

**WARRINGTON** COLLEGE of BUSINESS

# ANNUAL REPORT

### **Update on PURC Research and Outreach**

This update on PURC research and outreach is intended to serve as on overview for PURC Executive Committee members. At the end of this summary is a list of recent research papers that are also available through the research papers search engine on the PURC website at www.purc.ufl.edu.



# 2024 Annual Report to the PURC Executive Committee

### UPDATE ON PURC RESEARCH AND OUTREACH

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# 2024 Annual Report to the PURC Executive Committee

### UPDATE ON PURC RESEARCH AND OUTREACH

### STATISTICS AND HIGHLIGHTS

### **Statistics**

- 9 Training Courses providing 242 hours of in-person classroom instruction
- 23 blog posts
- 9 working papers, journal articles and book chapters
- 4 opinion editorials
- 7 presentations, panels, and events

### Plans for 52<sup>nd</sup> Annual PURC Conference, February 19 – 20, 2025

We are excited to host our 52<sup>nd</sup> Annual Conference, Resilient Infrastructure in a Changing World: Technology, Policy, and Preparedness, in Gainesville, Florida. This event will bring together government officials, utility executives, and industry leaders to address investment strategies for capacity expansion, the effective use of Al, and cutting-edge approaches to cybersecurity. We look forward to seeing you in Gainesville!

# 54<sup>th</sup> and 53<sup>rd</sup> PURC/World Bank International Training Program on Utility Regulation and Strategy

We hosted our flagship PURC/World Bank International Training Program on Utility Regulation and Strategy, January 13 – 22, 2025 and June 3 – 12, 2024. We welcomed 107 participants from 27 countries to Gainesville for these two programs. Since its inception in 1997, this program has educated more than 3900 professionals representing 157 nations. In addition, 43 participants completed the PURC Leadership Workshop: Practicing Leadership in a Political Environment on January 19, 2025, and June 9, 2024.





### Student Engagement

As a research center at a top-ranking public university, PURC is committed to engaging students across disciplines. This year three undergraduates and one graduate student collaborated in an examination of how European regulations are impacting digital businesses. Students met with think tanks and tech firms to conduct this research. This team has expanded and is now examining the effects of dynamic pricing. A pre-doc student began work examining why some utilities are more likely to adopt green energy than others. PURC invites all university students to attend our annual conference each year at no-charge, and we sponsor students to attend the Florida Women in Energy Leadership Forum annually. Both events provide students with the opportunity to network with leaders and learn about the robust

utility industry. Both Dr. Jamison and Dr. Kury are serving on the dissertation committee for Benjamin Morris, a doctoral student in business administration (DBA), exploring the connection between regulatory decisions and utility stock prices. PURC also employs three part-time student assistants who gain professional experience in office administration, event management, marketing, and social media.

### Warrington College of Business - Business Analytics Practicum Course and Projects

PURC has connected utilities with Warrington's Business Analytics Practicum Course, run by Jim Hoover, a clinical professor and director of the Business Analytics and Artificial Intelligence Center. One such project featured five undergraduate students that helped build algorithms for Tampa Electric Company to help the company to identify incorrectly labeled meters. The students used the university's Al supercomputer, HiPerGator, for this work.

### Plans for Artificial Intelligence for Utility Regulators: Navigating Opportunities and Risks

Our newest course, to be delivered in partnership with the National Association of Regulatory Utility Commissioners (NARUC), will provide regulators and others with insights into the key concepts, applications, and risks for utility applications of Al. Through a combination of presentations, case studies, practical problem solving, and hands-on work, participants will learn the basics of how Al works, where it is being applied by utilities, and challenges and future directions.

