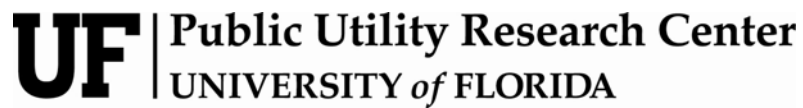


Public Utility Research Center

Annual Report

2008



Leadership in Infrastructure Policy
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From the Director

The Public Utility Research Center at the University of Florida provides timely, rigorous, and policy-relevant research and is known for its integrity and fairness. Our events serve as forums for researchers and practitioners to share information and gain insights into pertinent research, as well as current problems faced by regulators, industry, and other stakeholders. Our training programs teach the principles and practices that support effective utility policy and regulation.

In 2008, we grew our research base, strengthened our leadership policy initiative, extended our Florida outreach, and expanded our role as a worldwide leader in infrastructure training. A complete list of PURC working papers and publications for 2008 is attached as an appendix. As a result of PURC's research, 19 papers have been published, eight more have been newly accepted for publication and are forthcoming, and four additional papers have been submitted for publication.

We are also pleased to announce that Ted Kury has joined PURC as its new director of Energy Studies. He brings a strong background in energy markets, risk analysis, and ratemaking.

Following are summaries of major initiatives in 2008 and summaries of activities. Additional details are available through PURC's Web site, www.purc.ufl.edu and at the Web site for the Body of Knowledge on Infrastructure Regulation, www.regulationbodyofknowledge.org.

Thank you for your support of PURC. Without your engagement and contributions, these accomplishments would not be possible.

Mark A. Jamison, Ph.D.
Director, Public Utility Research Center

Highlights

Storm Hardening

PURC is assisting Florida's electric utilities by coordinating a research effort in the area of hardening the electric infrastructure to better withstand and recover from hurricanes. Projects in this effort have included (1) research on undergrounding existing electric distribution facilities by surveying the current literature, performing case analyses of Florida underground projects, and developing a model for projecting the benefits and costs of converting overhead facilities to underground; (2) data gathering and analysis of hurricane winds in Florida and the possible expansion of a hurricane simulator that can be used to test hardening approaches; and (3) an investigation of effective approaches for vegetation management. Reports are available on the Energy Initiatives page of the PURC Web site, www.purc.ufl.edu.

Climate Change

PURC researchers have been engaged in research and outreach related to Florida's new energy and climate initiatives. Research areas include (1) emission trading, (2) distributed generation,

(3) drivers for utility-scale renewable energy deployment, and (4) rate design considerations for policy implementation. Outreach activities include numerous presentations and recent annual conferences on climate change.

- Our leadership seminars at NARUC meetings this year examined how regulators can provide leadership on climate issues.
- The 36th Annual PURC Conference, Changes in Climate and Information Technologies: Who's Driving Utility Policy? February 4-5, 2009 will examine the tradeoffs and merits of carbon policies, energy conservation and efficiency, and investments in plants using nuclear power, natural gas, and renewable energy. Conference details are available online at www.purc.ufl.edu.

(When) to Build or Not to Build?: The Role of Uncertainty in Nuclear Power Expansion

Investments in nuclear power plants are irreversible and involve uncertainties during both construction and commercial operation. Uncertainties confronted by developers of merchant plants and price-regulated plants differ due to the regulatory and market paradigm in which these plants operate. This paper by Drs. Lynne Holt, Paul Sotkiewicz, and Sanford Berg concludes with several observations about strategies states may consider undertaking to mitigate investment risk. It appeared earlier this year in an issue of the *Texas Journal of Oil, Gas, and Energy Law*. Additional research papers can be found online at www.purc.ufl.edu.

Lifeline

In Florida, low-income households can receive a discount on their monthly local phone bills through a program called Lifeline. Surveys by PURC researchers this year, and in 2005, have found evidence that low-income households are quickly cutting the cord and adopting cellular phones, especially prepaid phones. In fact, they are doing this at a faster rate than are higher-income households. These and other findings call into question the design and effectiveness of this program. Dr. Jamison presented these findings to the Florida Public Service Commission in May.

