

# Indiana has a Monopoly Problem in Healthcare; Preliminary evidence and recommendations



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## Executive Summary

Indiana's markets for healthcare services (hospitals and network providers) exhibit broad signs of monopolization. The price for average healthcare services in the most concentrated (monopolized) markets such as Ft. Wayne is more than twice the price in the least concentrated markets. This affects consumer expenditures and healthcare outcomes. Surprisingly, more than 85 percent of Indiana's not-for-profit hospitals received a profit that is higher than the national average for hospitals of all types.

This monopolization problem is a relatively new phenomenon. In 1998, the average Hoosiers paid \$330 less on healthcare services than the average American. By 2017, the average Hoosier paid \$819 more in healthcare expenditures than the average American. Over the same period, Indiana dropped nine places in the most widely recognized national ranking of state healthcare outcomes.

In the most recent year for which we have data, Indiana's not-for-profit hospitals earned more than \$1.49 billion in profits (total revenue minus expenses). This loss of consumer spending power cost the Indiana economy more than \$2 billion in GDP in the most recent year and more than 23,000 jobs.

In total, by 2017, Indiana's five largest not-for-profit hospital systems have accrued profits that exceed \$27.74 billion, or roughly 8 percent of Indiana's total Gross Domestic Product in 2017. This amount is roughly 12 times the reserves the entire State of Indiana holds in the event of an economic downturn.

This is a significant economic and policy problem in Indiana. To address it we recommend significant research, and three broad policy proposals. These are:

- Restore competition to not-for-profit hospital and healthcare markets by taking a number of steps from anti-trust enforcement, ending certificate of need and local non-compete clauses, and consider broad legislation requiring vertical and horizontal disintegration of these markets.
- Tax not-for-profit healthcare providers who earn accrued profits at rates consistent with private sector firms (Healthcare Assessment Fee extended to investment holdings, additional corporate, sales and property taxes).
- Impose significant taxes and restrictions on the more than \$27.7 billion in accrued profits held by Indiana's not-for-profit hospitals.

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## Introduction

The availability of affordable healthcare services is an integral component of a regional economy. High quality healthcare services comprise an important regional amenity for households, as well as a source of income and employment for residents. Access to healthcare services is also important to businesses, since employer-based insurance costs range between \$3.50 and \$6.00 per hour for employed workers.<sup>2</sup> Access to high quality healthcare and related improvements in health boost worker productivity.<sup>3</sup>

Not-for-profit providers dominate Indiana's market for healthcare. Economists view the value of not-for-profit status for healthcare providers as alleviating the negative effects of three types of market failures. The first of these is the problem of asymmetric information between the patient and provider about the optimal level of healthcare. The not-for-profit status is intended to eliminate the tension between optimal care and the pursuit of profits. The second reason for granting not-for-profit status is the presence of public benefits to high quality healthcare. The third reason is that some healthcare services enjoy positive externalities, in which the benefits of the service spills over into society as a whole. Vaccinations are a textbook example of this positive externality.

These reasons provides a rationale for federal, state and local governments to subsidize education and programs targeting healthcare quality. These subsidies include education for healthcare professionals and subsidies to delivery program. These subsidies also include the granting of tax-exempt status to healthcare providers through a not-for-profit corporation, that meets the "public benefit" definition.<sup>4</sup>

Implicit in the legislative intent to grant non-profit status for "public benefit" are two mutually reinforcing economic concepts. The primary concept is that competitive market outcomes generate the greatest level of benefits to consumers and the of producers.<sup>5</sup> The second implicit assumption is that the incidence of taxation applied to competitively provided healthcare will be largely borne by consumers of healthcare.

For these reasons, the state provides non-profit status to some healthcare providers. This comes with the reasonable expectation that the absence of a profit motive will limit efforts to secure monopoly power in healthcare markets, and relieve the three market failures listed above. Non-profit status also ensures highly favorable tax relief for providers, who would under competitive markets otherwise raise prices, transferring the incidence of the tax to consumers.

The pillar of the nonprofit status is thus to secure outcomes in healthcare markets that mimic the well-known benefits of competition; low prices and higher levels of service provision. Thus, an important empirical question for Indiana policymakers is the degree to which Indiana's

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<sup>2</sup> See Hadzima <https://web.mit.edu/e-club/hadzima/pdf/how-much-does-an-employee-cost.pdf> and <https://www.peoplekeep.com/blog/faq-how-much-does-it-cost-to-provide-health-insurance-to-employees> for estimated ranges.

<sup>3</sup> See Goetzel, et al., 2010; Nicholson, et. al., 2005).

<sup>4</sup> See IC 23-17-2-7.

<sup>5</sup> See Hines, 1999

healthcare markets are competitive, and transfer the benefits of that competition to consumers and local communities.

This policy brief provides preliminary analysis as to the degree of competition in Indiana's healthcare markets. We begin by explaining the measures and consequences of anti-competitive behavior in markets, then present evidence of the degree of competition, or lack thereof, in Indiana's primarily not-for-profit dominated healthcare sector.

We conclude that evidence strongly suggests healthcare markets in Indiana experience significant monopoly power, which has increased prices, allowed not-for-profit providers to accrue stunningly large profits, increased the burden on Hoosier families and likely reduced healthcare outcomes across the state. To address these problems, we conclude this study with recommendations for policymakers and a discussion of additional research.

### **Effects of Market Concentration in Healthcare**

Competition, in economic jargon, is a noun that describes a market condition where no producer enjoys the ability to set independent prices. That is the market sets prices. In competitive markets, individual firms enjoy what is termed a 'normal profit' in that there is sufficient profit to keep the firm in business, but not a sufficient profit to induce other firms to enter the market. In this case, the price for a good or service will be only modestly higher than the actual cost to provide it.<sup>6</sup> Likewise, the quantity of the service produced will be sufficient to meet the full extent of those willing and able to pay. In such a market, government cannot readily interfere to produce more of the good or reduce the price.

