Easy Gardener, Inc. v. Dalen Products, Inc.

Trigen – Oklahoma City Energy Corporation v. Oklahoma Gas & Electric Company

State of California v. Sutter Health; Alta Bates; and Summit Medical Center

Ernest T. Smith, III et al. v. N. H. Department of Revenue Administration, et al.

St. Luke's Hospital v. California Pacific Medical Center; Sutter Health System

In Re: Cigarette Antitrust Litigation and related cases, *Holiday Wholesale Grocery Co., et al. v. Philip Morris Inc., et al.*, MDL Docket No.: 1342 Civil Action No.: 1:00-cv-0447-JOF and *Artemio Del Serrone, Steven Ren, Heather Snay, Jon Ren, Keith Pine, and Bill Reed, on behalf of themselves and all others similarly situated v. Philip Morris Inc., R.J. Reynolds Tobacco Co., Brown & Williamson Tobacco Corp., Lorillard Tobacco Co., Liggett Group, Inc., and Brooke Group, Ltd.,* Case No. 00-004035 CZ, State of Michigan in the Circuit Court for the County of Wayne

In Re: Vitamin Antitrust Litigation; Misc. No. 99-197 (THF) MDL No. 1285

Economic Report in Response to European Commission's Statement of Objections Dated 22 May 2003

European Commission Hearing, Case No Comp/E-2/37.533-Choline Chloride

Report of Robert D. Willig and Margaret E. Guerin-Calvert to the NZCC An Economic Analysis of the Consumer Benefits and Competitive Effects of the Proposed Alliance Between Qantas Airways and Air New Zealand

Report of Robert D. Willig and Margaret E. Guerin-Calvert to the NZCC An Economic Assessment of Professor Tim Hazledine's Model of the Proposed Alliance Between Qantas and Air New Zealand

Presentations by Robert D. Willig and Margaret E. Guerin-Calvert to the NZCC An Economic Analysis of the Consumer Benefits and Competitive Effects of the Proposed Alliance Between Qantas Airways and Air New Zealand; Consumer Benefits

Erol Riza, M.D. et al., Plaintiffs v. Mercy Health System Physician Hospital Organization, et al, Defendants, Case No. CO199904796/Case NO.CI0200104455

Federal Trade Commission, et al. v. Arch Coal, Inc., et al. Case No.1:04CV00534 (JDB).

Comments of Margaret E. Guerin-Calvert, Competition Policy Associates, Inc., Washington, DC on Revision of Regulation (EEC) 2299/89 on a code of conduct for computerized reservation systems (CRS), July 8, 2004

In the Matter of an Appeal from Determinations of the Commerce Commission, Between Air New Zealand Limited and Qantas Airways Limited and Commerce Commission, High Court of New Zealand, CIV 2003 404 6590

Economic Assessment of Issues in FERC NOPR for the Alaska Natural Gas Pipeline, December 17, 2004

In Re: DRAM Antitrust Litigation, Master File No. M-02-1486PJH, MDL No. 1486, United States District Court, Northern District of California

In Re: Carbon Black Antitrust Litigation, MDL Docket No. 1543, No. 03-CV-10191-DPW (D. Mass.)

Ryan Rodriguez, et.al. v. West Publishing Corporation, et. al., Central District of California, Case No. CV 05-3222 R(MCx).

Neotonus, Inc. v. American Medical Association and American Urological Association, In the United States District Court for the Northern District of Georgia Atlanta Division Civil Case No. 1: 04-CV-2050

Budget Pest Prevention, Inc., et. al. v. Bayer Corporation, Bayer CropScience, L.P., and BASF Corporation, In the United States District Court for the Western District of North Carolina Asheville Division, Case No. 1:05-CV-90

National Recycling, Inc. v. Waste Management of Massachusetts, Inc., Browning-Ferris Industries, Inc., and SEMASS Partnership LP, United States District Court for the District of Massachusetts, Case No. 03-12174-NMG

In the Matter of Mechanical and Digital Phonorecord Delivery Rate Adjustment Proceeding, Testimony before the Copyright Royalty Board of the Library of Congress, Washington, DC, Docket No. 2006-3 CRB DPRA

In the matter of United States v. ASCAP Application of America Online, Inc.; United States v. ASCAP, Application of RealNetworks, Inc. and United States v. ASCAP, Application of Yahoo! Inc., United States District Court Southern District of New York, Civil Action No. 41-1395 (WCC). May 4, 2007

Lockheed Martin Corporation, Plaintiff, v. L-3 Communications Corporation, Mediatech, Inc., Kevin Speed, Steve Flemming, and Patrick St. Romain, Defendants. L-3 Communications Corporation, Counterclaim and Third-Party Plaintiff, v. Lockheed Martin Corporation, Counterclaim Defendant, and Jack Kelly, Thomas Dorsey, Michael Homan, and Thomas Hull, Third-Party Defendants. US District Court for the Middle District of Florida, Orlando Division, Case Nc. 6:05-cv- 1580-Orl-31KRS, Expert Report August 15, 2007

Abbott Laboratories, an Illinois corporation, Fournier Industrie et Sante, a French corporation, and Laboratoires Fournier, S.A., a French corporation, Plaintiffs, v. Teva Pharmaceuticals USA,

Inc., a Delaware corporation, Defendant; Civil Action No. 02-1512 (KAJ); Teva Pharmaceuticals USA, Inc., a Delaware corporation, Teva Pharmaceutical Industries, Ltd., an Israeli corporation, and Novopharm, Ltd., a Canadian Corporation, Counterclaim Plaintiffs, v. Abbott Laboratories, an Illinois corporation, Fournier Industrie et Sante, a French corporation, and Laboratories Fournier, S.A., a French corporation, Counterclaim Defendants; Abbott Laboratories, an Illinois corporation, Fournier Industrie et Sante, a French corporation, and Laboratories, an Illinois corporation, Fournier Industrie et Sante, a French corporation, and Laboratories Fournier, S.A., a French corporation, Plaintiffs, v. Impax Laboratories, Inc., a Delaware corporation, Defendant; Civil Action No. 03-120-KAJ; Impax Laboratories, Inc., a Delaware corporation, Counterclaim Plaintiff, v. Abbott Laboratories, an Illinois corporation, Fournier Industrie et Sante, a French corporation, and Laboratories, an Illinois corporation, Fournier Industrie et Sante, a French corporation, and Laboratories, an Illinois corporation, Fournier Industrie et Sante, a French corporation, and Laboratories, an Illinois corporation, Counterclaim Defendants.; in re TriCor direct purchaser antitrust litigation; Civil Action No. 05-340 (KAJ); in re TriCor indirect purchaser antitrust litigation; Civil Action No. 05-360 (KAJ)

State of California ex rel. Lockyer et al., Plaintiffs v. Infineon Technologies AG et al., Defendants. Case No. C-06-04333 PJH US District Court for the Northern District of California, San Francisco Division

Natchitoches Parish Hospital Service District, on behalf of itself and all others similarly situated, Plaintiff, v. Tyco International, Ltd., Tyco International, (U.S.), Inc., Tyco Healthcare Group, L.P., The Kendall Healthcare Products Company, Civil Action No. 05-12024 PBS.

Daniels Sharpsmart, Inc. v. Tyco International, (US) Inc., Tyco Healthcare Group, L.P., Becton Dickinson and Company, Novation, LLC, VHA, Inc., Premier Inc., Premier Purchasing Partners, and Consorta, Inc., United States District Court for the Eastern District of Texas, Texarkana Division, Civil Action No. 5:05-cv-169

In re Wellbutrin SR antitrust litigation (direct purchaser actions), Civil Case no. 2:04-cv-5525 (E.D. Pa.); Sheet Metal Workers Local 441 Health and Welfare Plan, et al. v. GlaxoSmithKline, plc, et al. (indirect purchaser actions), Civil Case no. 2:04-cv-5898 (E.D. Pa.); Medical Mutual of Ohio, Inc. v. GlaxoSmithKline, plc, et al., Civil Case no. 2:05-cv-396 (E.D. Pa.)

In the Matter of the Form A Application by The Doctors Company, An Interinsurance Exchange, with Respect to the Acquisition of American Healthcare Indemnity Company, Hearing before the Insurance Commissioner of the State of Delaware, Docket No. 678

L-3 Communications Integrated Systems, LP, Plaintiff v. Lockheed Martin Corporation, Defendant, United States District Court for the Northern District of Texas, Dallas Division, Civil Action No. 3-07CV0341

DataTreasury Corporation v. Wells Fargo & Company, et al., Defendants, United States District Court for the Eastern District of Texas, Marshall Division, Civil Action No. 2:06CV-72(DF)

Federal Trade Commission and The State of Ohio v. ProMedica Health System, Inc., United States District Court for the Northern District of Ohio, Western Division, Case No. 3:11-cv-00047-DAK

Testimony before Pennsylvania Insurance Department regarding proposed affiliation between Highmark, Inc. and the West Penn Allegheny Health System (April 17, 2012)

RESEARCH, PUBLICATIONS AND PRESENTATIONS

Signatory, Brief of Antitrust Economists as Amici Curiae before the Supreme Court, Federal Trade Commission v. Actavis, Inc., et al., No. 12-416 (February 28, 2013)

"The Direction and Economic Impact of Health Care Reform Post the Supreme Court Decision" Presentation at 2012 Ninth Circuit Judicial Conference, August 2012 (w/ Dawn Gideon, and Bruce Sokler)

Presentation to the Section of Antitrust Law Spring Meeting, March 2012, Fundamentals – Antitrust Economics Analytical Tools

Presentation at Pepper Hamilton's Annual Antitrust Developments Update CLE Event, Philadelphia, PA, December 2011, *Antitrust-Intellectual Property Regulatory and Litigation Update*

"Assessment of Cost Trends and Price Differences for U.S. Hospitals," (with Guillermo Israilevich), March 2011

"U.S. Antitrust Law Developments," Canadian Competition Record, Winter 2010

"A Critique of Recent Publications Claiming Provider Market Power," (with Guillermo Israilevich), October 2010

Presentation at the Antitrust Masters Course V, Section of Antitrust Law, American Bar Association, Williamsburg, VA, September 2010, Using Economists and Other Experts

"U.S. Antitrust Law Developments," Canadian Competition Record, Winter 2009

Presentation at the Georgetown Global Antitrust Enforcement Symposium, September 2009, Monopolization and Dominance: How Will New Economic Thinking Affect Enforcement?