Broadband

State and federal policies for broadband are the subject of two PURC papers in 2008. A paper by Dr. Holt and Mary Galligan examines how the federal-state partnership has evolved since 1996 to further broadband deployment and subscription goals, particularly in matters of shared public policy concern, such as health care services, education, economic development, and public safety and security. It also suggests an approach for state broadband policy development. A paper by Drs. Holt and Jamison examines U.S. broadband development and policies that impact innovation. They critically review arguments favoring provider subsidies and conclude that stimulating demand would be more productive. Drs. Holt and Jamison also published a paper about federal policies on telecommunications provider access to multitenant dwellings.

International Outreach

In attendance at the PURC/World Bank International Training Program on Utility Regulation and Strategy in 2008 were 169 regulatory professionals from around the world. Since its inception in 1997, this program has educated 1,979 professionals from 136 countries. We also

contributed to a water regulation course in Bulgaria and provided a customized training program for the telecommunications regulator in Portugal. In addition, we were invited to deliver presentations in Brazil, Mexico, Spain, Canada, and Australia this year.

Research

Body of Knowledge on Infrastructure Regulation (BoKIR) Web site

We are completing a comprehensive update of content on this Web site, including new case studies and reference materials. Translations of the glossary into Portuguese and into Italian have been completed and are available online. This site, www.regulationbodyofknowledge.org, is a useful resource for practitioners, researchers, students, and those interested in utility regulation. We originally developed the site in 2006 in collaboration with the University of Toulouse, the Pontificia Universidad Católica del Perú, The World Bank, and a group of international regulatory experts.

Survey of Benchmarking Methodologies in the Water Sector

The focus of this survey (funded by The World Bank) was on metric benchmarking that quantifies the relative performance of organizations. The study identified the strengths and limitations of several techniques that yield performance scores based on production or cost estimates (“total” methods). Dr. Berg is revising the report as a book to be published by the International Water Association—to expand access to the framework.

Water Policy

PURC and the UF Water Institute have assisted the Florida section of the American Water Works Association in evaluating sector governance, water allocation, and conservation. Dr. Berg hosted a meeting of the Water Allocations and Transfers Task Force in May. The task force is one of several established by the AWWA and charged with creating a Florida 2030 Vision to address water issues in the state.

Emissions Trading and Renewable Energy

With growing evidence that the first generation of cap-and-trade programs have not achieved all of their potential cost savings vis-à-vis traditional command-and-control policies, further examination is needed. A dissertation by PURC Graduate Assistant Dr. Joshua Kneifel focused on this issue and also examined the economic, political, and regulatory factors that affect the use of renewable energy.

Universal Service High-Cost Assistance

Dr. Eric Chiang (Florida Atlantic University) and Dr. Janice Hauge (University of North Texas) are working with Dr. Jamison to study how high-cost assistance impacts telecommunications competition. PURC Graduate Assistant Liangliang Jiang is studying how high-cost support affects companies’ costs.

Net Neutrality

PURC researchers have written three papers analyzing the net neutrality debate. The PURC research shows that providing premium transmission service benefits small Web site providers and stimulates innovation, contrary to the claims of many net neutrality proponents.

Competition in Telecommunications

We are in the final phases of a collaborative effort with Thammasat University in Thailand to examine best practices for assessing and facilitating competition in developing countries. The project involves a team of 10 experts from the United States. PURC researchers have developed papers analyzing case studies of competitive market assessment, metrics that developed and developing countries can use for quantitative assessment of market competition, and best practices for removing barriers to competition. Training courses originally scheduled in December 2008 have been rescheduled until 2009. New PURC research examines business separation and open access issues.

Outreach

Energy Policy Leadership Summit

In December, PURC co-sponsored this executive dialogue with Gee Strategies in Orlando to bring together top utility regulators, representatives from the new administration's transition team, political analysts, industry executives, Wall Street analysts, and journalists to examine the way forward on energy and environmental policy.

Communicopia: Market Dynamics in Telecommunications

PURC and the Florida Communications Bar Association presented a forum to examine the dynamic changes occurring in telecommunications in November at the Florida Public Service Commission in Tallahassee. Speakers from across the United States examined new service innovation, convergence, and universal service.