### Popular Op-Eds & Interviews

- Big Tech's Data Centers Won't Get Far Unless the Power Grid is Regulated Less, MarketWatch
- The Case for a Smarter Antitrust Policy, National Review
- With CenterPoint in the Hot Seat, Texas Policymakers Look to Harden the State's Power Transmission and Distribution, Houston Public Media
- A Pole Fire Caused a Mass Tampa Bay Internet Outage, Company Says. Is it a Warning?, Tampa Bay Times
- What Would a Public Takeover of RG&E Look Like?, News10NBC
- Inside the Landmark Google Adtech Antitrust Trial That Could Transform the \$700 Billion Global Digital Ad Market, Business Insider
- Commentary: Imposing Net-Neutrality Regulations Would be a Step Backward, Orlando Sentinel



### PRIMARY RESEARCH PROJECTS

### ENERGY

### Preparing to Harden Electrical Resources for Hurricane Season

Communities that are likely to suffer effects of significant damage from named storms need to have confidence that cost estimates and projected benefits are reliable. This transparency to administrators, political leaders, and planners conveys a public message that utility hardening policies such as undergrounding cables and vegetation maintenance reflect a broad consensus among diverse experts. Collaboration among varied planners also ensures that widely noticed disparities among individual estimates do not confuse concerned public observers of the decision-making process.

### Motivating the Optimal Procurement and Deployment of Electric Storage as a Transmission Asset

Examined the optimal choice between two means of relieving congestion in an electricity network: (1) traditional expansion of transmission capacity; and (2) storage as a transmission asset (SATA). Assuming the electric utility has unique knowledge of both the cost of implementing SATA and the likelihood of local network congestion, the optimal policy differs considerably from policies under active consideration, in part by paying the utility relatively little for implementing SATA. Despite the relatively limited compensation, the utility profits from its unique knowledge, particularly its knowledge of SATA implementation costs.

### **Load-Following Forward Contracts**

Load-following forward contracts (LFFCs) are becoming increasingly popular in the electricity sector. A LFFC obligates an electricity supplier to deliver at a pre-specified unit price at a fraction of the buyer's ultimate demand for electricity. This paper shows that relative to more standard ("swap") forward contracts, LFFCs can increase the expected wholesale price of electricity and thereby reduce expected consumer and economic benefits.

### Market Structure, Risk Preferences, and Forward Contracting Incentives

This paper examines the distinct impacts of forward contracting on generators and buyers of electricity. Increased forward contracting systematically reduces the variance of a generator's profit, but can increase the variance of a buyer's profit. Consequently, increased risk aversion or market uncertainty can lead buyers, but not generators, to prefer reduced levels of forward contracting. This paper examines how the extent of equilibrium forward contracting varies with industry conditions, including the number of generators, the number of buyers, their aversion to profit variation, and the structure of retail electricity prices.



### Vertical Integration and Capacity Investment in the Electricity Sector

This paper examines the incentives for and the effects of vertical integration in the electricity sector. It finds that vertical integration often reduces retail prices and increases industry capacity investment, consumer surplus, and total welfare. Unilateral vertical integration often is profitable. However, ubiquitous vertical integration can reduce aggregate industry profit.

### **Energy Blogs**

Dr. Kury blogs on energy issues for The Conversation. He addresses issues of storm hardening, taxes, and grid security. His blogs are available at <a href="https://theconversation.com/profiles/theodore-j-kury-406888/articles">https://theconversation.com/profiles/theodore-j-kury-406888/articles</a>.

### ICT AND TELECOM

### **Broadband Pricing Under BEAD**

This paper examines how price restrictions on broadband would impact broadband deployment and adoption. The federal government's preference for extensive price controls would be counterproductive as they would decrease investment, innovation, and new technology adoption. If states find themselves in situations where subsidized broadband providers are monopolies, deployment and adoption obligations would be more effective than price controls.

### **AEI's Broadband Barometer Project**

PURC's Dr. Jamison led a team of scholars from five universities and a technology think tank to examine state policies for broadband deployment under BEAD. The effort produced scorecards for each state and sponsored several events where state leaders provided insights on how broadband efforts could be improved.

### Comparison of Business Choice of Mobile Platforms: U.S., Japan, and India

This paper examines business preferences for choosing whether to use Apple's iPhone platform, Google's Android platform, or both. The research found that businesses find the platforms to be substitutes for each other, except in rare instances.

### Platform Competition and Differentiation: Developer Choices in Mobile Platforms

This paper examines how app developers and other tech companies choose whether to build on the Apple platform, the Android platform, or both. It finds that the platforms compete for these businesses and differentiate primarily in "thin" markets where it is uneconomical for more than one platform to accommodate specialized needs.