Presentation to the Section of Antitrust Law Spring Meeting, March 2009, *Resources for Class Action Litigation: A Demonstration of Critical Issues and Techniques to Deal with them, An Economist's Perspective.*

"Coordinated Effects Analysis: Cruise Line Mergers (2002)," in J. Kwoka Jr. and L. White, eds. *The Antitrust Revolution*, (5th edition), 2009.

Presentation at the Georgetown Global Antitrust Enforcement Symposium, September 2008, *Lost in Translation: Is Economics the Lingua Franca of International Merger Control?*

"U.S. Antitrust Law Developments," Canadian Competition Record, Spring 2008

"U.S. Antitrust Law Developments," Canadian Competition Record, Summer 2007

"U.S. Antitrust Law Developments," Canadian Competition Record, Fall 2006

Presentation at the American Bar Association Spring Conference, March 28-30, 2006, Using Economic Experts.

"Merchant Benefits and Public Policy towards Interchange: An Economic Assessment," *The Review of Network Economics*, Vol. 4 Issue 4, December 2005. pp 384 - 414 (with Janusz A. Ordover, New York University and Competition Policy Associates), and also at the Federal Reserve Bank of New York and the Review of Network Economics conference on "Antitrust Activity in Card-Based Payment Systems: Causes and Consequences," September 15, 2005.

"The Role of the Economist/Economics in 'Proving' Coordinated Effects," the Milton Handler Annual Antitrust Review sponsored by the Association of the Bar of the City of New York. Published in *Columbia Business Law Review*. 2004 Milton Handler Antitrust Review, Colum. Bus. L. Rev. 345 Vol 2005 (2).

"U.S. Antitrust Law Developments," Canadian Competition Record, Fall 2005

"U.S. Antitrust Law Developments," Canadian Competition Record, Fall 2004

"U.S. Antitrust Law Developments," Canadian Competition Record, Spring 2004

Comments on "Regulations Amending the Canadian Computer Reservation Systems (CRS)," November 2003

Testimony at the FTC and DOJ Hearings on Healthcare and Competition and Law and Policy, February – May 2003

Presentation before the Computer Industry an Internet Committee Program, *Antitrust Counterclaims in Patent Infringement Lawsuits*, American Bar Association – Section of Antitrust Law, Spring Meeting, April 2-4, 2003.

"Economic Analysis of DOT Proposals to Change the CRS Rules," Appendix to Comments of Galileo International, (with I. Curtis Jernigan, and Gloria Hurdle), March 15, 2003.

"Economic Analysis of Healthcare Cost Studies Commissioned by Blue Cross Blue Shield Association," (with David Argue, Paul Godek, Barry Harris, Stephanie Mirrow), February 25, 2003.

"U.S. Antitrust Law Developments," Canadian Competition Record, Winter 2002-2003.

"What's New in Networks?" Antitrust Litigator, Summer 2002.

"Competition and Innovation in the Context of Network Economics," at the DOJ/FTC Hearings on Competition and Intellectual Property Law in the Knowledge-Based Economy, February 20, 2002.

"U.S. Antitrust Law Developments," Canadian Competition Record, Winter 2001-2002.

"Review of Selected Economic Literature on Merger Analysis," (with Stephanie Mirrow and Su Sun), July 2001. *Perspectives on the Concepts of Time, Change, and Materiality in Antitrust Enforcement*. Section of Antitrust Law, American Bar Association, (also presented at ABA Annual Meeting, August 2001).

"U.S. Antitrust Law Developments," Canadian Competition Record, Winter 2000-2001.

"Presenting Damages Evidence" before the Practicing Law Institute, Antitrust Litigation: Strategies for Success, November 30, 2000.

"Overview of B2Bs: Which Ones Raise Antitrust Issues?" before the Sixth Annual Health Care Forum, Northwestern University School of Law, November 2-3, 2000.

"An Economist's Perspective on B2Bs," Economists Ink, Fall 2000.

"How Do the New Competitor Collaboration Guidelines Address the New Economy?" before the ABA, Antitrust Section, Joint Ventures and Strategic Alliances, November 11-12, 1999.

"The Role of the Expert in Damages Analysis" before the Practicing Law Institute, November 8, 1999.

"Bank Mergers and the 1992 Merger Guidelines: The Bank of America/Security Pacific Transaction," (with Janusz Ordover), September 1999 (prepared for presentation at the 25th Anniversary of the Economics Analysis Group at the US Department of Justice). *Review of Industrial Organization, 16: 151 – 165, 2000.*

"Maximizing current and future network competition in payment systems" (with Janusz Ordover) before the American Bar Association, Antitrust Section, Antitrust Issues in High-Tech Industries Workshop, Scottsdale, AZ, February 25-26, 1999.

Supplemental Analysis of "Inherent Reasonableness" Survey, prepared for HIMA (with Matthew Mercurio); February 1999.

Report on DMERC "Inherent Reasonableness" Survey, prepared for HIMA (with Matthew Mercurio); November 1998.

Summary Report: Interviews of Representative HIMA Members' Views on FASA, prepared for HIMA (with Matthew Mercurio); July 1997.

"Networks and Network Externalities: What the Antitrust Lawyer Needs to Know: Concepts and Theory," before the American Bar Association, Antitrust Section, 45th Annual Spring Meeting, Washington, DC, April 10, 1997.

"Insights into Efficiencies from Analyses of Efficiencies in Hospital and Bank Mergers," before the American Bar Association, Antitrust Law Section, Washington, DC, November 7-8, 1996.

"Issues in Managed Care "Markets," before the American Bar Association Forum on Health Law and Antitrust Law Section (with Robert B. Greenbaum), New Orleans, Louisiana, October 24-25, 1996.

"Current Merger Policy: Banking and ATM Network Mergers," *Antitrust Bulletin*, Vol. XLI, No. 2, Summer 1996.

"ATM and Bank Electronic Networks: Competitive Issues and Technological Change," for presentation at the 71st Annual WEA International Conference, June 29, 1996.

"Assessing the Implications of Kodak for Franchise Market Power Issues," before the American Bar Association, Antitrust Law Section, Spring Meeting, Washington, DC, March 27, 1996.

"Current Merger Policy: Banking and ATM Network Mergers," before the OCC Conference, November 1995.

"Economists and Empirical Analysis in the Merger Review Process: Beyond Market Share and HHI Calculations," before the American Bar Association, Antitrust Law Section and the International Bar Association Antitrust and Trade Law Committee, Washington, DC, November 9-10, 1995.

"Network Merger Analysis," for presentation at the 43rd Annual American Bar Association, Antitrust Law Section, April 6, 1995.

"Assessing the Implications of Bank Merger Transactions after Interstate Banking and Branching Legislation: Lessons to Be Drawn From Bank Merger Cases and Analysis in the '90's," for presentation at ACI Third Annual Bank Regulation Conference, Washington, DC, March 16, 1995.

"Key Issues in Antitrust Analysis of Bank Mergers in the 1990's," for presentation at the Bank Mergers and Acquisitions Program Practicing Law Institute, September 12-13, 1994.

"Economic Issues in Network Merger Analysis," for presentation at Mergers: The Cutting Edge before the American Bar Association, 1994 Annual Meeting, New Orleans, August 9, 1994.

"Vertical Integration as a Threat to Competition Airline Computer Reservation Systems," in J. Kwoka Jr. and L. White, eds. *The Antitrust Revolution*, (2nd edition), 1993.

"The 1992 Agency Horizontal Merger Guidelines and the Department of Justice's Approach to Bank Merger Analysis," *Antitrust Bulletin*, Vol. XXXVII, No. 3, Fall 1992, (with Janusz Ordover).

"The 1992 Agency Horizontal Merger Guidelines and the Department of Justice Approach to Bank Mergers," in *Proceedings of the 28th Annual Conference on Bank Structure and Competition*, May 1992, (with Janusz Ordover).

Electronic Services Networks: A Business and Public Policy Challenge, Praeger, 1991, (with S. Wildman).

"Computer Reservations Systems and their Network Linkages to the Airline Industry," in *Electronic Services, Networks: A Business and Public Policy Challenge*, Praeger, 1991, (with R. Noll).

"Electronic Services Networks Functions, Structures, and Public Policy" in *Electronic Services* Networks: A Business and Public Policy Challenge, Praeger, 1991, (with S. Wildman).

"New Developments in Airline Merger Analysis: Changes in the Industry and the Evidence," *Regulatory Reform*, January 1988.

"State and Federal Regulation in the Market for Corporate Control," EAG Discussion Paper, EAG 86-4, *Antitrust Bulletin*, Winter 1988, (with R. McGuckin and F. Warren-Boulton).

"Current Issues in Airline Mergers," presented at the Stanford Conference on Firm Ownership and Competition, June 19-20, 1987.

