

ANNUAL REPORT 2023

Update on PURC Research and Outreach

This update on PURC research and outreach is intended to serve as an 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.



PURC 2023 Annual Report to the PURC Executive Committee

UPDATE ON PURC RESEARCH AND OUTREACH

Table of Contents

<u>Statistics and Highlights</u>	2
<u>Primary Research Projects</u>	4
<u>Outreach</u>	8
<u>Training and Development</u>	12
<u>Faculty Research Bios</u>	14
<u>Appendix: Research Papers Listing</u>	16

PURC 2023 Annual Report to the PURC Executive Committee

UPDATE ON PURC RESEARCH AND OUTREACH

STATISTICS AND HIGHLIGHTS

Statistics

- 8 Training Courses providing 235.5 hours of in-person classroom instruction
- 31 blog posts
- 13 working papers, journal articles and book chapters
- 6 opinion editorials
- 14 presentations, panels, and events

Plans for 51st Annual PURC Conference, February 21 – 22, 2024

We are excited to host our 51st Annual Conference, *Beyond Convergence: Designing Florida's Utility Future*, in Gainesville, Florida. The conference will serve as a crucial platform for utility and regulatory professionals to engage in insightful discussions, share ideas for next practices, and explore strategies to navigate the complexities of technological adoption.

52nd and 51st 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, October 16 – 25 and June 5 – 14, 2023. We welcomed 96 participants from 26 countries to Gainesville for these two programs. Since its inception in 1997, this program has educated more than 3600 professionals representing 156 nations. In addition, 53 participants completed the **PURC Leadership Workshop: Practicing Leadership in a Political Environment** on October 22 and June 11, 2023.



Student Engagement

As a research center at a top-ranking public university, PURC is committed to engaging students across disciplines. Students are invited 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 the opportunity to network with leaders and learn about the robust utility industry. Both Mark and Ted 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 two part-time student assistants who gain professional experience in office administration, event management, marketing, and social media.

Digital Markets Initiative (DMI)

DMI examines the business and regulatory implications of the growth of digital markets. In 2023, PURC faculty engaged with various media outlets and podcasts, which can be viewed online in the [Warrington newsroom](#). DMI research on competition between the Apple and Google app ecosystems became three working papers for the American Enterprise Institute. The papers were widely circulated on Capitol Hill and received top ten download awards from the Social Sciences Research Network (SSRN). Other research is examining how broadband subsidies affect school performance, how broadband adoption affects entrepreneurship and employment by gender and race, and guidance on broadband pricing. New work is examining privacy and data sharing issues.

Op-Ed Snapshot & Popular Blogs

- “Maine Voters Don’t Like Their Electric Utilities, but They Balked at Paying Billions to Buy Them Out,” The Conversation
- “Economics Lost: The Unraveling of Antitrust at the DOJ and FTC,” National Review
- “Maximizing Value and Minimizing Myths in Broadband Expansion,” RealClearPolicy
- “The Biden Administration Embraces a Backward Approach to Economics,” National Review
- “The Problems at the FTC Go Beyond Losing Merger Battles,” National Review
- “Why Christine Wilson’s Resignation from the FTC Matters,” The Hill
- “Google’s Antitrust Trial Is a Misguided Crusade Threatening Innovation and Consumer Choice,” RealClearPolicy

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 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 <https://theconversation.com/profiles/theodore-j-kury-406888/articles>.

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.

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 <http://www.aei.org/scholar/mark-jamison-2/>.

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 policy-makers 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

Broadband Barometer Project

PURC collaborated with the American Enterprise Institute to launch the Broadband Barometer Project. This initiative provides guidance to state broadband offices and issues report cards on the quality of their efforts. The program is overseen by scholars from PURC, Duke University, Pepperdine University, Stanford University, the University of North Texas, and the Technology Policy Institute. This 5-year project has conducted events on state broadband development and released videos and papers on best practices.

Regional Webinar on Electricity Price Determination Methodology

On November 23, NERSA (South Africa) hosted a regional webinar on the implications of their Electricity Price Determination Methodology. PURC Director of Energy Studies Ted Kury joined presenters from Denmark, Namibia, South Africa, and the US in addressing the implications of this methodology as Southern Africa transitions to a more liberal market for electricity. His own session focused on creating incentives for efficiency in generation, transmission, and distribution of electricity. He focused on understanding your definition of efficiency, crafting incentive mechanisms and how these mechanisms differ within the supply chain, and mitigating unintended consequences.

