

**Appendix Table I: Annual Patients, Claims, and Spending From HCCI Data, 2007 – 2011**

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	Distinct Members	Inpatient Spending (\$)	Total Spending (\$)
2007	44,869,397	28,703,216,810	126,439,637,925
2008	45,064,977	29,796,787,559	131,711,103,920
2009	44,780,736	32,288,419,203	141,932,049,143
2010	43,642,097	31,829,518,213	140,894,344,384
2011	42,976,359	31,829,841,920	141,110,226,944
<i>Total</i>	<i>88,680,441</i>	<i>154,447,783,705</i>	<i>682,087,362,316</i>

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**Notes:** This table is based on claims from the entire HCCI database. All spending values have been inflation adjusted to 2011 dollars using the BLS All Items Consumer Price Index.

**Appendix Table II: Comparison of AHA Hospitals, the Inpatient Sub-sample and the Procedure Sub-samples**

	All AHA Hospitals	Inpatient	Hip Replacement	Knee Replacement	Cesarean Section	Vaginal Delivery	PTCA	Colonoscopy	MRI
<b>Market Characteristics</b>									
Monopoly	0.275	0.163	0.028	0.073	0.07	0.105	0.04	0.129	0.168
Duopoly	0.194	0.194	0.087	0.153	0.153	0.161	0.125	0.185	0.198
Triopoly	0.108	0.123	0.06	0.099	0.102	0.096	0.09	0.099	0.125
Hospital HHI	0.541	0.461	0.314	0.38	0.374	0.402	0.338	0.425	0.472
HCCI Market Share, County	15.3	17.8	25.3	23.6	21.1	20.5	24.1	20.6	19.3
<b>Hospital Characteristics</b>									
Number of Technologies	51.1	59.3	74.3	68.3	67.7	66.2	71.8	65.1	62.7
Ranked in US News & World Reports	0.037	0.053	0.137	0.08	0.076	0.072	0.124	0.081	0.063
Beds	218.4	269.7	420.5	345.6	342.1	327.1	417.3	290.3	267.8
Teaching Hospital	0.306	0.38	0.622	0.503	0.478	0.455	0.555	0.428	0.389
Government Owned	0.167	0.122	0.068	0.074	0.088	0.101	0.074	0.108	0.117
Non-Profit	0.64	0.693	0.83	0.785	0.754	0.744	0.75	0.75	0.735
<b>Local Area Characteristics</b>									
Percent of County Uninsured	17.5	17.1	16.3	16.8	16.9	17.1	17.3	16.3	16.5
Median Income	49,019	51,516	55,663	53,892	55,116	54,566	52,968	53,691	51,745
Rural	0.292	0.162	0.01	0.042	0.048	0.068	0.029	0.124	0.164
<b>Other Payers</b>									
Medicare Payment Rate	6,295	6,437	6,339	6,207	6,464	6,482	6,400	6,381	6,208
Share Medicare	46.2	44.6	42.8	43.9	41.9	42	43.6	44.3	45.2
Share Medicaid	18.7	18.8	15.2	16.2	17.9	18.3	16.7	17.4	17.7
<b>Quality Scores</b>									
30-Day AMI Survival Rate	16.1	16	15.5	15.8	15.8	15.9	15.6	15.9	16
% of AMI Patients Given Aspirin at Arrival	95.7	97.3	98.5	98.1	98.2	98.1	98.5	97.6	97.4
% of Patients Given Antibiotics Pre Surgery	91.5	93.3	94.4	94.4	94.1	94.1	94	94	93.9
% of Surgery Patients Given Treatment to Prevent Blood Clots	85.9	88	89.8	89.3	88.8	88.7	88.7	88.8	88.9
<b>Number of Observations</b>	12,847	8,772	1,259	2,660	3,794	4,096	1,764	3,512	5,082
<b>Number of Hospitals</b>	3,272	2,358	470	932	1,163	1,280	652	1,237	1,628
<b>% of Inpatient Cases Represented</b>	100	88.4	23.4	38.4	54.3	55.1	31.1	40.9	52.4

**Notes:** The inpatient data is derived from the inpatient sample. The procedure files are drawn from the procedure samples. MRIs include only lower-limb scans.

**Appendix Table III: Effect of Sample Restrictions on Number of Cases and Hospitals**

	Cases	Facilities
1. Condition on match to AHA	5,865,727	4,326
2. Exclude critical access hospitals	5,814,378	3,202
3. Condition on match to Medicare payment data	5,808,583	3,199
4. Exclude 2007 data	5,039,479	3,189
5. Exclude hospitals with fewer than 50 cases per year	4,964,774	2,358

**Notes:** This table tracks the impact of each of our successive cleaning rules on the inpatient data used in our main analyses. The data contains cases drawn from all claims in the HCCI database from 2007 to 2011.

**Appendix Table IV: Private Prices and Medicare Base Payment Rate at the Hospital Level, 2011**

	Summary Statistics			Correlation								
	Mean	Standard Deviation	# Hospitals	Inpatient	Hip Replacement	Knee Replacement	Cesarean Section	Vaginal Delivery	PTCA	Colonoscopy	Lower Limb MRI	Medicare Base
<b>Inpatient</b>	14,020	4,782	2,139	1								
<b>Hip Replacement</b>	24,565	7,209	341	0.724	1							
<b>Knee Replacement</b>	24,059	7,677	664	0.761	0.923	1						
<b>Cesarean Section</b>	8,258	2,758	926	0.794	0.535	0.574	1					
<b>Vaginal Delivery</b>	5,465	1,727	1,022	0.693	0.544	0.510	0.879	1				
<b>PTCA</b>	25,395	8,577	375	0.678	0.580	0.573	0.440	0.349	1			
<b>Colonoscopy</b>	1,834	685	844	0.342	0.285	0.273	0.303	0.322	0.156	1		
<b>Lower Limb MRI</b>	1,343	533	1,304	0.350	0.224	0.264	0.276	0.232	0.255	0.252	1	
<b>Medicare Base</b>	6,494	1,291	2,139	0.203	0.283	0.203	0.258	0.360	0.093	0.087	-0.040	1

**Notes:** The private-payer hospital 2011 prices are the risk-adjusted transaction prices as discussed in Appendix B1 and Appendix B2. The inpatient Medicare payment rate is the Medicare base payment with a DRG weight of 1. Correlation coefficients are pairwise correlations between multiple procedures at the same hospital. The data are drawn from our pricing samples. All correlations are significant at  $p < 0.01$  except for Medicare and PTCA ( $p < 0.1$ ), Medicare and Colonoscopy ( $p < 0.05$ ), and Medicare and Lower Limb MRI (not significant).

**Appendix Table V: Price/Quantity Decomposition of Medicare and Private Health Spending, 2011, Ages 55-64**

	Private			Medicare		
	(1) Share Price	(2) Share Quantity	(3) Share Covariance	(4) Share Price	(5) Share Quantity	(6) Share Covariance
Intracranial hemorrhage or cerebral infarction w CC	0.484	0.466	0.050	0.256	0.662	0.082
Pulmonary edema & respiratory failure	0.594	0.402	0.004	0.213	0.770	0.017
Simple pneumonia & pleurisy w CC	0.475	0.514	0.011	0.221	0.989	-0.210
Respiratory system diagnosis w ventilator support 96+ hours	0.650	0.415	-0.064	0.102	0.771	0.127
Respiratory system diagnosis w ventilator support <96 hours	0.655	0.321	0.024	0.155	0.987	-0.143
Cardiac valve & oth maj cardiothoracic proc w/o card cath w MCC	0.468	0.410	0.122	0.086	0.840	0.074
Cardiac valve & oth maj cardiothoracic proc w/o card cath w CC	0.389	0.498	0.113	0.069	0.846	0.085
Cardiac defibrillator implant w/o cardiac cath w/o MCC	0.713	0.377	-0.090	0.061	0.956	-0.017
Coronary bypass w cardiac cath w/o MCC	0.277	0.746	-0.023	0.074	1.168	-0.242
Coronary bypass w/o cardiac cath w/o MCC	0.381	0.699	-0.079	0.108	1.058	-0.166
Major cardiovase proc w MCC or thoracic aortic aneurysm repair	0.555	0.308	0.138	0.166	0.871	-0.037
Major cardiovascular proc w/o MCC	0.518	0.547	-0.065	0.163	1.059	-0.222
Perc cardiovase proc w drug-eluting stent w MCC or 4+ vessels/stents	0.371	0.564	0.065	0.089	1.004	-0.094
Perc cardiovase proc w drug-eluting stent w/o MCC	0.465	0.681	-0.146	0.153	1.113	-0.265
Circulatory disorders except AMI, w card cath w/o MCC	0.435	0.756	-0.191	0.112	1.110	-0.222
Major small & large bowel proc w MCC	0.676	0.299	0.025	0.213	0.888	-0.101
Major small & large bowel proc w CC	0.474	0.453	0.073	0.193	0.811	-0.005
Esophagitis, gastroent & misc digest disorders w/o MCC	0.387	0.637	-0.024	0.164	1.028	-0.192
Spinal fusion except cervical w/o MCC	0.334	0.512	0.154	0.085	1.067	-0.152
Major joint replacement or reattachment of lower extremity w/o MCC	0.381	0.645	-0.026	0.213	0.973	-0.186
Cellulitis w/o MCC	0.425	0.583	-0.008	0.128	0.923	-0.051
Infectious & parasitic diseases w O.R. proc w MCC	0.701	0.360	-0.061	0.112	0.769	0.119
Septicemia w MV 96+ hours	0.759	0.305	-0.065	0.072	0.860	0.067
Septicemia w/o MV 96+ hours w MCC	0.536	0.365	0.099	0.120	0.815	0.064
Rehabilitation w CC/MCC	0.460	0.430	0.109	0.056	1.164	-0.219
<b>Average Shares (weighted by spending)</b>	<b>0.496</b>	<b>0.495</b>	<b>0.009</b>	<b>0.127</b>	<b>0.953</b>	<b>-0.081</b>

**Notes:** The decomposition of ln(spending per beneficiary) is carried out on the 2011 Medicare and HCII inpatient spending samples. The Medicare analysis is based on the 100% sample of Medicare claims accessed via the AHD. HCII data includes all inpatient claims from our spending sample for those aged 55-64. CC is short for with complication or comorbidity; MCC is short for with major complication or comorbidity; proc is procedure; cath is catheter; w is With; w/o is without. Because of space constraints, we show only the top 25 highest spending DRGs in the HCII data; the Average Shares in the final row are the average decomposition results by DRG (weighted by spending, i.e. first three columns use spending weights for private and last three use weights based on Medicare) across the 735 DRGs (HCII) 562 DRGs (Medicare).

