

No. 16-2492

**IN THE UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT**

FEDERAL TRADE COMMISSION *et al.*,

Plaintiffs-Appellants,

v.

ADVOCATE HEALTH CARE NETWORK *et al.*,

Defendants-Appellees.

On Appeal from the United States District Court
for the Northern District of Illinois
No. 1:15-cv-11473
Hon. Jorge L. Alonso

***AMICUS* BRIEF SUBMITTED BY THIRTY-THREE ECONOMISTS
IN SUPPORT OF THE FTC AND STATE OF ILLINOIS AND SEEKING REVERSAL OF
THE DISTRICT COURT RULING**

Paul E. Slater
Matthew T. Slater
Nathan Shev
SPERLING & SLATER, P.C.
55 West Monroe Street, Suite 3200
Chicago, IL 60603
(312) 641-3200
Counsel for Amici Curiae

Appellate Court No: 16-2492

Short Caption: FTC, et al. v. Advocate Health Care Network, et al.

To enable the judges to determine whether recusal is necessary or appropriate, an attorney for a non-governmental party or amicus curiae, or a private attorney representing a government party, must furnish a disclosure statement providing the following information in compliance with Circuit Rule 26.1 and Fed. R. App. P. 26.1.

The Court prefers that the disclosure statement be filed immediately following docketing; but, the disclosure statement must be filed within 21 days of docketing or upon the filing of a motion, response, petition, or answer in this court, whichever occurs first. Attorneys are required to file an amended statement to reflect any material changes in the required information. The text of the statement must also be included in front of the table of contents of the party's main brief. **Counsel is required to complete the entire statement and to use N/A for any information that is not applicable if this form is used.**

[] PLEASE CHECK HERE IF ANY INFORMATION ON THIS FORM IS NEW OR REVISED AND INDICATE WHICH INFORMATION IS NEW OR REVISED.

(1) The full name of every party that the attorney represents in the case (if the party is a corporation, you must provide the corporate disclosure information required by Fed. R. App. P 26.1 by completing item #3):

Please see attached list

(2) The names of all law firms whose partners or associates have appeared for the party in the case (including proceedings in the district court or before an administrative agency) or are expected to appear for the party in this court:

Sperling & Slater, P.C.

(3) If the party or amicus is a corporation:

i) Identify all its parent corporations, if any; and

N/A

ii) list any publicly held company that owns 10% or more of the party's or amicus' stock:

N/A

Attorney's Signature: s/ Paul E. Slater Date: July 22, 2016

Attorney's Printed Name: Paul E. Slater

Please indicate if you are *Counsel of Record* for the above listed parties pursuant to Circuit Rule 3(d). Yes No

Address: Sperling & Slater, P.C.
55 West Monroe Street, Suite 3200, Chicago, IL 60603

Phone Number: 312-641-3200 Fax Number: 312-641-6492

E-Mail Address: pes@sperling-law.com

Rule 26.1 Disclosure Statement Attachment

(1) The full name of every party that the attorney represents in the case:

F.M. Scherer, *Aetna Professor emeritus, John F. Kennedy School of Government, Harvard University*; Alan Sorensen, *Professor of Economics, University of Wisconsin, Madison*; Susan Athey, *The Economics of Technology Professor, Stanford Graduate School of Business*; Sherry Glied, *Dean and Professor of Public Service, Robert F. Wagner Graduate School of Public Service, New York University*; Richard Scheffler, *Professor of Health Economics and Public Policy, UC Berkeley*; Paul B. Ginsburg, *Leonard D. Schaeffer Chair in Health Policy Studies and Senior Fellow in Economic Studies, The Brookings Institution and Professor of Health Policy, University of Southern California*; Randall P. Ellis, Ph.D., *Professor, Department of Economics, Boston University*; Jonathan Kolstad, *Assistant Professor, Haas School of Business, UC Berkeley*; Roger Feldman, *Blue Cross Professor of Health Insurance and Professor of Economics, University of Minnesota*; Vivian Ho, *James A. Baker III Institute Chair in Health Economics, Rice University*; Joseph Newhouse, *John D. MacArthur Professor of Health Policy and Management, Harvard University*; Thomas G. McGuire, *Professor of Health Economics, Harvard Medical School*; Kate Ho, *Associate Professor of Economics, Columbia University*; Robin S. Lee, *Assistant Professor of Economics, Harvard University*; Robert Porter, *William R. Kenan Jr. Professor of Economics, Northwestern University*; Mark A. Satterthwaite, A.C. Buehler *Professor in Hospital and Health Services Management, Professor of Strategy, and Professor of Managerial Economics, Northwestern University*; David Cutler, *Otto Eckstein Professor of Applied Economics, Harvard University*; Amanda Starc, *Associate Professor of Strategy, Kellogg School of Management, Northwestern University*; Kenneth Elzinga, *Robert C Taylor Professor of Economics, University of Virginia*; Robert Town, *Gilbert and Shelley Harrison Professor of Health Care Management, The Wharton School, University of Pennsylvania*; Benjamin Handel, *Assistant Professor of Economics, University of California at Berkeley*; Steven T. Berry, *David Swenson Professor of Economics, Yale University*; Zack Cooper, *Assistant Professor of Public Health and of Economics, Yale University*; Matthew Grennan, *Assistant Professor of Healthcare Management, The Wharton School, University of Pennsylvania*; Ashley Swanson, *Assistant Professor of Health Care Management, The Wharton School, University of Pennsylvania*; William M. Sage, MD, JD, *James R. Dougherty Chair for Faculty Excellence, School of Law, Professor of Surgery and Perioperative Care, Dell Medical School, The University of Texas at Austin*; Fiona M. Scott Morton, *Theodore Nierenberg Professor of Economics, Yale School of Management*; Joshua Gottlieb, *Assistant Professor of Economics, University of British Columbia*; Keith Marzilli Ericson, *Assistant Professor of Markets, Public Policy, and Law, Boston University Questrom School of Business*; Laurence C. Baker, *Professor and Chair of Health Research and Policy, Stanford University School of Medicine*; Shane Greenstein, *Professor, Harvard Business School*; Thomas C. Buchmueller, *Waldo O. Hildebrand Professor of Risk Management and Insurance, Stephen M. Ross School of Business, University of Michigan*; Carl Shapiro, *Transamerica Professor of Business Strategy, Haas School of Business, University of California, Berkeley*.

