

Comments on

Cooper *et al.*, “Hospital Prices Grew Substantially Faster Than Physician Prices For Hospital-Based Care In 2007–14”

By Monica Noether, Benjamin Stearns, and Sean May¹

Cooper *et al.*² presents a descriptive analysis of hospital and physician prices negotiated by three major health insurers that finds that hospital prices increased more than physician prices between 2007 and 2014. With *no* analysis of the factors that might explain the apparent difference in rate increases, the authors conclude from their purely descriptive analysis that “[o]ur findings suggest that there may be significant differences in the bargaining leverage of hospitals and physicians.” They go on to state that greater antitrust enforcement could help slow the observed growth in hospital prices, while providing no basis for this recommendation. For example, the authors do not study how the relative bargaining power of hospitals, physicians, and health insurers might have changed between 2007 and 2014, or how the costs of providing hospital or physician services might have changed over this period. As a result, their conclusions and recommendations do not follow from the analyses that the authors conducted. *At most*, the authors’ analysis indicates that prices paid to facilities grew at a faster rate than prices paid to physicians. What the authors do not address, or even attempt to address, is *why* these patterns exist.

In this brief discussion we discuss various factors (besides differences in bargaining leverage) that are more likely explanations of the observed differences in price increases. These include differential cost increases and problems in how the authors calculated price increases for hospitals and physicians. We ignore other potential problems in the representativeness of the underlying data and how the authors chose the services included in the analysis.³

Hospital Profitability Has Not Increased

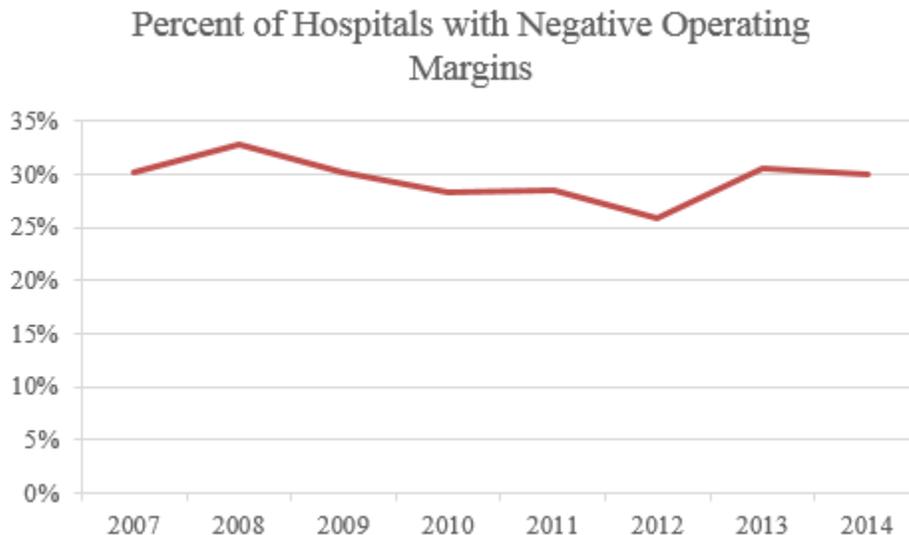
If the measured price increases were the result of hospitals exercising market power, we would expect hospitals to enjoy increasingly supra-competitive profits. Rather, as the chart below

¹ All authors are economists at Charles River Associates. The conclusions set forth herein are based on independent research and publicly available material. The views expressed herein are the views and opinions of the authors and do not reflect or represent the views of Charles River Associates or any organizations with which the authors are affiliated. Financial support was provided by the American Hospital Association.

² Zack Cooper *et al.*, Hospital Prices Grew Substantially Faster than Physician Prices for Hospital-Based Care in 2007-14. *Health Affairs* 38:2 (February 2019): 184-189.

³ These potential problems include at least the following: 1) the data only reflect claims from Aetna, Humana, and UnitedHealthcare, which collectively cover less than 30 percent of individuals covered by employer-based insurance; 2) the analysis focuses primarily on a very limited set of services provided by physicians and hospitals; 3) while the regression analysis purports to expand the set of services studied, it is not clear that variation in service mix across years is adequately controlled for.

demonstrates, we see that roughly three in ten hospitals over this time period had a negative operating margin, and the fraction of all hospitals with a positive operating margin did not increase during this time.⁴



The lack of change in profitability is not surprising given relative changes in hospitals' revenues and expenses: between 2007 and 2014, the compound annual growth rate in hospital expenses per adjusted admissions was 3.6 percent, while the compound annual growth rate in hospital operating revenue was very similar at 3.9 percent.⁵ Such similar trends are inconsistent with the substantial gains in bargaining leverage postulated by the authors.