In practice, this theoretical market condition rarely manifests itself. Instead, we observe markets with workable competition. Typically, these markets have several competing firms, limited pricing power and profit rates and prices that are similar across the market and industry.<sup>7</sup>

Empirical studies of markets reveal the nearly axiomatic observation that the fewness of firms within a market cause a retreat from the salutary effects of competition; prices rise and quantity of services or goods produce diminish. Thus, the degree of market concentration is associated with negative outcomes for consumers, such as higher prices and lower quantity of service provision.<sup>8</sup>

The remainder of this section focuses on the empirical evidence of market conditions within Indiana's healthcare industry. We focus this analysis on variables that suggest changes to or levels of market concentration in Indiana. Since this is preliminary, we will focus on aggregate data, emphasizing how Indiana differs from other states, or how healthcare markets within the state vary. For the latter, we focus on measures of firm performance that indicate the level of concentration, or monopolization. In particular, we focus on price, and profit (net income as a share of revenues).

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<sup>6</sup> There will be an accounting profit, that varies by industry, but the accounting profit will not be large enough to broadly spur new market entrance

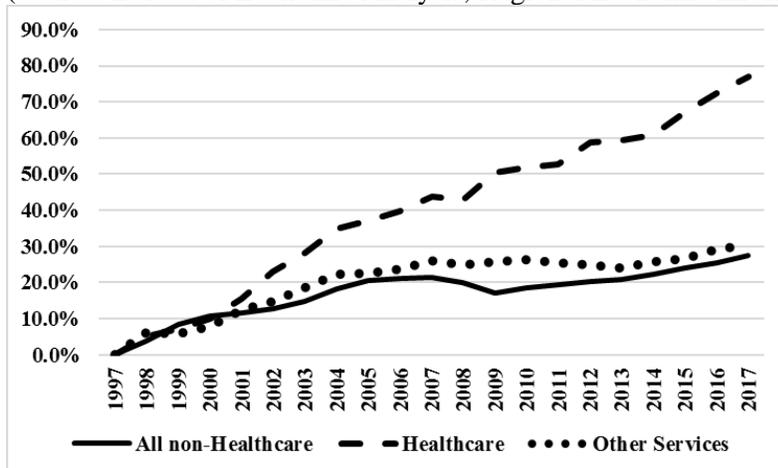
<sup>7</sup> See Clark, 1940.

<sup>8</sup> See Dansby and Willing, 1979; Hicks, 2005; Karas, et. al. 2007.

We begin with the experience of healthcare consumer's in Indiana. Figure 1 illustrates the share of household expenditures on healthcare services from 1997 through 2017 derived from the Bureau of Economic Analysis, Personal Consumption Expenditures. In this figure, we graph three data elements. One is healthcare expenditures, the second is all other non-healthcare services, and the third is total spending. As is clear, household spending in all three areas is rising. The slowest to rise is all non-healthcare, because this series includes goods as well as services. Because of large productivity gains during this period, households face lower prices for goods, and declining expenditures in many types of goods-intensive spending. This trend dates to the 1920's.<sup>9</sup>

This figure also includes data on expenditure share of non-health services. We include this to illustrate the effect of the 'cost disease' that afflicts relative prices for services. The well-known 'cost disease' posits that relatively low rates of productivity growth in services results in increasing prices for services, while the relative price of goods declines. As this figure indicates, expenditures on non-good, non-healthcare items is rising faster in Indiana than expenditures on the average non-healthcare item. This data series is our benchmark on the 'cost disease' aspect of increased expenditures on healthcare.<sup>10</sup>

**Figure 1, Cumulative change in Personal Consumption Expenditures, Indiana 1997-2017**  
(Source: Bureau of Economic Analysis, Regional Economic Information System)



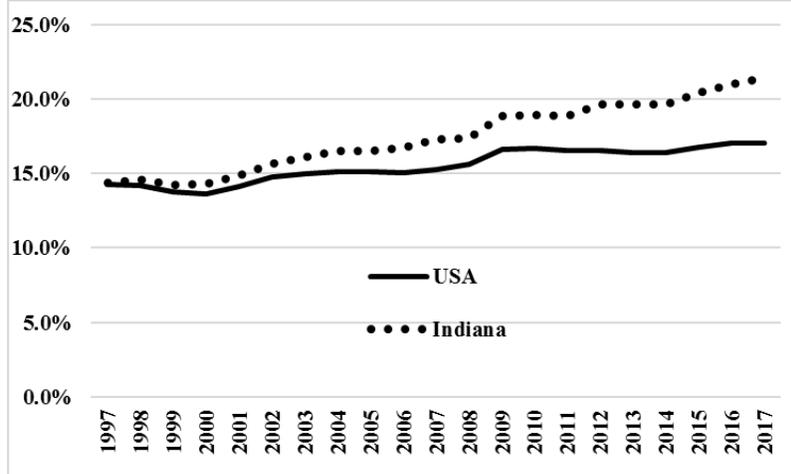
In making the same comparison between Indiana, and the nation as a whole, we examine changes to healthcare expenditures. As Figure 2 illustrates, in 1997 the typical Indiana resident spent roughly the same share of income, as did the typical American. That gap has now risen, so that the typical Hoosier spends 4.4 percent more of their annual income on healthcare than the typical American.

<sup>9</sup> See Hicks, 2016.