TABLE OF CONTENTS

I.	Interest and Identity of <i>Amici Curiae</i>	1
II.	Summary of Argument	2
III.	The District Court’s Market Analysis Is Based on an Unsound Interpretation of Patient Flow Information Instead of The Role of Negotiation of Price by Hospitals and Insurers.	4
	<i>A. Hospital-Insurer Bargaining and the “Two-Stage” Model of Hospital Competition</i>	4
	<i>B. Hospital Mergers in the Context of the Two-Stage Model</i>	7
IV.	The District Court Incorrectly Rejected the Geographic Market Proposed by the FTC	10
	<i>A. Relevant Markets</i>	10
	<i>B. The District Court Relied upon an Inappropriate Methodology to Define the Geographic Market for General Acute Inpatient Care Services</i>	12
V.	Evidence Relevant to the Evaluation of a Proposed Market	19
VI.	The District Court Erred in Evaluating the FTC’s Market Definition	20
	Conclusion	23

TABLE OF AUTHORITIES

Cases

FTC v. Whole Foods Market Inc., 548 F.3d 1028 (D.C. Cir. 2008)..... 18

In re Evanston Northwestern Healthcare,
No. 9315, 2007 WL 2286195 (FTC Aug. 6, 2007) 15

Saint Alphonsus Med. Ctr. – Nampa Inc. v. St. Luke’s Health Sys., Ltd.,
778 F.3d 775 (9th Cir. 2015)..... 6

Other Authorities

Cory Capps, *From Rockford to Joplin and Back Again: The Impact of Economics on Hospital Merger Enforcement*, 59 ANTITRUST BULL. 443 (2014)..... 14

Cory Capps and David Dranove, *Hospital Consolidation And Negotiated PPO Prices*, 23 HEALTH AFF. 175 (2004) 14

Cory Capps, David Dranove & Mark Satterthwaite, *Competition and Market Power in Option Demand Markets*, 34 RAND J. ECON. 737 (2003)..... 6, 9

Cory Capps et al., *The Silent Majority Fallacy of the Elzinga-Hogarty Criteria: A Critique and New Approach to Analyzing Hospital Mergers* (Nat’l Bureau Econ. Res., Working Paper No. 8216, 2001)..... 15

Zack Cooper et al., *Does Hospital Competition Save Lives? Evidence from the English NHS Patient Choice Reforms*, 121 ECON. J. 228 (2011) 10

Leemore Dafny, *Estimation and Identification of Merger Effects: An Application to Hospital Mergers*, 52 J. L. & ECON. 523 (2009) 14

Kenneth Elzinga & Thomas Hogarty, *The Problem of Geographic Market Delineation in Antimerger Suits*, 18 ANTITRUST BULL. 45 (1973)..... 13

Kenneth Elzinga & Thomas Hogarty, *The Problem of Geographic Market Delineation Revisited: The Case of Coal*, 23 ANTITRUST BULL. 1 (1978) 13

Kenneth Elzinga & Anthony Swisher, *Limits of the Elzinga-Hogarty Test in Hospital Mergers: The Evanston Case*, 18 INT’L J. ECON. BUS. 133 (2011)15, 16

Joseph Farrell et al., *Economics at the FTC: Hospital Mergers, Authorized Generic Drugs, and Consumer Credit Markets*, 39 REV. INDUS. ORG. 271 (2011)6

H.E. Frech III, James Langenfeld, & R. Forrest McClure, *Elzinga-Hogarty Tests and Alternative Approaches for Market Share Calculations in Hospital Markets*, 71 ANTITRUST L.J. 921 (2004).....17

Martin Gaynor, Katherine Ho, & Robert J. Town, *The Industrial Organization of Health-Care Markets*, 53 J. ECON. LITERATURE 235 (2015)9, 10

Martin Gaynor, Samuel Kleiner, & William Vogt, *A Structural Approach to Market Definition With an Application to the Hospital Industry*, 61 J. INDUS. ECON. 243 (2013).....15

Martin Gaynor, Rodrigo Moreno-Serra & Carol Propper, *Death by Market Power: Reform, Competition, and Patient Outcomes in the National Health Service*, 5 AM. ECON. J.: ECONOMIC POLICY 134 (2013) 10

Martin Gaynor, Carol Propper, & Stephan Seiler, *Free To Choose? Reform, Choice, and Consideration Sets in the English National Health Service*, AM. ECON. REV. (forthcoming).....10

Martin Gaynor & Robert J. Town, ROBERT WOOD JOHNSON FOUNDATION SYNTHESIS PROJECT, THE IMPACT OF HOSPITAL CONSOLIDATION—UPDATE (2012) 10

Gautam Gowrisankaran, Aviv Nevo & Robert Town, *Mergers When Prices Are Negotiated: Evidence from the Hospital Industry*, 105 Am. Econ. Rev. 172 (2015).....9

Deborah Haas-Wilson & Christopher Garmon, *Hospital Mergers and Competitive Effects: Two Retrospective Analyses*, 18 INT’L J. ECON. BUS. 17 (2011) 14

Daniel Kessler & Mark McClellan, *Is Hospital Competition Socially Wasteful?*, 115 Q. J. ECON. 577 (2000)..... 10

Matthew Lewis & Kevin Pflum, *Diagnosing Hospital System Bargaining Power in Managed Care Networks*, 7 AM. ECON. J.: ECON. POLICY 243 (2015)9