Hospital Costs Increased Substantially Between 2007 and 2014

Differing underlying cost trends for hospitals and physicians may also explain the difference in commercial price trends that the authors observe. As noted above, hospital expenses per adjusted admissions increased by 3.6 annually between 2007 and 2014. While we do not have data for the same time period for physicians, a 2015 Medical Group Management Association survey of physician practices found that their expenses per full-time equivalent physician increased annually by 2.9 percent on average between 2010 and 2014.⁶

An additional cost borne by hospitals is the increasing number of registered nurses per adjusted admission, which grew by more than 1 percent annually between 2007 and 2014.⁷ The cost of increased usage of nurses is compounded by a recognized nursing shortage that has led to

⁴ Based on American Hospital Association 2018 Chartbook, Table 4.1. (page A-30).

⁵ Calculations based on American Hospital Association 2018 Chartbook, Table 3. (page A-32).

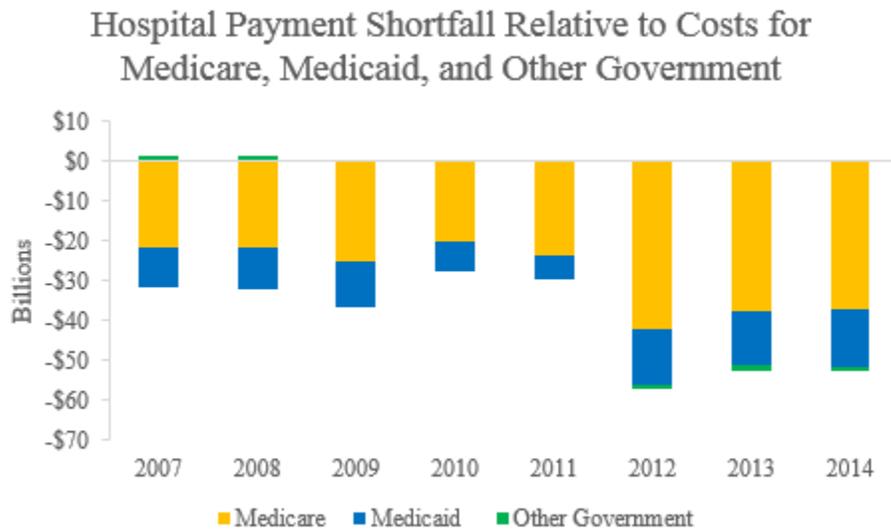
⁶ MGMA: Health Facility Operations Spending Grows by 12%. *Revenue Cycle Intelligence*. <https://revcycleintelligence.com/news/mgma-healthcare-facility-operations-spending-grows-by-12>

⁷ Calculations based on American Hospital Association 2018 Chartbook, Table 5.5 (page A-40).

increases in their wages.⁸ Moreover, as we discuss below, pharmaceutical prices have increased rapidly over the last decade and account for an increasing portion of hospitals' total expenses.

Government Payment Shortfalls Have Grown

It is also widely recognized that commercially insured patients subsidize underpayment by government insurance programs, and that commercially insured patients comprise a minority (and declining portion) of most hospitals' patients. Medicare and Medicaid covered between approximately 86 and 90 percent of their patients' costs between 2007 and 2014, while their share of total patient volume increased from 58 to 64 percent.⁹ As a result, as the chart below demonstrates, the total annual shortfall that hospitals experienced from government payors increased by 72 percent between 2007 and 2014 to more than \$50 billion.¹⁰ For hospitals to remain financially viable, these shortfalls have to be covered by reimbursement from other sources, such as commercially insured patients.



Drug Prices Have Dramatically Increased, and Are Not Paid by Physicians.