<sup>10</sup> See Baumol, 1996, 2012 and Bates and Santerre, 2013

**Figure 2 Change in Personal Consumption Share of Healthcare, 1997-2017**

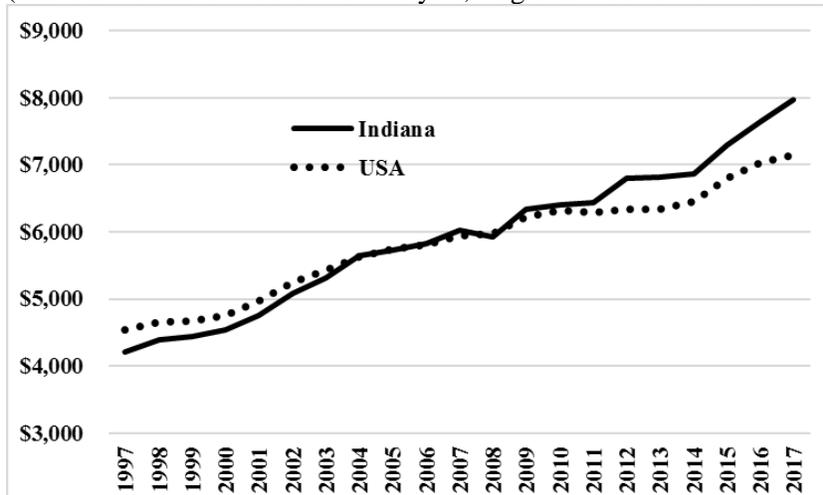
(Source: Bureau of Economic Analysis, Regional Economic Information System)



Because Indiana incomes are lower than the national average, this masks the relative expenditure differences. In 1997, the average Indiana resident spent \$4,207 on healthcare (in inflation-adjusted dollars), while the average American spent \$4,537. Thus, Indiana residents were spending roughly \$330 per year less than the average American on healthcare. Over the past 20 years, that ratio has flipped. Again, in inflation-adjusted dollars, the average Indiana resident is now spending \$7,962, while the average American is spending \$7,142 on healthcare. That is a relative shift of more than \$1,150 per year, leaving the typical Hoosier with more than \$819 per year more spent on healthcare services than the average American. See Figure 3.

**Figure 3, Average Healthcare Expenditures per Resident, 1997-2017**

(Source: Bureau of Economic Analysis, Regional Economic Information System)



This change has been very large in the years following the Great Recession. From 1997 to 2008, the average change in Indiana expenditures relative to the US as a whole was \$26.82 per person, per year. From 2009 to 2017 that grew to an average of \$95.01 per person, per year. The

divergence of healthcare expenditures between Indiana and the nation as a whole is a relatively recent phenomenon.

A full exploration of this difference is outside the scope of this study. However, we can summarily dismiss such factors as average age or general health conditions. These factors are neither sufficiently different, nor experienced sufficient change over this period to explain this divergence. It is more likely that some underlying market conditions, such as decreased market power in insurance markets, or increased concentration of healthcare providers has contributed to this problem. The evidence presented here points strongly towards the price effects of growing monopoly power in healthcare markets.

Importantly, this relative increase in per person spending has done nothing to improve the healthcare outcomes of Hoosiers. Indeed, since 1997, when these expenditure data are first available, Indiana’s relative health rankings declined. Using data from America’s Health Rankings, produced by United Health Foundation, we compare Indiana’s overall relative rankings with the per person healthcare expenditures of Indiana residents relative to the U.S. average.<sup>11</sup> See Figure 4.

**Figure 4, Indiana Health Rankings and Difference in per person Healthcare Expenditures**

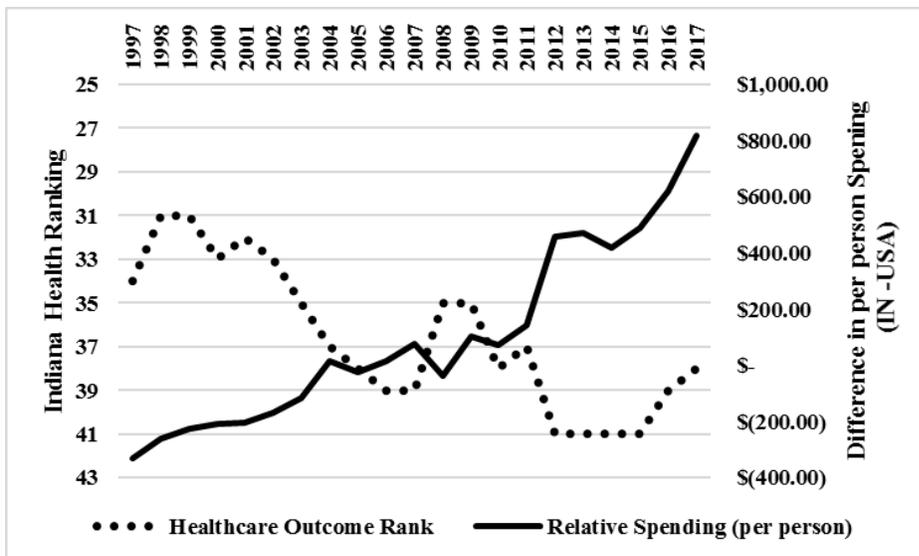


Figure 4 suggests an alarming healthcare problem in Indiana. Hoosiers are spending more money on healthcare, in both absolute and relative terms, yet face worse outcomes for that spending.

In a highly influential statement before Congress, Professor Martin Gaynor outlined the challenge of supply side concentration in healthcare markets clearly. He noted substantial

<sup>11</sup> The state ranking is derived from a weighted sum of the number of standard deviations each core determinant is from the national average. There are 35 listed in the rankings.  
<https://www.americashealthrankings.org/learn/reports/2017-annual-report/state-summaries-indiana>

consolidation of ownership of hospitals in the United States, with 1,625 mergers nationwide between 1998 and 2017.<sup>12</sup> This rise in concentration is coincident with increasing prices in the affected regions. Citing eleven significant studies on hospital mergers, he reports pricing effects post-merger of between 20 and 50 percent.<sup>13</sup>

The reasoning behind these results is commonsense. Either insurers or patients facing multiple choices of local healthcare providers enjoy some level of competition across pricing. This is true even in markets with a lack of transparent pricing or for services where well-informed choices based on price are largely impossible in the short run (e.g. emergency services). In markets where choices are restricted through mergers or hospital exits, there is consistent, high quality evidence that prices are higher.