Aviv Nevo, former Deputy Assistant Att’y Gen. for Econ., U.S. Dep’t of Justice, Antitrust Division, *Mergers that Increase Bargaining Leverage*, Remarks as Prepared for the Stanford Institute for Economic Policy Research and Cornerstone Research Conference on Antitrust in Highly Innovative Industries (Jan. 22, 2014).....9

Steven Tenn, *The Price Effects of Hospital Mergers: A Case Study of the Sutter–Summit Transaction*, 18 INT’L J. ECON. BUS. 65 (2011) 15

Robert Town & Greg Vistnes, *Hospital Competition in HMO Networks*, 20 J. HEALTH ECON. 733 (2001)6, 9

U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, IMPROVING HEALTH CARE: A DOSE OF COMPETITION (2004)..... 14, 17

U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES (issued Aug. 19, 2010)..... 10

Greg Vistnes, *Hospitals, Mergers, and Two-Stage Competition*, 67 ANTITRUST L.J. 671 (2000).....6

Jessica Vistnes, Philip Cooper & Greg Vistnes, *Employer Contribution Methods and Health Insurance Premiums: Does Managed Competition Work?*, 1 INT’L J. HEALTH CARE FIN. & ECON., 159 (2001).....9

William B. Vogt & Robert J. Town, ROBERT WOOD JOHNSON FOUNDATION SYNTHESIS PROJECT, HOW HAS HOSPITAL CONSOLIDATION AFFECTED THE PRICE AND QUALITY OF HOSPITAL CARE? (2006)9

I. Interest and Identity of Amici Curiae

Amici are thirty-three of the most prominent economists in America with expertise in the subjects of antitrust, competition, and health economics.¹

¹ The *amici* are: F.M. Scherer, *Aetna Professor emeritus, John F. Kennedy School of Government, Harvard University*; Alan Sorensen, *Professor of Economics, University of Wisconsin, Madison*; Susan Athey, *The Economics of Technology Professor, Stanford Graduate School of Business*; Sherry Glied, *Dean and Professor of Public Service, Robert F. Wagner Graduate School of Public Service, New York University*; Richard Scheffler, *Professor of Health Economics and Public Policy, UC Berkeley*; Paul B. Ginsburg, *Leonard D. Schaeffer Chair in Health Policy Studies and Senior Fellow in Economic Studies, The Brookings Institution and Professor of Health Policy, University of Southern California*; Randall P. Ellis, Ph.D., *Professor, Department of Economics, Boston University*; Jonathan Kolstad, *Assistant Professor, Haas School of Business, UC Berkeley*; Roger Feldman, *Blue Cross Professor of Health Insurance and Professor of Economics, University of Minnesota*; Vivian Ho, *James A. Baker III Institute Chair in Health Economics, Rice University*; Joseph Newhouse, *John D. MacArthur Professor of Health Policy and Management, Harvard University*; Thomas G. McGuire, *Professor of Health Economics, Harvard Medical School*; Kate Ho, *Associate Professor of Economics, Columbia University*; Robin S. Lee, *Assistant Professor of Economics, Harvard University*; Robert Porter, *William R. Kenan Jr. Professor of Economics, Northwestern University*; Mark A. Satterthwaite, *A.C. Buehler Professor in Hospital and Health Services Management, Professor of Strategy, and Professor of Managerial Economics, Northwestern University*; David Cutler, *Otto Eckstein Professor of Applied Economics, Harvard University*; Amanda Starc, *Associate Professor of Strategy, Kellogg School of Management, Northwestern University*; Kenneth Elzinga, *Robert C Taylor Professor of Economics, University of Virginia*; Robert Town, *Gilbert and Shelley Harrison Professor of Health Care Management, The Wharton School, University of Pennsylvania*; Benjamin Handel, *Assistant Professor of Economics, University of California at Berkeley*; Steven T. Berry, *David Swenson Professor of Economics, Yale University*; Zack Cooper, *Assistant Professor of Public Health and of Economics, Yale University*; Matthew Grennan, *Assistant Professor of Healthcare Management, The Wharton School, University of Pennsylvania*; Ashley Swanson, *Assistant Professor of Health Care Management, The Wharton School, University of Pennsylvania*; William M. Sage, MD, JD, *James R. Dougherty Chair for Faculty Excellence, School of Law, Professor of Surgery and Perioperative Care, Dell Medical School, The University of Texas at Austin*; Fiona M. Scott Morton, *Theodore Nierenberg Professor of Economics, Yale School of Management*; Joshua Gottlieb, *Assistant Professor of Economics, University of British Columbia*; Keith Marzilli Ericson, *Assistant Professor of Markets, Public Policy, and Law, Boston University Questrom School of Business*; Laurence C. Baker, *Professor and Chair of Health Research and Policy, Stanford University School of Medicine*; Shane Greenstein, *Professor, Harvard Business School*; Thomas C. Buchmueller, *Waldo O. Hildebrand Professor of Risk Management and Insurance, Stephen M. Ross School of Business,*

This brief reflects what *amici* believe to be rigorous, current economic analysis of the important questions now pending before this Court. *Amici* submit this brief solely out of their concern for the competitiveness of the healthcare markets in America. *Amici* file this brief solely as individuals and not on behalf of any institutions with which they are affiliated.

Amici file this brief with the consent of all parties. The entirety of this brief was authored by the *amici* or their counsel. No portion of this brief was authored by counsel for any party. No party or party's counsel contributed any money intended to fund the preparation or submission of this brief; and no person, other than the *amici* or their counsel, contributed any money intended to fund the preparation or submission of this brief.

II. Summary of Argument

Our review of the public documents in this matter, together with our collective understanding of healthcare organizations and markets developed through academic research, public service, and advisory and consulting roles, leads us to believe that the district court's economic analysis and conclusions are incorrect in several important respects. In this brief, we explain that the district court relied upon outdated economic methodologies that have been

University of Michigan; Carl Shapiro, Transamerica Professor of Business Strategy, Haas School of Business, University of California, Berkeley.

thoroughly studied and discredited by academic economists as well as the courts over the past 10 to 15 years. Thus, the district court erred by using a repudiated economic approach and by failing to evaluate the FTC's proposed relevant geographic market by an appropriate economic standard.

