## VITA

#### **DAVID DRANOVE**

Kellogg School of Management Northwestern University 2001 Sheridan Road Evanston, IL 60208 (847) 491-8682 d-dranove@kellogg.northwestern.edu

#### Education

Ph.D. (Economics, Business, and Policy), Stanford University, 1983M.B.A. (Health Adminstration), Cornell University, 1979B.A. (Genetics), Cornell University, 1977

### **University Experience**

Northwestern University, Kellogg School of Management

Currently:

Walter McNerney Distinguished Professor of Health Industry Management Professor of Management and Strategy Director, Center for Health Industry Market Economics Director, Health Enterprise Management Program

Past Positions: Chair, Department of Management and Strategy, 1996-2000 Richard Paget Distinguished Professor of Management and Strategy, 1995-2000 Associate Professor of Management and Strategy and Health Services Management, 1991-1995

Service Positions at Northwestern University: University Program Review Council Faculty Committee on Conflict of Interest and Conflict of Commitment Faculty Committee on Intellectual Property Roadmap Committee for the Biological Sciences Kellogg Personnel Committee (promotion and tenure case)

University of Chicago, Graduate School of Business

Associate Professor of Business Economics, 1987-1991 Assistant Professor of Business Economics, 1983-1987 Co-director, Graduate Program in Health Administration and Policy, 1990-1991

## **Outside Activities**

## **Board Memberships**

American Association of Nurse Anesthetists (1993-1995) Clean Air Engineering (Professional services firm) (1996-1998) Beecken Petty & Company (Health care venture capital firm) (1997-1999) Children's Memorial Hospital Pediatric Faculty Foundation (2000-2005) Roycemore School (2005-2006) Yellowbrick (Psychiatric Residential and Outpatient Care) (2006-9) USC Creative Media & Behavioral Health Center (2010-) Health Care Cost Institute (2011-) Chicago Symphony Orchestra (Governing member; 2012-)

### Consulting

Strategy consultant and strategy educator. Recent clients include Eastman Chemical, Cognospecti, Cannongate, and Teach for America.

Economics expert in antitrust, regulatory, and related matters. Recent clients include the Federal Trade Commission, several state Attorneys General, the Province of Alberta, the American Medical Association, and plaintiffs and defendants in private antitrust actions.

Moderator at conferences organized by the World Congress and by Crain's Chicago Business.

#### Honors

1993 John D. Thompson Prize in Health Services Research. The Thompson Prize, awarded by the Association of University Programs in Health Administration, recognizes outstanding contributions to health services research by an individual under the age of 40.

1993 Marriott Corporation Health Care Services Faculty Publication of the Year: "Is Hospital Competition Wasteful?" This prize is awarded by the Marriott Corporation and the American Academy of Medical Administrators.

1994 Marriott Corporation Health Care Services Faculty Publication of the Year: (1st Runner Up): "Price and Concentration in Local Hospital Markets: The Switch from Patient-Driven to Payer-Driven Competition"

1996 Marriott Corporation Health Care Services Faculty Publication of the Year: "Cost Reductions versus Reputation Enhancements as Motives for Mergers"

1998 National Institute for Health Care Management Research Paper of the Year: "Medicaid Dependent Hospitals and Their Patients: How Have They Fared?

1998 Association for Health Services Research Paper of the Year: "Medicaid Dependent Hospitals and Their Patients: How Have They Fared?

1999 Marriott Corporation Health Care Services Faculty Publication of the Year: "Medicaid Dependent Hospitals and Their Patients: How Have They Fared?