Wireless U. Communications Policy Seminar

PURC worked with CTIA – the Wireless Association® and the National Conference of State Legislatures (NCSL) in November to provide the Wireless U. Communications Policy Seminar, a communications policy seminar in Tampa for state policymakers. This effort sought to improve policymakers' understanding of the complex market dynamics, as well as the strategic imperatives and regulatory issues facing the communications industry today and in the future. The seminar incorporated speakers to set the stage for understanding the importance of wireless communications and deregulation and provide a vision for a dynamic mobile industry, plus informative, interactive sessions that provided legislators and key staff with a framework for understanding wireless issues and how important policy issues plug into that framework.

Emerging Issues Policy Forum: Digital Pathway to U.S. Economic Recovery and Prosperity Summit

A bipartisan cross section of industry, government, academic, and consumer-interest organizations gathered to focus on the unrealized potential of broadband as an economic stimulus to address this nation's most pressing social issues. PURC was invited as the only academic center to develop program materials for the October event featuring former FCC chairmen Michael Powell and William Kennard. We helped compile a report with the Joint Center for Political and Economic Studies which was sent in the form of a letter to the FCC chairman-designate. Details can be found online at www.digitalpathway.org.

Telecommunications Policy Research Conference

Why does broadband matter? What are the important broadband policy issues for the U.S.? These are just two of the questions addressed in the Holt and Jamison paper, "Broadband and Contributions to Economic Growth: Lessons from the U.S. Experience," presented by Dr. Jamison in September at the Telecommunications Policy Research Conference (TPRC) in Alexandria, Virginia.

How do rapidly changing telecommunications technologies and customer demand affect universal service policies? This was the theme of a TPRC presentation by PURC Senior Research Associate Dr. Hauge about the paper "More than a Lifeline: Low-Income Households' Telecommunications Preferences," by Drs. Hauge, Jamison, and Chiang. Additional papers can be found online at www.purc.ufl.edu.

World Bank Workshop

In September, Dr. Berg delivered the presentation, "Critical Issues in Utility Regulation" at a meeting in Miami of The World Bank's Economics Unit and Sustainable Development Department of Latin America and the Caribbean. The workshop provided an opportunity to examine a number of issues, including environmental regulation in the region, infrastructure expansion, affordability, benchmarking, and the role of new technologies.

Benchmarking in Brazil

In July, PURC Research Associate Dr. Maria Cortón delivered a presentation in Brazil about benchmarking at a workshop for the Agência Reguladora de Saneamento e Energia de São Paulo (ARSESP), the São Paulo regulatory agency. The agency recently expanded the sectors it regulates to include water and sanitation services, as well as energy.

Australian Competition and Consumer Commission Conference

"What Should Regulators Know?" was the topic of a keynote address by Dr. Jamison in July at the Australian Competition and Consumer Commission annual conference in Gold Coast, Australia. He emphasized that regulatory commissions today face adaptive challenges—situations where there is general disagreement over the relevant questions and how to make tradeoffs—and that regulators should be cautious about adopting technical fixes too soon in the process.

FIAR

Former Florida Public Service Commissioner Isilio Arriaga, a PURC associate, spoke in July in Mexico City, Mexico at FIAR (Foro Iberoamericano de Agencias de Regulación), a forum on infrastructure regulation. His presentation focused on the value of collaborative activities between regulatory agencies and universities. He was joined by PURC Assistant Director Araceli Castaneda who updated forum attendees on PURC research and recent programs in Latin America and other regions of the world.

Research Grant

University of Florida Ph.D. candidate Sangwon Lee was awarded a NET Institute Summer 2008 grant in June by the Networks, Electronic Commerce, and Telecommunications (NET) Institute based on a proposal he submitted with PURC Research Associate Dr. Justin Brown, a UF assistant professor of telecommunication.

International Telecommunications Society Conference

What happens if ISPs are allowed to charge Web sites for higher quality delivery of content? The amount and diversity of content grows. That is the conclusion of a recent study by Drs. Jamison and Hauge. Dr. Jamison presented the paper, “Getting What You Pay For: Analyzing the Net Neutrality Debate,” in June at the International Telecommunications Society conference in Montreal, Canada. He also presented this paper in March 2008 at the European Communications Policy Research (EuroCPR) conference in Seville, Spain.

Telecom Environment Management (TEM) 2008

Will broadband be an engine of economic growth? That depends on whether consumers and businesses adopt new ways of using broadband and whether government policies encourage competition, according to Dr. Jamison in his keynote speech at TEM 2008 in April in Orlando, Florida.