There is increasing evidence that network mergers of hospitals across multiple markets also leads to higher prices. These studies identify price increases in the 10 percent of 17 percent range across markets in the wake of cross-market mergers.<sup>14</sup> Indiana has faced significant network mergers in the past two decades.

To illustrate the potential effects of mergers, we offer a very simple empirical test of concentration and expenditures in the conterminous 48 states. This model tests the effect of hospital employee concentration, a proxy for market concentration, along with related controls across these states from 1998 through 2017. In our model, we test the elasticity of hospital employment per capita in a state, with the level and change in healthcare expenditures per capita. We find that a one percent reduction in the number of hospital employees per capita raises healthcare expenditures per person by roughly 1.57 percent. While this estimate is suggestive, and not clearly causal, the direction of the observed expenditure effects imply large pricing differences.

To summarize this exploratory study simply, in states with fewer hospital employees per capita, residents pay more in healthcare costs. This outcome is likely associated with anti-competitive behavior in hospital markets.

Exploring this issue more fully in Indiana, we examine the role of hospital concentration in Indiana's 17 Affordable Care Act (ACA) market regions, across two different measures of monopoly power. In the first test, we examine whether the number of unaffiliated hospitals in each ACA region, per 100,000 residents is correlated with the price of healthcare services.<sup>15</sup> For price, we use a recent Rand Corporation study on relative prices paid by private healthcare plans

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<sup>12</sup> See Gaynor, 2018.

<sup>13</sup> See (Haas-Wilson and Garmon, 2011; Tenn, 2011; Thompson, 2011; Dafny, 2009; Krishnan, 2001; Vita and Sacher, 2001; Capps and Dranove, 2004; Gowrisankaran Nevo and Town, 2015; Gaynor and Vogt, 2003; Town and Vistnes, 2001; Capps et al., 2003).

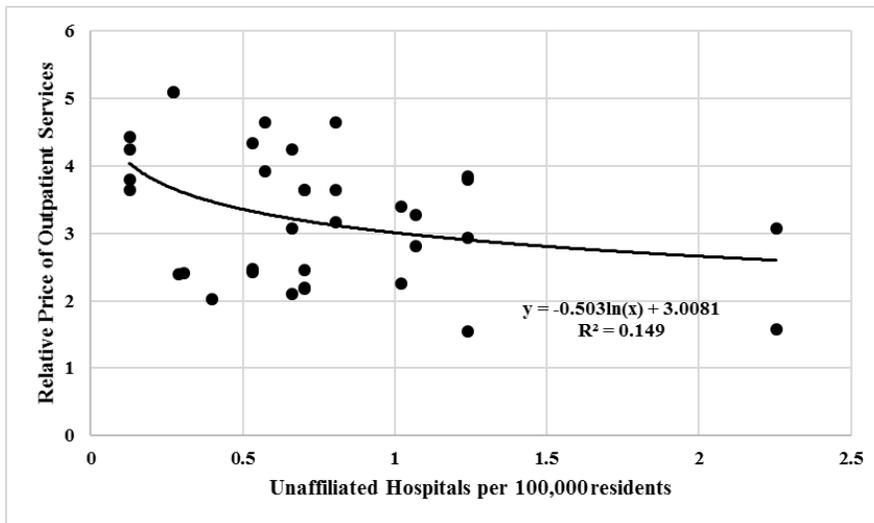
<sup>14</sup> See Lewis and Pflum, 2017 and Dafney, Ho and Lee, 2017.

<sup>15</sup> This is one of a number of measures of concentration, which is useful in comparing markets with different population sizes, and uncertain market share.

to hospitals in Indiana.<sup>16</sup> For hospital information, we use ProPublica’s Nonprofit Explorer tool of all healthcare companies in Indiana.<sup>17</sup>

In this figure, the price for services is measured across all outpatient services, with 1 representing the Medicaid/Medicare price for that service. As is clear from this figure, prices are highest in the most concentrated markets, and lowest in the least concentrated markets. For consumers, the effects are startlingly clear. In the most concentrated market, where there are roughly 0.12 unaffiliated hospitals per 100,000 residents, the average cost of a measured outpatient service ranges between 3.65 and 4.43 times the Medicaid reimbursement rate. In the most competitive markets, where there are 2.25 unaffiliated hospitals per 100,000 residents, the average outpatient services cost between 1.57 and 3.08 times the Medicaid reimbursement rate. See Figure 5.

**Figure 5, Relative Price of Outpatient Services versus the number of Unaffiliated Hospitals in an ACA service region, Indiana (2015)<sup>18</sup>**