**Appendix Table VI: Price/Quantity Decomposition of Medicare and Private Health Spending, 2011, Ages 18-64**

	Private			Medicare		
	(1) Share Price	(2) Share Quantity	(3) Share Covariance	(4) Share Price	(5) Share Quantity	(6) Share Covariance
Craniotomy & endovascular intracranial procedures w MCC	0.386	0.535	0.079	0.120	0.860	0.020
Pulmonary edema & respiratory failure	0.488	0.437	0.075	0.213	0.770	0.017
Simple pneumonia & pleurisy w MCC	0.546	0.482	-0.028	0.160	1.073	-0.233
Simple pneumonia & pleurisy w CC	0.493	0.747	-0.240	0.221	0.989	-0.210
Respiratory system diagnosis w ventilator support 96+ hours	0.609	0.540	-0.150	0.102	0.771	0.127
Respiratory system diagnosis w ventilator support <96 hours	0.571	0.484	-0.055	0.155	0.987	-0.143
Cardiac valve & oth maj cardiothoracic proc w/o card cath w MCC	0.396	0.617	-0.013	0.086	0.840	0.074
Cardiac valve & oth maj cardiothoracic proc w/o card cath w CC	0.312	0.618	0.071	0.069	0.846	0.085
Coronary bypass w cardiac cath w/o MCC	0.238	0.852	-0.090	0.074	1.168	-0.242
Major cardioasc procedures w MCC or thoracic aortic aneuerysm repair	0.478	0.447	0.075	0.166	0.871	-0.037
Major cardiovascular procedures w/o MCC	0.360	0.760	-0.120	0.163	1.059	-0.222
Perc cardioasc proc w drug-eluting stent w MCC or 4+ vessels/stents	0.329	0.722	-0.052	0.089	1.004	-0.094
Perc cardioasc proc w drug-eluting stent w/o MCC	0.463	0.889	-0.352	0.153	1.113	-0.265
Circulatory disorders except AMI, w card cath w/o MCC	0.339	0.877	-0.216	0.112	1.110	-0.222
Major small & large bowel procedures w MCC	0.584	0.421	-0.005	0.213	0.888	-0.101
Major small & large bowel procedures w CC	0.387	0.564	0.049	0.193	0.811	-0.005
Esophagitis, gastroent & misc digest disorders w/o MCC	0.372	0.835	-0.208	0.164	1.028	-0.192
Spinal fusion except cervical w/o MCC	0.280	0.571	0.149	0.085	1.067	-0.152
Major joint replacement or reattachment of lower extremity w/o MCC	0.331	0.724	-0.055	0.213	0.973	-0.186
Cellulitis w/o MCC	0.406	0.995	-0.401	0.128	0.923	-0.051
Kidney & urinary tract infections w/o MCC	0.372	0.750	-0.122	0.151	1.062	-0.212
Infectious & parasitic diseases w O.R. procedure w MCC	0.590	0.306	0.104	0.112	0.769	0.119
Septicemia w MV 96+ hours	0.768	0.269	-0.038	0.072	0.860	0.067
Septicemia w/o MV 96+ hours w MCC	0.508	0.457	0.035	0.120	0.815	0.064
Rehabilitation w CC/MCC	0.420	0.507	0.074	0.056	1.164	-0.219
<b>Average Shares (weighted by spending)</b>	<b>0.438</b>	<b>0.567</b>	<b>-0.005</b>	<b>0.127</b>	<b>0.953</b>	<b>-0.081</b>

**Notes:** The decomposition of ln(spending per beneficiary) is carried out on the 2011 Medicare and HCCI inpatient spending samples. The Medicare analysis is based on data drawn from the 100% sample of Medicare claims that we accessed via the AHD. The HCCI data includes all inpatient claims and is drawn from our spending sample. CC is short for with complication or comorbidity; MCC is short for with major complication or comorbidity; proc is procedure; cath is catheter; w is With; w/o is without. Because of space constraints, we show the top 25 highest spending DRGs in the HCCI data; the Average Shares in the final row are the average decomposition results by DRG (weighted by spending) across the 735 DRGs (HCCI) 562 DRGs (Medicare).

**Appendix Table VII: Counterfactual Spending Holding Price or Quantity Fixed, 2011**  
**All Medicare vs Private Ages 55-64**

	Private Spending			Medicare Spending						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		<b>Fix Price at National Level</b>	<i>Effect of fixing price</i>	<b>Fix Quantity at National Level</b>	<i>Effect of fixing quantity</i>	<b>Raw</b>	<b>Fix Price at National Level</b>	<i>Effect of fixing price</i>	<b>Fix Quantity at National Level</b>	<i>Effect of fixing quantity</i>
Mean	1,817	1,763		1,284		3,704	3,820		3,544	
SD	800	581		472		1,281	1,157		655	
Coefficient of Variation	0.44	0.33	-0.11	0.37	-0.07	0.35	0.30	-0.04	0.18	-0.16
Gini	0.21	0.15	-0.05	0.21	-0.0004	0.18	0.17	-0.01	0.10	-0.08
p90/p10	2.39	1.85	-0.53	2.71	0.32	2.23	2.20	-0.03	1.53	-0.70
Number of HRRs	306	306		306		306	306		306	

**Notes:** Counterfactual spending measures are calculated at the HRR level using 2011 spending data. Columns (1) and (6) present raw inpatient spending per beneficiary for the privately insured and Medicare populations, respectively. Columns (2) and (7) present the spending per privately insured and Medicare beneficiary when DRG-level prices are fixed to be the national average in all regions. Columns (3) and (8) report the reduction in measures of spending variation that result from fixing price. Columns (4) and (9) present spending per privately insured and Medicare beneficiary when the quantity of care (i.e. mix of DRGs as well as the rate at which beneficiaries are admitted across DRGs) is fixed to the national average. Columns (5) and (10) report the reductions in measures of spending variation that result from fixing quantity.

**Appendix Table VIII: Counterfactual Spending for Holding Price and Quantity Fixed, 2011**  
**All Medicare vs Private, Ages 18-64**

	Private Spending			Medicare Spending						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		<b>Fix Price at National Level</b>	<i>Effect of fixing price</i>	<b>Fix Quantity at National Level</b>	<i>Effect of fixing quantity</i>	<b>Raw</b>	<b>Fix Price at National Level</b>	<i>Effect of fixing price</i>	<b>Fix Quantity at National Level</b>	<i>Effect of fixing quantity</i>
Mean	963	942		790		3,704	3,820		3,544	
SD	446	332		250		1,281	1,157		655	
Coefficient of Variation	0.46	0.35	-0.11	0.32	-0.15	0.35	0.30	-0.04	0.18	-0.16
Gini	0.21	0.15	-0.05	0.17	-0.03	0.18	0.17	-0.01	0.10	-0.08
p90/p10	2.34	1.87	-0.47	2.14	-0.20	2.23	2.20	-0.03	1.53	-0.70
Number of HRRs	306	306		306		306	306		306	

**Notes:** Counterfactual spending measures are calculated at the HRR level using 2011 spending data. Columns (1) and (6) present raw inpatient spending per beneficiary for the privately insured and Medicare populations, respectively. Columns (2) and (7) present the spending per privately insured and Medicare beneficiary when DRG-level prices are fixed to be the national average in all regions. Columns (3) and (8) report the reduction in measures of spending variation that result from fixing price. Columns (4) and (9) present spending per privately insured and Medicare beneficiary when the quantity of care (i.e. mix of DRGs as well as the rate at which beneficiaries are admitted across DRGs) is fixed to the national average. Columns (5) and (10) report the reductions in measures of spending variation that result from fixing quantity.