International Water Association Pi08 Conference

Managers and regulators are familiar with process benchmarking as a tool for improving utility performance. Metric benchmarking provides another approach to evaluating and rewarding improvements in cost containment and service quality. Dr. Berg presented the paper, “Water Utility Benchmarking for Managerial and Policy Decisions: Lessons from Developing Countries” in March at the International Water Association Pi08 Conference on Performance Assessment of Urban Infrastructure Services in Valencia, Spain. The paper has been published in the book, *Performance Assessment of Urban Infrastructure Services: Drinking Water, Wastewater, and Solid Waste* by IWA Publishing.

Universal Service Obligations and Regulation Regimes: The Experience of Latin America Conference

Lessons can be learned from the experiences of utilities in other nations. Experiences in developing countries offer insights into how transparency, information, and citizen participation can strengthen citizen confidence in infrastructure policies. Dr. Berg presented the paper, “Water Utility Performance in Central America: The Political Economy of Coverage, Quality, and

Cost,” in March at the Latin American conference in Barcelona hosted by the Center for International Relations and Development Studies (CIDOB).

Bulgarian Workshop

Economies in transition from socialized systems face significant problems in attracting investments in infrastructure. Water professionals from the Bulgarian State Energy and Water Regulatory Commission learned about building the block tariff, vulnerable customer protections, service quality indicators, international best practice, and information requirements for benchmarking during workshop sessions in Sofia in March taught by Dr. Berg. He participated as part of PURC’s collaboration with the law firm Pierce Atwood.

Bandwidth-Driven Growth: Policy Essentials for Next Generation Development

This seminar in March, delivered by Dr. Jamison in Lisbon, Portugal and sponsored by the Portugal telecommunications regulator ANACOM, explored how telecommunications, and broadband in particular, affect economic growth and the regulatory policies that promote this development.

Partnership with Brazilian Regulators

PURC announced an activities partnership with the Brazilian Regulator Agency, Associação Brasileira de Agências de Regulação (ABAR). The partnership was formed in March to facilitate activities and initiatives that strengthen regulatory capacity and support research on infrastructure performance.

35th Annual PURC Conference

More than 150 key leaders in industry and government attended the 35th Annual PURC Conference in February, The Real Climate Change: Planning and Investing Under Uncertainty. Speakers included FPL President Armando Olivera and Harvard Electricity Policy Group President Ashley Brown.

Training and Development

January

PURC/World Bank International Training Program on Utility Regulation and Strategy

Seventy infrastructure managers from 30 different nations learned from each other and from leading experts during the 23rd PURC/World Bank International Training Program on Utility Regulation and Strategy. This two-week program is designed to enhance the economic, technical, and policy skills required to design and manage sustainable regulatory systems for infrastructure sectors. The participants studied ongoing infrastructure reform programs, networked with international speakers, and offered their own insights into regulatory policies. Chairman Matthew Carter was a featured speaker at both the January and June programs.

February

Providing Leadership in Utility Policy: Federal and State Leadership Roles in Energy Policy

Leadership challenges for federal and state officials were the subject of a leadership seminar sponsored by PURC and Cambridge Leadership Associates (CLA) in Washington, D.C. Bob Gee joined Dr. Jamison in facilitating the workshop.

March

PURC Basic Course on Regulatory Economics for Telecommunications for ANACOM, Portugal

The basics of economic issues in telecommunications regulation were the focus of this course for 35 regulatory professionals at ANACOM, the telecommunications regulatory agency in Lisbon, Portugal.

June

PURC/World Bank International Training Program on Utility Regulation and Strategy

The 99 regulatory professionals who attended the 24th delivery of the PURC/World Bank International Training Program on Utility Regulation and Strategy raised the total number of participants since 1997 to 1,979. They have represented 136 nations.

Practicing Leadership in a Political Environment – A One-Day Intensive Training Workshop for Emerging Leaders in Utility Policy

International regulatory professionals examined the activities, behaviors, mindsets, and skills of a successful leader during this training workshop designed by PURC for emerging leaders in utility policy.

July

Providing Leadership in Utility Policy Seminar

Utility commissioners from the United States examined the leadership skills needed to help the nation confront its energy and environmental challenges during this leadership seminar presented by PURC and CLA.