United States Energy Association Advanced Energy Technology Forum

On November 14, USEA held their 5th Annual Advanced Energy Technology Forum. PURC Director of Energy Studies Ted Kury moderated and presented in the University and National Lab panel. On the panel, he was joined by Rob Stoner from MIT, John Wagner from Idaho National Lab and Doug Arent from NREL in discussing the latest developments at the Universities and Labs. His presentation discussed the challenges and opportunities in AI-focused initiatives, but the broad scope of issues being addressed across the country will help to ensure that the future electricity system remains safe and reliable.

Powering the Community AI Design Contest

On November 9, UF's School of Engineering and Duke Energy hosted the Powering the Community AI Design Contest for area high school students. PURC Director of Energy Studies Ted Kury gave the keynote address before the student teams began their presentations. He talked about the challenges and tradeoffs in the electricity sector and how the skills they developed for the contest could be used to address not only the particular problem they faced, but related questions far beyond energy. The students then presented their algorithms for storm restoration focusing on customer characteristics, priorities, and needs of the system in their hometowns.

Net Neutrality: Revisiting the Repeal

On October 12, 2023, PURC's Mark Jamison hosted an event to discuss net neutrality following Federal Communications Commission (FCC) Chair Jessica Rosenworcel's proposal to reinstate the policy. Net neutrality mandates that internet providers treat all bits the same, and its repeal in 2017 alarmed advocates who warned the internet would no longer be fair, open, or safe. However, the internet thrived after the rollback, and US consumers experienced better broadband than did their counterparts in more regulated countries. The American Enterprise Institute sponsored the event.

Will Broadband Be Affordable? Assessing Regulations for Broadband Subsidies

On October 2, 2023, PURC's Mark Jamison hosted an AEI panel of experts to discuss how price controls would affect broadband affordability and ways to ensure broadband is affordable for all Americans. Dr. Jamison began with an overview of the National Telecommunications and Information Administration's (NTIA) low- and middle-income pricing requirements for broadband expansion. The panel then discussed the program's affordability; the Broadband Equity, Access, and Deployment (BEAD) Program's ability to attract private capital; ways of promoting structural competition; and the impact subsidies might have on accessibility. The panel concluded with each panelist offering advice to states dealing with the NTIA's price requirements, including building program assessment into broadband rollout, collecting accurate data, and sticking to a clear objective.

How Are States Managing the Broadband Billions?

On September 29, 2023, AEI's Mark Jamison hosted an expert panel of state broadband officers and academics to discuss states' plans for the billions of taxpayer dollars allotted to broadband expansion. Dr. Jamison kicked off the conversation with an overview of broadband initiatives, BEAD funding, and the political pressures and tight deadlines that can affect effective allocation. The state broadband officers unpacked their broad, overlapping concerns—including permitting, workforce, and affordability—and their plans to overcome obstacles such as working with local communities, encouraging competition among providers, and enforcing accountability and compliance measures.

Revising the Horizontal Merger Guidelines: The Path Forward

PURC's Mark Jamison and NRRI's Jeffrey Eisenach gathered economic and legal experts to discuss the Federal Trade Commission's (FTC) controversial proposed Draft Merger Guidelines. FTC Director of Bureau of Economics Aviv Nevo started the economics panel by outlining the merger guidelines' goals: to guide the FTC, inform businesses, and serve as a court reference. Sharing comparisons about the new guidelines versus the old ones, Carl Shapiro of the Haas School of Business expressed concerns about treating vertical and horizontal mergers under one framework, and Bruce Kobayashi of the Antonin Scalia Law School agreed that combining complements is inherently different than combining competitors. AEI's Robert Kulick added that the FTC's efforts to consider new sources of information might serve useful in adding rigor to antitrust. AEI hosted the event.

