List of Tables

Table 1: Summary Statistics

Variable	Overall	Year 2015	Year 2016	Rurality RUCC codes 1-3	Rurality RUCC codes 4-6	Rurality RUCC codes 7-9	Region Northeast	Region North Central	Region South	Region West
Insurer HHI	5960.021 [2326.607]	6167.578 [2416.657]	5752.553 [2214.116]	5275.982 [2217.744]	6021.184 [2316.039]	6641.471 [2241.79]	5146.401 [1549.223]	5132.547 [2063.832]	6777.619 [2299.421]	5260.643 [2271.729]
Hospital HHI	4692.134 [2693.278]	4678.866 [2694.897]	4705.38 [2692.168]	3668.049 [2102.519]	4532.369 [2418.491]	5939.502 [2981.263]	2940.513 [2018.227]	4636.446 [2627.209]	4263.224 [2280.813]	8350.612 [2469.274]
Number of Insurers	3.479 [1.8]	3.588 [1.862]	3.371 [1.729]	4.202 [2.092]	3.383 [1.667]	2.791 [1.182]	5.145 [1.487]	4.018 [1.913]	2.841 [1.402]	3.905 [2.004]
Number of ind. Hospitals	6.185 [8.272]	6.21 [8.422]	6.16 [8.121]	9.63 [12.545]	5.114 [2.892]	3.463 [2.592]	19.654 [29.163]	5.728 [4.549]	6.015 [4.195]	1.589 [1.924]
Number of Hospitals	7.481 [10.966]	7.472 [11.034]	7.49 [10.9]	12.322 [16.694]	5.752 [3.357]	3.863 [2.989]	24.539 [38.313]	6.911 [6.49]	7.208 [5.72]	1.951 [2.968]
No Hospitals	0.047 [0.212]	0.046 [0.21]	0.048 [0.213]	0.017 [0.128]	0.026 [0.158]	0.099 [0.299]	0 [0]	0.031 [0.172]	0.023 [0.149]	0.281 [0.45]
Poverty rate	17.031 [6.422]	17.095 [6.378]	16.967 [6.467]	15.19 [5.563]	18.792 [6.068]	17.396 [7.058]	12.687 [3.728]	14.489 [5.383]	19.471 [6.428]	16.337 [6]
Median age	40.913 [5.132]	40.833 [5.092]	40.992 [5.172]	39.315 [4.631]	40.263 [4.4]	43.226 [5.436]	42.522 [3.438]	41.548 [5.024]	40.258 [4.86]	41.052 [7.016]
Percent white	0.835 [0.164]	0.836 [0.163]	0.834 [0.165]	0.819 [0.144]	0.833 [0.17]	0.854 [0.177]	0.888 [0.12]	0.917 [0.103]	0.763 [0.176]	0.863 [0.139]
Percent Black	0.098 [0.151]	0.098 [0.151]	0.098 [0.151]	0.113 [0.133]	0.103 [0.159]	0.077 [0.158]	0.051 [0.073]	0.027 [0.048]	0.171 [0.181]	0.009 [0.013]
Percent Native	0.032 [0.007]	0.033 [0.007]	0.032 [0.007]	0.033 [0.006]	0.033 [0.006]	0.031 [0.008]	0.029 [0.004]	0.033 [0.006]	0.033 [0.007]	0.033 [0.009]
Medicare costs per-capita	9083.502 [1282.841]	8951.596 [1268.049]	9215.576 [1284.244]	9242.026 [1162.72]	9090.609 [1137.178]	8906.754 [1492.735]	9627.558 [1230.387]	8874.764 [1131.923]	9379.238 [1277.193]	7977.207 [1134.023]
Counties per rating area	26.036 [41.786]	25.999 [41.755]	26.074 [41.827]	9.73 [17.03]	33.266 [50.671]	36.938 [45.911]	10.456 [5.742]	13.524 [9.962]	38.583 [55.733]	16.323 [12.33]
Insurer "selective entry" rate	0.397 [0.489]	0.423 [0.494]	0.37 [0.483]	0.306 [0.461]	0.456 [0.498]	0.439 [0.496]	0.346 [0.477]	0.385 [0.487]	0.439 [0.496]	0.235 [0.424]
Expanded Medicaid	0.367 [0.482]	0.353 [0.478]	0.381 [0.486]	0.349 [0.477]	0.379 [0.485]	0.376 [0.485]	0.566 [0.497]	0.592 [0.492]	0.114 [0.318]	0.746 [0.436]
MLR rebate	157.527 [171.805]	137.513 [136.635]	177.506 [198.895]	151.941 [163.328]	165.258 [177.634]	156.444 [175.076]	86.004 [64.616]	97.288 [111.644]	223.186 [198.037]	78.856 [108.665]
Republican state govt.	0.691 [0.462]	0.69 [0.462]	0.691 [0.462]	0.711 [0.453]	0.703 [0.457]	0.657 [0.475]	0.588 [0.493]	0.637 [0.481]	0.804 [0.397]	0.328 [0.47]