2002, 2005, 2009 Kellogg School of Management: Sidney Levy Teaching Award

2002 National Institute for Health Care Management Research Paper of the Year: "Is More Information Better: The Effects of "Report Cards" on Health Care Providers"

2005 Kellogg School of Management: Stanley Reiter Best Paper Award

2012 Center for Health Information and Decision Sciences Best Paper Award "The Trillion Dollar Conundrum: Complementarities and Health Information Technology"

# **Editorial Boards**

Current:

Executive Editor, *Health Management, Policy, and Innovation* Associate Editor, *RAND Journal of Economics* 

Previously:

Journal of Health Economics Health Services Research Management Science

## Grants

- 1. "Effects of Changes in the Illinois Medicaid Formulary," Eli Lilly Corporation, 1985-86 (Principal Investigator)
- 2. "An Evaluation of SPRANS Ventilator Assisted Children Programs," State of Illinois Division of Services for Crippled Children, 1984-87 (Economics Director)
- 3. "International Collaborative Study of Oral Health Outcomes," World Health Organization, 1987-1992 (Economics Director)
- 4. "The Geographic Extent of Hospital Services Markets," Fishman-Davidson Center for the Study of the Service Sector, 1988-1989 (Principal Investigator)
- 5. "The Effects of Regulation on the Research and Development of New Chemical Entities," Merck & Co./Burroughs-Wellcome, 1989-1991 (Principal Investigator)
- 6. "Health Systems Integration Study" Consortium of Health Care Systems, 1991-1994 (Economics Director)
- 7. "Technological Change and the Rising Costs of Medical Care" Robert Wood Johnson Foundation, 1993-1994 (Co-principal Investigator)
- 8. "Continuous Quality Improvement in Hospitals" Center for Health Management Research of the Western Network 1993-1995 (Economics Director)
- 9. "Recent Evidence on Competition in Hospital Markets" Department of Veterans' Affairs, 1993 (Principal Investigator)
- 10. "The Costs and Benefits of Vitamin E" Henkel Corporation, 1994 (Principal Investigator)
- "Direct Sputum Analysis for TB by PCR vs. Conventional Techniques in a Public Hospital" 1994-1995 Department of Health and Human Services (Co-Principal Investigator)
- 12. "The Effects of Managed Care on Physicians" Agency for Health Care Policy Research 1995-1996 (Co-Principal Investigator).
- 13. "Assessing Health Data Needs in a Changing Environment" Agency for Health Care Policy Research 1996-1997 (Co-Principal Investigator)
- "How do PBMs Make Formulary Adoption Decisions?" Hoerscht Marion Roussel 1997-1998 (Principal Investigator)

- 15. "The Role of the Regulatory Affairs Professional in Strategic Decision Making" Regulatory Affairs Professional Society 2001-2002 (Principal Investigator)
- 16. "Hospital Bailouts and Economic Efficiency" Searle Fund 2002-2003 (Principal Investigator)
- 17. "The Effects of Hospital Mergers on Prices Paid by Managed Care Organizations" Anonymous Funder 2002-2004 (Principal Investigator)
- "Is the Government Regulating Medicare HMOs Out of Business?" Searle Fund 2003-2004 (Co-Principal Investigator)
- 19. "New Approaches to Antitrust Definitions of Hospital Markets" Robert Wood Johnson Foundation 2004-2006 (Principal Investigator)
- 20. "Is the Impact of Managed Care on Hospital Prices Decreasing?" Robert Wood Johnson Foundation 2004-2006 (co-Principal Investigator)
- 21. "Has the Malpractice 'Crisis' Affected Access to Medical Care" Searle Fund, 2005-2006 (Principal Investigator)
- 22. "Health Services Market Areas in the Netherlands" Netherlands Competition Authority, 2006 (Principal Investigator)
- 23. "Economic Impact of Adverse Health Events on the Uninsured Near Elderly" Robert Wood Johnson Foundation, 2007, (Principal Investigator)
- 24. "Willingness to Pay for Ovarian Cryopreservation" National Cancer Institute, 2007-2011, (Principal Investigator)