"The 1982 Department of Justice Guidelines: Applications to Banking Markets," *Issues in Bank Regulation*, Winter 1983, reprinted in T. Havrilesky, R. Schweitzer, and J. Boorman, ed. *Dynamics of Banking*, Harlan Davidson, Inc., 1985.

Department of Justice, Report to Congress on the Computer Reservations Industry, December 1985.

"New Rules of the Game: Modifying Bank Merger Analysis to Account for Regulatory Changes," presented at the Association of Public Policy and Management Conference, New Orleans, October 1984

"The Determinants of Thrift Institutions' Commercial Lending Activity," *Chicago Bank Structure and Competition Compendium*, September 1983, (with C. Dunham).

"How Quickly Can Thrifts Move into Commercial Lending?" New England Economic Review, November/December 1983, (with C. Dunham).

Department of Justice, Report to Congress on Competition in the Coal Industry, March 1982.

Direct and Rebuttal Testimony in the *Investigation into the Competitive Marketing of Air Transportation*, at the Civil Aeronautics Board, August 1980.

National Benefits/Costs of Enhanced Oil Recovery Research Final Report, Arthur D. Little, Inc., submitted to the Energy Research and Development Administration, August 1976, (with F. Mansvelt-Beck and T. Rothermal)

OTHER PROFESSIONAL ACTIVITIES

Member, International Task Force, Section of Antitrust Law, American Bar Association and its Committees, including Healthcare and Pharmaceuticals

Member, American Economics Association

PAST PROFESSIONAL ACTIVITIES

Chair, Interagency Task Force on Bank Competition (at the U.S. Department of Justice, Antitrust Division)

Co-Chair, Economics Task Force, Member, Technology and Financial Resources Task Force, Chair of the Membership Committee, Transition Task Force Member, Chair of the Exemptions and Immunities Task Force, Council Member, Chair, Financial Markets and Institutions Committee, Member Advisory Board on Section Reserves, Long Range Planning Committee, Section of Antitrust Law, American Bar Association

TAB B

TAB B: MATERIALS REVIEWED AND RELIED UPON

INFORMATION SUBMITTED TO THE PENNSYLVANIA INSURANCE DEPARTMENT INFORMATION

- All confidential and non-confidential materials produced by the parties to Pennsylvania Insurance Department
- All public submissions made to the Pennsylvania Insurance Department (http://www.portal.state.pa.us/portal/server.pt/community/industry_activity/9276/highmark_ __west_penn_cumulative_log/1036250)

REPORTS SUBMITTED BY BARRY HARRIS AND BACKUP MATERIALS

Amended April Report of Barry C. Harris, Economists Incorporated, October 15, 2012

Harris Supplement 1 to Report of Barry C. Harris, Economists Incorporated, May 31, 2012

Harris Supplement 2 to Report of Barry C. Harris, Economists Incorporated, May 31, 2012

- Amended Supplement 3 to Amended April Report of Barry C. Harris, Economist Incorporated, October 15, 2012
- Amended Supplement 4 to Amended April Report of Barry C. Harris, Economist Incorporated, October 15, 2012
- Amended Supplement 5 to Amended April Report of Barry C. Harris, Economist Incorporated, October 15, 2012
- Supplement 6 to Amended April Report of Barry C. Harris, Economist Incorporated, October 15, 2012

FILES PRODUCED BY ECONOMISTS, INC.

29 county list of western pa service area.xlsx

2007-2011 Insured Estimates by County_CKD.xlsx

CaseDetail_PA_IP.xlsx

Harris Exhibit 6 Calculation Analysis 120812.xlsx Highmark Employed Physician Listing 03-14-2012[2].xls Highmark Membership Files 2007-2011.xlsx Hospital Locations List_CKD.xlsx Indiana State Dept of Health ms-drg_id.xls Network Practitioners- 1 2012 Highmark Blue Shield.xls WPAHS Employed Physicians with NPI and PA ID 2-24-12 v2.xls

PUBLICLY-AVAILABLE DATA

Annual statements filed by insurance companies to the Pennsylvania Insurance Department

Pennsylvania Department of Health Bureau of Health Statistics and Research, http://www.portal.state.pa.us/portal/server.pt?open=514&objID=596752&mode=2

ACADEMIC LITERATURE AND CONFERENCE PRESENTATIONS

- "Employer Health Benefits," The Kaiser Family Foundation Health Research & Educational Trust (2011)
- "HealthPartners BestCare Initiative, How to Deliver \$2 Trillion in Medicare Cost Savings and Improve Care in the Process," undated, available at www.ihi.org
- "The Case for Reinvigorating Antitrust Enforcement for Health Plan Mergers and Anticompetitive Conduct to Protect Consumers and Providers and Support Meaningful Reform," *American Hospital Association* (May 2009),http://www.aha.org/aha/content/2009/pdf/09-05-11-antitrust-rep.pdf
- ABA Section of Antitrust Law, Health Care Mergers and Acquisitions Handbook
- Allain, Marie-Laure, Chambolle, Claire and Georges Rey, Patrick, "Vertical Integration, Information and Foreclosure," No 673, IDEI Working Papers from Institut d'Économie Industrielle

- (IDEI), Toulouse, November 25, 2011
- American Hospital Association, Trends Affecting Hospitals and Health Systems, AHA TrendWatch Chartbook, 2012
- Baker, Jonathan, "Comcast/NBCU: The FCC Provides a Roadmap for Vertical Merger Analysis;" *Antitrust*, (2011), Vol. 25, No. 2
- Ball, K. A. and C. S. Wright, "Most Favored Nations Clauses Reexamined in Light of DOJ Challenge in Michigan," *Member Briefing*, American Health Lawyers Association, 2011
- Blair, Roger D. and Jeffrey L. Harrison, Monopsony in Law and Economics, Cambridge University Press, NY, NY, 2010
- Bolch, Matt Tight "Payer, Provider Connection Gives Local Plans Advantages," *Managed Healthcare Executive*, (2012), Vol, 22, No. 1
- Botti, M. J. "Observations on and from the Antitrust Division's Buyer-Side Cases: How Can "Lower" Prices Violate Antitrust Laws?" (2007)
- Braun, C. J., and Short, F. Going Vertical: The Hospital-Health Insurer Merger. Paper presented at the Antitrust in Healthcare Conference, Arlington, VA, May 3-4, 2012
- Brunt, Christopher Scott and Bowblis, John R., An Analysis of the Effects of Health Insurer Monopsony Power on Primary Care Physician Practices, (August 21, 2012).
- Buntin, et al., "Consumer-Directed Health Care: Early Evidence About Effects On Cost And Quality," *Health Affairs*, (2006), Vol. 25, No.6
- Buntin, Melinda Beeuwkes, et. al. "Healthcare Spending and Preventive Care in High-Deductible and Consumer-Directed Health Plans" American Journal of Managed Care, 17, no. 3 (March 2011)
- Burns, L. R., and Pauly, M. V., "Integrated Delivery Networks: A Detour On The Road To Integrated Health Care?" *Health Affairs*, (2002), Vol. 21, No. 4
- Capps, Cory S., "Federal Health Plan Merger Enforcement Is Consistent and Robust," *Bates White*, November 2009
- Carey, K. "Hospital Cost Efficiency and System Membership." Inquiry (2003), 40(1)

- Carey, Kathleen. "Stochastic Demand for Hospitals and Optimizing 'Excess' Bed Capacity." Journal of Regulatory Economics (1998), 14
- Carlton, Dennis W. and Jeffrey M. Perloff, *Modern Industrial Organization*, 3rd ed., Boston: Pearson/Addison-Wesley, (1999)
- Chen, Yongmin, "On Vertical Mergers and Their Competitive Effects," *RAND Journal of Economics*, (2001), Vol. 32
- Church, Jeffrey, Vertical Mergers, in ISSUES IN COMPETITION LAW AND POLICY (ABA Section of Antitrust Law 2008
- Ciliberto, F. and D. Dranove, "The effect of physician-hospital affiliations on hospital prices in California," *Journal of Health Economics*, (2006) Vol. 25, No. 1
- Claffey, Thomas F; Agostini, Joseph V; Collet, Elizabeth N; Reisman, Lonny; Krakauer, Randall Payer-Provider Collaboration In Accountable Care Reduced Use And Improved Quality In Maine Medicare Advantage Plan, Health Affairs, (2012), Vol. 3, No. 9
- Claxton, G., et al., "Employer Health Benefits 2011 Annual Survey," *The Kaiser Family Foundation*, September 27, 2011

Competition in Health Insurance: A Comprehensive Study of U.S. Markets (2011 Update)

Creighton, Susan A., et al., "Naked Exclusion," Antitrust Law Journal, (2005) Vol. 72, Issue 3

- Cuellar, A. E. and P. J. Gertler, "Strategic integration of hospitals and physicians," *Journal of Health Economics*, (2006), Vol. 25, No. 1
- Dafny, L., Are Health Insurance Markets Competitive? NBER Working Paper Series. National Bureau of Economic Research, (2008)
- Dafny, L., M. Duggan and S. Ramanarayanan "Paying a Premium on your Premium? Consolidation in the U.S. Health Insurance Industry," NBER Working Paper Series, National Bureau of Economic Research, 2009
- DOJ and FTC Workshop on Most-Favored-Nations-Clauses and Antitrust Enforcement and Policy; September 10, 2012 http://www.justice.gov/atr/public/workshops/mfn/index.html

Douglas McCarthy and Kimberly Mueller; Organizing the U.S. Health Care Delivery System for