Table 2: Main results

	Main model	Insurer HHI (logged) Boozary et al. (2019)	Griffith et al. (2018)
	Dependent variable:		
	(1)	(2)	(3)
Hospital HHI (logged)	0.029***	0.042***	0.056***
	(0.008)	(0.009)	(0.011)
No hospitals in market	0.010	0.020	−0.006
	(0.015)	(0.021)	(0.027)
Rurality (RUCC code)	0.012***	0.032***	0.038***
	(0.002)	(0.002)	(0.002)
Constant	272.176	290.910***	7.920***
	(252.378)	(90.949)	(0.145)
Observations	4,400	4,694	4,694
R^2	0.833	0.592	0.191
Adjusted R^2	0.811	0.586	0.188
Residual Std. Error	0.177 (df = 3896)	0.261 (df = 4617)	0.365 (df = 4680)
F Statistic	38.518*** (df = 503; 3896)	88.256*** (df = 76; 4617)	84.851*** (df = 13; 4680)

Note: *p<0.1; **p<0.05; ***p<0.01
Also controlling for rating area/year fixed effects, and county/state covariates where appropriate.

Table 3: Main results (hospital market radius one SD lower)

	Main model	Insurer HHI (logged) Boozary et al. (2019)	Griffith et al. (2018)
	Dependent variable:		
	(1)	(2)	(3)
Hospital HHI (logged)	0.019**	0.047***	0.077***
	(0.008)	(0.009)	(0.012)
No hospitals in market	0.004	0.006	−0.004
	(0.009)	(0.013)	(0.017)
Rurality (RUCC code)	0.012***	0.032***	0.038***
	(0.002)	(0.002)	(0.002)
Constant	272.329	291.247***	7.766***
	(252.684)	(90.926)	(0.150)
Observations	4,400	4,694	4,694
R^2	0.832	0.593	0.193
Adjusted R^2	0.811	0.586	0.191
Residual Std. Error	0.177 (df = 3896)	0.261 (df = 4617)	0.365 (df = 4680)
F Statistic	38.406*** (df = 503; 3896)	88.333*** (df = 76; 4617)	86.246*** (df = 13; 4680)

Note: *p<0.1; **p<0.05; ***p<0.01
Also controlling for rating area/year fixed effects, and county/state covariates where appropriate.