### Comments filed with states regarding competition and rules for broadband subsidies

PURC researchers participated in comments filed with various state broadband offices regarding their plans for broadband subsidies. The comments emphasized lessons from research regarding imposing price constraints and how to have effective competition for grants.

### Regulatory and Broadband Industry Responses to COVID-19: Cases of Uganda, Peru, and the Caribbean

The COVID-19 pandemic was particularly challenging for developing countries because of pre-existing poverty and severe inequality. Governments tended to set public safety as a primary goal, but it could not be their singular goal. Broadband was an important feature of any policy solution. Business lockdowns, school closures, and social distancing led to an unprecedented acceleration in the demand for broadband. But the government restrictions on social and economic interactions made it difficult to maintain and expand broadband networks. Governments quickly grew to believe that it would need cooperative relationships among multiple government agencies and private businesses to answer what appeared to be a broadband shortage. Regulatory controls over broadband providers were quickly suspended in favor of developing common goals and coordinated efforts.

### Net Neutrality in the USA During COVID-19

The COVID-19 pandemic provides an opportunity to review policy assertions about net neutrality. There was an expectation that without ex ante FCC net neutrality rules, there would be harmful demonstrations of market power and anticompetitive conduct. This paper offers a review of the evidence. Given that little to no incidence of net neutrality violations could be uncovered for the period, the paper suggests some explanations as to why broadband providers behaved opposite to predictions. Contrary to many policy assertions, broadband providers did not block or throttle service, nor did they increase prices arbitrarily or decrease quality. In fact, broadband providers appeared to take significant efforts to expand availability, lower broadband prices, and make more networks available, in many cases without charge.

## Revealing Transactions Data to Third Parties: Implications of Privacy Regimes for Welfare in Online Markets

This paper examines the effects of privacy policies regarding transactions (e.g., price/quantity) data on online shopping platforms. Disclosure of transactions data induces consumer behavior that affects merchant pricing decisions and the welfare of platform participants. A profit-maximizing platform prefers the disclosure policy that maximizes social benefit. Although this policy benefits sophisticated consumers, it harms those who do not understand the implications of their behavior. Consequently, the welfare effects of alternative privacy policies, data breaches, willful violations of stated privacy policies, and opt-in/opt-out requirements differ sharply, depending on the level of consumer sophistication and on other factors such as the prevailing status quo.

### Comments filed with the FCC regarding Net Neutrality

PURC researchers contributed to two sets of comments filed with the Federal Communications Commission regarding net neutrality. Both sets emphasized findings in the economics literature regarding the impacts of such regulations on consumers, investment, service quality, and service providers.



### **Technology Blogs**

Dr. Jamison blogs on technology issues for the American Enterprise Institute. He addresses issues of net neutrality, universal service, privacy, innovation, competition, and regulatory institutions. His blogs are available on the American Enterprise Institute website at <a href="http://www.aei.org/scholar/mark-jamison-2/">http://www.aei.org/scholar/mark-jamison-2/</a>.

### WATER

### Performance Assessment Using Key Performance Indicators (KPIs) for Water Utilities: A Primer

Key Performance Indicators (KPIs) are widely recognized as a basis for evaluating water utility operations in developing countries and for designing both regulatory and managerial incentives that improve performance. A number of methodologies can be used for assessing performance. However, regulatory oversight requires data analysis of trends, current performance, and realistic targets. Quantitative studies can provide clues regarding the extent of economies of scale, scope, and density, but policymakers need much more detail and specificity than most scholars provide. Here, the focus is on information systems that provide accurate, reliable, and relevant data.

### MULTISECTOR

### Access Pricing in Mixed Oligopoly

Characterizes optimal access prices in mixed oligopoly where a private, profit-maximizing firm competes against a public enterprise after purchasing an essential input (e.g., network access). Optimal access prices tend to be lower for the private firm than for the public enterprise, and can be particularly low for a relatively efficient private supplier. The optimal access price for a private firm is the same whether it competes against another private firm or a public enterprise. Failure to tailor the prevailing access pricing policy to the objectives of the competing suppliers can reduce welfare substantially.