High Performance; July 2009

- Douven, R., Halbersma, R., Katona, K., and Shestalova, V., Vertical Integration and Exclusive Vertical Restraints Between Insurers and Hospitals, (2010), CPB Discussion Papers. CPB Netherlands Bureau for Economic Policy Analysis
- Dranove, David and Lindrooth, Richard, "Hospital consolidation and costs: another look at the evidence," *Journal of Health Economics*, Vol. 22(6).
- Dranove, David and Ludwick, Richard. "Competition and Pricing by Nonprofit Hospitals: A Reassessment of Lynk's Analysis." Journal of Health Economics, (1999), 18: 87-98
- Enthoven, Alain C., "Integrated Delivery Systems: The Cure for Fragmentation," American Journal of Managed Care, (2009), 15 at S284-S290
- Federal Trade Commission and the Department of Justice, "Improving Health Care: A Dose of Competition," July 2004
- Feinstein, Deborah, "Editor's Note: Are the Vertical Merger Guidelines Ripe for Revision?" *Antitrust*, (Summer 2010)
- Fenton, Kathryn and Barry Harris, "Vertical integration and antitrust in health care markets," *Antitrust Bulletin* (1994), Vol. 39
- Gal-Or, Esther. "Excessive Investment in Hospital Capacities," Journal of Economics & Management Strategy (1994), 3(1),
- Gavil, Andrew I., William K. Kovacic & Jonathan B. Baker, Antitrust Law In Perspective: Cases, Concepts And Problems In Competition Policy 869 (2d ed. 2008)
- Gaynor, M., Is vertical integration anticompetitive?: Definitely maybe (but that's not final). Journal of Health Economics, (2006), Vcl. 25 No. 1
- Gruber, J. and J. Poterba, "Tax Incentives and the Decision to Purchase Health Insurance: Evidence from the Self-Employed," *The Quarterly Journal of Economics*, August, 1994
- Hart, O. and J. Tirole, "Vertical Integration and Market Foreclosure," Brookings Papers: Microeconomics, (1990), 205-286

Hayen, A., Meijboom, B. R., and Westert, G. P., "Vertical Integration of Health Insurance and

Care Provision: Does it Improve Service Delivery?" International Public Health, (2011), Vol. 3, No. 2

Health Care Cost and Utilization Report: 2010, Health Care Cost Institute

- Ho, K., Barriers to Entry of a Vertically Integrated Health Insurer: An Analysis of Welfare and Entry Costs, 2008
- Ho, K., "Insurer-Provider Networks in the Medical Care Market." *American Economic Review*, (2010), Vol. 99, No. 1, 2009
- Ho, K., "The welfare effects of restricted hospital choice in the US medical care market." Journal of Applied Econometrics, (2006), Vol. 21, No. 7
- Huckman, R. S., "Hospital integration and vertical consolidation: an analysis of acquisitions in New York State," *Journal of Health Economics*, (2006), Vol. 25, No. 1
- Jones, Rod, "Hospital Bed Occupancy Demystified," British Journal of Healthcare Management, (2011), Vol. 17, no 6:242-248
- Joseph P. Newhouse, "What Does the RAND Health Insurance Experiment Tell Us About the Impact of Patient Cost Sharing on Health Outcomes?" *American Journal of Managed Care*, Vol. 14, no. 7 (July 2008)
- Katherine Gottlieb, Ileen Sylvester, and Douglas Eby, Transforming Your Practice: What Matters Most, Family Practice Management, www.aafp.org/fpm, January 2008
- Katz, Michael L., "Provider competition and healthcare quality: More bang for the buck?" International Journal of Industrial Organization, (2004)
- Katz, W. M. and M. M. McCluggage, "Most Favored Nations Clauses in Health Care Contracts: The Antitrust Issues," *The Insurance Policy*, (2013)
- Kevin Grumbach, Thomas Bodenheimer, and Paul Grundy, The Outcomes of Implementing Patient-Centered Medical Home Interventions: A Review of the Evidence on Quality, Access and Costs from Recent Prospective Evaluation Studies, August 2009
- Klick, Jonathan and Wright, Joshua D., "The Effect of Any Willing Provider and Freedom of Choice Laws on Health Care Expenditures," (2012). Scholarship at Penn Law. Paper 449

- Lafontaine, Francine and Margaret Slade, "Vertical Integration and Firm Boundaries: The Evidence," *Journal of Economic Literature*, (September 2007), Vol. 45
- Lega, Federico, "Organizational Design for Health Integrated Delivery Systems: Theory and Practice," Science Direct, Health Policy, (2007)
- Lynk, William, "Nonprofit Hospital Mergers and the Exercise of Market Power," Journal of Law and Economics, (1995), 38: 437-461
- Marius Schwartz, Economics Director of Enforcement, Antitrust Division, U.S. Department of Justice. "Buyer Power Concerns and the Aetna-Prudential Merger," October 20, 1999, Text Released November 30, 1999
- McCarthy, Douglas, Kimberly Mueller, and Jennifer Wrenn, "Geisinger Health System: Achieving the Potential of System Integration Through Innovation, Leadership, Measurement, and Incentives," The Commonwealth Fund, Case Study, Organized Health Care Delivery System, June 2009
- McCarthy, K. H. and A. M. Zuckerman, "Realizing the full financial benefits of true integration." *Health Finance Management*, (2010), Vol. 64, No.11
- Moore, Keith D. and Dean C. Coddington, Multiple Paths to Integrated Health Care," Healthcare Financial Management, (December 2009)
- Moresi, Serge and Steven Salop, "vGUPPI: Scoring Unilateral Pricing Incentives in Vertical Mergers," Georgetown Business, Economics and Regulatory Law Research Paper No. 12-022, 2012
- Moriya, A. S., W. B. Vogt and M. Gaynor, "Hospital prices and market structure in the hospital and insurance industries," *Health Econ Policy Law*, (2010), Vol. 5, No. 4
- NPHHI, "Literature Review, Integrated Health Care."

OECD Policy Roundtables Vertical Mergers (2007)

Petrasincu, Alex, "The Treatment of Vertical and Conglomerate Mergers in the European Union—The European Commission's New Guidelines on the Assessment of Non-Horizontal Mergers, Georgetown Journal of International Law, Vol. 40, 2009

Pinar Karaca-Mandic and Jean M. Abraham, Is the Medical Loss Ratio a Good Proxy for Market

Power in the Individual Market for Health Insurance? (Working Paper, April 2012)

- Pozen, Sharis, "Competition and Health Care: A Prescription for High-Quality, Affordable Care," Prepared Remarks, March 19, 2012
- Ramirez, Edith, "FTC Behavior Remedies," ABA Antitrust Fall Forum, November 17, 2011
- Rey, Patrick and Jean Tirole, "A Primer on Foreclosure," Handbook of Industrial Organization III, Vol 3, 2007
- Riordan, Michale H. and Steven Salop, "Evaluating Vertical Mergers: A Post-Chicago Approach," *Antitrust Law Journal*, 1995
- Robinson, J. C., and Casalino, L. P., "Vertical integration and organizational networks in health care," *Health Affairs*, (1996), Vol. 15, No. 1
- Scott-Morton, Fiona, "Contracts that Reference Rivals," Presented at Georgetown University Law Center Antitrust Seminar, April 5, 2012
- Shih, Anthony, Karen Davis, Stephen C. Schoenbaum, Anne Gautheir, Rachel Nuzum, and Douglas McCarthy, "Organizing the U.S. Health Care Delivery System for High Performance," Commission on a High Performance Health System, The Commonwealth Fund, August 2008
- Shortell, Stephen M., Robin Gillies, and Frances Wu, "United States Innovations in Healthcare Delivery," *Public Health Reviews*, (1990), Vol. 32, No. 1
- Simpson, John and Shin, Richard, "Do Nonprofit Hospitals Exercise Market Power?" International Journal of the Economics of Business, 1998, 5(2): 141-157
- Sinaiko, Anna D "Tiered Provider Networks as a Strategy to Improve Health Care Quality and Efficiency" Expert Voices in Health Care Policy, National Institute For Health Care Management Foundation (2012)
- Sinaiko, Anna D, "Tiered Provider Networks as a Strategy to Improve Health Care Quality and Efficiency" Expert Voices in Health Care Policy, National Institute For Health Care Management Foundation (2012)
- Sinaiko, Anna D., "How Do Quality Information and Cost Affect Patient Choice of Provider in a Tiered Network Setting? Results from a Survey," Health Services Research, (April 2011),

46:2

- Sorensen, Alan T., "Insurer-Hospital Bargaining: Negotiated Discounts in Post-Deregulation Connecticut," The Journal of Industrial Economics, Volume LI, No. 4, December 2003
- Statement of the Attorney General as to the Caritas Christi transaction, (October 6, 2010) at Assessment and Monitoring Agreement
- Tirole, Jean, The Theory of Industrial Organization, Cambridge, MA: The MIT Press (1988)
- Varney, C. A., "Antitrust and Healthcare," ABA/AHLA Antitrust in Healthcare Conference, Arlington, VA, Department of Justice, 2010