The *amici* take no position on whether the evidence submitted below by the plaintiff-appellants establishes their proposed relevant market. The *amici* submit, however, that the district court evaluated that evidence pursuant to an incorrect economic test and that the ruling below should be reversed and the matter remanded so that the evidence can be evaluated under a proper economic standard.

First, we explain why negotiations between insurers and hospitals – rather than the fact that some patients leave an area for hospital care – are of paramount importance to the appropriate geographic market definition in this matter. Second, we explain that the district court incorrectly relied upon evidence of patient travel patterns, also known as patient flows, to evaluate the FTC's proposed relevant market. We explain that an appropriate evaluation would have employed the “hypothetical monopolist” (or SSNIP)² test. The SSNIP test evaluates whether a proposed relevant market is valid and can be used correctly on any proposed antitrust market comprised of

² SSNIP is an acronym for “small, but significant, non-transitory increase in price.”

different sets of hospitals. The SSNIP test is designed to reveal whether an alleged relevant geographic market is overly narrow. The district court erred by failing to use this test. Third, we describe evidence relevant to the proper evaluation of a proposed market. Fourth, we describe how the district court committed a logical error by holding that it was improper to exclude certain hospitals from the proposed relevant market, rather than focusing on the SSNIP test results of the included hospitals, and therefore erred in the evaluation of the FTC's proposed relevant geographic market.

We conclude that the district court's order denying the Preliminary Injunction sought by Plaintiffs is based on faulty economic reasoning, particularly as it relates to the geographic market definition.

III. The District Court's Market Analysis Is Based on an Unsound Interpretation of Patient Flow Information Instead of The Role of Negotiation of Price by Hospitals and Insurers.

A. Hospital-Insurer Bargaining and the "Two-Stage" Model of Hospital Competition

In order to market their health plans to customers, insurers must construct networks of credentialed healthcare providers qualified to render the services that enrollees may require for treatment of covered medical benefits. A network generally includes a wide variety of provider types such as hospitals, surgical centers, physician specialists, and primary care practitioners. The provider network available to an individual or household is

determined by the health insurance plan in which they are enrolled. This network dictates the out-of-pocket costs an enrollee will pay when he or she receives care, with the enrollee paying substantially less out-of-pocket for care rendered by a provider that is in their health plan network (“in-network”). Accordingly, patients are very likely to select in-network providers.

Healthcare providers compete with one another on the basis of price and non-price dimensions (e.g., quality of care or reputation) for inclusion in insurers’ networks. From a provider’s economic perspective, inclusion in an insurer’s network means that the insurer’s enrollees can visit the provider and receive care at much lower out-of-pocket expense than if the provider were out of network. Inclusion in the insurer’s network, therefore, permits the provider to treat more (typically significantly more) of the insurer’s enrollees and earn greater revenues from the insurer than if the provider were not in-network.

From the insurer’s perspective, a broader, higher quality network will attract more customers. However, in constructing its network the insurer must be mindful of the reimbursement terms (i.e., prices) it negotiates with providers. Paying higher prices to providers will lead to higher costs and higher premiums for the insurer, which will reduce its enrollment and profits, all else being equal. Consequently, insurers have the incentive to negotiate

lower reimbursements from a provider in exchange for including that provider in its network. Of course, the ability of an insurer to negotiate an attractive price with a given provider depends on the availability of alternative providers.

Therefore, the locus of price competition among healthcare providers is centered on competition to be included in insurers' networks. This competition is reflected in the "two-stage" model of provider competition utilized in economic research on hospital price-setting and espoused by the FTC in this and other proceedings, dating back to the FTC's challenge of the acquisition of Highland Park Hospital by Evanston Northshore Healthcare Corporation in 2004.³ In the first stage, providers compete, on price and non-price dimensions, to be included in insurers' networks. In the second stage, in-network providers compete to be selected by patients. Because insurance eliminates or sharply attenuates differences in out-of-pocket costs for patients who choose in-network providers, in the second stage hospitals compete

³ Greg Vistnes, *Hospitals, Mergers, and Two-Stage Competition*, 67 ANTITRUST L.J. 671 (2000); Robert Town & Greg Vistnes, *Hospital Competition in HMO Networks*, 20 J. HEALTH ECON. 733 (2001); Cory Capps, David Dranove & Mark Satterthwaite, *Competition and Market Power in Option Demand Markets*, 34 RAND J. ECON. 737 (2003); Joseph Farrell et al., *Economics at the FTC: Hospital Mergers, Authorized Generic Drugs, and Consumer Credit Markets*, 39 REV. INDUS. ORG. 271 (2011). *See also*, *Saint Alphonsus Med. Ctr. – Nampa Inc. v. St. Luke's Health Sys., Ltd.*, 778 F.3d 775, 784, n.10 (9th Cir. 2015) ("This 'two-stage model' of health care competition is 'the accepted model.'" Citing John J. Miles, 1 Health Care & Antitrust L. § 1:5 (2014)).

primarily on non-price dimensions such as clinical quality, wait-times and patient experience. In sum, price plays a leading role in stage one competition but a significantly smaller role in stage two competition.

As mentioned above, prices are determined via negotiations between individual insurers and individual providers. The outcomes of these negotiations reflect the relative bargaining leverage of each party. Basic economic theory indicates that bargaining leverage is determined by the loss in profits each side would incur if a deal is not struck. At a high level, the party with more to lose will have less bargaining leverage. From the insurer's perspective, the loss of profits from failing to reach agreement with one provider is directly tied to the insurer's ability to include in its network other providers that are regarded as close substitutes by patients. The more important a particular provider is to the insurer's network (because of the lack of close substitutes), the greater will be the provider's bargaining leverage and the higher will be the resulting prices paid by the insurer, all else being equal.