### Principles and Strategies for Effective Leadership in the "New Normal"

To lead effectively during times of constant change and uncertainty, leaders should: (1) Lean into the uncertainty (Learning to live in the discomfort of uncertainty will free up some space for clearer thinking.); (2) Recognize that it is all about experimentation (It is about "next practices" rather than best practices.); (3) Embrace mistakes (Mistakes are a necessary part of this evolving process and need to be used as learning tools and experiments.); and (4) Lead with a focus on empathy and communication (In a time in which so many are struggling and uncertainty is king, we must ensure people know you are "there" for them.)

### **Inspiring Leadership for Innovation**

This book chapter examines communication and cultural strategies for companies to provide industry-leading innovations.



### **OUTREACH**

### State Leadership: Making the Broadband Equity, Access, and Deployment Program Work

On January 9, PURC and AEI's Mark Jamison hosted a discussion with state broadband leaders to evaluate the implementation challenges of the National Telecommunications and Information Administration's \$42.5 billion Broadband Equity, Access, and Deployment (BEAD) Program. The participants first explored strategies to ensure BEAD funding reaches the most qualified broadband providers through competitive challenge and bidding processes. The discussion then shifted to accountability measures, focusing on developing robust systems to monitor provider performance and verify results. Finally, participants examined potential challenges and opportunities in coordinating with the incoming Trump administration.

### Examining Federal Broadband Policies: Challenges, Opportunities, and Future Reforms

The Broadband Equity, Access, and Deployment Program was born out of the 2021 infrastructure bill and aims to expand high-speed internet access for all Americans. However, most communities will not see concrete benefits until 2025 at the earliest, and 16 states are waiting for their plans to be approved, two years into the process. On September 27, Federal Communications Commissioner Brendan Carr joined PURC and AEI's Mark Jamison to discuss the state of federal broadband policies. A panel of experts shared insights on how the US Department of Commerce could have mitigated these challenges and the potential reforms, such as more efficient permitting processes, needed to efficiently deploy broadband under a future administration.

### Asia-Pacific Economic Cooperation (APEC) Workshop

What features make regulation effective for encouraging efficient infrastructure? This is one of the questions that PURC director Mark Jamison addressed at the Asia-Pacific Economic Cooperation meeting in Lima, Peru. Dr. Jamison explained the importance of revenue adequacy, incentives for efficiency, and a stable regulatory environment. He also discussed the keys to success in electricity market reform, emphasizing the importance of governance structures that ensure accountability and financial stability. On the topic of broadband development, he emphasized the importance of competition and limiting subsidies to areas that would not have broadband without an outside source of monies. The APEC workshop was held on August 16, 2024.

### The Regulatory Role in Power Trading

The expected growth in power trading in Southern Africa raises many questions for electricity regulation. PURC director of energy studies Dr. Ted Kury explored some of those questions during a webinar on the Regulatory Role in Power Trading, hosted by the National Energy Regulator of South Africa (NERSA). As a part of the Consumer Impact Panel, he discussed why consumers would want to purchase directly from a power trader, and the implications of this increased responsibility on the rest of the system. He talked about the role of new power market participants and what consumers and regulators need to be aware of to avoid some of the problems that have been experienced in other parts of the world.



### **ABES Brazil Water Week**

What are the opportunities and challenges in implementing regulatory contracts? PURC director of energy studies Dr. Ted Kury explored that topic with participants in ABES Brazil Water Week. He talked about why countries implement contractual regulation and how it differs from discretionary regulation. He also explored the elements of regulatory contracts and why each is important. The main conclusion from his talk was that regulatory contracts can allow for more options and flexibility in regulation, but that diligent preparation before the contract is signed is the key to success.