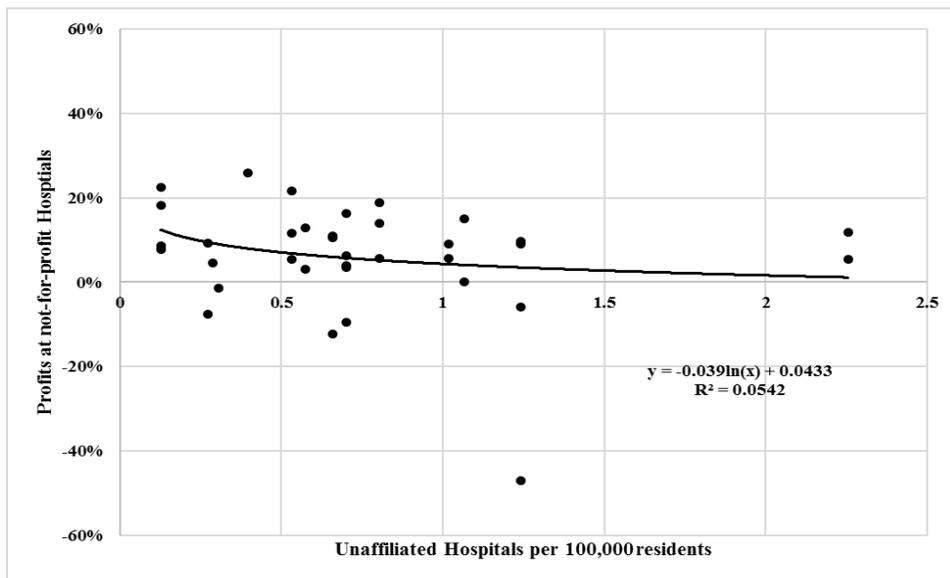
Our second in-state comparison provides what will likely be one of the more contentious revelations of this study. It involves the profit rate, and later the accrued profits of Indiana’s not-for-profit hospital industry. In the following figure, we examine the profit rate (net income/revenue) for Indiana not-for-profit hospitals in 2015. The choice of time is due to incomplete IRS 990 access across years that are more recent. Here we graph the one-year profit rates across the number of non-affiliated hospitals per 100,000 residents in each of Indiana’s ACA regions.

<sup>16</sup> See White and Whaley, 2019.

<sup>17</sup> <https://projects.propublica.org/nonprofits/>

<sup>18</sup> This relationship holds across several specifications. For example,  $P = 3.80 - 0.705(x)$  in a pure linear model, with R-squared at 0.137. The coefficient on x (unaffiliated hospitals per 100,000) is statistically significant to high levels, despite the paucity of observations.

**Figure 6, Profit Rate of not-for-profit Hospitals versus unaffiliated hospitals per 100,000 residents in Indiana's ACA regions<sup>19</sup>**



The not-for-profit hospitals in the most concentrated markets averaged profits of 14.5 percent, while the hospitals in the least concentrated markets averaged 8.5 percent. Profits in the concentrated market averaged \$82 million, while profits in the least concentrated markets averaged \$2.3 million. The hospitals in concentrated markets are on average much larger than hospitals in the more competitive ACA regions.

This is an important point in establishing the heavy degree of market power that exists within these markets. All mergers exist within a natural tension between the benefits of deriving economies of scale in operations, and the risk of anti-competitive outcomes. Within Indiana, market concentration appears strongly correlated with firm size, suggesting that the negative impact of market power, not the benefit of scale economies influence pricing.

These three empirical models are suggestive, but face some limitations. We do not have sufficient data to conduct a full test across all in-patient services. This is due to limits on available IRS 990 forms from public sources matching the Rand pricing study. Likewise, in our aggregate national test, we would wish to conduct a study of healthcare market regions, but are limited with regard to sub-state data on personal consumption expenditures.

Still, even with these suggestive models, evidence of market concentration and extreme pricing effects are apparent. A fuller evaluation of these issues would include direct comparison of procedures using a methodology that compared pre- and post-merger financial outcomes as well as analysis of price, quantity and quality in healthcare provision within these markets. This sort

<sup>19</sup> As with the price model, this relationship holds across different specifications. In a limited dependent variable model, where Profit rate = 0.14-0.04(X), and x (unaffiliated hospitals per 100,000 residents), is statistically significant to the 5 percent level despite a very low sample size.

of empirical analysis is important to economists attempting to ascertain causal factors in the relationship between market concentration (monopolization), price, quality and quantity. However, in my judgement, these results approach the Rule of Reason standard in anti-trust enforcement.<sup>20</sup> As a consequence, these matters should figure prominently in civil action remedies against monopolization and its negative consequences to consumers and communities.

A secondary consideration bearing on the competitive environment of healthcare provision, as well as the efficacy of not-for-profit status given the implicit purpose of that legislation, are profit comparisons. Firms use profit rates to signal investment priorities, to evaluate competing demands for scarce resources and to attract capital for expansion. Federal, state and local governments tax firms to supply public goods and services.

As noted above, not-for-profit designations are permitted to accommodate firms that meet some definition of public benefit in a competitive environment. This justifies their tax-exempt status. Moreover, the design of this statute frees firms from the profit motive, allowing them to focus on their public-good mission. One way to evaluate whether firms are accommodating a public good mission because of their not-for-profit status is to examine their accrued profits.

Profits are defined as economists as total revenues in excess of costs (expenses). Revenues include many items, but are dominated by patient care payments by individuals, insurers and through Medicaid and Medicare. Expenses include estimates of uncompensated (charity) care, payments to employees, materials, new construction and interest payments on borrowed funds.

Table 1 illustrates the most recent, nearly comprehensive data we have on Indiana's hospitals, reporting the top ten most profitable firms. These profit rates are for fiscal, not calendar years. As the table illustrates, nationwide there are two estimates of profit rates by both Moody's and Navigant. The differences are attributable to exclusion of smaller hospitals by one study. We also present the 4<sup>th</sup> Quarter 2014 (mid-FY 2015) profit rate for the nation's largest for profit hospital corporation (HCA). These rates ranged from 3.4 to 5.4 percent.

For readers unfamiliar with profit rate data, it may be helpful to contextualize that Wal-Mart's profit rate ranged between 3 and 4 percent in every year since it became a public firm in 1969. This is a low profit rate, but the stability of revenues imply lower rates of profit are necessary to attract capital. Healthcare earnings in the U.S. exhibit among the most stable growth of any industry over the past half century.