B. Hospital Mergers in the Context of the Two-Stage Model

A horizontal merger among hospitals will increase their combined bargaining leverage if the merging hospitals are viewed as close substitutes by a sufficient number of the insurer's enrollees (and sufficient other comparably close substitute providers are not available). The following chain

of logic describes how an increase in bargaining leverage would arise from a merger of hospitals A and B. First, some patients prefer A to all other providers, and some prefer B. Second, if A is excluded, patients who would otherwise select A will turn to their next-best alternative(s); the more closely substitutable that alternative is for A, the less will be the reduction in network value. The presence of a close substitute for hospital A constrains A's bargaining leverage and its ability to negotiate higher prices. With a close substitute available, the price the insurer must offer to recruit hospital A into its network will be relatively low. Third, suppose that hospital B is a close substitute for A (but other hospitals are not) and that the two propose to merge. After the merger, if an insurer cannot reach an agreement with the *combined* entity, then the value of the insurer's network would be significantly diminished. This reduction in value arises because patients who previously viewed the merging parties as the next-best substitutes for each other must turn to their third-preferred option if hospitals A and B (now merged) are not in-network. This would leave the insurer with a significantly less attractive network, and the ability to impose that outcome on the insurer gives the merged entity bargaining leverage. The increase in bargaining leverage from the merger will be determined by the prevalence of patients who view the

merging practices as close substitutes and by how much they dislike having to turn to their third-preferred practice.⁴

The two-stage competition model captures this fundamental competitive dynamic. It serves as the theoretical foundation of current, refereed and published economic research on provider competition.⁵ Importantly, the empirical predictions of this framework have been verified in several studies of hospital mergers, as well as in other healthcare services markets.⁶ Specifically, mergers between substitute healthcare providers in concentrated markets generally lead to price increases. While most research focuses on prices, the market power arising from provider mergers could be exercised, in whole or in part, through reductions in the quality of services

⁴ This dynamic was described similarly in *Mergers that Increase Bargaining Leverage*, Aviv Nevo, former Deputy Assistant Att’y Gen. for Econ., U.S. Dep’t of Justice, Antitrust Division, Remarks as Prepared for the Stanford Institute for Economic Policy Research and Cornerstone Research Conference on Antitrust in Highly Innovative Industries (Jan. 22, 2014).

⁵ Town & Vistnes *supra* note 3; Capps, Dranove & Satterthwaite *supra* note 3; Jessica Vistnes, Philip Cooper & Greg Vistnes, *Employer Contribution Methods and Health Insurance Premiums: Does Managed Competition Work?*, 1 INT’L J. HEALTH CARE FIN. & ECON., 159 (2001); Matthew Lewis & Kevin Pflum, *Diagnosing Hospital System Bargaining Power in Managed Care Networks*, 7 AM. ECON. J.: ECON. POLICY 243 (2015); Gautam Gowrisankaran, Aviv Nevo & Robert Town, *Mergers When Prices Are Negotiated: Evidence from the Hospital Industry*, 105 Am. Econ. Rev. 172 (2015).

⁶ William B. Vogt & Robert J. Town, ROBERT WOOD JOHNSON FOUNDATION SYNTHESIS PROJECT, HOW HAS HOSPITAL CONSOLIDATION AFFECTED THE PRICE AND QUALITY OF HOSPITAL CARE? (2006); Martin Gaynor & Robert J. Town, ROBERT WOOD JOHNSON FOUNDATION SYNTHESIS PROJECT, THE IMPACT OF HOSPITAL CONSOLIDATION—UPDATE (2012); Martin Gaynor, Katherine Ho, & Robert J. Town, *The Industrial Organization of Health-Care Markets*, 53 J. ECON. LITERATURE 235 (2015).

provided, and indeed there is empirical evidence that hospital mergers are associated with quality reductions.⁷

IV. The District Court Incorrectly Rejected the Geographic Market Proposed by the FTC.

A. Relevant Markets

Relevant market definition is used to help frame competitive analysis.⁸

In order for a defined relevant market to accurately capture the impact of a provider merger on competition, it should align with the principles of the two-stage model. That is, the relevant market should include providers that constrain the merging parties when it comes to stage one negotiations with insurers over price and other network participation terms.

The economic analysis in this matter should therefore begin with Advocate Health Care, Advocate Health and Hospitals Corporation and NorthShore University Health System hospitals, and consider which additional hospitals are close substitutes for those hospitals from the

⁷ Gaynor, Ho & Town *supra* note 6; *See also* Zack Cooper et al., *Does Hospital Competition Save Lives? Evidence from the English NHS Patient Choice Reforms*, 121 *ECON. J.* 228 (2011); Martin Gaynor, Carol Propper, & Stephan Seiler, *Free To Choose? Reform, Choice, and Consideration Sets in the English National Health Service*, *AM. ECON. REV.* (forthcoming); Martin Gaynor, Rodrigo Moreno-Serra & Carol Propper, *Death by Market Power: Reform, Competition, and Patient Outcomes in the National Health Service*, 5 *AM. ECON. J.: ECONOMIC POLICY* 134 (2013); Daniel Kessler & Mark McClellan, *Is Hospital Competition Socially Wasteful?*, 115 *Q. J. ECON.* 577 (2000).

⁸ As the Merger Guidelines note, the purpose of defining markets and calculating market shares is to “illuminate[] the merger’s likely competitive effects.” U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, *HORIZONTAL MERGER GUIDELINES* § 4.1 (issued Aug. 19, 2010).

perspective of insurers assembling provider networks.⁹ To ensure that market boundaries are not too small, economists have proposed, and the federal antitrust enforcement agencies and courts have endorsed, the “hypothetical monopolist test.”¹⁰ If a hypothetical monopolist comprising all sellers in a proposed market could not profitably execute a small, significant, non-transitory increase in price (SSNIP), the market is too small because it excludes the alternative sellers that make such a price increase unprofitable. Conversely, if the hypothetical monopolist could profitably impose a SSNIP, then the excluded sellers are not sufficiently close substitutes to be included in the market. In this case, if the market is properly defined, it will include hospitals that are close substitutes for the merging parties and excludes hospitals that are not.