Washington State Hospital Association, Governing Board Manual, Chapter 11, 2006

NEWS ARTICLES AND PRESS RELEASES

- "Agency Downgrades West Penn Allegheny Health System Bond Rating, Pittsburgh Post-Gazette, January 22, 2012." http://www.post-gazette.com/stories/business/news/agencydowngrades-west-penn-allegheny-health-system-bond-rating-670002/
- "Premier CEO says Highmark affiliation will let it reach more people," Pittsburgh Post-Gazette, April 29, 2012
- "West Penn Allegheny Health System Makes Substantial Restructuring Progress, Post Financial Results for the First Half of Fiscal Year 2011," WPAHS Press Release, February 25, 2011
- Matthews, Anna Wilde, "Hospital Systems Branch Out as Insurers," The Wall Street Journal, December 16, 2012
- Moody's Cuts WPAHS's Bond Rating," Pittsburgh Business Times, November 13, 2012. http://www.bizjournals.com/pittsburgh/news/2012/11/13/moodys-cuts-wpahs-bond-rating.html
- Moody's Investor Service, "Moody's Downgrades West Penn Allegheny Health System's (PA) Bond Rating to Caa1 from B2; Outlook Remains Negative," 22 November 2011
- Pipes, Sally, "How High Deductible Plans Lead To Low Healthcare Spending," Forbes, May 28, 2011

Pravlik, Melissa, "Top 5: Major health insurers operating in Pennsylvania," Pittsburgh Business Times, August 31, 2012, available at http://www.bizjournals.com/pittsburgh/news/2012/08/31/major-health-insurers-operating-inpa.html

LEGAL CASES AND REGULATORY RULINGS AND INFORMATION

- Attorney Gen. of the Comm. of Mass., Morton Hosp. & Med. Ctr., Inc. et al. & Steward Health Care Sys. LLC, Assessment & Monitoring Agreement (Sept. 30, 2011), available at http://www.mass.gov/ago/docs/ nonprofit/morton/complaint-exhibit-l.pdf.
- Competitive Impact Statement, United States v. UnitedHealth Group, Inc. and PacifiCare Health Systems, Inc., filed March 3, 2006
- Competitive Impact Statement, United States v. Blue Cross and Blue Shield of Montana, Inc., Billings Clinic, Bozeman Deaconess Health Services, Inc., Community Medical Center, Inc., New West Health Services, Inc., Northern Montana Health Care, Inc., and St. Peter's Hospital
- Competitive Impact Statement, United States v. UnitedHealth Group, Inc. and Sierra Health Services, Inc., filed February 25, 2008
- Competitive Impact Statement, United States of America and State of Texas v. United Regional Health Care System, filed February 25, 2011
- Decision and Order, In Re: Application of Medical Service Association of Pennsylvania d/b/a Pennsylvania Blue Shield and Veritas Inc. d/b/a Blue Cross of Western Pennsylvania for Change in Control of Keystone Health Plan West, Inc., Trans-General Casualty Insurance Company, Inc., Keystone Health Plan Central, Inc., Keystone Health Plan East, Inc., United Concordia Life and Health Insurance Company, and HealthGuard of Lancaster, Before the Insurance Commissioner of the Commonwealth of Pennsylvania, Docket No. MS96-04-098

European Commission Non-Horizontal Merger Guidelines

Final Judgment; United States of America and State of Montana, Plaintiffs, v. Blue Cross and Blue Shield of Montana, Inc., et al., Defendants. Case No. 1:11-cv-00123-RFC.

- Statement of the Department of Justice's Antitrust Division on Its Decision to Close Its Investigation of Highmark's Affiliation Agreement with West Penn Alleghany Health System, "U.S. Department of Justice, Antitrust Division, Press Release, April 10, 2012
- United States of America and State of Michigan, Plaintiffs, v. Blue Cross and Blue Shield of Michigan, Defendants. Case No. 2:10-cv-14155-DPH –MKM
- United States of America and State of Montana, Plaintiffs, v. Blue Cross and Blue Shield of Montana, Inc., et al., Defendants. Case No. 1:11-cv-00123-RFC
- United States of America and State of Texas, Plaintiffs, v. United Regional Health Care System, Defendants. Case No. 7:11-cv-00030-O
- United States v. Chancellor Media Corp., 1999-1, United States v. AlliedSignal, Inc., 2000-2, and United States v. Aetna, Inc., 1999-2
- United States v. MCI Communications Corp., 1994-2
- U.S. Department of Justice, Antitrust Division "Antitrust Division Policy Guide to Merger Remedies;" Department of Justice, 2011
- U.S. Federal Trade Commission and U.S. Department of Justice Antitrust Division, "Statement of Antitrust Enforcement Policy Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program," FR, Vol 76, No. 209, October 28, 2011

WEBSITES

- http://www.bizjournals.com/pittsburgh/news/2012/06/07/magee-womens-expansioncompleted.html
- http://www.cbsys.ago.state.ma.us/cbpublic/public/hccdownloadreportdatanew.aspx?report_year= 2011
- http://www.jeffersonregional.com/press-releases/jefferson-regional-announces-plans-strategicpartnership-highmark
- http://www.ncdhhs.gov/dhsr/pdf/copamission2011.pdf
- http://www.ncga.state.nc.us/EnactedLegislation/Statutes/pdf/ByArticle/Chapter_131E/Article_9

A.pdf

http://www.upmc.com/locations/hospitals/east/about/Pages/default.aspx and

http://triblive.com/home/2138526-74/upmc-hospital-east-patients-sevco-forbes-departmentemergency-monroeville-shadyside

http://www.upmc.com/locations/hospitals/Magee/about/Pages/expansion.aspx.

http://www.wpahs.org/locations/western-pennsylvania-hospital/history

https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MCRAdvPartDEnrolData/Monthly-MA-Enrollment-by-State-County-Contract-Items/MA-Enrollment-by-SCC-2012-09.html, "MA Enrollment by State/County/Contract -September 2012 – Full version [ZIP, 1MB]."

The Commonwealth Fund , http://www.commonwealthfund.org/

APPENDIX II

OVERVIEW OF THE COMMERCIAL INSURERS OPERATING IN THE PITTSBURGH AREA

I. COMPARISON OF COMMERCIAL INSURERS BASED ON PREMIUMS WRITTEN AND MEMBERS IN PENNSYLVANIA

Information provided by Highmark shows that it is a large healthcare insurer with approximately 2.5 million policyholders in the 29-county WPA area as of September 2012. Of these, PPO Plan enrollees totaled approximately 1.9 million, traditional plan enrollees totaled approximately 220 thousand, Federal Employee Health Benefit Program enrollees totaled approximately 230 thousand, and senior plan enrollees totaled approximately 148 thousand.¹ Highmark provides healthcare insurance via a number of commercial insurance subsidiaries and offerings, including Highmark BCBS, Keystone Health Plan West (its HMO unit), Medicare Advantage plans, and plans for small businesses insured through its for-profit subsidiary, Highmark Health Insurance Company.²

¹ Amendment 2 to Confidential Supplement Submitted with Form A at Exhibit G, at 7. A PPO is a preferred provider organization that contracts with providers of medical care to provide services at discounted fees to members; a traditional or fee-for service plan is a plan in which the patient or insurance company is billed for services provided; the Federal Employee Health Benefit Program is a PPO for federal employees; and senior plans are plans for enrollees aged 65 or older. The number of Highmark's commercial health insurance enrollees equaled million in the 29-county WPA area in 2011. Highmark Enrollment Data, Highmark Membership Files 2007-2011.xlsx.For Highmark's member distribution by product in Western Pennsylvania (as of July 31, 2011), see Highmark Response to PID Information Request 3.5, Current Book Analysis, Western Region CSG, as of July 31, 2011, UPE-0007236-85 at UPE-0007240. For a summary of member distribution by county in WPA, see for example, Crystallizing Highmark's Network Strategy, May 10, 2011, UPE-0010315-80 at UPE-0010379-80. For Highmark's number of policyholders and rate of growth by market segment, see Amendment No. 1 to Confidential Supplement (Volume II) Submitted with Form A, July 13, 2012, Exhibit G, at 6-7. ² For a general description of Highmark, as well as a description of its product offerings, see Amendment 1 to Form A, pp. 1-2 and Amendment No. 1 to Confidential Supplement (Volume II) Submitted with Form A, July 13, 2012, Exhibit G, at 3-4. For a listing of all insurance product lines, by geographic area, offered by Highmark or any Highmark affiliate (whether or not they are the subject of the Form A filing), see Highmark Response to PID Information Request 4.2.13, at UPE-0006454-59. For additional information regarding Highmark's product planning and related information, see Highmark Response to PID Information Request 4.2.5, Highmark Corporate Strategy Overview, November 2011, at UPE-0012435-76.

Table A.II-1a provides basic information at the state level on the major competing insurers offering commercial health insurance in WPA.³ While these data are statewide, they provide a means to compare Highmark with the other insurers in WPA using a common data source and metrics (e.g., total annual health insurance premiums written).⁴ The dollar value of annual premiums written in the Commonwealth is the basis for these share calculations. Although these shares provide information on the relative size of each insurer operating in WPA, the specific estimates derived from these state data may overstate the national insurers' and Geisinger's shares. These insurers operate across the Commonwealth, or in Geisinger's case, predominantly in Central Pennsylvania. The data may understate Highmark's share and UPMC's share since both operate predominantly in the western part of the Commonwealth.