In Indiana's not-for-profit hospitals, profit rates represent revenues in excess of costs that are much higher than national averages and much higher than needed to secure capital for business expansion. While these are just the top ten most profitable hospitals in fiscal year 2015, they represent an alarming outcome. Of the 47 individual healthcare firms for which we have data that year, 81.3 percent enjoy profits above the national averages reported in Table 1. It is likely that in the years following the Great Recession, the single most profitable industry in Indiana was its not-for-profit hospitals.

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<sup>20</sup> See Hovenkamp, 2018.

**Table 1: Hospital Profit Rates (National, Indiana top 10)**

<b>National Comparison Hospitals</b>	<b>FY2015 Profit Rate<sup>21</sup></b>
Average Profit, all hospitals (Moody's)	3.4%
Average profit, all hospitals (Navigant)	4.2%
Hospital Corporation of America (nation's largest for profit hospital company)	5.4%
<b>Indiana not-for-profit hospitals</b>	
Parkview Wabash Hospital, Inc.	49.0%
St Vincent Carmel Hospital Inc.	38.0%
Community Hospital South, Inc.	28.1%
Indiana University Health White Memorial Hospital, Inc.	26.5%
St Vincent Clay Hospital Inc.	24.0%
Indiana University Health Ball Memorial Hospital, Inc.	23.8%
St Vincent Randolph Hospital Inc.	23.6%
Huntington Memorial Hospital, Inc.	22.6%
Deaconess Hospital, Inc.	20.1%
St Vincent Seton Specialty Hospital Inc.	19.4%
Community Hospital of Noble County, Inc.	19.0%
St. Vincent Frankfort Hospital, Inc.	18.8%
Indiana University Health Bloomington, Inc.	18.6%

Of the ten most profitable hospitals in Indiana, all were in one of five healthcare networks. Indeed, of the nine firms that were less profitable than the national average, only one was in a network. This firm was, in FY 2015, a member of a healthcare network (IU Health Proton Therapy Center, LLC). It has since closed.

The magnitude of profits for not-for-profit hospitals is also significant. Muncie's IU Ball Memorial Hospital, located in one of the most economically beleaguered communities in the state collected more than \$100 million in revenues over expenses in 2015. South Bend's Memorial Hospital collected more than \$85 million that same year, and Parkview Health in Wabash collected profits in excess of \$40 million. Though it is outside the scope of this study, the full fiscal effect of these hospitals exploitation of not-for-profit status is significant, and warrants a full accounting.

All told, in 2015, not-for-profit hospitals in Indiana collected more than \$1.78 billion in profits. Because these firms are not for profit, they may not distribute dividends to stockholders. Instead, it appears these firms hold cash and investment reserves, which we term as accrued profits. Table 2 illustrates the 2017 Audited Financial Statements of the five largest healthcare systems in Indiana. We include information from Indiana's equivalent holdings to compare the magnitude of these reserves.

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<sup>21</sup> These data are compiled from ProPublica, on self-reported IRS 990 forms.

**Table 2, Not-for-profit Hospital Holdings in Indiana**

	Cash	Investments <sup>22</sup>	Percent of Revenues <sup>23</sup> (investments/patient revenue)
State of Indiana <sup>24</sup>		\$2.31 Billion	13%
Parkview Health Systems	\$124 million	\$1.11 Billion	525%
Franciscan Alliance	\$50 million	\$2.94 Billion	794%
Indiana University Health	\$414 million	\$4.80 Billion	551%
St. Vincent (Ascension)	\$857 million	\$17.99 Billion	652%
Community Health Network	\$297 million	\$0.90 Billion	302%

In total, by 2017, Indiana’s five largest not-for-profit hospital systems have accrued profits that exceed \$27.74 billion, or roughly 8 percent of Indiana’s total Gross Domestic Product in 2017. This amount is roughly 12 times the reserves the entire State of Indiana holds in the event of an economic downturn.

Reason suggests these firms maintain a reasonable reserve to accommodate lagged billing, the need for unanticipated expenses or the modest effects of a cyclical downturn. This is simply good practice for either a for-profit, or not-for-profit hospital. These reserves could plausibly range from 90 to 120 days, or even 180 days for a hospital providing specialized services, which might vary considerably during an economic fluctuation. The companies listed above currently hold accrued profits that range from 1,102 to 2,898 days. These firms could operate without collecting patient revenues for between three and eight years before exhausting their financial reserves.

It is impossible to reconcile data displayed in Figures 4 and 5, and in Tables 1 and 2 with the public benefit provisions implicit in Indiana Code. Moreover, it is important to reiterate, these accrued profits were paid to hospitals by patients, employers and governments in Indiana. The large increase in healthcare expenditures accompanying these payments likely generated significant effects across the state. While it is outside the scope of this study, the excessive growth in healthcare costs that have plagued local governments, school corporations, and Indiana businesses are likely linked to monopoly pricing behaviors in Indiana’s healthcare markets.

The level of profit accrued by these not-for-profit firms is well above that needed to remain in business and attract capital and other inputs into the delivery of healthcare services. Indeed, a simple correlation between hospital profit rate and healthcare sector wage growth at the county level reveals no correlation. This refutes any argument suggesting significant regional cost differences. Instead, this may suggest monopolization of healthcare markets has extended to labor inputs, such as skilled nursing. While it is outside the scope of this study, significant additional research should be undertaken to evaluate the role of labor market concentration on

<sup>22</sup> This includes board-designated investments and funds held by trustees and other investments.

<sup>23</sup> We derive these data from audited financial statements, which include all assets and liabilities, and include such detailed information as interest rate swaps, settlements, etc. so mark a complete snapshot of these firms.

<sup>24</sup> These are the sum of cash holdings across three accounts (Counter-Cyclical Revenue and Economic Stabilization Fund, Medicaid Reserve, and Tuition Fund).

wages for healthcare providers in Indiana. This monopsony power allows may allow not-for-profit hospitals an additional source of profitability.