### **Refereed Publications**

- 1. "A Comment on 'Does Practice Make Perfect'," *Medical Care* Vol 22, (October, 1984)
- 2. "An Empirical Study of a Hospital-Based Home Nursing Care Program," *Inquiry* Vol 22, (Spring, 1985)
- 3. "Do State Rate Setting Programs Really Lower Hospital Expenses?" (with Kenneth Cone) *Journal of Health Economics* Vol. 4, (June, 1985)
- 4. "Why Did States Enact Hospital Rate Settings Laws?" (with Kenneth Cone) *Journal of Law and Economics* Vol. 29, (October, 1986)
- "The Effect of Injecting Price Competition into the Hospital Market: The Case of Preferred Provider Organizations," (with Mark Satterthwaite and Jody Sindelar) *Inquiry* Vol. 23, (Winter, 1986)
- 6. "Rate Setting by Diagnosis Related Groups and Hospital Specialization," *Rand Journal of Economics* Vol. 18, (Autumn, 1987)
- 7. "Agency and the Organization of Health Care Delivery," (with William D. White) *Inquiry* Vol. 24, (Winter, 1987)
- 8. "Demand Inducement and the Physician/Patient Relationship," *Economic Inquiry* Vol. 26, (April, 1988)
- 9. "Pricing by Non-Profit Institutions: The Case of Hospital Cost Shifting," *Journal of Health Economics* Vol. 7, (Spring, 1988)
- "Medicaid Drug Formulary Restrictions," *Journal of Law and Economics* Vol. 32, (April 1989)
- 11. "Agency Theory: Offering New Insights into the Health Care Industry," (with William D. White) *Journal of Medical Practice Management* Vol. 4, (Winter 1989)
- 12. "Antitrust Challenges to Hospital Mergers," (with Henry Allen and Greg Tucker) *The Health Lawyer* (Summer 1989)
- 13. "A Note on Relational Aspects of Hospital Market Definitions," (with Mark Shanley) Journal of Health Economics Vol. 9, (February 1990)
- 14. "Information Spillovers, Incumbency, and New Ventures (with Tommy Tan) *International Journal of Industrial Organization* Vol. 8, (Winter 1990)

- 15. "The Costs of Compliance with the 1962 FDA Amendments -- Editorial" *Journal of Health Economics* Vol. 10, (July 1991)
- 16. "How Fast are Hospital Prices Really Rising?" (with William D. White and Mark Shanley) *Medical Care* Vol. 29, (August, 1991)
- 17. "Is Hospital Competition Wasteful?" (with Mark Shanley and Carol Simon) *RAND Journal of Economics* Vol. 23, (Summer 1992)
- 18. "Monopolistic Competition When Price and Quality are not Perfectly Observable" (with Mark Satterthwaite) *RAND Journal of Economics* Vol. 23, (Winter 1992)
- 19. "Segmentation in Local Hospital Markets" (with William D. White and Lawrence Wu) *Medical Care* Vol. 31, (January 1993)
- 20. "The Changing Nature of Competition in Health Care" (with William D. White) *Journal of Medical Practice Management*, Vol. 8, (Spring 1993)
- "Price and Concentration in Hospital Markets: The Switch from Patient-driven to Payordriven competition" (with Mark Shanley and William D. White) *Journal of Law and Economics* Vol. 36, (April 1993)
- 22. "Physician-Induced Demand for Childbirths" (with Paul Wehner) *Journal of Health Economics* (March 1994)
- 23. "Recent Theory and Evidence on Competition in Hospital Markets" (with William D. White) *Journal of Economics and Management Strategy* (Volume 4, No. 1, 1994)
- 24. "The Economic Side Effects of Dangerous Drug Announcements" (with Chris Olsen) Journal of Law and Economics (October 1994)
- 25. "Do Important Drugs Reach the Market Sooner? (with David Meltzer) *RAND Journal of Economics* (Autumn 1994)
- 26. "A Problem with Consumer Surplus Measures of the Cost of Physician Practice Variations" *Journal of Health Economics* (September 1994)
- 27. "The Vertical Chain of Research and Development in the Pharmaceutical Industry" (with Michael Ward) *Economic Inquiry* (January 1995)
- "Cost Reductions versus Reputation Enhancements as Motives for Mergers: The Logic of Multihospital Systems" (with Mark Shanley) *Strategic Management Journal* (January-February 1995)