### Connecting America: Getting Taxpayers Their Money's Worth in Broadband Expansion

Dr. Mark Jamison hosted a panel discussion at the American Enterprise Institute on strategies for transparency, efficiency, and accountability in state broadband programs. The March 28, 2024, panel featured representatives from high-performing state broadband offices: Broadband Expansion and Accessibility of Mississippi's Sally Doty, Idaho Commerce's Ramón S. Hobdey-Sánchez, and ConnectLA's Veneeth Iyengar. It also featured the University of North Texas's Janice Hauge, who is a member of AEI's Broadband Barometer Project.

### 51st Annual PURC Conference — Beyond Convergence: Designing Florida's Utility Future

As the utility landscape undergoes rapid transformation with advances in artificial intelligence, renewable energy sources, and smart systems, utilities and their regulators face unprecedented challenges. The 51st Annual PURC Conference provided utility and regulatory professionals the platform to engage in insightful discussions, share ideas for next practices, and explore strategies to navigate the complexities of technological adoption. The 51st Annual PURC Conference was hosted in-person from February 21 - 22, 2024.

### Annual PURC Award for Best Paper in Regulatory Economics

The 2024 Public Utility Research Center Prize for the best paper in regulatory economics was awarded to Lauri Kytomaa (Cornell University) for The Roles of Borrower Private Information and Mortgage Relief Design in Foreclosure Prevention.



### TRAINING AND DEVELOPMENT

# Practicing Leadership in a Political Environment — A One-Day Intensive Training for Leaders in Utility Policy

Forty-three (43) regulatory and utility professionals participated in our January 2025 and June 2024 Leadership Workshop. Throughout the workshops, they identified and developed their individual leadership profiles; examined personal practices of successful leaders to develop vision, resolve conflict and set priorities; analyzed what is different about practicing leadership in a political environment; and developed their own personal action plans and an accountability system to address their unique challenges.

### 54th & 53rd PURC/ World Bank International Training Program on Utility Regulation and Strategy

One hundred and seven (107) regulatory and utility professionals from around the world travelled to the University of Florida for PURC's flagship program! The international training program is an intensive course specifically tailored to the professional requirements of utility regulators and regulatory staff. The course is designed to enhance the economic, technical, and policy skills required for implementing policies and managing sustainable regulatory systems for infrastructure sectors. This training was held in-person from January 13-22, 2025 and June 3-12, 2024.

### Customized PURC Training on Principles of Water Regulation and Pricing

What are the challenges faced by utilities and regulators in the Central American water sector, and how can these agencies adapt? Participants from Belize Water Services, the Belize PUC, and other stakeholders addressed applications to address these challenges in a PURC course in Belize City in December 2024. PURC Director Mark Jamison, Associate Director and Director of Leadership Studies Araceli Castaneda, and Director of Energy Studies Ted Kury worked with participants in addressing regulatory strategy, the political economy of water access and pricing, financial frameworks, and regulatory incentives. The course also included more specialized topics such as addressing non-revenue water, challenges with interconnection policies, and water rate design. The week closed with a workshop on leadership skills and practices. This course was held December 9-13, 2024 in Belize City, Belize. The leadership workshop was hosted December 14, 2024.

### **Customized PURC Training on Principles of Regulation**

How does changing the organization of the electricity sector present new challenges for regulatory agencies around the world? PURC Director Mark Jamison and Director of Energy Studies Ted Kury conducted a course for the Electricity Regulatory Authority of Uganda and other stakeholders in Kampala in November 2024. Participants discussed not only regulatory form and strategy and improving cost efficiency, but also regulatory considerations in evaluating mergers and the changing role of the regulator and other stakeholders as Uganda moves towards the Eastern Africa Power Pool. The course utilized a variety of case studies and analytical tools to study the ways that stakeholders must adapt to an evolving landscape of electricity service in Africa. This course was held November 11 - 15, 2024 in Kampala, Uganda.



### **Customized PURC Training on Economics of Regulation**

What do ICT regulators need to know about the underlying economics driving the industries? That was the question that the Thailand National Broadcasting and Telecommunications Commission studied with PURC in October 2024. The course began with foundational topics like the purposes of regulation, industry economics, and platform economics. Participants then studied more advanced concepts such as regulatory finance, incentive regulation, and the economics of innovation, using case studies and exercises for applied learning. They also examined issues like the digitization of business, radio spectrum management, and broadcast regulation, emphasizing the impact of policy and technology changes. The course concluded with discussions on emerging issues like Al and privacy. This course was held October 7-11, 2024 in North Pattaya, Thailand.