	Tabl	e	A.II	-1a
--	------	---	------	-----

Annual Premiums Written by Insurance Group in Pennsylvania

			\$ million	IS COLOR				Share		Contraction		% Change			
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2009	2010	2011	2012	
Total	\$18,515	\$19,803	\$20,898	\$21,714	\$22,225	100%	100%	100%	100%	100%	7%	6%	4%	2%	
Highmark	\$9,469	\$9,888	\$10,259	\$10,408	\$10,519	51%	50%	49%	48%	47%	4%	4%	1%	1%	
UPMC	\$2,015	\$2,209	\$2,474	\$2,745	\$3,136	11%	11%	12%	13%	14%	10%	12%	11%	14%	
Aetna	\$2,339	\$2,554	\$2,931	\$3,033	\$3,025	13%	13%	14%	14%	14%	9%	15%	3%	0%	
UnitedHealthCare	\$1,505	\$1,703	\$2,182	\$2,257	\$2,101	8%	9%	10%	10%	9%	13%	28%	3%	-7%	
HealthAmerica	\$2,058	\$2.242	\$1,630	\$1,677	\$1,769	11%	11%	8%	8%	8%	9%	-27%	3%	6%	
Geisinger	\$962	\$1,041	\$1,196	\$1,361	\$1,429	5%	5%	6%	6%	6%	8%	15%	14%	5%	
Cigna	\$167	\$166	\$226	\$233	\$246	1%	1%	1%	1%	1%	-1%	36%	3%	6%	

Notes:

The premium data reflects premiums written throughout the calendar year. It consists of Direct Premiums (line 26) from Accident and Health Insurance (Page 24.PA) from the Life Annual Statement, and Health Premiums Written (line 12) from the Exhibit of Premiums, Enrollment and Utilization (Page 29.PA) from the Health Annual Statement. PID provided this information upon request. Only companies licensed in Pennsylvania are considered. Companies with the same NAIC Group Code are combined and premiums are reported at the aggregated group level. NAIC group and company codes were provided by the P:D.

We have included companies that we understand sell commercial healthcare insurance (and in some instances, other types of insurance as well where we cannot isolate information for commercial healthcare insurance). For companies for which it is unclear whether they sell commercial healthcare insurance, and annual premiums are \$10 million or less, we have excluded those companies from the analysis.

Source: Annual statements filed by insurance companies to the PID.

Table A.II-1a confirms that Highmark is the largest insurance company operating in WPA with annual 2012 premiums written (at state level) of \$10.5 billion. Highmark's share of premiums written by companies operating in WPA has been declining, from 51% in 2008 to 47% in 2012, while the value of premiums written has increased each year (4% in 2009 and 2010, and 1% in

³ This appendix contains additional tables showing a breakdown of premiums written at the group and individual company level by year. It also provides share of total premiums written for each entity.

⁴ These data derive from annual statements filed with the PID and cover operations throughout the state of Pennsylvania. Data by insurance company for companies operating across the state is generally not available for WPA specifically. Not all annual statements include a breakdown of premiums by plan; thus in the table we provide total premiums by year and insurance group.

2011 and 2012) compared with the previous year.⁵ These data show that Highmark's rivals, UPMC and Aetna, are comparable with each other in size based on premiums written, although UPMC's activity is predominantly in WPA while Aetna's activity is statewide. The other rival insurers operating in WPA are similar in size to each other, while Cigna is smaller. UPMC, Aetna, UnitedHealthcare, Geisinger and Cigna have generally grown, while Highmark and HealthAmerica (Coventry) remained relatively flat or experienced some decline.

I also examined data on members from the PID annual filings, which provides an alternative perspective of relative size. The results, including share and change in share, shown in Table A.II-1b, are similar to those based on premiums written.⁶ Highmark has the largest enrollment for the selected plans with 1.6 million members as of 2012 and experienced some decline in members over the period.

⁵ The 47% share reflected in these tables is consistent with the approximately 60% share in estimates derived by Dr. Harris and by my independent estimates because shares of several of the other competitors are overstated with the inclusion of business elsewhere in the state.

⁶ These show the total number of members for individual, group, Title XVIII Medicare (which includes Medicare Advantage plans, among others), and Federal Health Employees Benefit Plan (FEHB) plans for the same insurance groups reported in Table A.II-1a to the extent comparable data exist. As available, enrollment data is provided by plan (e.g., Individual and Group Comprehensive (hospital and medical), Vision Only, Title XVIII Medicare), and we have attempted to isolate commercial health insurance plans to the extent possible by including Individual and Group Comprehensive (hospital and medical); Title XVIII Medicare (which includes Medicare Advantage plans); and FEHB. Tables [1d-f] in this appendix are more detailed versions of Tables A.II-1a-c, respectively, and show more detail regarding the underlying insurance companies. Table [1g] in in this appendix presents membership information for all plan groups reported in the annual filings, and Table [1h] is a version of Table [1g] that excludes the "All Other" plan group.

Table A.II-1b

	Start's				Share	% Change								
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2009	2010	2011	2012
Total	3,071,468	3,075,326	3,067,382	3,096,704	3,080,877	100%	100%	100%	100%	100%	0%	0%	1%	-1%
Highmark	1,675,364	1,629,933	1,578,041	1,571,832	1,554,486	55%	53%	51%	51%	50%	-3%	-3%	0%	-1%
UPMC	280,387	288,907	293,116	307,770	376,660	9%	9%	10%	10%	12%	3%	1%	5%	22%
Aetna	561,704	590,686	582,393	595,600	571,994	18%	19%	19%	19%	19%	5%	-1%	2%	-4%
UnitedHealthCare	14,931	48.928	49,641	47,405	48,973	0%	2%	2%	2%	2%	228%	1%	-5%	3%
HealthAmerica	334,982	306,566	323,629	319,306	274,998	11%	10%	11%	10%	9%	-8%	6%	-1%	-14%
Geisinger	204,100	210,306	240,562	254,791	253,766	7%	7%	8%	8%	8%	3%	14%	6%	0%
Cigna				and an of		1112	See.	-	-	-		1	Tam	-

Total Annual Individual, Group, Title XVIII Medicare and FEHB Members by Insurance Group in Pennsylvania

Notes:

Enrollment data reflects enrollment as of December 31st of each year and is the Total Members at the end of Current year (line 5) from the Exhibit of Premiums, Enrollment and Utilization (Page 29.PA) from the Health Annual Statement. Enrollment data is not available for the other annual statement. PID provided this information upon request. FEHB is the Federal Employees Health Benefit Plan. Individual and Group plans are for comprehensive (including hospital and medical). Only companies licensed in Pennsylvania are considered. Companies with the same NAIC Group Code are combined and members are reported at the aggregated group level. NAIC group and company codes were provided by the PID. For certain companies, premium written data is available but membership information is unavailable. Those entities are therefore included when aggregating premiums, but excluded when aggregating enrollment. Membership information is unavailable for the following entities: Aetna Life Insurance Company, UnitedHealthcare Insurance Company (Golden Rule Insurance Company (UnitedHealthcare), The Connecticut General Life Insurance Company (Cigna), Life Insurance Company of North America (Cigna) and The Cigna Health and Life Insurance Company. UPMC For You, Inc. did not report any Individual, Group, Title XVIII Medicare or FEHB members in 2010 and 2011 (confirmed by PID through its review of 2012 "Notes to the Financial Statements" and 2008 CPA Audit Report).

We have included companies that we understand sell commercial healthcare insurance (and in some instances, other types of insurance as well where we cannot isolate information for commercial healthcare insurance). For companies for which it is unclear whether they sell commercial healthcare insurance, and annual premiums are \$10 million or less, we have excluded those companies from the analysis.

Source: Annual statements filed by insurance companies to the PID.

These state-level data further confirm that UPMC, Aetna, and HealthAmerica are relatively comparable in size to each other in WPA.⁷ Each is about 20% of the size of Highmark. Total volume of members across these insurers has been relatively stable across the period, with the largest gains coming from UPMC's increasingly vigorous expansion, possibly at Highmark's and HealthAmerica's expense. UPMC's premium and volume of members increased more rapidly from 2011 to 2012 compared to prior years, which is particularly noteworthy given that industry-wide premiums and membership have been flat or declining in 2012 compared to 2011. I also examined state-level data regarding membership volume for individual and group plans to evaluate whether the results are different if Medicare (and FEHB) plans are excluded. As shown in Table A.II.-1c below, the results are generally similar with several differences. The overall annual percentage change in members across the two tables is similar, ranging from -3% to 1%. In terms of size, Highmark's share in 2012 is lower (45% vs. 50%) and Aetna's is higher (19% vs. 24%) when excluding Medicare and FEHB plan members, while the size of the other healthcare insurance companies is highly similar across the two tables. Table A.II.-1c also shows that UPMC's recent expansion is reflected even more strongly when evaluating membership

⁷ Cigna's filings (as well as some others for specific insurance companies, as noted at the bottom of the table) to the PID do not contain membership information.

trends in individual and group plans only. For example, UPMC's annual volume growth for individual and group plans was 30% in 2012, compared to 22% when Medicare and FEHB plan members are included.