Evidence from pricing and profitability analysis suggest widespread concentration or monopolization of Indiana’s not-for-profit healthcare sector. This has important economic implications.

Again, profits are an important signaling mechanism, which is necessary for competitive market in achieving price, quantity and quality effects for consumers. However, not-for-profit hospitals are established to keep prices low, by shifting the purpose of the corporation from profit maximizing to that of public benefit. The expectation is implicitly that these not-for-profit firms will mimic competitive markets in their pricing and service provision. Alternatively, at a minimum place the monopoly profits into the provision of valuable public goods. Among such public benefit might be improved healthcare outcomes. That has not occurred, and the relative healthcare outcome of Hoosiers has declined over the past 20 years, coincident with monopolization of markets.

The evidence presented here suggests large and persistent deviation from the competitive price. Indeed, the profits at not-for-profit hospitals in Indiana imply broad market power resulting in super-normal profits. This appears the result of monopoly pricing. We have not examined procedure-based effects of market power on quantity or quantity. That would likely be a useful area of research, particularly using data available through the discovery process inherent in litigation.

The effect of market power or monopolization of healthcare markets generates an economic consequence by removing financial resources from the community. This causes reduced economic activity, fewer employed workers, less available tax dollars and more moribund economic growth. In calculating this effect for three years, we examine who paid these costs, using the Center for Medicaid and Medicare Services estimates of incidence of all medical payments. See Table 3.

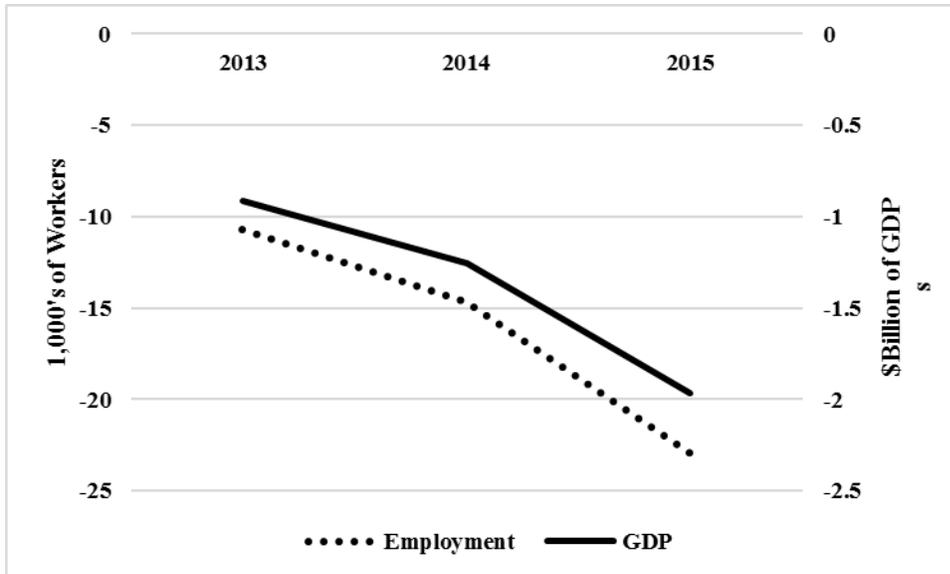
**Table 3, Estimated incidence of not-for-profit hospital profits (nominal dollars)**

	<u>Total</u>	<u>Households</u>	<u>Business Cost</u>	<u>Gov't Cost</u>
2013	810,048,283	125,025,634	300,126,980	384,895,669
2014	961,446,731	148,392,990	356,220,870	456,832,871
2015	1,494,122,532	230,608,003	553,579,944	709,934,585

We estimate this economic effect statewide, using a well-known regional computable general equilibrium model produced by REMI, Inc. This is an incomplete measure of the effects of healthcare monopolization, since it does not include local fiscal effects, the effect on patient outcomes, nor does it clearly identify the additional costs to business of paying higher insurance rates in more monopolized markets. None of these data allows us to examine the role higher healthcare costs play in suppressing wage growth or reducing firm and worker entry. Nor does this model measure the effect of higher healthcare costs in reducing take home pay for public sector workers, such as employees of school corporations. Thus, this estimate is a partial, lower

bound on the effect of hospital market concentration (higher prices) on Indiana’s economy. See Figure 7.

**Figure 7, Employment GDP Effect of Healthcare Monopolization in Indiana, 2013-2015**



As is apparent in Figure 7, the market power in Indiana’s not-for-profit healthcare sectors imposed significant hardship on the Indiana economy. In 2015 alone, this market power reduced the state’s GDP by roughly \$2 billion, and employment by more than 23,000 workers. To place this in context, in 2015, Indiana’s economy added 55,900 workers, and GDP rose by roughly \$4.68 billion. The effects of hospital monopolization in that year alone cost Indiana

The evidence presented in this modest policy brief overwhelmingly suggest Indiana has a market power problem (monopolization) in it is not-for-profit healthcare industry. This results in higher prices for consumers in more concentrated markets, and astonishingly, super-normal profits for several not-for-profit healthcare networks. These super-normal profits are significant evidence of the problems of monopolization. The accrued profits for these firms exceeds \$27 billion, which are invested almost exclusively outside Indiana. The resulting effects are startling.

Consumers pay much higher prices. In just 20 years, healthcare expenditures for Hoosiers have risen from \$330 per person beneath the national average, to more than \$819 per person more than the national average. Households in the most concentrated healthcare markets pay more than double the price per procedure than in those in markets that face the most competition. This lack of competition seems most acute not in rural places, but in metropolitan markets. For example, Ft. Wayne, South Bend, Evansville and other relatively metropolitan places face more concentrated markets than do places that are more rural. One clear implication of this fact is that market power, not provider cost is a central factor in pricing differences.