Table 4: Main results (hospital market radius one SD higher)

	Dependent variable:		
	Insurer HHI (logged)		
	Main model	Boozary et al. (2019)	Griffith et al. (2018)
	(1)	(2)	(3)
Hospital HHI (logged)	0.021**	0.019**	0.030***
	(0.008)	(0.009)	(0.010)
No hospitals in market	0.019	0.021	−0.023
	(0.021)	(0.030)	(0.040)
Rurality (RUCC code)	0.012***	0.034***	0.040***
	(0.002)	(0.002)	(0.002)
Constant	272.549	291.222***	8.154***
	(252.637)	(91.151)	(0.144)
Observations	4,400	4,694	4,694
R^2	0.832	0.590	0.187
Adjusted R^2	0.811	0.584	0.185
Residual Std. Error	0.177 (df = 3896)	0.262 (df = 4617)	0.366 (df = 4680)
F Statistic	38.423*** (df = 503; 3896)	87.598*** (df = 76; 4617)	82.869*** (df = 13; 4680)

Note: *p<0.1; **p<0.05; ***p<0.01

Also controlling for rating area/year fixed effects, and county/state covariates where appropriate.

Table 5: Results by Year (main model)

	Dependent variable:		
	Insurer HHI (logged)		
	2015	2016	Combined
	(1)	(2)	(3)
Hospital HHI (logged)	0.038***	0.020*	0.029***
	(0.010)	(0.012)	(0.008)
No hospitals in market	−0.001	0.022	0.010
	(0.019)	(0.022)	(0.015)
Rurality (RUCC code)	0.011***	0.013***	0.012***
	(0.002)	(0.003)	(0.002)
Constant	8.266***	8.317***	272.176
	(0.145)	(0.167)	(252.378)
Observations	2,203	2,197	4,400
R^2	0.862	0.798	0.833
Adjusted R^2	0.843	0.772	0.811
Residual Std. Error	0.164 (df = 1946)	0.190 (df = 1941)	0.177 (df = 3896)
F Statistic	47.345*** (df = 256; 1946)	30.158*** (df = 255; 1941)	38.518*** (df = 503; 3896)

Note: $^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Also controlling for rating area/year fixed effects, and county covariates.

Table 6: Results by Year (Boozary et al. (2019))

	Dependent variable:		
	Insurer HHI (logged)		
	2015	2016	Combined
	(1)	(2)	(3)
Hospital HHI (logged)	0.047***	0.038***	0.042***
	(0.012)	(0.013)	(0.009)
No hospitals in market	0.024	0.018	0.020
	(0.028)	(0.030)	(0.021)
Rurality (RUCC code)	0.029***	0.036***	0.032***
	(0.003)	(0.003)	(0.002)
Constant	8.234***	8.022***	290.910***
	(0.155)	(0.165)	(90.949)
Observations	2,350	2,344	4,694
R^2	0.639	0.538	0.592
Adjusted R^2	0.633	0.529	0.586
Residual Std. Error	0.251 (df = 2307)	0.270 (df = 2301)	0.261 (df = 4617)
F Statistic	97.424*** (df = 42; 2307)	63.686*** (df = 42; 2301)	88.256*** (df = 76; 4617)

Note: $^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Also controlling for rating area/year fixed effects, and county covariates.

Table 7: Results by Region (main model)

	Dependent variable:			
	Insurer HHI (logged)			
	Northeast	North Central	South	West
	(1)	(2)	(3)	(4)
Hospital HHI (logged)	0.010	0.033***	0.017	0.057*
	(0.028)	(0.012)	(0.011)	(0.031)
No hospitals in range		−0.029	0.038	−0.001
		(0.027)	(0.029)	(0.023)
Rurality (RUCC code)	0.010	0.005*	0.013***	0.047***
	(0.008)	(0.003)	(0.002)	(0.007)
Constant	619.830**	1,039.057***	276.390	−53.218
	(241.082)	(139.279)	(260.883)	(242.504)
Observations	228	1,717	2,065	390
R^2	0.805	0.842	0.766	0.841
Adjusted R^2	0.768	0.819	0.739	0.811
Residual Std. Error	0.146 (df = 190)	0.169 (df = 1500)	0.183 (df = 1853)	0.170 (df = 327)
F Statistic	21.263*** (df = 37; 190)	37.014*** (df = 216; 1500)	28.761*** (df = 211; 1853)	27.901*** (df = 62; 327)

Note: *p<0.1; **p<0.05; ***p<0.01
Also controlling for rating area/year fixed effects, and county covariates.