Critically, a correctly defined relevant market need not include *all* substitutes to which customers may turn (e.g., “destination hospitals”) if they are deprived of the products or services supplied by the hypothetical monopolist. Instead, a correctly defined market need only include those sellers to which customers would turn in volumes sufficient to defeat a price increase by all sellers in the proposed relevant market.¹¹ If a sufficient number of

⁹ This need not include all of the hospitals belonging to these health systems. The potential market may begin with a subset.

¹⁰ Horizontal Merger Guidelines *supra* note 8.

¹¹ “Properly defined antitrust markets often exclude some substitutes to which some

customers are unlikely to utilize a seller outside the proposed market in the face of a hypothetical, collective price increase by all hospitals in the proposed market so that the insurer will pay the higher price and render it profitable for the hypothetical monopolist; then that market is relevant for purposes of merger analysis. As we discuss below, this remains true even if a sizeable share of customers (patients) travel into or out of the proposed geographic market.

B. The District Court Relied upon an Inappropriate Methodology to Define the Geographic Market for General Acute Inpatient Care Services

The district court essentially rejected the FTC's proposed geographic market definition because the FTC excluded Northwestern Memorial Hospital from the market. The district court did so based on diversion ratios presented by defendant's expert that "show that Northwestern Memorial Hospital is the second or third choice for patients who use five of the six party hospitals in the North Shore Area." Op. at 9. The district court went on to state: "Moreover, despite the considerable distance between the two, Northwestern Memorial is the fifth choice for Condell patients, while NorthShore Evanston, Northwest Community, and Northshore Glenbrook are the sixth, seven, and

customers might turn in the face of a price increase even if such substitutes provide alternatives for those consumers." *Id.*

ninth choices, respectively, for those patients.” *Id.* at n.3. In relying upon these patient flow patterns, the district court implicitly employed an inappropriate method for the market definition of hospital services.

A substantial body of economic research, and legal precedent, recognizes that geographic markets defined by the use of customer flow data (referred to “Elzinga-Hogarty markets”) are overly broad when it comes to predicting the competitive impacts of a hospital merger. This is particularly so in hospital mergers where, as described above, price comparisons are typically not the reason patients travel for care and, therefore, observations about patients who travel into or out of an area provide little information about the price-sensitivity of consumers and insurers.

The Elzinga-Hogarty (EH) methodology was originally developed by Prof. Kenneth G. Elzinga and Prof. Thomas F. Hogarty in the 1970s to delineate geographic markets for physical goods like coal and beer.¹² The EH methodology defines a market as an area that has both low inflows and low outflows. The outflow percentage for a candidate market is the proportion of consumers who reside in that area but purchase from a seller located outside the area (e.g., the percentage of area residents who travel to a hospital located

¹² Kenneth Elzinga & Thomas Hogarty, *The Problem of Geographic Market Delineation Revisited: The Case of Coal*, 23 ANTITRUST BULL. 1 (1978); Kenneth Elzinga & Thomas Hogarty, *The Problem of Geographic Market Delineation in Antimerger Suits*, 18 ANTITRUST BULL. 45 (1973).

outside the area for hospital care). The inflow percentage for a candidate market is the percentage of sales by firms in an area that are to consumers who reside outside the area (e.g., of all patients treated by an area hospital, the percentage who come from outside that area).

In the 1980s and 1990s, courts and many expert witnesses in hospital cases relied on the EH methodology and related techniques to define relevant geographic markets. In healthcare cases, EH-style approaches commonly result in expansive relevant geographic markets and correspondingly low market shares. Thus, courts' reliance on EH-style analyses in past decades led them, on the basis of low market shares, to allow a series of hospital mergers, challenged by DOJ and the FTC, to close.¹³ However, subsequent empirical research has shown that hospital mergers that combine closely competing hospitals (when sufficient other closely substitutable hospitals are not present) have resulted in substantial post-merger price increases, even though such mergers often would be deemed innocuous in the more expansive geographic markets that result from EH-style methodologies.¹⁴

¹³ U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, IMPROVING HEALTH CARE: A DOSE OF COMPETITION, Chapter 4 (2004). In the 1990s, the FTC and DOJ lost 6 consecutive hospital merger challenges. Cory Capps, *From Rockford to Joplin and Back Again: The Impact of Economics on Hospital Merger Enforcement*, 59 ANTITRUST BULL. 443 (2014).

¹⁴ Cory Capps and David Dranove, *Hospital Consolidation And Negotiated PPO Prices*, 23 HEALTH AFF. 175 (2004); Leemore Dafny, *Estimation and Identification of Merger Effects: An Application to Hospital Mergers*, 52 J. L. & ECON. 523 (2009); Deborah Haas-Wilson & Christopher Garmon, *Hospital Mergers and Competitive Effects: Two*

Ultimately, flow-based analyses along the lines recommended by EH have been shown to generate unreliable and incorrect conclusions regarding market definition and market power. For this reason, the application of EH-style analysis to define markets for hospital services has been considered inappropriate by many economists, including Professor Kenneth Elzinga,¹⁵ one of the originators of the approach.¹⁶

One key limitation of the EH method in healthcare markets has been termed the “Silent Majority Fallacy.”¹⁷ The EH methodology assumes, incorrectly, that purchasing decisions are a function solely of the price of the goods or services in question. In the case of coal, say, it is plausible to think that the fact that some power plants are purchasing coal from a seller 300

Retrospective Analyses, 18 INT’L J. ECON. BUS. 17 (2011); Steven Tenn, *The Price Effects of Hospital Mergers: A Case Study of the Sutter–Summit Transaction*, 18 INT’L J. ECON. BUS. 65 (2011). See also the research surveys referenced in note 5. For a thorough analysis showing that geographic markets that result from EH analysis are much larger than the markets that result from modern approaches, see Martin Gaynor, Samuel Kleiner, & William Vogt, *A Structural Approach to Market Definition With an Application to the Hospital Industry*, 61 J. INDUS. ECON. 243 (2013).