As with most economic issues, additional research is warranted. Detailed, procedure level price analysis would help establish the causal mechanism of market power effects on pricing. Indiana

taxpayers would benefit from a broad set of studies, which evaluate the degree of concentration in healthcare markets and healthcare outcomes. Analysis of the pre-and post-merger effect of prices, profitability and outcomes would also be an important aspect. Studies of anti-competitive behavior through human resource practices, pricing transparency and location are also important in better understanding these issues. We should also anticipate studies of the regional effects of healthcare market concentration on population growth, regional labor costs, and other determinants of local prosperity. Such analysis should detail private sector costs, such as that facing households and businesses, as well as public sector costs. Public sector costs include lost tax revenues from firms receiving highly beneficial not-for-profit status, while engaging in market behavior heretofore observed only in highly monopolized settings. Studies examining the effect of these pricing practices on public and private sector health care expenditures are needed. In particular, the effect monopoly pricing practices have on wages available for public sector employees, such as schools and municipal government is needed.

These studies could be funded by a variety of mechanisms. Some of the recommendations outlined below will free resources for use in monitoring monopoly pricing practices, evaluating the effect on healthcare outcomes and supporting transparency in pricing. Data in this sector are difficult to acquire, since transparent pricing makes sustaining monopoly power more difficult. We anticipate many of the most penetrating studies will result from data uncovered from the discovery process inherent in litigation.

Despite the shortcomings of this study, and the need for more analysis, it is clear that a very high degree of monopolization exist within the healthcare and hospital markets in Indiana. The data presented here is sufficient to form the basis of broad legislative and regulatory action, and should prompt significant adjustment in pricing practices by Indiana's not-for-profit hospitals.

As we learn more about concentration and market power in these markets, I urge the regulatory and legislative bodies of the Indiana state government, local authorities and healthcare provider themselves to undertake a series of remedial actions designed to benefit households, businesses and governments who have suffered as a consequence of hospital monopolization in the 21<sup>st</sup> Century. I group these into three big remedial actions.

### **Big three remedies**

***Return competition to hospital markets: Market conditions within Indiana's hospital and healthcare provider network are anti-competitive. The general assembly or other policymakers should take actions to:***

- Enforce anti-trust legislation.
- Pass legislation that would enforce horizontal and vertical disintegration of healthcare markets deemed anti-competitive.
- End all Certificate of Need Legislation, and regulatory restrictions on entrance.
- Prohibit anti-competitive practices with "do not compete clauses" in employee contracts.
- Test for local Monopsony in hiring and contracting.

- Evaluating Anti-competitive nature of *Indiana Hospital Association* practices in human resources and data sharing.
- Impose Transparency in pricing by all healthcare providers.
- Relax income guidelines for the Hospital Care for the Indigent Program (IC 12-16-2.5, and later; also 16-18-2-52.5(b)) to accommodate a larger share of patients eligible for this program.
- Make Available not-for-profit financial information in ways consumers can more readily observe.
- Require not-for-profit hospitals to update their community benefit plan (IC § 16-21-9-4) to include information on their profits, details of their investment portfolio, and plan for local investment.

***Tax non-profit hospitals at the rate of for-profit institutions, and return these revenues to health and educational services. Indiana should:***

- Amend Indiana’s Hospital Assessment Fee to include 3 percent of all investment and cash assets (in excess of a reasonable 90-120 day operating reserve).
- Tax all hospital and healthcare corporations at the corporate tax rate in Indiana (currently 5.5 percent)
- Tax all healthcare transactions at the current sales and use tax rate (7 percent)
- Allow all school boards, municipal or county governments to tax any not-for-profit hospitals at the current industrial property tax rate (3 percent maximum).

These taxes could exempt healthcare providers who do not accrue profits in excess of a reasonable surplus (90 to 120 day of expenses). These revenues would be sufficient to fully fund the Healthy Indiana Plan 2.0 expansion, and redirect significant tax revenues towards other uses. These equalizing taxes are necessary to reduce the barrier to entry that current penalizes for-profit firms from entering Indiana’s healthcare markets.

***Return Super-Normal Profits to conform to Public Benefit***

Indiana’s not-for-profit hospitals have accrued more than \$27 billion in super-normal profits by levying prices above cost for healthcare services. The state has exempted these profits from taxation under the mistaken hope these hospitals would engage in production of services that provided a public benefit in accordance with Indiana code. This has clearly not happened. Therefore, these revenues share characteristics of both a windfall profits and economic activity subjected to severance tax.<sup>25</sup> In order to help restore competition to healthcare markets and return

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<sup>25</sup> Severance taxes are typically assessed against extractive industries, such as coal mining and oil exploration. In the sense that the accrued revenues represent extracted benefits that have not contributed to public benefit, severance-like taxes are warranted.

these profits to the public benefit, which exempted them from taxes under Indiana code, the state should:

- Immediately tax these investments at a windfall rate (15 percent to 20 percent rate).
- Introduce incentives to exempt shares of these investments if they meet certain geographic characteristics (e.g. invested within the borders of Indiana).
- Require hospitals to divest from their excess investments (all cash or investments more than 100% of operating expenses), and transfer control of these to a trust-like managerial structure.

### **In closing**

The degree of monopolization of Indiana's healthcare providers is significant, has already weakened the state's economy and appears to be worsening. These three big remedies are designed to return Indiana's healthcare markets to a degree of workable competition. This would reduce the price of healthcare services, increase access to healthcare services and establish a better economic environment for Indiana families and businesses. Inherent in this is the need to treat not-for-profit and for profit firms equally under law and taxation. The not-for-profit market conditions in Indiana have failed to sustain competition, and must be incentivized to refrain from anti-competitive practices. These recommendations are not harsh, but instead return this market to a level of competition previously observed in the state, and which is implicit in Indiana code.

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