Table 8: Results by Region (Boozary et al. (2019))

	Dependent variable:			
	Insurer HHI (logged)			
	Northeast	North Central	South	West
	(1)	(2)	(3)	(4)
Hospital HHI (logged)	−0.024	0.014	0.054***	0.096***
	(0.036)	(0.015)	(0.012)	(0.035)
No hospitals in range		−0.015	0.054	−0.021
		(0.042)	(0.039)	(0.028)
Rurality (RUCC code)	0.007	0.017***	0.038***	0.067***
	(0.010)	(0.003)	(0.003)	(0.006)
Constant	822.603***	806.066***	297.341***	−943.175***
	(167.875)	(76.187)	(90.616)	(163.119)
Observations	228	1,731	2,329	406
R^2	0.444	0.564	0.513	0.704
Adjusted R^2	0.405	0.557	0.505	0.687
Residual Std. Error	0.234 (df = 212)	0.265 (df = 1702)	0.260 (df = 2294)	0.221 (df = 383)
F Statistic	11.302*** (df = 15; 212)	78.609*** (df = 28; 1702)	70.942*** (df = 34; 2294)	41.409*** (df = 22; 383)

Note: *p<0.1; **p<0.05; ***p<0.01
Also controlling for rating area/year fixed effects, and county covariates.

Table 9: Results by Rurality (main model)

	Dependent variable:		
		Insurer HHI (logged)	
	RUCC Codes 1-3	RUCC Codes 4-6	RUCC Codes 7-9
	(1)	(2)	(3)
Hospital HHI (logged)	0.039***	0.009	0.007
	(0.015)	(0.014)	(0.013)
No hospitals in market	0.036	−0.028	0.022
	(0.053)	(0.039)	(0.018)
Rurality (RUCC code)	−0.040***	0.002	0.032***
	(0.012)	(0.007)	(0.006)
Constant	260.712	252.522**	140.891
	(228.572)	(106.613)	(484.269)
Observations	1,481	1,361	1,558
R^2	0.899	0.862	0.808
Adjusted R^2	0.855	0.814	0.769
Residual Std. Error	0.160 (df = 1037)	0.175 (df = 1008)	0.170 (df = 1299)
F Statistic	20.776*** (df = 443; 1037)	17.916*** (df = 352; 1008)	21.132*** (df = 258; 1299)

Note: *p<0.1; **p<0.05; ***p<0.01
Also controlling for rating area/year fixed effects, and county covariates.

Table 10: Results by Rurality (Boozary et al. (2019))

	Dependent variable:		
		Insurer HHI (logged)	
	RUCC Codes 1-3	RUCC Codes 4-6	RUCC Codes 7-9
	(1)	(2)	(3)
Hospital HHI (logged)	0.027	0.042***	0.033**
	(0.018)	(0.009)	(0.014)
No hospitals in market	0.065	0.020	0.009
	(0.065)	(0.021)	(0.021)
Rurality (RUCC code)	0.034***	0.032***	0.035***
	(0.011)	(0.002)	(0.007)
Constant	353.133**	290.910***	261.756*
	(153.669)	(90.949)	(152.526)
Observations	1,687	4,694	1,566
R^2	0.537	0.592	0.650
Adjusted R^2	0.515	0.586	0.633
Residual Std. Error	0.290 (df = 1610)	0.261 (df = 4617)	0.214 (df = 1493)
F Statistic	24.579*** (df = 76; 1610)	88.256*** (df = 76; 4617)	38.456*** (df = 72; 1493)

Note: *p<0.1; **p<0.05; ***p<0.01
Also controlling for rating area/year fixed effects, and county covariates.