¹⁵ Professor Elzinga is one of the *amici* on whose behalf this brief is submitted.

¹⁶ Kenneth Elzinga & Anthony Swisher, *Limits of the Elzinga-Hogarty Test in Hospital Mergers: The Evanston Case*, 18 INT’L J. ECON. BUS. 133 (2011). Professor Elzinga himself testified in a hospital merger case that the EH test was not appropriate for healthcare provider markets. *In re Evanston Northwestern Healthcare*, No. 9315, 2007 WL 2286195, at **63–66 (FTC Aug. 6, 2007).

Although the court did not use the label “Elzinga-Hogarty” or any similar term, the approach described in the opinion is in fact the Elzinga-Hogarty method. Op., 8–9, 10 (twice referencing delineation of an area for which “‘few’ patients leave. . . and ‘few’ patients enter.”).

¹⁷ Cory Capps et al., *The Silent Majority Fallacy of the Elzinga-Hogarty Criteria: A Critique and New Approach to Analyzing Hospital Mergers* (Nat’l Bureau Econ. Res., Working Paper No. 8216, 2001).

miles away is largely due to the fact that the remote seller is offering better prices (for the same product and delivery service) than a rival seller only 5 miles away. In healthcare markets, most insured patients do not face the full reimbursement price of provider services (and often, they face an out of pocket payment that does not vary with the choice of provider so long as they select an in-network provider). Hence rather than reflecting responses to price differences, patient travel patterns largely reflect other factors, such as where patients work, where their relatives live, where a particular inpatient service that is not available locally is offered, or that a patient happened to be away from home when the need for care arose. Consequently, the fact that a minority of patients currently travel relatively far to receive care says little about what the (silent) majority of “non-travelers” would do in response to a post-merger price increase.

Overall, Professor Elzinga summarizes the flaws of the EH approach as follows:

Ignoring the Silent Majority Fallacy can make the geographic market for hospital services appear ‘too big’ in circumstances where market definition is based on patient flow data. When that happens, the E-H test produces a perverse result: the boundaries, being too broad, may embrace nearby hospitals whose existence has no competitive consequence in disciplining the pricing discretion of the merging hospitals. . . .¹⁸

¹⁸ Kenneth G. Elzinga & Anthony W. Swisher, *Limits of the Elzinga-Hogarty Test in Hospital Mergers: The Evanston Case*, 18 INT’L J. ECON. BUS. 133, 137 (2011).

The inference of expansive geographic markets may be particularly mistaken in the provision of hospital services because the existence of a significant number of premerger travelers does not mean that enough additional patients would travel in response to a hypothetical price increase to render that price increase unprofitable.

Other researchers have reached consistent conclusions. For example, Frech, *et al.*, show that the EH method can lead to geographic market definitions that lack any semblance of facial validity.¹⁹

In 2003, the FTC and DOJ held 27 days of hearings on a broad set of healthcare competition law and policy topics, including hospital geographic market definition. In their ensuing joint report, the agencies stated that “[h]ospital geographic markets should be defined properly” and that “the Agencies’ experience and research indicate that the Elzinga-Hogarty test is not valid or reliable in defining geographic markets in hospital merger cases.”²⁰

¹⁹ H.E. Frech III, James Langenfeld, & R. Forrest McClure, *Elzinga-Hogarty Tests and Alternative Approaches for Market Share Calculations in Hospital Markets*, 71 ANTITRUST L.J. 921 (2004). The authors conduct a detailed analysis of the sensitivity of the defined market to alternative assumptions and find that small changes in those assumptions can generate large changes in the defined market, an indication that EH is not a robust or reliable methodology for defining markets.

²⁰ U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N *supra* note 13, Executive Summary at 26 & Chapter 4 at 5.

An analogy to this debate about geographic market definition may be drawn to a debate about product market definition that emerged in *FTC v. Whole Foods Market, Inc.*²¹ Whole Foods proposed to merge with Wild Oats. The FTC claimed that there was a well-defined product market consisting of premium, natural, and organic supermarkets (PNOS), and that Whole Foods and Wild Oats are in the PNOS market but many other grocers are not.²² Whole Foods countered that many PNOS customers cross-shop at other grocers that were excluded from the FTC's proposed market. Eventually, the D.C Circuit Court of Appeals agreed with the FTC that PNOS was a well-defined market. The Court stated that a core set of customers had preferences for PNOS, and that "core consumers can, in appropriate circumstances, be worthy of antitrust protection."²³ The Court examined how prices were actually set in the PNOS market, and observed that the pattern of pricing was consistent with the existence of a separate well-defined market. 548 F.3d at 1039.

The proposition that "cross-shopping" should not be construed to be evidence against a narrowly defined product market for PNOS stores echoes the view, associated with the Silent Majority Fallacy, that patient flows should

²¹ *FTC v. Whole Foods Market Inc.*, 548 F.3d 1028, 1036-41 (D.C. Cir. 2008).

²² 548 F.3d at 1039.

²³ 548 F.3d at 1037 (citing Horizontal Merger Guidelines § 1.12, 57 Fed.Reg. at 41,555 (explaining the possibility of price discrimination for "targeted buyers")).

not be deemed to constitute evidence against a narrowly define geographic market for hospital services. While some patients may “cross-shop” for hospital services outside of a proposed geographic market, that does not necessarily mean that the proposed geographic market is too narrow; the SSNIP test must be applied to gauge the magnitude of consumers’ response to changing prices. As in the Whole Foods case, a more thorough examination of the geographic market should consider how prices are actually set – in this case through bargaining between insurers and hospitals. By effectively relying on EH-style analyses of patient travel, rather than focusing on hospital-insurer negotiations, the district court used an inappropriate methodology that is in conflict with previous court decisions and the overwhelming weight of economic research.