### Advanced International Practices Program: Benchmarking Infrastructure Operations course

We hosted 18 utility and regulatory professionals from the energy and water sectors for an intensive four-day technical course in benchmarking. Participants analyzed the benefits, best practices and pitfalls of benchmarking utilities. After completing the course, participants were able to understand why benchmarking is essential for improving the performance of infrastructure organizations. They could analyze the implications of partial, limited, or incorrect information as well as assess how information on trends in key performance indicators helps decision-makers. They could understand how model specification and data outliers affect performance comparisons as well as identify the strengths and limitations of alternative quantitative methodologies and how to communicate results. This course was held in-person on the University of Florida campus from August 5-8, 2024.

### Advanced International Practices Program: Energy Pricing course

We hosted 10 utility and regulatory professionals from the energy and water sectors for a week-long technical course in pricing. Participants discussed the challenges and best practices in pricing; the innovative ideas to addressing efficiency and environmental issues; and the core principles in pricing. After completing the course, participants were able to prepare for and perform price reviews, develop economic incentives appropriate for utilities in small economies, evaluate market competition and develop remedies for market failure, analyze financial statements for rate setting and evaluating sector performance, and develop innovative price structures that create incentives for consumers and producers to behave in a manner consistent with your utility policy. This course was held in-person on the University of Florida campus from July 29 – August 2, 2024.

### Customized PURC Training on Regulation by Contract in Brazil

Seventy-seven (77) government and industry professionals from Brazil learned about the economics, political economy, and best practices for infrastructure regulation by contract. They studied regulatory tools, contract design, economic incentives, engaging with policy makers and other stakeholders, negotiation strategies, risk management, financing, applications of artificial intelligence, and causes of regulatory failure. Participants examined numerous case studies from around the world. This training was held April 8-12, 2024, in Belo Horizonte, Brazil.



### FACULTY RESEARCH FOCUS



### Mark A. Jamison, Director

Dr. Jamison conducts studies on regulation and strategy in telecommunications, information technologies, and energy. In recent years, his research has been presented at meetings of the American Economic Association, Industrial Organization Society, Western Economic Association, Australian Competition and Consumer Commission, Telecommunications Policy Research Conference, the Caribbean Electric Utility Services Corporation, the Organization of Caribbean Utility Regulators, and the National Association of Regulatory Utility Commissioners. He is the director of the university's

Digital Markets Initiative and was a co-principal investigator on a National Science Foundation grant to examine barriers to adoption of solar technologies in developing countries. His current research examines broadband development, market competition, innovation, antitrust, and institutional change. He has conducted training programs for regulatory organizations in Africa, Asia, Australia, the Caribbean, Central America, Europe, North America, and South America.



### Ted Kury, Director of Energy Studies

Dr. Ted Kury's research has focused on four current issues confronting energy markets: efforts to change ownership structure in utility markets, the impacts of distributed generation, the efficacy of relocating power lines, and the effects of restructured electricity markets. There have been recent calls to change the ownership structure for electric utilities in California, Maine, and New York, but these efforts have essentially highlighted how complicated the process is, and the role of community preferences in the process. Analyses on the impacts of distributed generation have exhibited notable gaps.

First, current policy analysis makes the implicit assumption that distributed generation has no impact on consumption. Dr. Kury, along with Dr. Michelle Phillips and Dr. Mark Jamison, studied the impact of distributed generation on consumption in a single-utility sample and found that consumption increased 8-14% for customers that installed solar panels. While this result may not scale to larger samples, it certainly is evidence that the standard assumption that distributed generation has no impact on consumption is suspect. Further, as more countries move away from net metering as a compensation mechanism for distributed generation, they create an incentive for unregistered installations. Present detection methods involving satellite photos and image processing software are expensive with low detection rates. Dr. Kury is developing a machine learning algorithm for detecting unregistered installations from simple billing data. The relocation of power lines is a complicated question because relocation is very expensive and does not necessarily reduce the damage associated with storm events. In areas more susceptible to storm surge and flooding, the relocation may even increase damages, leading to a waste of valuable consumer and utility resources. Understanding how the efficacy of undergrounding changes with location is critical to ensuring that customers are receiving safe, reliable electricity service at just and reasonable rates. In addition to his academic work, Dr. Kury has published a number of essays in the popular press on the topic. Restructured electricity markets have led to more opportunities, but it is not clear how these opportunities are distributed. Dr. Kury's research has shown that the benefits of increased trade in transparent wholesale markets are not uniformly distributed, with larger and privately-owned utilities more apt to participate.