**Appendix Table IX: Hospital Procedure Prices (Mean and Coefficient of Variation) for the 25 Most Populated HRRs, 2011**

	Inpatient		Hip		Knee		Cesarean		Vaginal		PTCA		Colonoscopy		Lower Limb MRI	
	Mean	CoV	Mean	CoV	Mean	CoV	Mean	CoV	Mean	CoV	Mean	CoV	Mean	CoV	Mean	CoV
Phoenix, AZ	15,710	0.427	16,350	0.195	20,376	0.471	7,378	0.262	4,982	0.297	15,236	0.298	1,724	0.522	1,326	0.6
Los Angeles, CA	14,836	0.355	25,658	0.387	22,447	0.465	9,205	0.342	5,998	0.317	20,773	0.52	2,459	0.325	1,453	0.281
Denver, CO	15,876	0.291	20,475	0.287	22,849	0.38	8,471	0.229	4,912	0.237	25,423	0.22	2,127	0.356	1,306	0.335
Washington, DC	10,830	0.204	19,669	0.183	18,521	0.302	7,532	0.216	5,603	0.143	21,855	0.297	1,302	0.394	1,010	0.378
Ft Lauderdale, FL	12,329	0.288	21,230	0.278	22,008	0.365	6,349	0.247	4,471	0.205	23,574	0.287	1,639	0.309	753	0.405
Miami, FL	12,983	0.257	22,418	0.34	25,454	0.287	6,439	0.165	4,827	0.189	23,942	0.41	1,855	0.422	1,213	0.654
Orlando, FL	13,902	0.28	24,987	0.3	23,137	0.288	7,800	0.21	4,685	0.276	23,779	0.336	2,142	0.287	1,219	0.309
Atlanta, GA	11,368	0.253	20,617	0.266	20,105	0.319	5,905	0.281	4,303	0.261	19,038	0.28	1,653	0.408	1,040	0.377
Louisville, KY	9,509	0.241	18,508	0.207	15,628	0.173	5,611	0.278	4,138	0.341	14,680	0.193	1,343	0.273	1,206	0.386
Minneapolis, MN	14,225	0.177	23,613	0.192	22,542	0.167	8,488	0.19	4,953	0.137	24,412	0.179	1,499	0.165	1,299	0.395
Kansas City, MO	11,240	0.222	19,441	0.252	18,499	0.239	5,935	0.251	4,012	0.206	20,567	0.297	1,448	0.181	1,182	0.295
St. Louis, MO	10,091	0.317	15,225	0.117	14,415	0.155	5,070	0.236	3,922	0.317	18,401	0.2	1,227	0.238	1,188	0.298
Camden, NJ	13,131	0.487	20,351	0.237	20,142	0.262	9,144	0.295	6,542	0.249	21,064	0.39	1,548	0.362	1,006	0.265
E Long Island, NY	13,664	0.216	40,049	0.135	31,567	0.201	8,905	0.136	6,279	0.142	32,862	0.174	2,154	0.232	1,294	0.4
Manhattan, NY	13,529	0.229	30,464	0.082	28,323	0.214	8,337	0.26	5,715	0.201	28,654	0.292	1,745	0.287	1,050	0.241
Cincinnati, OH	11,749	0.156	25,085	0.091	23,153	0.12	6,381	0.079	4,465	0.134	21,641	0.125	1,794	0.154	1,259	0.455
Columbus, OH	13,638	0.171	30,246	0.198	27,439	0.288	7,783	0.304	5,265	0.224	25,401	0.287	1,506	0.402	1,446	0.307
Philadelphia, PA	12,236	0.257	27,697	0.231	26,173	0.287	9,464	0.274	6,402	0.247	29,369	0.302	1,945	0.387	1,512	0.515
Austin, TX	11,957	0.216	24,713	0.183	23,964	0.172	6,435	0.099	4,523	0.087	27,261	0.21	1,349	0.211	1,069	0.296
Dallas, TX	13,691	0.244	32,427	0.186	31,826	0.209	6,992	0.207	5,070	0.164	29,935	0.2	1,627	0.169	1,277	0.312
Fort Worth, TX	13,632	0.248	39,709	0.115	34,626	0.24	7,001	0.185	5,220	0.173	29,917	0.232	1,617	0.222	1,191	0.375
Houston, TX	12,643	0.434	26,855	0.341	22,642	0.31	6,319	0.218	4,308	0.302	29,663	0.299	1,409	0.338	1,178	0.402
San Antonio, TX	12,770	0.288	24,733	0.138	22,621	0.205	6,247	0.291	3,608	0.34	26,139	0.125	1,179	0.289	1,082	0.319
Arlington, VA	12,987	0.126	24,672	0.137	24,428	0.136	7,868	0.129	5,420	0.135	22,984	0.201	1,707	0.155	1,460	0.177
Milwaukee, WI	14,084	0.159	25,284	0.167	24,491	0.169	8,585	0.165	5,103	0.126	26,266	0.251	2,450	0.213	1,561	0.248
<i>National Average</i>	<i>13,815</i>	<i>0.218</i>	<i>24,658</i>	<i>0.162</i>	<i>23,567</i>	<i>0.182</i>	<i>7,825</i>	<i>0.184</i>	<i>4,957</i>	<i>0.183</i>	<i>25,992</i>	<i>0.196</i>	<i>1,719</i>	<i>0.228</i>	<i>1,373</i>	<i>0.249</i>
<i>Medicare Average</i>	<i>6,461</i>	<i>0.087</i>	<i>13,389</i>	<i>0.064</i>	<i>13,039</i>	<i>0.068</i>	<i>4,954</i>	<i>0.067</i>	<i>3,175</i>	<i>0.096</i>	<i>12,907</i>	<i>0.072</i>	<i>656</i>	<i>0.073</i>	<i>354</i>	<i>0.033</i>

**Notes:** Prices are regression adjusted transaction prices for 2011. CoV = coefficient of variation. The national averages present the mean within HRR Coefficient of Variation (CoV) and the average within HRR price. The data are drawn from the pricing samples and include prices that are risk-adjusted for age and sex. The inpatient analysis uses our risk-adjusted inpatient price index.

**Appendix Table X: Inpatient Cross-Sectional Price Regressions with All Controls, 2008-2011; Full Results**

Dependent Variable:	ln(Facilities Price)		
<b>Market Characteristics</b>			
Monopoly	0.234*** (0.024)	0.190*** (0.024)	0.118*** (0.024)
Duopoly	0.161*** (0.021)	0.130*** (0.020)	0.073*** (0.024)
Triopoly	0.115*** (0.023)	0.083*** (0.023)	0.036 (0.023)
Share HCCI		-0.006*** (0.002)	-0.007*** (0.002)
<b>Hospital Characteristics</b>			
ln(Technologies)	0.012** (0.005)	0.011** (0.005)	0.010** (0.004)
Ranked by US News and World Reports	0.118*** (0.031)	0.138*** (0.031)	0.134*** (0.033)
ln(Number of Beds)	0.046*** (0.012)	0.040*** (0.011)	0.067*** (0.010)
Teaching Hospital	-0.006 (0.018)	0.001 (0.018)	0.020 (0.014)
Government Owned	-0.129*** (0.031)	-0.133*** (0.031)	-0.148*** (0.030)
Non-Profit	-0.049** (0.022)	-0.053** (0.022)	-0.074*** (0.023)
<b>County Characteristics</b>			
Percent Uninsured	0.006** (0.002)	0.009*** (0.002)	-0.002 (0.003)
ln(Median Income)	0.137*** (0.047)	0.236*** (0.050)	0.048 (0.056)
<b>Other Payers</b>			
ln(Medicare Base Payment Rate)	0.430*** (0.083)	0.299*** (0.085)	0.088 (0.078)
Share Medicare	-0.003*** (0.001)	-0.004*** (0.001)	-0.002*** (0.001)
Share Medicaid	-0.004*** (0.001)	-0.004*** (0.001)	-0.002** (0.001)
R-square	0.143	0.170	0.453
Year Fixed Effects	Yes	Yes	Yes
HRR Fixed Effects	No	Yes	Yes
Observations	8,772	8,772	8,772

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates with standard errors clustered at the HRR-level in parentheses. We use hospital price data from 2008 to 2011. Facilities prices are regression adjusted transaction prices that are risk-adjusted for DRG, age, and sex. All regressions include yearly fixed effects. The omitted hospital market structure is quadropoly or greater and the omitted ownership category is private hospitals.

**Appendix Table XI: Inpatient Regressions for Percent of Cases Paid as Share of Charges, 2010-2011; Full Results**

Dependent Variable:	Percent of Cases Paid as Share of Charges		
<b>Market Characteristics</b>			
Monopoly	17.335*** (1.828)	15.241*** (1.823)	10.455*** (1.778)
Duopoly	9.979*** (1.760)	8.424*** (1.740)	5.702*** (1.596)
Triopoly	7.804*** (1.909)	6.235** (1.938)	4.909** (1.608)
Share HCCI		-0.288*** (0.077)	-0.403*** (0.120)
<b>Hospital Characteristics</b>			
ln(Technologies)	0.733** (0.271)	0.750** (0.270)	0.462 (0.249)
Ranked by US News and World Reports	3.860 (2.299)	4.807* (2.284)	1.728 (1.501)
ln(Number of Beds)	1.099 (0.791)	0.809 (0.776)	2.905*** (0.601)
Teaching Hospital	1.343 (0.934)	1.615 (0.949)	0.528 (0.784)
Government Owned	3.265 (1.847)	3.048 (1.842)	4.407* (1.828)
Non-Profit	6.651*** (1.188)	6.514*** (1.219)	4.532*** (1.103)
<b>County Characteristics</b>			
Percent Uninsured	-0.338* (0.136)	-0.215 (0.141)	0.248 (0.347)
ln(Median Income)	-2.637 (3.961)	1.934 (4.205)	3.761 (5.049)
<b>Other Payers</b>			
ln(Medicare Base Payment Rate)	-18.993*** (4.833)	-25.057*** (5.367)	-16.714*** (4.679)
Share Medicare	-0.377*** (0.079)	-0.388*** (0.077)	-0.206*** (0.050)
Share Medicaid	-0.032 (0.068)	-0.015 (0.069)	-0.086 (0.045)
R-square	0.166	0.179	0.557
Yearly FE	Yes	Yes	Yes
HRR FE	No	Yes	Yes
Observations	4,344	4,344	4,344

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. We measure percent of inpatient cases paid as share of charges for 2010-2011. The omitted hospital market structure is quadropoly or greater and the omitted ownership category is private hospitals.