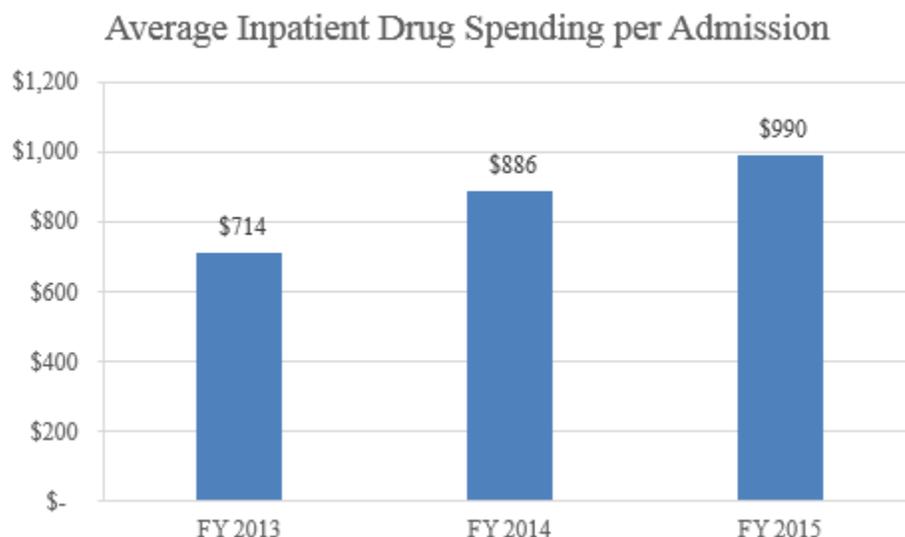
One important category of hospitals' costs that rose substantially between 2007 and 2014 was prescription drugs. While the hospital prices that the authors studied generally include reimbursement for drugs, the physician prices that they studied exclude the cost of drugs that physicians deliver directly to their patients (the authors focus only on reimbursement for professional services provided by physicians). This is an important omission because hospital spending on pharmaceuticals has increased substantially over the last decade. From 2009 to

⁸ <https://www.modernhealthcare.com/article/20180307/NEWS/180309921>

⁹ Calculations based on Healthcare Cost and Utilization Project, Trends in Inpatient Stays, available at <https://www.hcup-us.ahrq.gov/faststats/NationalTrendsServlet?measure1=01>

¹⁰ American Hospital Association 2018 Chartbook, Table 4.5. (page A-34).

2013, non-retail drug spending, which includes drugs purchased and administered by hospitals, increased at a compound annual growth rate of 3.7 percent, even faster rate than retail drug spending.¹¹ Moreover, as the chart below shows, average drug spending per inpatient admission increased 38.7 percent in just two years (between FY 2013 and FY 2015).¹²



Total inpatient and outpatient drug spending per adjusted admission continued to increase by another 18.5 percent in the next two years.¹³ Without incorporating trends in physician drug reimbursement, the authors make an incomplete comparison between rates of increase in hospital and physician prices.

Differences in Price Trends Do Not Imply Differences in Market Power

The core flaw in the authors' conclusions is that simply observing a difference in the overall trends of prices in two different markets does not provide a basis to make inferences about the relative bargaining leverage or market power exerted in each market. For example, the Horizontal Merger Guidelines relied upon by the antitrust agencies to evaluate mergers do not mention price trends as an indicator of the need for more rigorous antitrust enforcement either with respect to particular transactions or industry sectors.¹⁴

While the authors attribute the relatively greater increases in hospital prices to hospital consolidation and market power, they ignore that the period included in their study was characterized by robust antitrust enforcement of hospital mergers. Between 2007 and 2014,

¹¹ ASPE Issue Brief: Observations on Trends in Prescription Drug Spending, 2016. Table 1 <https://aspe.hhs.gov/system/files/pdf/187586/Drugspending.pdf>

¹² NORC at the University of Chicago. Trends in Hospital Drug Spending: Issues and Challenges. 2016. https://www.aha.org/system/files/2018-01/aha-fah-rx-report_0.pdf

¹³ NORC at the University of Chicago, Recent Trends in Hospital Drug Spending and Manufacturer Shortages. 2019. https://www.aha.org/system/files/2019-01/aha-drug-pricing-study-report-01152019_1.pdf

¹⁴ U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines. 2010.

antitrust agencies largely successfully challenged nine hospital mergers.¹⁵ Moreover, even if some hospital mergers did lead to price increases, it is simply implausible that a 42 percent average price increase at the more than 5,000 hospitals in the United States could be attributable to increased bargaining leverage associated with the 625 announced hospital mergers over this time period, many of which were never completed.

In summary, a good deal of additional evidence and analysis are required before the authors' findings could contribute toward useful policy recommendations.

¹⁵ These include mergers and acquisitions involving Evanston Northwestern Healthcare, Inova Health Systems Foundation, ProMedica Health System, Phoebe Putney Health System, OSF Healthcare System, Reading Health System, Cabell Huntington Hospital, Penn State Hershey Medical Center, and Advocate Health Care Network.