Appendix

Public Utility Research Center Recent Working Papers and Publications

Forthcoming Publications

Applied Publications

Cortón, Maria Luisa, and Sanford V. Berg. Forthcoming. “Benchmarking Central American Water Utilities.” *Utilities Policy*.

Hauge, Janice A., Eric P. Chiang, and Mark A. Jamison. Forthcoming. “Whose Call Is It? Targeting Universal Service Programs to Low-Income Households’ Telecommunications Preferences.” *Telecommunications Policy*.

Holt, Lynne, and Mary Galligan. Forthcoming. “State and Federal Policies to Accelerate Broadband Deployment in Sparsely Populated Areas of the United States: Why the Old Size Shoe Might No Longer Fit.” *CommLaw Conspectus: Journal of Communications Law and Policy*.

Technical Publications

Shen, Wei, and Chen Lin. Forthcoming. “Firm Profitability, State Ownership, and Top Management Turnover at the Listed Firms in China: A Behavioral Perspective.” *Governance: An International Journal*.

Lin, Chen, Yue Ma, and Dongwei Su. Forthcoming. “Corporate Governance and Firm Efficiency: Evidence from China’s Publicly Listed Firms.” *Managerial and Decision Economics*.

Chiang, Eric P., and Surendra Lal Hada. Forthcoming. “Telecommunications Competition, Rate-Rebalancing, and Consumer Welfare in Nepal.” *International Journal of Business Research*.

Hauge, Janice A., and Mark A. Jamison. Forthcoming. “Effects of Using Specific versus General Data in Social Program Research.” *Applied Economics*.

Berg, Sanford V., and Silver Mugisha. Forthcoming. “Pro-poor Water Service Strategies in Developing Countries: Promoting Justice in Uganda’s Urban Project.” *Water Policy*.

2008 Working Papers and Publications

Applied Publications

Berg, Sanford V., and Maria Luisa Cortón. 2008. “Benchmarking Water Utilities: Central America.” *Water21—Special Issue on Benchmarking in Latin America*, (February): 27-28.

Cortón, Maria Luisa, and Alejo Molinari. 2008. “ADERASA’s Role in Regulatory Collaboration in the Americas.” *Water21—Special Issue on Benchmarking in Latin America*, (February): 23-26.

Holt, Lynne, and Mark A. Jamison. 2008. “Federal Regulation and Competitive Access to Multiple-Unit Premises: More Choice in Communications Services?” *Journal on Telecommunications and High Technology Law*, 6(2): 425-454.

Holt, Lynne, Paul Sotkiewicz, and Sanford V. Berg. 2008. “(When) to Build or Not to Build?: The Role of Uncertainty in Nuclear Power Expansion.” *Texas Journal of Oil, Gas, and Energy Law*, 3(2): 174-214.

Jamison, Mark A. 2008. “The Regulator’s Challenge: Providing Stability While Leading Change.” *Network*, (30): 2-6.

Mbilima, Chola. 2008. “Water Supply and Sanitation in Zambia: Reform and Regulation.” *Proceedings of the Institution of Civil Engineers, Municipal Engineer*, 161(4): 255-261.

Mugisha, Silver, and Sanford V. Berg. 2008. “State-Owned Enterprises: NWSC’s Turnaround in Uganda.” *African Development Review*, 20(2): 305-334.

Padowski, Julie. 2008. “Water Utility Regulation in Mexico: Sharing Lessons.” *Water21—Special Issue on Benchmarking in Latin America*, (February): 29-30.

Sabbioni, Guillermo. 2008. “Efficiency in the Brazilian Sanitation Sector.” *Utilities Policy*, 16(1): 11-20.

Woo, Chi-Keung, Brian Horii, Michele Chait, and Ira Horowitz. 2008. “Should a Lower Discount Rate be Used for Evaluating a Tolling Agreement than Used for a Renewable Energy Contract?” *Electricity Journal*, 21(9): 35-40.

Technical Publications

Berg, Sanford V., and Chen Lin. 2008. “Consistency in Performance Rankings: The Peru Water Sector.” *Applied Economics*, 40(6): 793-805.

Berg, Sanford V., and Jacqueline Horrall. 2008. “Networks of Regulatory Agencies as Transnational Public Goods: Improving Infrastructure Performance.” *Review of International Organizations*, 3(2): 179-200.