### Araceli Castaneda, Director of Leadership Studies

Ms. Castaneda served as faculty for several PURC in-country training programs in 2024. These include "Principles of Water Regulation and Pricing", hosted by the Belize Water Services Ltd. (BWSL) in Belize City, Belize, December 9-13, 2024; "One-Day Leadership Workshop: Practicing Leadership in a Political Environment" also hosted by BWSL in Belize City, Belize, December 14, 2024; and "Regulation by Contract" hosted by the Brazilian Association of Regulatory Agencies (ABAR) in Belo Horizonte, Brazil, April 8-12, 2024. Ms. Castaneda led the development work for the programs afore mentioned, and for other

in-country programs such as "Principles of Regulation" delivered in Kampala, Uganda, November 11 - 15, 2024 for the Electricity Regulatory Authority of Uganda (ERA), and the "Training Program on the Economics of Regulation" for the National Broadcasting and Telecommunications Commission of Thailand (NBTC) delivered in Thailand October 7 - 11, 2024.

Ms. Castaneda also contributed to a number of training sessions in other PURC courses in Gainesville, FL. These sessions include Effective Independence, Country Lessons from the Pandemic, Thinking Strategically, Balcony Perspectives in ICT Strategies, or Taking a Balcony View Point on Energy Pricing. She ran peer consulting groups to address participants' pressing issues and leadership challenges, and also co-delivered PURC's one-day leadership workshop June 2024.



### David Sappington, Lanzillotti-McKethan Eminent Scholar

Professor Sappington's ongoing research focuses on the design of regulatory policies to: (i) limit peak electricity consumption by providing incentives for demand response; and (ii) promote efficient distributed generation of electricity via net metering and related policies.

### **APPENDIX**

### **Public Utility Research Center**

### **Recent Publications and Working Papers**

**Aytug, Haldun, Anuj Kumar, and Xiang Wan.** 2022. "Estimating Optimal Recommendation Policy Under Heterogeneous Treatment Effect of Product Recommendation" In Information Systems Research Journal.

**Bandyopadhyay, Subhajyoti.** 2022. "The Streaming Games: Analyzing the Revenue Models of Online Media Firms" University of Florida, Warrington College of Business, PURC Working Paper.

Barrentes, Roxana, David Cox, Mark Jamison, and Dorothy Okello. 2023. "Regulatory and Broadband Industry Responses to COVID-19: Cases of Uganda, Peru, and the Caribbean." In Beyond the Pandemic? Exploring the Impact of COVID-19 on Telecommunications and the Internet, ed. Jason Whalley, Volker Stocker, and William Lehr, 169-193. Bingley, UK: Emerald Publishing.

**Brown, David P., and David E. M. Sappington.** 2022. "Vertical Integration and Capacity Investment in the Electricity Sector," *The Journal of Economics and Management Strategy*, forthcoming.

**Brown, David P., and David E. M. Sappington.** 2022. "Load-Following Forward Contracts," University of Florida, Department of Economics, PURC Working Paper.

**Brown, David P., and David E. M. Sappington.** 2022. "Market Structure, Risk Preferences, and Forward Contracting Incentives," University of Florida, Department of Economics, PURC Working Paper.

**Castaneda, Araceli, and Mark A. Jamison.** 2023. "Inspiring Leadership for Innovation," In New Leadership Communication – Inspire Your Horizon: World Lecture, ed. Nichole Pfeffermann and Monika Schaller.