- 29. "Specialization, Option Demand and the Pricing of Medical Services (with William D. White) *Journal of Economics and Management Strategy* (Summer 1996)
- 30. "Are Multihospital Systems More Efficient?" (with Amy Durkac and Mark Shanley) *Health Affairs* (Spring 1996)
- 31. "The Impact of Managed Care on the Physician Marketplace" (with Carol Simon and William D. White) *Public Health Reports* (May/June 1997)
- 32. "Emerging Issues in the Antitrust Definition of Healthcare Markets" (with Will White) *Health Economics Letters* (November 1997)
- 33. "Is There Underinvestment in R&D About Prevention?" *Journal of Health Economics* (January 1998)
- 34. "Economies of Scale in Non-revenue Producing Cost Centers: Implications for Hospital Mergers" *Journal of Health Economics* (January 1998)
- 35. "Medicaid-Dependent Hospitals and Their Patients: How Have They Fared?" (with Will White) *Health Services Research* (April 1998)
- "The Effect of Managed Care on the Income of Primary Care and Specialty Physicians: A State Level Analysis" (with Carol Simon and William D. White) *Health Services Research* (September 1998)
- 37. "The Determinants of Managed Care Penetration" (with Carol Simon and William White) Journal of Health Economics (December 1998)
- 38. "Do Strategic Groups Exist: An Economic Framework for Analysis" (with Mark Shanley and Margaret Peteraf) *Strategic Management Journal* (Fall 1998)
- 39. "Pricing by Nonprofit Hospitals: A Reevaluation of Lynk's Methods" (with Richard Ludwick" *Journal of Health Economics* (March 1999)
- 40. "The Cost of Efforts to Improve Quality" (with Stephen Shortell et al.) *Medical Care* (October 1999)
- 41. "Competition" Among Insurers Offering Health Insurance" (with Kathryn Spier and Loren Baker) *Journal of Health Economics* (January 2000)
- 42. "Assessing the Impact of Total Quality Management and Organizational Culture on Multiple Outcomes of Care for Coronary Artery Bypass Graft Surgery Patients" *Medical Care* (February 2000)

- 43. "Exploiting Cost Advantages and Coping with Cost Disadvantages" (with David Besanko and Mark Shanley) *Management Science* (February 2001)
- 44. "Is Managed Care Leading to Consolidation in Healthcare Markets?" (with Will White and Carol Simon) *Health Services Research* (May 2002)
- 45. "Antitrust Policy and Hospital Mergers: Recommendations for a New Approach" (with Cory Capps, Shane Greenstein, and Mark Satterthwaite) *Antitrust Bulletin* (Winter 2002)
- 46. "Economic and Organizational Determinants of HMO Formulary Adoption Decisions" (with Ed Hughes and Mark Shanley) *Health Services Research* (February 2003)
- "Is More Information Better? The Effects of Report Cards on Cardiovascular Providers and Consumers" (with M. Satterthwaite, D. Kessler, and M. McClellan) *Journal of Political Economy* (June 2003)
- 48. "Hospital Consolidation and Costs: Another Look at the Evidence" (with R. Lindrooth) Journal of Health Economics (November 2003)
- 49. "The DVD vs. DIVX Standard War: Empirical Evidence of Network Effects and Preannouncement Effects" (with Neil Gandal) *Journal of Economics and Management Strategy*, (Fall 2003)
- 48. "Competition and Market Power in Option Demand Markets" (with Cory Capps and Mark Satterthwaite) *RAND Journal of Economics*, (December 2003)
- 49. "A Theory of Utilization Review" (with Kathryn Spier) Contributions to Economics and Policy (2003)
- 50. "Differentiation and Competition in HMO Markets" (with Anne Gron and Michael Mazzeo) Journal of Industrial Economics, (December 2003)
- 51. "Hospital Consolidation and Negotiated PPO Prices" (with Cory Capps) *Health Affairs* (March 2004)
- 52. "Has the Malpractice Crisis in Florida Affected Access to Care? (with Anne Gron) *Health Affairs* (March 2005)
- 53. "The Effect of Physician-Hospital Affiliations on Hospital Prices in California" (with Federico Ciliberto,) *Journal of Health Economics* (January 2006)
- 54. "Medical Bankrutpcy: Myth versus Fact" (with M. Millenson) Health Affairs (Feb 2006)