V. Evidence Relevant to the Evaluation of a Proposed Market

As indicated in the preceding section, the key question in evaluating a proposed market is whether the firms in the alleged market could profitably sustain a joint price increase. There are a number of specific approaches that may be used to assess this. Which approach is most appropriate depends on the facts at hand and available sources of evidence. However, any specific method will assess the extent to which consumers are likely to go to firms outside the alleged market should the firms in the alleged market increase

price, and whether that is sufficient to render a potential price increase unprofitable. Because price differences faced by patients choosing among in-network hospitals are usually very small, the chosen method must address whether price increases would affect the structure of networks, rather than patient choices within networks. Thus, there are two components to the final answer: 1) the extent to which insurers are willing to exclude hospitals from their networks, and 2) whether that is sufficient to render a price increase unprofitable. Merely observing that some patients at present go to hospitals outside the alleged market is not sufficient to draw a conclusion about whether these hospitals must be included in the relevant antitrust market.

VI. The District Court Erred in Evaluating the FTC's Market Definition

The district court rejected the FTC's market definition for several reasons, all of which stem from the court's failure to apply the SSNIP test explained above. First, the court objected because the FTC's alleged market did not include certain "destination hospitals." The district court states that the "...rationale for excluding such hospitals – that they are not substitutes for Advocate and NorthShore – assumes the answer to the very question the geographic market exercise is designed to elicit; that is, are the destination hospitals substitutes for the merging parties."

This is flawed logic. If the "destination hospitals" excluded from the

proposed market were arbitrarily excluded and properly belonged in the market, the proposed market would not pass an appropriate SSNIP test. That is, if the included hospitals raised prices and in response insurers chose to replace some of them with the destination hospitals to defeat the price increase, the SSNIP test would fail. The destination hospitals, in that case, would be close enough substitutes for the included hospitals to belong in the relevant market. Thus, contrary to the district court's view, the impact of the destination hospitals on insurer bargaining and patient choice *is already* included in the SSNIP test.

Secondly, the district court thought that physicians were an excluded factor, and noted that hospitals "...‘extend their geographic breadth’ by opening outpatient centers and doctor’s offices further from the hospitals and the doctor ‘plays a significant role [in determining] where [a] patient goes to seek care.’” Op. at 12. This may be true, but is only relevant to the extent that this means that there are hospitals outside the proposed geographic market that could defeat a price increase. The district court did not evaluate this fact pattern to evaluate whether it implied that there were hospitals excluded from the FTC’s proposed market that could defeat an attempted price increase.

Third, the district court criticized the FTC for only including hospitals in the relevant market that overlap with both of the merging parties, Advocate

and NorthShore, rather than just one of them. The district court criticizes the FTC's expert for including these hospitals by assumption, rather than "analyzing data." *Id.* at 12. The court cites the defense expert, saying "... 'you can constrain the postmerger system by constraining any [one] of its hospitals..., ' so requiring a hospital to constrain both parties to be included in the geographic market makes little sense.'" *Id.* at 13.

As before, this is flawed logic. If an omitted hospital is a close enough substitute to defeat a price increase in the proposed relevant market, then the SSNIP test will fail. This is an empirical question, one that does indeed require data analysis, as to whether insurers, in response to a price increase, would configure their networks to exclude hospitals in the FTC-proposed market in favor of the omitted hospitals that lie outside the market. If insurers are willing to do this, then the hospitals that overlap with only one of the merging parties properly belong in the relevant market, and that proposed market would fail a SSNIP test.

The district court erred by not evaluating the FTC's market definition against this standard. The key question is not whether certain hospitals are "arbitrarily" included or excluded from a proposed market. The question is whether the hospitals in that market can profitably collectively raise price. This is the question the district court should have asked in evaluating the

FTC's proposed market definition. By failing to do so the district court did not properly assess the geographic market definition. The district court's decision to deny the FTC's request for a preliminary injunction was based entirely on the district court's conclusion that the FTC had not met the burden of proving a relevant geographic market. As a consequence, the district court's decision is flawed and this matter should be remanded to the district court for consideration under the economically appropriate standard.

Conclusion

Amici urge the Court to reverse the district court's ruling, which is grounded on a flawed analysis and is likely to harm the public interest in promoting competitive hospital markets.

Amici note that the district court's incorrect market analysis potentially sets a dangerous precedent by deviating from the hypothetical monopolist test – an accepted coherent logical standard for market definition. This is likely to harm the public interest in promoting competition in general, not just in hospital markets.

Dated: July 22, 2016

s/ Paul E. Slater
Paul E. Slater
Matthew T. Slater
Nathan Shev
SPERLING & SLATER, P.C.
55 West Monroe Street, Suite 3200
Chicago, IL 60603
(312) 641-3200
Counsel for Amici Curiae

**CERTIFICATE OF COMPLIANCE
WITH TYPE-VOLUME LIMITATION,
TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS**

1. This brief complies with the type-volume limitation of Fed.R.App.P. 32(a)(7)(B) because:

this brief contains 5,812 words, excluding the parts of the brief exempted by Fed.R.App.P. 32(a)(7)(B)(iii).

2. This brief complies with the typeface requirements of Fed.R.App.P. 32(a)(5) and the type style requirements of Fed.R.App.P. 32(a)(6) because:

this brief has been prepared in a proportionally spaced typeface using Microsoft Word 2013 in 14 pt. Times New Roman.

Dated: July 22, 2016

s/ Paul E. Slater
Paul E. Slater
Counsel for *Amici Curiae*

CERTIFICATE OF SERVICE

I hereby certify that on July 22, 2016, I electronically filed the foregoing with the Clerk of the Court of the United States Court of Appeals for the Seventh Circuit by using the CM/ECF system. I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the CM/ECF system.

s/ Paul E. Slater _____

Paul E. Slater