**Channagiri Ajit, Tejaswi, and Mark Jamison.** 2022. "Effects of Conferring Business Resource on Rivals" University of Florida, Warrington College of Business, PURC Working Paper.

**Esmaelian, Behzad, Joseph Sarkis, Sara Behdad, and Mark A. Jamison.** 2023. "Sustainable Future: Principles and Expectations in Cryptocurrency Design," *In Blockchain and Smart-Contract Technologies for Innovative Applications*, Berlin, Germany: Springer Nature.

Haak, Lily. 2024. "COMMENTARY: DataU: How Much Are You Worth Online?" University of Florida, Warrington College of Business, PURC Working Papper.



**Hauge**, **Janice**, **Mark A. Jamison**, **and Jakub Tecza**. 2023. "Mobile platform preference: A comparison of U.S., Indian and Japanese firms" University of Florida, Warrington College of Business, PURC Working Paper.

Howell, Bronwyn, Fernando Herrera González, Georg Serentschy, Mark Jamison, Petrus Potgieter, Roslyn Layton, and Íñigo Herguera García. 2024. "Perspectives on Political Influences on Changes in Telecommunications and Internet Economy Markets," *Telecommunications Policy*.

Jamison, Mark A. 2022. "Adapting Merger Guidelines to a Digital Environment," CPI Antitrust Chronicle.

**Jamison, Mark A.** 2023. "An Alternative Focus for Antitrust: Addressing Harmful Competitive Advantage," University of Florida, Warrington College of Business, Digital Markets Initiative working paper, 2023.

**Jamison, Mark A.** 2023. "A Public Portal Option for Content Management" University of Florida, Warrington College of Business, PURC Working Paper.

**Jamison, Mark A.** 2023. "Broadband Pricing Under BEAD" University of Florida, Warrington College of Business, PURC Working Paper.

**Jamison, Mark A.** 2023. "Lessons From Economics Literature Regarding Title II Regulation of the Internet" University of Florida, Warrington College of Business, PURC Working Paper.

**Jamison, Mark A.** 2024. "The State of Broadband in the United States" University of Florida, Warrington College of Business, PURC Working Paper.

**Jamison, Mark A.** 2024. "Minimum Standards for Maximum Pricing Constraints" University of Florida, Warrington College of Business, PURC Working Paper.

**Jamison, Mark and Jakub Tecza.** 2024. "Determinants of Industry Concentration and Dispersion" University of Florida, Warrington College of Business, PURC Working Paper.

**Jamison, Mark, Jakub Tecza, and Peter Wang.** 2023. "Effects of platforms' entry into own marketplace: Evidence from the mobile application market" University of Florida, Warrington College of Business, PURC Working Paper.

**Kury, Theodore.** 2023. "Public-Private Cooperation in Broadband" University of Florida, Warrington College of Business, PURC Working Paper.



**Kury, Theodore.** 2025. "Potential Energy Savings from Load Shifting at University Chiller Plants" University of Florida, Warrington College of Business, PURC Working Paper.

**Layton, Roslyn, and Mark A. Jamison**. 2023. "Net Neutrality in the USA During Covid-19." In Beyond the Pandemic? Exploring the Impact of COVID-19 on Telecommunications and the Internet, ed. Jason Whalley, Volker Stocker, and William Lehr, 195-214. Bingley, UK: Emerald Publishing.

**Li, Xitong.** 2022. "How Do Product Recommendations Help Consumers Search Products? Evidence of Underlying Mechanisms from a Field Experiment," *Management Science*.

Rosston, Greg, Michelle Connolly, Janice Hauge, Mark Jamison, James Prieger, and Scott Wallsten. December 2023. "Economists' Comments on State BEAD Proposals," Comments filed with various state broadband offices.

**Tecza, Jakub, Scott Wallsten, and Yoojin Lee.** 2023. "Do Broadband Subsidies for Schools Improve Students' Performance? Evidence from Florida." University of Florida, Warrington College of Business, PURC Working Paper.

Yang, Yang, Sang K. Park, and Shunyuan Zhang. 2022. "Mitigating Inequalities Caused by Awareness of Algorithmic Bias," *Journal of Marketing Research*.