**Appendix Table XII: Inpatient Regressions for Share of Linked to Medicare, 2010-2011;  
Full Results**

Dependent Variable:	Share of Prospective Payments Linked to Medicare		
<b>Market Characteristics</b>			
Monopoly	-16.849*** (2.882)	-11.275*** (2.696)	-11.293*** (3.160)
Duopoly	-8.791*** (2.441)	-4.272* (2.443)	-5.595** (2.316)
Triopoly	-7.111** (2.866)	-2.422 (2.727)	-5.747** (2.790)
HCCI Market Share		0.890*** (0.091)	0.616*** (0.174)
<b>Hospital Characteristics</b>			
ln(Technologies)	0.465 (0.511)	0.453 (0.461)	0.809* (0.459)
Ranked in US News & World Reports	7.662** (3.390)	4.591 (3.266)	5.339* (2.722)
ln(Beds)	7.998*** (1.317)	9.138*** (1.209)	9.320*** (1.239)
Teaching	4.402*** (1.511)	3.405** (1.429)	2.504* (1.472)
Government	-0.859 (2.588)	-0.481 (2.535)	-3.377 (2.638)
Non-Profit	2.781 (2.022)	3.031 (1.881)	1.485 (2.084)
<b>County Characteristics</b>			
Percent Uninsured	-0.024 (0.264)	-0.394** (0.186)	-0.118 (0.483)
ln(Median Income)	-0.747 (5.510)	-14.915*** (4.781)	-3.349 (7.177)
<b>Other Payers</b>			
ln(Medicare Base Payment Rate)	-34.805*** (8.942)	-14.562* (7.824)	-18.145** (8.960)
Share Medicare	-0.210** (0.087)	-0.140* (0.081)	-0.231*** (0.080)
Share Medicaid	-0.071 (0.091)	-0.126 (0.086)	-0.185** (0.086)
R-Squared	0.115	0.172	0.380
Yearly-FE	Yes	Yes	Yes
HRR-FE	No	Yes	Yes
Observations	3,669	3,669	3,669

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. We measure share of inpatient cases linked to Medicare from 2010 to 2011. All regressions include yearly fixed effects. The omitted hospital market structure is quadropoly or greater and the omitted ownership category is private hospitals.

**Appendix Table XIII: Cross-sectional Pricing Regressions Using Alternative Price Measures**

<b>Panel A: Baseline Result, Observations = 8,772</b>			
Monopoly	0.234*** (0.024)	0.190*** (0.024)	0.118*** (0.024)
Duopoly	0.161*** (0.021)	0.130*** (0.020)	0.073*** (0.024)
Triopoly	0.115*** (0.023)	0.083*** (0.023)	0.036 (0.023)
HCCI Market Share		-0.006*** (0.002)	-0.007*** (0.002)
<b>Panel B: ln(Price) Before Risk-Adjustment, Observations = 8,772</b>			
Monopoly	0.222*** (0.027)	0.182*** (0.028)	0.096*** (0.026)
Duopoly	0.148*** (0.023)	0.119*** (0.022)	0.047* (0.024)
Triopoly	0.095*** (0.025)	0.066*** (0.025)	0.002 (0.023)
HCCI Market Share		-0.006*** (0.002)	-0.007*** (0.002)
<b>Panel C: Levels of Price, Observations = 8,772</b>			
Monopoly	3080.604*** (350.922)	2402.447*** (343.335)	1604.775*** (339.422)
Duopoly	2168.105*** (290.420)	1685.231*** (266.204)	1006.571*** (319.430)
Triopoly	1545.485*** (303.488)	1055.851*** (300.250)	470.042 (314.683)
HCCI Market Share		-96.276*** (19.530)	-116.731*** (23.029)
<b>Panel D: Adding Charlson Score to Risk Adjustment, Observations = 8,491</b>			
Monopoly	0.230*** (0.024)	0.188*** (0.025)	0.115*** (0.024)
Duopoly	0.159*** (0.021)	0.129*** (0.020)	0.070*** (0.024)
Triopoly	0.119*** (0.023)	0.088*** (0.023)	0.038* (0.023)
HCCI Market Share		-0.006*** (0.002)	-0.008*** (0.002)
<b>Panel E: Risk-Adjustment Using ICD9 Codes, Observations = 8,772</b>			
Monopoly	0.205*** (0.027)	0.158*** (0.027)	0.076*** (0.026)
Duopoly	0.156*** (0.024)	0.123*** (0.022)	0.055** (0.026)
Triopoly	0.107*** (0.024)	0.073*** (0.025)	0.012 (0.024)
HCCI Market Share		-0.007*** (0.002)	-0.008*** (0.002)
HRR FE	No	No	Yes

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates with standard errors clustered at the HRR-level in parentheses. All regressions include controls in Table IV notes. In Panel B ln(prices) rather than levels are used in Equation (A1). Panel C uses level instead of logs of prices. In Panels A, B, and C, prices are risk-adjusted for DRG,

age, and sex. In Panel D, they are risk-adjusted for DRG, Charlson Score, age, and sex. In Panel E, we risk-adjust using ICD-9 codes, age, and sex.

**Table XIV: Prices and Contractual Form at the Procedure level**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sample:	Inpatient	Pooled	Hip	Knee	Cesarean	Vaginal	PTCA	Colonoscopy	Lower
Panel A: ln(Hospital Price)	Price	Procedures	Replacement	Replacement	Section	Delivery			Limb
									MRI
Monopoly	0.118*** (0.024)	0.139*** (0.026)	0.054 (0.102)	0.152*** (0.057)	0.140** (0.059)	0.100** (0.040)	0.150 (0.100)	0.080* (0.043)	0.210*** (0.036)
Duopoly	0.073*** (0.024)	0.095*** (0.018)	0.016 (0.069)	0.019 (0.046)	0.092*** (0.030)	0.072*** (0.024)	0.153** (0.071)	0.064 (0.039)	0.141*** (0.031)
Triopoly	0.036 (0.023)	0.055** (0.021)	0.068 (0.084)	-0.011 (0.048)	0.040 (0.038)	-0.001 (0.031)	0.086 (0.052)	0.037 (0.041)	0.126*** (0.035)
HCCI Market Share	-0.007*** (0.002)	-0.003 (0.002)	0.001 (0.004)	-0.002 (0.003)	<0.001 (0.003)	-0.001 (0.002)	-0.003 (0.004)	-0.003 (0.003)	-0.004 (0.002)
Observations	8,772	22,167	1,259	2,660	3,794	4,096	1,764	3,512	5,082
<b>Panel B: (Percent of Cases Paid As a Share of Charges)*100</b>									
Monopoly	10.455*** (1.778)	22.264*** (3.226)	6.655 (6.425)	19.596*** (4.832)	22.228*** (5.540)	24.937*** (4.488)	10.504 (8.583)	22.628*** (4.299)	
Duopoly	5.702*** (1.596)	12.678*** (2.908)	-2.558 (7.533)	13.366** (4.824)	14.932*** (4.087)	18.528*** (3.683)	13.160 (6.797)	8.166* (3.868)	
Triopoly	4.909** (1.608)	7.942** (2.604)	16.634* (7.943)	9.208 (5.447)	5.471 (3.980)	10.256** (3.576)	0.049 (3.949)	9.607* (3.869)	
HCCI Market Share	-0.403*** (0.120)	-0.579** (0.218)	0.500 (0.331)	-0.434 (0.327)	-0.510 (0.331)	-0.510 (0.272)	-0.259 (0.314)	-0.801** (0.252)	
Observations	4,344	8,463	661	1,362	1,870	2,056	807	1,707	

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. Column (1) reproduces the results in Column (3) of Table IV. The dependent variables in Panel A are the ln(Inpatient hospital prices), risk-adjusted for age and sex. In Panel B, they are the Percent of cases paid as a share of hospital charges. In both panels these are for the specific procedures noted at the head of the column. Charges for MRIs do not generally vary across cases within hospitals so it is not possible to split into contract type. All regressions include controls for the number of technologies, dummy for being ranked in US News & World Reports, size as measured by number of beds, hospital ownership (government, non-profit or for-profit), whether a teaching hospital, percent of county uninsured, county median income, the Medicare payment rate, share of Medicare, share of Medicaid, year dummies and HRR fixed-effects. The pooled sample reported in Column (2) stacks all the regressions for the specific procedures in the later columns and includes a set of procedure dummies.