Hauge, Janice A., Mark A. Jamison, and Richard Gentry. 2008. “Bureaucrats as Entrepreneurs: Do Municipal Telecommunications Providers Hinder Private Entrepreneurs?” *Information Economics and Policy*, 20(1): 89-102.

Hauge, Janice A., Mark A. Jamison, and R. Todd Jewell. 2008. "Discounting Telephone Service: An Examination of Participation in the Lifeline Assistance Program Using Panel Data." *Information Economics and Policy*, 20(2): 135-149.

Lin, Chen, and Sanford V. Berg. 2008. "Incorporating Service Quality into Yardstick Regulation: An Application to the Peru Water Sector." *Review of Industrial Organization*, 32(1): 53-75.

Quast, Troy. 2008. "Do Elected Public Utility Commissioners Behave More Politically Than Appointed Ones?" *Journal of Regulatory Economics*, 33(3): 318-337.

Book Chapters

Berg, Sanford V., and Maria Luisa Cortón. 2008. "Water Utility Benchmarking for Managerial and Policy Decisions: Lessons from Developing Countries." In *Performance Assessment of Urban Infrastructure Services*, ed. Enrique A. Cabrera, Jr. and Miguel Angel Pardo, 307-320. London: IWA Publishing.

Kury, Theodore J. 2008. "A Vector Autoregression Framework for the Modeling of Commodity Spreads." In *Proceedings of Dynamic Systems and Applications, Vol. 5*, ed. G.S. Ladde, N.G. Medhin, Chuang Peng, and M. Sambandham, 263-267. Atlanta: Dynamic Publishers, Inc.

Kury, Theodore J. 2008. "Quantifying Cross Commodity Risk in Portfolios of Futures Contracts." In *The Handbook of Commodity Investing*, ed. Frank J. Fabozzi, Roland Fuess, and Dieter G. Kaiser, 335-357. Hoboken: John Wiley & Sons, Inc.

Working Papers

Berg, Sanford V. 2008. "Water, Electricity, and Telecommunications in the Caribbean: Benchmarking Sectors and Systems." University of Florida, Department of Economics, PURC Working Paper.

Berg, Sanford V. 2008. "Water Utility Performance in Central America: The Political Economy of Coverage, Quality and Cost." University of Florida, Department of Economics, PURC Working Paper.

Berg, Sanford, and Claudia Vargas. 2008. "Bolivian Utility Regulation: Lessons for a Water Sector Agency." University of Florida, Department of Economics, PURC Working Paper.

Berg, Sanford V., and William T. Muhairwe. 2008. "Promoting High Performance in SOEs: Lessons from Africa." University of Florida, Department of Economics, PURC Working Paper. Submitted for Publication.

Corlett, Daniel, and Michelle Phillips. 2008. "Science-based Watershed Policy for Stream Corridors: Integrating Economic and Ecological Considerations." University of Florida, Department of Economics, PURC Working Paper.

Hauge, Janice A., Eric P. Chiang, and Mark A. Jamison. 2008. "More Than a Lifeline: Low-Income Households' Telecommunications Preferences." University of Florida, Department of Economics, PURC Working Paper.

Holt, Lynne, and Mark A. Jamison. 2008. "Broadband and Contributions to Economic Growth: Lessons from the U.S. Experience." University of Florida, Department of Economics, PURC Working Paper.

Jamison, Mark A. and Janice A. Hauge. 2008. "Dumbing Down the Net: A Further Look at the Net Neutrality Debate." University of Florida, Department of Economics, PURC Working Paper.

Jamison, Mark A., and Janice A. Hauge. 2008. "Will Packets Wait? The Effects of Net Neutrality on Network Performance and Consumers." University of Florida, Department of Economics, PURC Working Paper.

Jamison, Mark A., and James Sichter. 2008. "U.S. Experiences with Business Separation in Telecommunications." University of Florida, Department of Economics, PURC Working Paper.

Jiang, Liangliang, and Chen Lin. 2008. "Do Firms Overstate Their Costs? A Test on Moral Hazard in Telecommunications Subsidies." University of Florida, Department of Economics, PURC Working Paper.

Dissertations

Kneifel, Joshua. 2008. "Essays in Renewable Energy and Emissions Trading." Ph.D. Dissertation. University of Florida.

Marcu, Mircea I. 2008. "Essays in the Economics of Networks." Ph.D. Dissertation. University of Florida.