- 55. "Patient Admission Patterns and Acquisitions of Feeder Hospitals" (with Cory Capps and Sayaka Nakamura) *Journal of Economics and Management Strategy*, (Winter 2007)
- 56. "Is the Impact of Managed Care on Hospital Prices Decreasing?" 2008 (with Richard Lindrooth and William White) *Journal of Health Economics* (March 2008)
- 57. "Start Spreading the News: A Structural Estimate of the Effects of New York Hospital Report Cards," (with Andrew Sfekas) *Journal of Health Economics* (September 2008)
- 58. "Do Report Cards Tell Consumers Anything They Don't Already Know? The Case of Medicare HMOs", (with Leemore Dafny) *RAND Journal of Economics*, (Autumn 2008)
- 59. "Regulatory Exploitation and the Market for Corporate Control", (with Leemore Dafny), *Journal of Law and Economics* (May 2009)
- 60. "The Revolution in Healthcare Antitrust: New Methods and Provocative Implications" (with Andrew Sfekas) *Milbank Quarterly* (September 2009)
- 61. "Influence and Deterrence: How Obstetricians Respond to Litigation against Themselves and their Colleagues," (with Yasutora Watanabe) *American Law and Economics Review* (March 2010)
- 62. "Hospital Closures and Economic Efficiency", (with Cory Capps and Richard Lindrooth) Journal of Health Economics (January 2010)
- 63. "A Competitive Process for Procuring Health Services" (with Cory Capps and Leemore Dafny) *SPP Research Papers* (January 2010)
- 64. "Does Major Illness Cause Financial Catastrophe?" (with Keziah Cook and Andrew Sfekas; *Health Services Research* (March 2010)
- 65. "Quality Disclosure," Journal of Economic Literature 2010 (with Ginger Jin)
- 66. "Data Impediments to Empirical Work in Health Insurance Markets," *BE Press Special Issue on the Industrial Organization of Healthcare* 2011 (with Leemore Dafny, Frank Limbrock, and Fiona Scott Morton)
- 67. "Does the Market Punish Aggressive Experts? Evidence from Cesarean Sections" *BE Press Special Issue on the Industrial Organization of Healthcare* 2011 (with Subbu Ramanarayanan and Andrew Sfekas)
- 68. "Profiting from Gaizhi: Management Buyouts during China's Privatization" *Journal of Comparative Economics,* Forthcoming (with Feng Susan Lu)

# **Current Working Papers**

- 1. "Bargaining and Leverage in Option Demand Markets" 2011 (with Mark Satterthwaite and Andrew Sfekas)
- "The Trillion Dollar Conundrum: Complementarities and Health Information Technology" 2012 (with Chris Forman, Avi Goldfarb, and Shane Greenstein; NBER Working Paper w18281)
- 3. "How do Nonprofits Respond to Financial Setbacks? The Impact of the 2008 Stock Market Crash on Hospital Behavior" (with Craig Garthwaite and Chris Ody)

# **Book Chapters and Monographs**

- 1. "What Impact Did the Programs Have on the Costs of Care for Ventilator Assisted Children," in *Pediatric Home Care: Results of a National Evaluation of Programs for Ventilator Assisted Children*, Pluribus Press (1988)
- 2. "The Implications of Resource-Based Relative Value Scales for Physicians' Fees, Incomes, and Specialty Choice" (with M. Satterthwaite), in *Regulating Doctor's Fees: Costs, Competition, and Controls under Medicare*, H. E. Frech, ed. American Enterprise Institute, 1991
- 3. "The Five W's of Utilization Review" in *American Health Policy*, Robert Helms, ed. American Enterprise Institute (1992)
- 4. "The Case for Competition" In *Competitive Approaches to Health Care Reform*, Richard Arnould, Richard Rich and William D. White (eds.) Washington, D.C.: Urban Institute Press (1993).
- 5. "Can Competition Cut the Mustard?" *Health Management Quarterly* Vol. 16, (Second Quarter, 1994)
- 6. "Doing a Number on Doctors" (with William D. White) *American Enterprise Magazine* (July/August 1994)
- 7. "Local Multi-hospital Systems Will Be Critical to the Success of Teaching and Community Hospitals" *Compendium of Hospital Economics Newsletter* (Spring 1994)
- 8. "Measuring Costs" (Chapter 2 in *Valuing Health Care* F. Sloan (ed.) Cambridge: Cambridge University Press, 1994.)