**Appendix Table XV: Procedure-Level Regressions Measured as the Sum of Facility and Physician Prices, 2008-2011**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Sample:</b>	<b>Inpatient</b>	<b>Pooled Procedures</b>	<b>Hip Replacement</b>	<b>Knee Replacement</b>	<b>Cesarean Section</b>	<b>Vaginal Delivery</b>	<b>PTCA</b>	<b>Colonoscopy</b>	<b>MRI</b>
<b>Dependent Variable:</b>	<b>ln(Facilities Price + Physician Price)</b>								
<b>Market Characteristics</b>									
Monopoly	0.093*** (0.019)	0.110*** (0.022)	0.026 (0.089)	0.120** (0.048)	0.084** (0.038)	0.053** (0.027)	0.135 (0.091)	0.077** (0.037)	0.189*** (0.032)
Duopoly	0.058*** (0.018)	0.078*** (0.016)	0.004 (0.061)	0.012 (0.038)	0.053** (0.022)	0.044*** (0.017)	0.137** (0.064)	0.083** (0.035)	0.125*** (0.028)
Triopoly	0.028 (0.018)	0.046*** (0.017)	0.070 (0.071)	-0.006 (0.039)	0.026 (0.027)	0.002 (0.021)	0.071 (0.047)	0.043 (0.034)	0.115*** (0.031)
HCCI Market Share	-0.006*** (0.001)	-0.003** (0.001)	0.000 (0.003)	-0.003 (0.003)	-0.000 (0.002)	-0.002 (0.001)	-0.002 (0.003)	-0.003 (0.002)	-0.004* (0.002)
<b>Hospital Characteristics</b>									
ln(Technologies)	0.008** (0.003)	0.006** (0.003)	-0.003 (0.008)	-0.004 (0.006)	0.004 (0.004)	0.001 (0.003)	0.014* (0.008)	0.013** (0.006)	0.009 (0.007)
Ranked in US News & World Reports	0.107*** (0.027)	0.063*** (0.021)	0.032 (0.033)	0.073** (0.031)	0.072*** (0.022)	0.067*** (0.020)	0.052 (0.040)	0.081** (0.032)	0.053 (0.034)
ln(Beds)	0.052*** (0.008)	0.010 (0.006)	-0.005 (0.025)	-0.002 (0.017)	0.024** (0.010)	0.025*** (0.007)	0.079*** (0.028)	-0.021 (0.014)	0.006 (0.012)
Teaching	0.017 (0.011)	0.006 (0.010)	0.030 (0.027)	0.010 (0.019)	0.010 (0.012)	0.008 (0.013)	-0.036 (0.029)	0.019 (0.025)	-0.001 (0.017)
Government	-0.113*** (0.023)	-0.049* (0.026)	-0.107 (0.072)	-0.086 (0.056)	-0.069** (0.031)	-0.077*** (0.027)	-0.177*** (0.061)	-0.141*** (0.041)	0.059 (0.049)
Non-Profit	-0.058*** (0.018)	-0.009 (0.016)	-0.006 (0.037)	0.022 (0.036)	-0.001 (0.018)	0.004 (0.016)	-0.078 (0.048)	-0.104*** (0.026)	0.046 (0.044)
<b>County Characteristics</b>									
Percent Uninsured	-0.002 (0.002)	-0.003 (0.002)	-0.011* (0.006)	-0.003 (0.006)	-0.009*** (0.004)	-0.006* (0.003)	-0.004 (0.008)	0.000 (0.005)	-0.002 (0.005)
ln(Median Income)	0.039 (0.044)	-0.067 (0.045)	-0.315*** (0.094)	-0.097 (0.106)	-0.171*** (0.065)	-0.051 (0.056)	-0.179 (0.160)	0.080 (0.096)	-0.033 (0.097)
<b>Other Payers</b>									
ln(Medicare Base Payment Rate)	0.088 (0.063)	-0.043 (0.051)	0.185 (0.136)	0.143 (0.108)	-0.089 (0.075)	-0.043 (0.070)	-0.075 (0.125)	-0.038 (0.104)	0.003 (0.105)
ln(Share Medicare)	-0.002*** (0.001)	-0.001 (0.000)	-0.001 (0.001)	-0.002 (0.001)	-0.003*** (0.001)	-0.002*** (0.001)	-0.001 (0.001)	0.000 (0.001)	0.000 (0.001)



In(Share Medicaid)	-0.002***	-0.002***	-0.003***	-0.002***	-0.002***	0.001	-0.002	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)
Yearly-FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HRR-FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.456	0.955	0.548	0.613	0.614	0.582	0.513	0.398
Observations	8,772	22,167	2,660	3,794	4,096	1,764	3,512	5,082

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. We rely on data from 2008-2011. Procedure prices are regression-adjusted transaction prices where we risk-adjust for age and sex (plus DRGs for the inpatient index). All regressions include yearly fixed effects. The omitted ownership category is private hospitals. MRIs include only lower limb scans.

**Appendix Table XVI: Inpatient Cross-Sectional Price Results Using Different Measures of Hospital Market Concentration**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dependent Variable: ln(Facilities Price)						
<b>Market Characteristics</b>							
ln(HHI)	0.053*** (0.015)	0.076*** (0.014)	0.100*** (0.021)	0.047*** (0.014)			
Hospital Count					-0.005*** (0.001)		
Q4 HHI						0.117*** (0.026)	0.077*** (0.014)
Q3 HHI						0.055** (0.027)	
Q2 HHI						0.023 (0.020)	
Market Radius		5 Miles	15 Miles	30 Miles	Variable	15 Miles	15 Miles
HCCI Market Share	-0.009*** (0.002)	-0.008*** (0.002)	-0.008*** (0.001)	-0.009*** (0.002)	-0.009*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)
Observations	8,772	8,772	8,772	8,772	8,772	8,772	8,772

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates with standard errors clustered at the HRR-level in parentheses. 8,772 observations. The dependent variable is our regression-based inpatient price index that is risk-adjusted for DRG, age and sex. All regressions have the same set of controls in the notes to Table IV Panel A Column (3). We use multiple measures of hospital market concentration. Column (1) includes hospital HHIs where the market is defined using a five-mile fixed radius around each hospital. Column (2) includes hospital HHIs where the market is defined using a fifteen-mile fixed radius around each hospital. Column (3) includes hospital HHIs where the market is defined using a thirty-mile fixed radius around each hospital. In Column (4), we measure hospital HHIs in variable radii markets. Hospitals located in large urban areas are assigned a market defined by a 10-mile radius; hospitals located in urban areas have a market defined around them using a 15-mile radius; and hospitals located in rural areas have a market defined around them using a 20-mile radius. In Column (5), we measure market concentration using counts of hospitals within a fifteen-mile radius around each hospital. In Column (6), we use dummy variables to capture the quartiles of our hospital HHIs measured within hospital markets defined using fixed radii extending fifteen-miles around each hospital. The omitted category, quartile 1, is the least concentrated quartile. In Column (7), we measure the effect of being in the most concentrated quartile of hospital HHI within a market defined by a fifteen-mile fixed radius around each hospital. The reference categories are the other three quartiles of hospital HHI. Facilities prices are regression-adjusted transaction prices. All regressions include yearly fixed effects and controls for number of beds, teaching status, government ownership, non-profit status, county insurance rate and median income, Medicare payment rate, and share of hospital activity covered by Medicare and Medicaid. The omitted ownership category is private hospitals.

**Appendix Table XVII: Determinants of Share of Cases Paid Percentage of Hospital Charges, Alternative Concentration Measures**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<b>Dependent Variable: Share of Contracts Paid Share of Charges</b>						
<b>Market Characteristics</b>							
ln(HHI)	4.339*** (1.122)	7.569*** (1.272)	6.278*** (1.617)	5.202*** (1.300)			
Hospital Count					-5.123*** (0.933)		
Q4 HHI						11.951*** (2.281)	6.584*** (1.227)
Q3 HHI						7.541*** (2.116)	
Q2 HHI						3.083*** (1.493)	
Market Radius	5 Miles	15 Miles	30 Miles	Variable	15 Miles	15 Miles	15 Miles
HCCI Market Share	-0.557*** (0.122)	-0.401*** (0.121)	-0.498*** (0.125)	-0.511*** (0.121)	-0.376*** (0.122)	-0.402*** (0.120)	-0.491*** (0.119)
Observations	4,344	4,344	4,344	4,344	4,344	4,344	4,344

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. All regressions have the same set of controls in the notes to Table IV Panel B Column (3). All regressions are based on the inpatient sample of data.

**Appendix Table XVIII: Determinates of the Linkage between Private and Medicare Payments Estimated with Alternative Measures of Concentration, 2010-2011**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<b>Dependent Variable: Percent of Cases Tied to Medicare*100</b>						
<b>Market Characteristics</b>							
ln(HHI)	-1.285 (1.723)	-8.121*** (1.703)	-10.076*** (2.582)	-3.804** (1.668)			
Hospital Count					0.447*** (0.125)		
Q4 HHI						-11.778*** (3.007)	-4.863** (1.965)
Q3 HHI						-9.171*** (2.756)	
Q2 HHI						-5.004** (2.068)	
Market Radius							
5 Miles		15 Miles	30 Miles	Variable	15 Miles	15 Miles	15 Miles
HCCI Market Share	0.808*** (0.170)	0.614*** (0.172)	0.680*** (0.167)	0.755*** (0.168)	0.722*** (0.170)	0.663*** (0.170)	0.733*** (0.172)
Observations	3,669	3,669	3,669	3,669	3,669	3,669	3,669

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of with standard errors clustered at the HRR-level in parentheses. The dependent variable is the percent of cases paid as a percent of Medicare, conditional on being paid on a prospective payment schedule. Controls are the same as in notes to Table IV Panel C Column (3).