Table A.II-1c

	Total Annual Individual and	Group Members b	y Insurance Grou	p in Pennsylvania
--	-----------------------------	-----------------	------------------	-------------------

	Members							Share	% Change					
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2009	2010	2011	2012
Total	2,328,600	2,269,104	2,221,117	2,219,141	2,175,113	100%	100%	100%	100%	100%	-3%	-2%	0%	-2%
Highmark	1,202,166	1,131,627	1,036,685	1,002,473	975,145	52%	50%	47%	45%	45%	-6%	-8%	-3%	-3%
UPMC	177,818	179,132	188,045	194,100	251,600	8%	8%	8%	9%	12%	1%	5%	3%	30%
HealthAmerica	266,643	225,583	258,538	258,002	201,985	11%	10%	12%	12%	9%	-15%	15%	0%	-22%
Aetna	504,787	532,294	516,639	538,433	523,524	22%	23%	23%	24%	24%	5%	-3%	4%	-3%
Geisinger	167,935	170,153	191,266	200,135	193,985	7%	7%	9%	9%	9%	1%	12%	5%	-3%
UnitedHealthCare	9,251	30,315	29,944	25,998	28,874	0%	1%	1%	1%	1%	228%	-1%	-13%	11%

Notes:

Enrollment data reflects enrollment as of December 31st of each year and is the Total Members at the end of Current year (line 5) from the Exhibit of Premiums, Enrollment and Utilization (Page 29,PA) from the Health Annual Statement. Enrollment data is not available for the other annual statement. PID provided this information upon request. Individual and Group plans are for comprehensive (including hospital and medical). Only companies licensed in Pennsylvania are considered. Companies with the same NAIC Group Code are combined and members are reported at the aggregated group level. NAIC group and company codes were provided by the PID. For certain companies, premium written data is available but membership information is unavailable. Those entities are therefore included when aggregating premiums, but excluded when aggregating enrollment. Membership information is unavailable. Those entities are therefore included when aggregating premiums, but excluded when aggregating enrollment. Membership information is unavailable. Those Company, UnitedHealthcare Insurance Company, Golden Rule Insurance Company (UnitedHealthcare), American Medical Security Life Insurance Company (UnitedHealthcare), The First Health Life & Health Insurance Company (HealthAmerica), The Connecticut General Life Insurance Company of North America (Cigna) and The Cigna Health and Life Insurance Company.

Members are not reported for the following companies (years): UPMC Health Benefits Inc. (2008, 2009 & 2010), Geisinger Indemnity Insurance Company (2009, 2010, 2011 & 2012) and UnitedHealthCare (2008). UnitedHealthcare's Individual and Group enrollment in 2008 has been estimated by applying the ratio of Individual and Group enrollment to Individual, Group, Title XVIII Medicare and FEHB enrollment in 2009 to Individual, Group, Title XVIII Medicare and FEHB enrollment in 2008.

We have included companies that we understand sell commercial healthcare insurance (and in some instances, other types of insurance as well where we cannot isolate information for

Source: Annual statements filed by insurance companies to the PID.

II. IN-NETWORK HOSPITAL AND PLAN INFORMATION BY INSURER IN THE 29-COUNTY WESTERN PA (WPA)

Developing cost effective and high quality networks of hospital and other healthcare providers is an important aspect of competition in health insurance. Network and product innovation is an area of considerable change nationally as many insurers increasingly test out products that involve narrower or tiered networks and benefit designs that incentivize consumers and employers to choose cost-effective providers and encourage providers to offer quality and costeffective services.⁸ As part of my evaluation of the commercial insurer marketplace in WPA, I examined the hospital networks and related plans currently offered in the 29-county area,

⁸ See Buntin, Melinda Beeuwkes, et. al. "Healthcare Spending and Preventive Care in High-Deductible and Consumer-Directed Health Plans," *American Journal of Managed Care*, 17, no. 3 (March 2011), Chernew, Michael E., and Joseph P. Newhouse, "What Does the RAND Health Insurance Experiment Tell Us About the Impact of Patient Cost Sharing on Health Outcomes?" *American Journal of Managed Care*, Vol. 14, no. 7 (July 2008), Sinaiko, Anna D, "Tiered Provider Networks as a Strategy to Improve Health Care Quality and Efficiency" Expert Voices in Health Care Policy, National Institute For Health Care Management Foundation (2012) and "Employer Health Benefits," *The Kaiser Family Foundation Health Research & Educational Trust* (2011).

including the identity of hospitals and available bed capacity within each of these networks. Table A.II-2 shows the number of in-network hospitals per insurer and plan. With the exception of Geisinger, insurers operating in WPA have a large number of in-network hospitals available to their members, with most insurers including all five of the WPAHS hospitals as in-network.⁹ UPMC does not have WPAHS hospitals in its network, although it has 44 hospitals in addition to UPMC hospitals in its network.¹⁰ There are relatively few tiered or limited networks currently offered in WPA, a fact that I address below.

⁹ I developed these network configurations from publicly available data from provider and payor websites and they reflect the broad set of in-network hospitals provided by the insurer, i.e., typically, the PPO networks. A more detailed summary by specific insurer is provided in Table [2a] in Appendix II. A more detailed summary by specific hospital and plan is provided in Table [2b] in Appendix II. Table [2c] in Appendix II provides maps showing the location of in-network hospitals for each insurance company.

¹⁰ The exclusion of WPAHS is likely due to the fact UPMC is vertically integrated with its own hospitals, which are large and located in areas close to WPAHS facilities and offering similar services.

Table A.II-2

Summary of Number of Hospitals and Beds In-Network by Insurer and Plan Region: 29-County Western PA (WPA) Area

Insurance Group	# of Hospitals	# of Staffed Beds	# of WPAHS Hospitals	# of WPAHS Staffed Beds
Aetna				
PPO	61	12,739	5	1,622
НМО	49	11,085	5	1,622
Medicare Advantage	41	8,302	5	1,622
Cigna				
PPO	62	12,711	5	1,622
Geisinger				
PPO	15	3,405	4	1,518
Medicare Advantage	18	3,527	5	1,622
НМО	21	3,828	5	1,622
HealthAmerica				
PPO	63	12,784	5	1,622
НМО	63	12,784	5	1,622
United Healthcare				
PPO	59	10,770	5	1,622
НМО	58	10,739	5	1,622
Medicare Advantage	54	11,442	4	1,364
Highmark				
PPO	61	11,067	5	1,622
Community Blue	52	9,049	5	1,622
Medicare Advantage	61	11,067	5	1,622
UPMC				
НМО	56	10,913	0	0
PPO	56	10,913	0	0
Medicare Advantage	52	10,434	0	0

Sources: Hospital information is from "Hospital Locations List_CKD.xlsx" backup material to the Harris Report. Insurer and plan affiliation are based on provider and insurer websites.

While PPO networks tend to offer the broadest choice of hospitals, each insurer operating in WPA also has large local networks for HMO and Medicare Advantage products.¹¹ Table A.II-2 includes the total staffed bed capacity of in-network hospitals for each insurer and plan, and

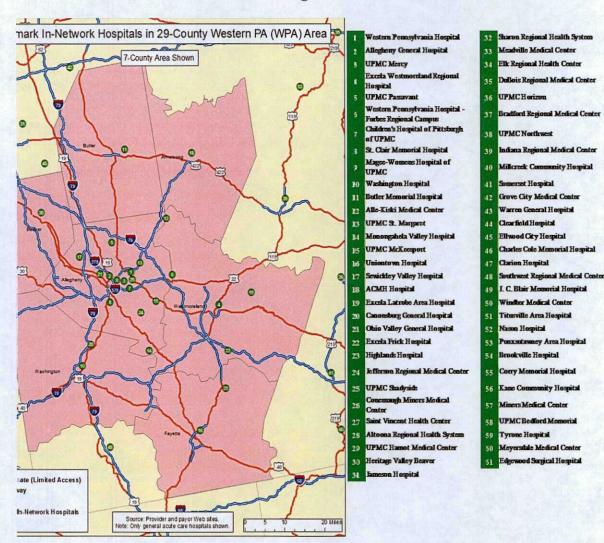
¹¹ All health plans, except those offered by UPMC, include the five WPAHS hospitals in-network One exception to this is Geisinger's PPO plan and UnitedHealthcare's Medicare Advantage plan, which includes four of the five WPAHS hospitals in-network. Table [2b] in Appendix II provides a full list of in-network hospitals for UPMC. Aetna, Cigna, HealthAmerica, UnitedHealthcare, and Highmark have a similar number of in-network hospitals as part of their PPO offerings in WPA. Geisinger's health plans primarily serve the Central PA area and have fewer numbers of in-network hospitals in WPA.

shows relatively similar bed capacities across the networks (other than Geisinger). Insurers tend to have somewhat narrower networks for their HMO or Medicare Advantage products, presumably offering greater discounts from hospitals for potentially larger inpatient volumes and offering somewhat lower premiums or co-pays to enrollees for reduced choice.¹²

To assess further the comparability of networks in terms of scope and location of hospitals, I examined the identity and location of hospitals in each network. These analyses are presented in a series of tables and maps in Appendix II that identify each in-network hospital, its bed capacity and its location for each of several insurers' networks. As is shown in the map below (Figure 1), Highmark's in-network hospitals are located throughout the WPA region (the shaded area shows the seven-county MSA).

¹² The economics literature shows that selective contracting or tiered and limited network contracting tends to be associated with increased discounts for reimbursements, and somewhat lower premium and co-pays relative to plans that are more inclusive or "open."

Figure 1



Comparison of the maps and tables across insurers reveal similarly situated insurers in terms of their current network configurations with apparent differences in total numbers of in-network hospitals largely accounted for by inclusion or exclusion of smaller community hospitals, or in some instances, the inclusion or exclusion of WPAHS. Moreover, the maps show that it is at least theoretically possible for each insurer to devise a narrower or tiered network product that would include some subset of the total number of hospitals and provide both convenient locations and substantial bed capacity. The UPMC tables and map in Appendix II, for example, show the practical ability of the individual UPMC hospitals to substitute for WPAHS hospitals (and potentially the reverse) in a narrower network product. Highmark's Community Blue plan is another example of a network with a large number of community hospitals and WPAHS

collectively offering substantial bed capacity and a broad range of services, but do not include UPMC hospitals.¹³ Moreover, occupancy rates, i.e., usage of hospital beds, in WPA are low on average, and at many individual hospitals, suggesting potential efficiency gains from consolidating patient volume into fewer hospitals. The Community Blue network, in addition to having capacity to treat additional patients, also has the capability to provide the full range of services enrollees may require.¹⁴

The large number of in-network hospitals, lower occupancy rates, and substantial total bed capacity also suggests that ongoing and future efforts to direct patient volumes to specific hospitals via increased use of tiered or limited networks, or other mechanisms, could result in a competitive outcome of substantial excess capacity at individual hospitals and across the marketplace.¹⁵

<u>Summary</u>: The aggregated premiums written and member data reveal a skewed size distribution of the major commercial healthcare insurance companies operating in WPA, albeit based on statewide measures. Aetna, HealthAmerica and UPMC appear to be of roughly comparable size in WPA, and about a fifth the size of Highmark. Current network configurations suggest that insurers are competing in WPA with relatively similar breadth of network hospital offerings and range of PPO and HMO products. Few current examples of networks exists that exclude major hospitals other than the UPMC health plan offering, which excludes WPAHS, and Highmark's recent re-launch of Community Blue, which excludes UPMC hospitals.¹⁶

III. ADDITIONAL TABLES AND FIGURES

¹³ See Table [2b] in this appendix for a listing of the hospitals in Community Blue and Section III.B.4 of my report for my analyses of the capacity and services offered in this network.