- 9. *Clinton's Specialist Quota: Shaky Premises, Questionable Consequences* Washington, D.C.: American Enterprise Institute, 1994
- 10. "Strategically Organizing Vertical Boundaries" (with David Besanko and Mark Shanley) Business Week Executive Brief (1995)
- 11. *Navigating the Changing Tides of Managed Care and Health Reform* A guide to business strategy for physicians. (Prepared in conjunction with the Health Economics Practice Group of McBride, Baker, and Coles)
- 12. "The Economic Foundations of Strategic Group Theory" (with Margaret Peteraf and Mark Shanley) General Motors Research Center for Strategy and Management, Discussion Paper No. 93-59.
- 13. "Direct Sputum Analysis for TB by PCR vs. Conventional Techniques in a Public Hospital" (With K. Kaul) 1996, Evanston Hospital Research Brief.
- 14. "The Industrial Organization of Health Care" (with Mark Satterthwaite) in *The Handbook* of *Health Economics*, edited by Joseph Newhouse and A. J. Culyer, North-Holland, 2000.
- 15. "Managed Care and the Physician Marketplace" (with Carol Simon, William White,and Patricia Born) in *Managed Care and Changing Health Care Markets* (Washington: American Enterprise Institute, 1998)
- 16. "Market Definitions in Antitrust Analysis: Applications to Health Care" in *Managed Care* and Changing Health Care Markets (Washington: American Enterprise Institute, 1998)
- 17. "Network Effects, Standardization, and the Internet: What Have We Learned from the DVD vs. DIVX Battle?" (with Neil Gandal) in *The Commodification of Information*, edited by Niva Elkin-Koren and Neil Netanel, Kluwer Law International, 2000.
- 18. "Surviving a Standards War: Lessons Learned from the Life and Death of DIVX" (with Neil Gandal), in *Advances in the Economics of Information Systems* edited by Kerem Tomak, Idea Group, 2004.
- 19. "The Price of Palliative Care: Towards a Complete Accounting of Costs and Benefits" (with A. Boni-Saenz and A Lo Sasso), in *Clinics in Geriatric Medicine*, Elsevier, 2004.
- 20. "Viewing Healthcare Consolidation Through the Lens of Economics of Strategy" Robert Wood Johnson Foundation Changes in Healthcare Financing and Organization Report (March 2010)
- 21. "Anticipating Ovarian Tissue Cryopreservation in the Health-Care Marketplace: A

Willingness to Pay Approach" (with S. Gardino and A. Sfekas) in Woodruff, T. et al. (eds), *Oncofertility* New York: Springer (2010)

- 22. "Healthcare Markets, Regulators, and Certifiers" in *Handbook of Health Economics* Amsterdam: North Holland (2012)
- 23. "Antitrust in Healthcare" (forthcoming chapter in *Handbook of Antitrust Economics*; with Cory Capps)

## Books

- 1. *The Economics of Strategy* New York: Wiley Press, 1995, 1999, 2003, 2006, 2010, 2013 (in Press; joint with David Besanko, Mark Shanley, and Scott Schaefer)
- 2. How Hospitals Survived (with Will White) American Enterprise Institute, 1999
- 3. *The Economic Evolution of American Healthcare: From Marcus Welby to Managed Care* Princeton University Press, 2001
- 4. What's Your Life Worth? Financial Times/Prentice Hall, 2003
- 5. Kellogg on Strategy (with Sonia Marciano) Wiley Press, 2005
- 6. Code Red Princeton University Press, 2008
- 7. *Practical Regression* Kellogg School of Management/Harvard University Press

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