**Appendix Table XIX: Inpatient Cross-Sectional Price Results with Multiple Measures of Quality**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(Facilities Price)						
<b>Dependent Variable:</b>							
<b>A standard deviation increase in quality by:</b>							
% AMI pats. given aspirin at arrival		0.022** (0.009)				0.018** (0.009)	
% of surgery pats. given antibiotic 1 hour before surgery			0.010 (0.009)			-0.002 (0.009)	
% of surgery pats. given treatment to prevent blood clots within 24 hours				0.025*** (0.007)		0.023*** (0.007)	
30-day death rate for heart attack patients					0.005* (0.003)	0.005 (0.003)	
Full set of 41 quality controls?	No	No	No	No	No	No	Yes
<b>Other Characteristics</b>							
Monopoly	0.118*** (0.024)	0.119*** (0.024)	0.117*** (0.024)	0.118*** (0.024)	0.117*** (0.024)	0.119*** (0.024)	0.117*** (0.024)
Duopoly	0.073*** (0.024)	0.073*** (0.024)	0.072*** (0.024)	0.072*** (0.023)	0.073*** (0.024)	0.072*** (0.023)	0.071*** (0.023)
Triopoly	0.036 (0.023)	0.036 (0.023)	0.036 (0.023)	0.037 (0.023)	0.035 (0.023)	0.036 (0.023)	0.034 (0.023)
Share HCCI	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)
Observations	8,772	8,772	8,772	8,772	8,772	8,772	8,772

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Table IV with the addition of alternative quality measures. The dependent variable is our regression-based inpatient price index that is risk-adjusted for DRG, age, and sex. Standard errors are clustered at the HRR-level and are in parentheses. Facilities prices are regression adjusted transaction prices for 2008-2011. All regressions include HRR and year fixed effects. All regressions also include same controls as Column (3) Table IV Panel A.

**Appendix Table XX: Cross-Sectional Relationships and Robustness to Sample Restrictions**

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)
	ln(Price)		Percent Paid Share of Charges		Percent Linked to Medicare	
	Excluding Monopoly Hospitals	Excluding Hospitals in Markets with $\square$ 6 Hospitals	Excluding Monopoly Hospitals	Excluding Hospitals in Markets with $\square$ 6 Hospitals	Excluding Monopoly Hospitals	Excluding Hospitals in Markets with $\square$ 6 Hospitals
<b>Sample:</b>						
<b>Market Characteristics</b>						
Monopoly		0.096*** (0.024)		6.863*** (1.748)		-10.955*** (3.413)
Duopoly	0.068*** (0.025)	0.071*** (0.024)	5.781*** (1.638)	3.385* (1.553)	-6.453*** (2.345)	-3.530 (2.589)
Triopoly	0.031 (0.023)	0.035 (0.023)	5.129** (1.567)	2.984 (1.671)	-5.578* (2.868)	-4.887 (3.119)
HCCI Market Share	-0.007*** (0.002)	-0.006*** (0.002)	-0.475*** (0.136)	-0.274* (0.125)	0.601*** (0.204)	0.523*** (0.193)
Observations	7,339	5,727	3,640	2,838	3,228	2,233

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.  $\square$  Excluding monopolies  $\square$  drops all monopoly hospitals and  $\square$  Excluding Hospitals in Markets with  $\square$  6 Hospitals  $\square$  drops all hospitals in markets with 6 or more hospitals. OLS estimates of Table IV Panel A Column (3) with different sample restrictions. The dependent variable in Columns (1) and (2) is the log of our regression-based inpatient price index that is risk-adjusted for DRG, age, and sex. The dependent variable in Columns (3) and (4) is the share of cases paid as a percentage of hospital charges. The dependent variable in Columns (5) and (6) is the percent of prospective cases with prices set as a percentage of Medicare payments. Standard errors are clustered at the HRR-level and are in parentheses. Facilities prices are regression adjusted transaction prices for 2008-2011. All regressions include HRR and yearly fixed effects. All regressions also include insurance market controls, controls for beds, teaching status, government ownership, non-profit status, percent county uninsured and median income, Medicare payment rates, and share of hospitals  $\square$  admits covered by Medicare and Medicaid.

**Appendix Table XXI: Inpatient Cross-Sectional Price Results with Alternative Sample Restrictions**

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	ln(Price)									
Monopoly	0.107*** (0.024)	0.109*** (0.024)	0.115*** (0.024)	0.115*** (0.024)	0.118*** (0.024)	0.119*** (0.024)	0.120*** (0.025)	0.123*** (0.027)	0.122*** (0.028)	0.127*** (0.029)
Duopoly	0.069*** (0.024)	0.073*** (0.024)	0.076*** (0.024)	0.075*** (0.024)	0.073*** (0.024)	0.068*** (0.023)	0.068*** (0.023)	0.074*** (0.023)	0.074*** (0.023)	0.075*** (0.023)
Triopoly	0.029 (0.023)	0.027 (0.024)	0.033 (0.024)	0.036 (0.023)	0.036 (0.023)	0.037* (0.022)	0.040* (0.023)	0.041* (0.023)	0.041* (0.022)	0.042* (0.022)
HCCI Market Share	-0.007*** (0.001)	-0.007*** (0.001)	-0.007*** (0.001)	-0.007*** (0.002)	-0.007*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)
Minimum Inpatient Case Count	10	20	30	40	50	60	70	80	90	100
Number of Hospitals	3,013	2,793	2,622	2,497	2,358	2,270	2,176	2,089	2,013	1,945
Observations	11,374	10,488	9,789	9,269	8,772	8,380	8,000	7,689	7,389	7,133

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates with standard errors clustered at the HRR-level in parentheses. Market structure variables described in text and Appendix C. The dependent variable is ln(Hospital inpatient prices) that are regression risk-adjusted for DRG, age, and sex. Data runs 2008 to 2011. All regressions include number of technologies, dummy for being ranked in US News and World Reports, size as measured by number of beds, hospital ownership (government, non-profit or for-profit), whether a teaching hospital, percent of county uninsured, county median income, the Medicare payment rate, share of Medicare, share of Medicaid, as well as HRR and year dummies. Minimum inpatient case count indicates the minimum number of unique cases per hospital-year required for inclusion in the sample.

**Appendix Table XXII: Transactions and Targets by Distance**

<b>Distance:</b>		5 Miles	10 Miles	15 Miles	20 Miles	30 Miles	50 Miles	All
2007	Transactions	6	14	18	25	31	37	69
	Target Hospitals	7	17	21	29	38	51	119
	Acquirer Hospitals	7	20	25	39	64	92	493
2008	Transactions	9	15	23	28	39	46	69
	Target Hospitals	11	19	28	33	45	54	86
	Acquirer Hospitals	13	30	43	58	89	136	693
2009	Transactions	9	15	17	21	32	44	70
	Target Hospitals	9	15	17	22	33	48	85
	Acquirer Hospitals	5	12	19	30	60	113	578
2010	Transactions	6	13	17	24	39	50	76
	Target Hospitals	7	15	19	27	42	59	90
	Acquirer Hospitals	7	19	33	45	68	120	753
2011	Transactions	11	21	32	38	49	64	82
	Target Hospitals	11	21	33	40	55	75	106
	Acquirer Hospitals	7	17	33	46	67	114	753
All	Transactions	42	77	108	138	189	243	366
	Target Hospitals	45	87	118	151	212	285	464
	Acquirer Hospitals	39	97	146	204	320	494	1563

**Notes:** This is based on data from the AHA, Irving-Levin Associates, Factset, and SDC Platinum databases. Data on hospital beds came from the AHA annual survey.



**Appendix Table XXIII: Characteristics of Merging/Non-Merging Hospitals**

	(1)	(2)	(3)	(4)
<b>Sample:</b>			Any 5 Mile Merger	
<b>Column contents:</b>	Treated	Controls	Treated	Controls
<b>Covariates:</b>	Static	Static	Differenced	Differenced
Price	10880.8	13066.2***	656.4	663.5
ln(Price)	9.2	9.4**	0.056	0.052
<b>Market Structure</b>				
Monopoly	0.0	48.6***	0.000	-0.050*
Duopoly	40.3	25.0*	0.000	0.076
Triopoly	23.4	9.9*	0.000	0.000
Hospital HHI	0.419	0.719***	-0.023	-0.191
Insurer Market Share	13.6	17.8***	-0.001	<0.001
<b>Hospital Characteristics</b>				
Technologies	64.5	59.6	3.4	1.5
Ranked in US News	1.3	5.4***	-1.4	-0.5
Beds	275.5	271.3	-0.3	0.8
Teaching	53.2	38.1*	0.0	0.4**
Government	14.3	12.2	0.0	-0.2
Non-Profit	70.1	69.7	0.0	-0.1
<b>Local Area Characteristics</b>				
Percent Uninsured	14.8	17.1**	0.3	0.2
Median Income	50841.7	51537.3	-757.1	-533.2
<b>Other Payers</b>				
PPS Payment Rate	6547.4	6439.1	155.7	91.8
Medicare Share	47.1	44.5	-0.4	0.6*
Medicaid Share	18.3	18.8	1.0	0.4
<b>Observations</b>	77	8,415	70	7,944
<b>Number of Hospitals</b>	37	2,241	35	2,153

**Notes:** These are descriptive statistics for the inpatient sample used in estimating post-merger price differences. This table uses pre-merger data for each hospital. There are 8,492 hospital-year observations representing 2,278 unique hospitals. Hospital prices are hospital prices that are risk-adjusted for DRG, age, and sex. The static columns (1) and (2) display the average value of each covariate during our sample period across hospital years pre-merger. The differenced columns (3) and (4) capture the average first difference of each covariate pre-merger.

