -0.001496
                             0.000125 -11.931
                                                          < 2.2e-16 ***
## pct_medicare
                  0.000219
                             0.000221
                                        0.992 0.3239834067855467126
## pct_medicaid
                             0.000087 -3.881 0.0001992893574846948 ***
                 -0.000338
                             0.001762
## cm_q_state_2
                  0.008858
                                        5.027 0.0000025576895177678 ***
## cm_q_state_3
                  0.020691
                             0.002274
                                        9.101 0.000000000000232512 ***
## cm_q_state_4
                             0.002908
                                        9.598 0.000000000000021751 ***
                  0.027908
## ---
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Signif. codes:
## RMSE: 0.176799
                     Adj. R2: 0.625425
##
                   Within R2: 0.007562
##
##
```

```
## =============
## Total - Excluding Anticipation (Level)
## ===========
## OLS estimation, Dep. Var.: total_hppd
## Observations: 629,587
## Fixed-effects: cms_certification_number: 7,813, year_month: 90
## Standard-errors: Clustered (cms certification number & year month)
##
                  Estimate Std. Error t value
                                                  Pr(>|t|)
                             0.014745 -5.787 0.00000010543 ***
## post
                 -0.085329
## government
                 -0.049902
                             0.020235 -2.466 0.01557689570 *
## non_profit
                             0.031769 1.898 0.06099130390 .
                  0.060284
## chain
                 -0.059781
                             0.013165 -4.541 0.00001748951 ***
## beds
                             0.000422 -4.059 0.00010563880 ***
                 -0.001713
## occupancy_rate -0.009857
                             0.000550 - 17.933
                                                 < 2.2e-16 ***
## pct_medicare
                  0.003558
                             0.001039
                                       3.425 0.00093198299 ***
## pct_medicaid
                             0.000272 -3.312 0.00134060753 **
                 -0.000899
## cm_q_state_2
                  0.000945
                             0.007190 0.131 0.89573892649
## cm_q_state_3
                             0.011404 1.930 0.05673439613 .
                  0.022015
## cm_q_state_4
                                       1.671 0.09825299524 .
                  0.040879
                             0.024465
## ---
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Signif. codes:
## RMSE: 2.59259
                    Adj. R2: 0.080342
##
                  Within R2: 0.001012
##
##
## ============
   Total - Excluding Anticipation (Log)
## ===========
## OLS estimation, Dep. Var.: ln_total
## Observations: 629,057
## Fixed-effects: cms certification number: 7,813, year month: 90
## Standard-errors: Clustered (cms_certification_number & year_month)
                  Estimate Std. Error t value
##
                                                        Pr(>|t|)
                                       -5.38 0.00000059179817499 ***
## post
                 -0.025066
                             0.004657
## government
                 -0.022234
                             0.007356
                                       -3.02 0.00327289000270582 **
## non profit
                  0.019800
                             0.009656
                                        2.05 0.04325348646924495 *
## chain
                 -0.013702
                             0.003934
                                       -3.48 0.00077099830863812 ***
## beds
                 -0.000383
                             0.000118
                                      -3.26 0.00159278118291478 **
## occupancy_rate -0.002372
                             0.000123 -19.33
                                                       < 2.2e-16 ***
## pct_medicare
                             0.000201
                                        4.33 0.00003835670332079 ***
                  0.000871
## pct_medicaid
                             0.000075 -3.50 0.00072020926057077 ***
                 -0.000263
## cm_q_state_2
                  0.007743
                             0.001585 4.88 0.00000454371963790 ***
## cm_q_state_3
                                        8.91 0.000000000005655 ***
                  0.018014
                             0.002021
## cm_q_state_4
                  0.028064
                             0.002642
                                       10.62
                                                       < 2.2e-16 ***
## ---
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Signif. codes:
## RMSE: 0.158331
                     Adj. R2: 0.630797
##
                   Within R2: 0.017833
```