¹⁴ For supporting analyses, see Appendix III, Table A.III-6.

¹⁵ I address this further in my report in my discussion of the impact of a successful UPE IDN on capacity utilization at area hospitals.

¹⁶ Highmark's Community Blue plan is a limited network plan, and includes WPAHS and many community hospitals but does not include UPMC hospitals as in-network offerings. Table [2b] in this appendix includes a listing of the hospitals in the Community Blue network.

CONFIDENTIAL PROPRIETARY/TRADE SECRET INFORMATION

Appendix II 1: PREMIUMS WRITTEN AND MEMBERSHIP TABLES BASED ON PID DATA, 2008 -2012

The following eight tables summarize premiums written and membership information for insurers operating in the state of Pennsylvania. The information is derived from annual statements filed by insurance companies to the PID. The premium data reflects premiums written throughout the calendar year. It consists of Direct Premiums (line 26) from Accident and Health Insurance (Page 24.PA) from the Life Annual Statement, and Health Premiums Written (line 12) from the Exhibit of Premiums, Enrollment and Utilization (Page 29.PA) from the Health Annual Statement. Enrollment data reflects enrollment as of December 31st of each year and is the Total Members at the end of Current year (line 5) from the Exhibit of Premiums, Enrollment data is not available in the other annual statement.

Table [1a]: Annual Premiums Written by Insurance Group in Pennsylvania. The table shows premiums written (in millions of dollars) by each insurer, the vertical share of premiums, and the year-over-year change in premiums written for each insurer.

Table [1b]: Total Annual Individual, Group, Title XVIII Medicare and FEHB Members by Insurance Group in Pennsylvania. The table shows members for each insurer, the vertical share of members, and the year-over-year change in membership for each insurer.

Table [1c]: Total Annual Individual and Group Members by Insurance Group in Pennsylvania. The table shows members for each insurer, the vertical share of members, and the year-over-year change in membership for each insurer.

Table [1d]: Annual Premiums Written by Insurance Company at the Group and Company Level, Geography: State of Pennsylvania. This is a detailed version of Table [1a] and shows premiums written (in millions of dollars) and the vertical share of premiums for each company, in addition to group level data.

Table [1e]: Total Annual Individual, Group, Title XVIII Medicare and FEHB Members at the Group and Company Level, Geography: State of Pennsylvania. This is a detailed version of Table [1b] and shows membership and the vertical share of members for each company, in addition to group level data.

Table [1f]: Total Annual Individual and Group Members at the Group and Company Level, Geography: State of Pennsylvania. This is a detailed version of Table [1c] and shows membership and the vertical share of members for each company, in addition to group level data.

Table [1g]: Breakdown of Total Members by Insurance Plan at the Group and Company Level, Geography: State of Pennsylvania. The table shows membership information for all the groups reported in the 29.PA filings: Total Number of Members, Individual, Group, Medicare Supplement, FEHB, Title XVIII Medicare, Title XIX Medicaid, and All Other. All Other includes "Vision Only", "Dental Only" and "Other" categories. According to the instructions for the annual statements, "Other" includes policies providing stand-alone Medicare Part D Prescription Drug Coverage.

Table [1h]: Breakdown of Total Members by Insurance Plan at the Group and Company Level (excludes All Other), Geography: State of Pennsylvania. This table is a version of Table [1g] but excludes "All Other".

CONFIDENTIAL PROPRIETARY/TRADE SECRET INFORMATION

			\$ million	S		Share					% Change				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2009	2010	2011	2012	
Total	\$18,515	\$19,803	\$20,898	\$21,714	\$22,225	100%	100%	100%	100%	100%	7%	6%	4%	2%	
Highmark	\$9,469	\$9,888	\$10,259	\$10,408	\$10,519	51%	50%	49%	48%	47%	4%	4%	1%	1%	
UPIMC	\$2,015	\$2,209	\$2,474	\$2,745	\$3,136	11%	11%	12%	13%	14%	10%	12%	11%	14%	
Aetna	52,339	\$2,554	\$2,931	\$3,033	\$3,025	13%	13%	14%	14%	14%	9%	15%	3%	0%	
UnitedHealthCare	\$1,505	\$1,703	\$2,182	\$2,257	\$2,101	8%	9%	10%	10%	9%	13%	28%	3%	-7%	
HealthAmerica	\$2,058	\$2,242	\$1,630	\$1,677	\$1,769	11%	11%	8%	8%	8%	9%	-27%	3%	6%	
Geisinger	\$962	\$1.041	\$1,196	\$1,361	\$1,429	5%	5%	6%	6%	6%	8%	15%	14%	5%	
Cigna	\$167	\$166	\$226	\$233	\$246	1%	1%	1%	1%	1%	-1%	36%	3%	6%	

Annual Premiums Written by Insurance Group in Pennsylvania

Notes:

The premium data reflects premiums written throughout the calendar year. It consists of Direct Premiums (line 26) from Accident and Health Insurance (Page 24.PA) from the Life Annual Statement, and Health Premiums Written (line 12) from the Exhibit of Premiums, Enrollment and Utilization (Page 29.PA) from the Health Annual Statement. PID provided this information upon request. Only companies licensed in Pennsylvania are considered. Companies with the same NAIC Group Code are combined and premiums are reported at the aggregated group level. NAIC group and company codes were provided by the PID.

We have included companies that we understand sell commercial healthcare insurance (and in some instances, other types of insurance as well where we cannot isolate information for commercial healthcare insurance). For companies for which it is unclear whether they sell commercial healthcare insurance, and annual premiums are \$10 million or less, we have excluded those companies from the analysis.

Source: Annual statements filed by insurance companies to the PID.

CONFIDENTIAL PROPRIETARY/TRADE SECRET INFORMATION

Total Annual Individual, Group, Title XVIII Medicare and FEHB Members by Insurance Group in Pennsylvania

	Avia No line			TRACT	Ver La Sal	Share	1. 20	% Change						
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2009	2010	2011	2012
Total	3,071,468	3,075,326	3,067,382	3,096,704	3,080,877	100%	100%	100%	100%	100%	0%	0%	1%	-1%
Highmark	1,675,364	1,629,933	1,578,041	1,571,832	1,554,486	55%	53%	51%	51%	50%	-3%	-3%	0%	-1%
UPMC	280.387	288,907	293,116	307,770	376,660	9%	9%	10%	10%	12%	3%	1%	5%	22%
Aetna	561,704	590,686	582,393	595,600	571,994	18%	19%	19%	19%	19%	5%	-1%	2%	-4%
UnitedHealthCare	14,931	48,928	49,641	47,405	48,973	0%	2%	2%	2%	2%	228%	1%	-5%	3%
HealthAmerica	334,982	306,566	323,629	319,306	274,998	11%	10%	11%	10%	9%	-8%	6%	-1%	-14%
Geisinger	204,100	210,306	240,562	254,791	253,766	7%	7%	8%	8%	8%	3%	14%	6%	0%
Cigna		-	a subscription of the subs			-	-		-		Pit -		10 - C	-

Notes:

Enrollment data reflects enrollment as of December 31st of each year and is the Total Members at the end of Current year (line 5) from the Exhibit of Premiums, Enrollment and Utilization (Page 29.PA) from the Health Annual Statement. Enrollment data is not available for the other annual statement. PID provided this information upon request. FEHB is the Federal Employees Health Benefit Plan. Individual and Group plans are for comprehensive (including hospital and medical). Only companies licensed in Pennsylvania are considered. Companies with the same NAIC Group Code are combined and members are reported at the aggregated group level. NAIC group and company codes were provided by the PID. For certain companies, premium written data is available but membership information is unavailable. Those entities are therefore included when aggregating premiums, but excluded when aggregating enrollment. Membership information is unavailable for the following entities: Aetna Life Insurance Company, UnitedHealthcare Insurance Company, Golden Rule Insurance Company (UnitedHealthcare), American Medical Security Life Insurance Company of North America (Cigna) and The Cigna Health and Life Insurance Company.

UPMC For You, Inc. did not report any Individual, Group, Title XVIII Medicare or FEHB members in 2010 and 2011 (confirmed by PID through its review of 2012 "Notes to the Financial Statements" and 2008 CPA Audit Report).

We have included companies that we understand sell commercial healthcare insurance (and in some instances, other types of insurance as well where we cannot isolate information for commercial healthcare insurance). For companies for which it is unclear whether they sell commercial healthcare insurance, and annual premiums are \$10 million or less, we have excluded those companies from the analysis.

Source: Annual statements filed by insurance companies to the PID.