**Appendix Table XXIV: Robustness of Hospital Prices and Mergers**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(price)						
<b>Distance (miles):</b>	5	10	15	20	25	30	50
<b>Panel A: Baseline</b>							
Post-Merger	0.060** (0.025)	0.039** (0.019)	0.021 (0.013)	0.023* (0.013)	0.024** (0.011)	0.014 (0.011)	0.008 (0.009)
Observations	8655	8655	8655	8655	8655	8655	8655
<b>Panel B: Treatment Counts Estimated Log-Linearly</b>							
Post-Merger	0.087** (0.036)	0.059** (0.027)	0.033* (0.019)	0.036** (0.018)	0.036** (0.016)	0.023 (0.015)	0.014 (0.013)
Observations	8655	8655	8655	8655	8655	8655	8655
<b>Panel C: Matching (Within State Mahalanobis Distance)</b>							
Post-Merger	0.100*** (0.028)	0.024 (0.023)	0.009 (0.016)	0.011 (0.014)	0.009 (0.012)	0.003 (0.011)	-0.001 (0.009)
Observations	1286	2295	2993	3417	3954	4215	5120
<b>Panel D: Matched using Mahalanobis Distance</b>							
Post-Merger	0.070*** (0.026)	0.023 (0.021)	0.007 (0.015)	0.014 (0.013)	0.014 (0.012)	0.004 (0.011)	-0.000 (0.009)
Observations	1921	3124	4058	4745	5216	5509	6265
<b>Panel E: Matching (Dranove/Lindrooth Model)</b>							
Post-Merger	0.075*** (0.026)	0.032 (0.021)	0.013 (0.015)	0.017 (0.013)	0.016 (0.011)	0.004 (0.010)	0.001 (0.009)
Observations	1918	3506	4522	5154	5636	5972	6786
<b>Panel F: Matched using K-Nearest Neighbor Method</b>							
Post-Merger	0.075*** (0.026)	0.024 (0.021)	0.010 (0.014)	0.016 (0.013)	0.018 (0.011)	0.006 (0.011)	0.001 (0.009)

Observations	1912	3311	4239	4827	5496	5700	6544
<b>Panel G: Robustness to Minimum Count Restrictions</b>							
Post-Merger (Minimum 40 Cases)	0.060** (0.025)	0.040** (0.018)	0.023* (0.013)	0.023* (0.012)	0.025** (0.011)	0.013 (0.010)	0.007 (0.009)
Observations	9086	9086	9086	9086	9086	9086	9086
Post-Merger (Minimum 10 Cases)	0.076*** (0.024)	0.044** (0.018)	0.028** (0.013)	0.027** (0.012)	0.029*** (0.011)	0.021** (0.011)	0.014 (0.009)
Observations	11157	11157	11157	11157	11157	11157	11157
<b>Panel H: Estimated Separately for Targets/Acquirers</b>							
Post-Merger X Target	0.080** (0.040)	0.055* (0.031)	0.034 (0.026)	0.033 (0.023)	0.031 (0.020)	0.019 (0.019)	0.010 (0.017)
Post-Merger X Acquirer	0.039* (0.023)	0.025 (0.018)	0.012 (0.011)	0.018 (0.012)	0.020* (0.011)	0.011 (0.011)	0.007 (0.009)
Observations	8655	8655	8655	8655	8655	8655	8655

**Notes:** \*\*\*significant at 1 percent level; \*\*5 percent level; \*10 percent level. Coefficients estimated by OLS with standard errors in parentheses (clustered by hospital). All regressions include hospital fixed effects and time dummies. The dependent variable is the log of our risk-adjusted inpatient price measure. Controls: Insurer HHI, percent privately insured covered by the HCCI insurers, quality scores from News & World Report, technology index, hospital size, whether the hospital is a teaching facility, government-owned facility, or a not-for-profit; country median income and percent uninsured; the Medicare base payment rate, the share of hospitals that are Medicare and Medicaid patients. Unless otherwise specified, post-merger equals 1 in the year a hospital merges and in all years afterwards and zero otherwise. We match hospitals based on the covariates in described in Appendix E.

**Appendix Table XXV: Correlation between Private and Medicare Spending Per Beneficiaries**

	Total	Inpatient
Overall	0.044	0.172
High BCBS Share	0.011	0.156
Low BCBS Share	0.063	0.201

**Notes:** Each cell presents the correlation between spending per beneficiary for private and Medicare patients across HRRs in 2011. High and low BCBS share are defined by HRRs which are above or below the median BCBS market share across HRRs (47 percent).

**Appendix Table XXVI: Price/Quantity Decomposition for Cases in High/Low BCBS Market Share, 2011**

	Private			Medicare		
	(1) Share Price	(2) Share Quantity	(3) Share Covariance	(4) Share Price	(5) Share Quantity	(6) Share Covariance
Overall	0.496	0.495	0.009	0.127	0.953	-0.081
Low BCBS	0.541	0.495	-0.036	0.107	0.975	-0.081
High BCBS	0.496	0.488	0.016	0.149	0.921	-0.070

**Notes:** This table presents results of the price quantity decomposition as described in Section III.B using data from 2011. Shares are averaged across DRGs (weighted by total spending). High and low BCBS share are defined by HRRs which are above or below the median BCBS market share across HRRs (47 percent).

**Appendix Table XXVII: Price Decomposition for Cases in High/Low BCBS Market Share**  
**Panel A: Price Decomposition for High BCBS Market Share**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			R <sup>2</sup>			Unexplained within hospital-month variance	Observations	Within hospital-month coefficient of variation
Hip Replacement	0.014	0.034	0.461	0.713	0.743	25.7%	3,573	0.164
Knee Replacement	0.010	0.028	0.464	0.702	0.747	25.3%	8,344	0.190
Cesarean Section	0.013	0.052	0.487	0.757	0.792	20.8%	14,367	0.165
Vaginal Delivery	0.014	0.036	0.380	0.612	0.670	33.0%	22,834	0.187
PTCA	0.006	0.037	0.585	0.739	0.768	23.2%	3,455	0.223
Colonoscopy	0.013	0.018	0.404	0.794	0.856	14.4%	13,170	0.145
Lower Limb MRI	0.003	0.016	0.370	0.775	0.789	21.1%	29,018	0.139
<i>Mean</i>						<b>23.4%</b>		<b>0.173</b>
Patient Characteristics	Yes	Yes	Yes	Yes	Yes			
Plan Characteristics	No	Yes	Yes	Yes	Yes			
Control for Charges	No	No	No	No	Yes			
HRR Fixed Effects	No	No	Yes	□	□			
Hospital Fixed Effects	No	No	No	Yes	Yes			

**Notes:** Data include cases treated at hospitals in counties with more than 51 percent market share. Each cell contains the R<sup>2</sup> value for the relevant specification and data pair in January, 2011. All regressions rely on case-level data. Patient characteristics include fixed effects for sex, and 10-year age bands. Plan characteristics include the full interaction of market segment (i.e. large vs. small group), and product and funding type. Column (8) reports the within-hospital-month coefficient of variation, averaged across hospital-months.

**Appendix Table XXVII Panel B: Price Decomposition for Low BCBS Market Share**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			R <sup>2</sup>			Unexplained within hospital-month variance	Observations	Within hospital-month coefficient of variation
Hip Replacement	0.006	0.016	0.518	0.773	0.782	21.8%	11,549	0.177
Knee Replacement	0.006	0.017	0.418	0.734	0.758	24.2%	28,813	0.211
Cesarean Section	0.011	0.024	0.433	0.717	0.745	25.5%	67,113	0.171
Vaginal Delivery	0.011	0.028	0.395	0.653	0.707	29.3%	85,956	0.194
PTCA	0.006	0.021	0.460	0.718	0.756	24.4%	13,181	0.244
Colonoscopy	0.010	0.028	0.435	0.752	0.813	18.7%	52,847	0.171
Lower Limb MRI	0.001	0.008	0.365	0.773	0.782	21.8%	84,896	0.164
Mean						23.7%		0.190
Patient Characteristics	Yes	Yes	Yes	Yes	Yes			
Plan Characteristics	No	Yes	Yes	Yes	Yes			
Control for Charges	No	No	No	No	Yes			
HRR Fixed Effects	No	No	Yes	□	□			
Hospital Fixed Effects	No	No	No	Yes	Yes			

**Notes:** Data include cases treated at hospitals in counties with less than 51 percent market share. Each cell contains the R<sup>2</sup> value for the relevant specification and data pair in January, 2011. All regressions rely on case-level data. Patient characteristics include fixed effects for sex and 10-year age bands. Plan characteristics include the full interaction of market segment (i.e. large vs. small group), and product and funding type. Column (8) reports the within-hospital-month coefficient of variation, averaged across hospital-months.

