TWFE HPPD Results — Levels & Logs (Split Tables)

Joe White
October 27, 2025

With Anticipation — Level Outcomes (RN, LPN, CNA, Total)

	RN (1)	LPN (2)	CNA (3)	Total (4)
Treatment	-0.0290***	0.0023	-0.0446***	-0.0713***
Troudinello	(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
\mathbb{R}^2	0.03706	0.43667	0.21965	0.09237

With Anticipation — Log Outcomes (Log RN, Log LPN, Log CNA, Log Total)

	Log RN (1)	Log LPN (2)	Log CNA (3)	Log Total (4)
Treatment	-0.0835***	0.0048	-0.0233***	-0.0212***
	(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**
	(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

Excluding Anticipation — Level Outcomes (RN, LPN, CNA, Total)

	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
R^2	0.03692	0.43649	0.21858	0.09190

Excluding Anticipation — Log Outcomes (Log RN, Log LPN, Log CNA, Log Total)

	Log RN (1)	Log LPN (2)	Log CNA (3)	Log Total (4)
Treatment	-0.0933***	0.0021	-0.0266***	-0.0251***
	(0.0171)	(0.0097)	(0.0054)	(0.0047)
Government	0.0007	-0.0200	-0.0311***	-0.0222***
	(0.0303)	(0.0158)	(0.0106)	(0.0074)
Non-profit	0.0623^{**}	-0.0128	0.0186^{*}	0.0198^{**}
	(0.0299)	(0.0253)	(0.0104)	(0.0097)
Chain	0.0120	-0.0101	-0.0185***	-0.0137***
	(0.0135)	(0.0081)	(0.0046)	(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)	(8.71×10^{-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)
	000 01-		000 074	
Observations	623,012	623,851	628,674	629,057
\mathbb{R}^2	0.69221	0.66427	0.63014	0.63544