**Appendix Table XXVIII: Levels of Variation in High/Low BCBS Facilities**

**Panel A: Overall**

	Coefficient of Variation		
	(1) Across HRR	(2) Within HRR	(3) Within Hospital
Inpatient	0.349	0.429	1.000
Hip Replacement	0.348	0.218	0.189
Knee Replacement	0.362	0.306	0.219
Cesarean Section	0.350	0.245	0.178
Vaginal Delivery	0.351	0.254	0.189
PTCA	0.445	0.288	0.242
Colonoscopy	0.383	0.311	0.170
Lower Limb MRI	0.325	0.312	0.173

**Notes:** Data for each clinical cohort drawn from January, 2011. Each cell presents a coefficient variation. Column (1) presents the CoV of HRR-level average prices across HRRs. Column (2) presents the within-HRR CoV in hospital-level average prices then averaged across HRRs. Column (3) presents within-hospital CoV averaged across hospitals.



**Appendix Table XXVIII, continued**  
**Panel B: High BCBS (counties with over 51 percent market share)**

	Coefficient of Variation		
	(1) Across HRR	(2) Within HRR	(3) Within Hospital
Inpatient	0.414	0.422	0.907
Hip Replacement	0.340	0.174	0.148
Knee Replacement	0.375	0.237	0.189
Cesarean Section	0.337	0.210	0.175
Vaginal Delivery	0.393	0.243	0.190
PTCA	0.475	0.188	0.183
Colonoscopy	0.377	0.276	0.163
Lower Limb MRI	0.317	0.299	0.157

**Notes:** Data for each clinical cohort drawn from January, 2011. Each cell presents a coefficient variation. Column (1) presents the CoV of HRR-level average prices across HRRs. Column (2) presents the within-HRR CoV in hospital-level average prices then averaged across HRRs. Column (3) presents within-hospital CoV averaged across hospitals.

**Appendix Table XXVIII, continued**  
**Panel C: Low BCBS (counties with under 51 percent market share)**

	Coefficient of Variation		
	(1) Across HRR	(2) Within HRR	(3) Within Hospital
Inpatient	0.385	0.429	1.042
Hip Replacement	0.353	0.220	0.203
Knee Replacement	0.351	0.324	0.229
Cesarean Section	0.358	0.251	0.179
Vaginal Delivery	0.324	0.258	0.189
PTCA	0.461	0.283	0.256
Colonoscopy	0.393	0.313	0.172
Lower Limb MRI	0.348	0.312	0.179

**Notes:** Data for each clinical cohort drawn from January, 2011. Each cell presents a coefficient variation. Column (1) presents the CoV of HRR-level average prices across HRRs. Column (2) presents the within-HRR CoV in hospital-level average prices then averaged across HRRs. Column (3) presents within-hospital CoV averaged across hospitals.

**Appendix Table XXIX: Cross Sectional Analysis of Hospital Payments in High/Low BCBS Counties, 2008-2011**  
**Panel A: Prices without HRR Fixed Effects, 2008-2011**

	(1)	(2)	(3)	(4)
<b>Dependent Variable:</b>				
			ln(Facilities Price)	
Monopoly	0.190*** (0.024)	0.190*** (0.025)	0.155*** (0.031)	0.225*** (0.039)
Duopoly	0.130*** (0.020)	0.130*** (0.020)	0.108*** (0.024)	0.153*** (0.038)
Triopoly	0.083*** (0.023)	0.083*** (0.023)	0.056** (0.028)	0.113*** (0.041)
HCCI Market Share	-0.006*** (0.002)	-0.006*** (0.002)	-0.007*** (0.002)	-0.004* (0.002)
BCBS Market Share		<0.001 (0.001)		
Sample	Overall	Overall	Low BCBS	High BCBS
HRR FE	No	No	No	No
Observations	8,772	8,772	6,084	2,688

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. Facilities prices are regression adjusted transaction prices. All regressions include yearly fixed effects. The omitted ownership category is private hospitals. High and low BCBS share defined as above or below 51 percent.

**Appendix Table XXIX, continued**  
**Panel B: Prices with HRR Fixed Effects, 2008-2011**

	(1)	(2)	(3)	(4)
<b>Dependent Variable:</b>				
			ln(Facilities Price)	
Monopoly	0.118*** (0.024)	0.112*** (0.023)	0.126*** (0.029)	0.036 (0.039)
Duopoly	0.073*** (0.024)	0.069*** (0.023)	0.073*** (0.025)	0.023 (0.050)
Triopoly	0.036 (0.023)	0.036 (0.023)	0.042 (0.026)	-0.001 (0.046)
HCCI Market Share	-0.007*** (0.002)	-0.007*** (0.002)	-0.006*** (0.002)	-0.008*** (0.002)
BCBS Market Share		0.001 (0.001)		
Sample	Overall	Overall	Low BCBS	High BCBS
HRR FE	Yes	Yes	Yes	Yes
Observations	8,772	8,772	6,084	2,688

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. Facilities prices are regression adjusted transaction prices. All regressions include yearly fixed effects. The omitted ownership category is private hospitals. High and low BCBS share defined as above or below 51 percent.

**Appendix Table XXIX, continued**

**Panel C: Share of Chargemaster, 2010-2011**

	(1)	(2)	(3)	(4)
<b>Dependent Variable:</b>			Percent of Cases Paid Share of Charges	
Monopoly	10.455*** (1.778)	10.215*** (1.813)	7.917*** (2.064)	11.924*** (2.872)
Duopoly	5.702*** (1.596)	5.567*** (1.624)	4.080* (1.755)	6.604* (2.788)
Triopoly	4.909** (1.608)	4.951** (1.601)	2.886 (1.859)	4.909 (2.692)
HCCI Market Share	-0.403*** (0.120)	-0.367** (0.125)	-0.320* (0.128)	-0.702** (0.254)
BCBS Market Share		0.077 (0.051)		
Sample	Overall	Overall	Low BCBS	High BCBS
HRR FE	Yes	Yes	Yes	Yes
Observations	4,344	4,344	2,980	1,364

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. All regressions include controls for the number of technologies, an indicator for whether the hospital was ranked in US News and World Reports, bed count, hospital ownership type, local area characteristics, and public payer characteristics, as well as yearly fixed effects and HRR fixed-effects. The dependent variable is hospital-level measure of proportion of cases paid as a share of charges derived from the full sample of inpatient cases. High and low BCBS share defined as above or below 51 percent.

**Appendix Table XXIX, continued**

**Panel D: Share Linked to Medicare, 2010-2011**

	(1)	(2)	(3)	(4)
<b>Dependent Variable:</b>			Percent of Cases Tied to Medicare	
Monopoly	-11.293*** (3.160)	-11.342*** (3.175)	-14.721*** (3.666)	-2.779 (5.520)
Duopoly	-5.595** (2.316)	-5.634** (2.319)	-6.271** (2.770)	-7.414 (4.790)
Triopoly	-5.747** (2.790)	-5.744** (2.792)	-6.760** (3.361)	-1.960 (4.842)
HCCI Market Share	0.616*** (0.174)	0.626*** (0.166)	0.470** (0.188)	1.590*** (0.328)
BCBS Market Share		0.024 (0.091)		
Sample	Overall	Overall	Low BCBS	High BCBS
HRR FE	Yes	Yes	Yes	Yes
Observations	3,669	3,669	2,620	1,049

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates of Equation (2) with standard errors clustered at the HRR-level in parentheses. The dependent variable is the percent of cases paid as a percent of Medicare, conditional on being paid on a prospective payment schedule. All regressions include controls for the number of technologies, an indicator for whether the hospital was ranked in US News and World Reports, bed count, hospital ownership type, local area characteristics, and public payer characteristics, as well as yearly fixed effects and HRR fixed-effects. High and low BCBS share defined as above or below 51 percent.

**Appendix Table XXX: Post-Merger Price Effects in High/Low BCBS Markets**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(price)						
<b>Distance (miles):</b>	5	10	15	20	25	30	50
<b>Panel A: Full Sample</b>							
Post-Merger	0.060**	0.039**	0.021	0.023*	0.024**	0.014	0.008
	(0.025)	(0.019)	(0.013)	(0.013)	(0.011)	(0.011)	(0.009)
Observations	8,655	8,655	8,655	8,655	8,655	8,655	8,655
<b>Panel B: Low BCBS Share</b>							
Post-Merger	0.074***	0.053**	0.040**	0.038**	0.035***	0.027**	0.022**
	(0.028)	(0.021)	(0.016)	(0.015)	(0.013)	(0.013)	(0.011)
Observations	5,831	5,831	5,831	5,831	5,831	5,831	5,831
<b>Panel C: High BCBS Share</b>							
Post-Merger	0.021	0.015	-0.003	0.013	0.016	0.014	0.007
	(0.050)	(0.033)	(0.021)	(0.018)	(0.015)	(0.014)	(0.012)
Observations	2,847	2,847	2,847	2,847	2,847	2,847	2,847

**Notes:** \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. OLS estimates with standard errors clustered at the hospital-level in parentheses. Facilities prices are regression adjusted transaction prices. All regressions include hospital fixed effects and yearly fixed effects.