The Future of Independent Agencies: Fallout from Problems at the Federal Trade Commission

On May 25, 2023, PURC's Mark Jamison hosted an AEI panel discussion on the future of independent regulatory agencies in light of recent activity of the Federal Trade Commission (FTC), which is reversing decades of precedence and established procedures. The panel discussion featured former FTC Commissioner Maureen Ohlhausen, former Federal Communications Commission Commissioner Michael O'Rielly, and AEI's Adam J. White. Ms. Ohlhausen began by recalling that the FTC wasn't always like it is today. It formerly had a culture of consensus and a desire for bipartisanship in enforcing the law. In some sense, the agency is weaponizing legal uncertainty to prevent corporate mergers. Mr. White highlighted similar concerns with the Consumer Financial Protection Bureau, but these agencies' discretion may be diminished if the Supreme Court abolishes the Chevron doctrine. Mr. O'Rielly discussed how Congress hasn't necessarily helped due to it diminishing its lawmaking role and relying on oversight. Also, proximity to elections has had a chilling effect on relations between the administration and Congress. Reestablishing such relations would be crucial to steering independent agencies toward their actual goals. Dr. Jamison closed by making the point that regulators must carefully consider how regulation affects the perception of risk.

Where's the Broadband Money Going? Tracking Impact and Accountability

On May 24, 2023 PURC's Mark Jamison hosted an AEI panel discussion on keys to broadband program efficiency, transparency, and accountability, previewing a rubric for forthcoming work that grades states on their progress. The panel discussion featured University of North Texas's Janice Hauge, Pepperdine University's James Prieger, Stanford University's Greg Rosston, and the Technology Policy Institute's Scott Wallsten. Dr. Wallsten emphasized the efficiency of reverse auctions, explaining that states can get twice as much broadband per dollar using auctions instead of traditional grant systems. Dr. Prieger explained that the National Telecommunications and Information Administration's (NTIA) previous Broadband Technology Opportunities Program provided almost no incremental broadband. He also explained that regulating broadband prices and opening networks, which NTIA recommends, will decrease investment. Dr. Rosston described why low-income individuals do not respond to price discounts. Comcast's Internet Essentials program's adaptability and customer focus have been more effective. Dr. Hauge offered the tenets of the forthcoming rubric that will serve as a guide for states to implement their broadband plans. There's a lot at stake with this much funding, but there is hope that with such guidance, the money will be spent well.

AEI Section 230 Spring Summit

On April 19, the AEI Section 230 Spring Summit gathered together policy, economics, and legal experts to discuss the implications of the two recent Supreme Court cases regarding Twitter's and Google's alleged liability for hosting content posted by third parties. Section 230 of the Communications Decency Act is often referred to as the "26 words that created the internet." Now, those words are the subject of a growing debate about their application and efficacy. From Supreme Court cases to state and national legislative proposals, the future of Section 230 is in question. PURC's Mark Jamison moderated portions of the event.

Do Apple and Google Discriminate Against Rivals in Their App Stores?

Not according to research presented by Dr. Jakub Tecza at the Regulatory Law & Economics Workshop organized by the Center for Growth and Opportunity in Seattle in March 2023. The purpose of the ongoing

project of the Digital Markets Initiative is to understand how app markets respond to applications launched by mobile platforms such as Apple or Google. Results show that the introduction of Apple applications has mostly positive effects on rival apps in terms of downloads, active users and updates of existing apps, as well as on the development of new apps. In contrast, the introduction of Google applications has no economically meaningful negative or positive effects. The research findings suggest that vertical integration of mobile platforms is not harmful to competition in the mobile app markets, and sometimes has positive effects.

What Does Sustainable Mean in the Energy Sector?

It can mean doing the things we want to do, when we want to do them, for as long as possible. This was the subject of a talk that PURC director of energy studies Ted Kury delivered during a panel session organized by the Green Gators. He talked about not only the costs of using energy, but the costs of not using energy as well, and the impact they have on productivity, comfort, and convenience of society. He also talked about the need to study these costs objectively and in consideration of their interaction with other sectors. The consequences of not understanding these tradeoffs is potentially severe, but the benefit is that we get to keep doing what we want to do, when we want to, for a long time.

50th Annual PURC Conference – Getting to Zero: Creating New Ways Forward

Utilities and policy makers are making concrete plans to achieve three zeros: Zero (or net zero) carbon emissions; Zero Floridians without broadband; and Zero water problems. New technologies promise to make zero carbon emissions an economic reality. Florida's new broadband plans promise to offer connectivity to all Floridians. And the water sector is evolving to put quality and investment problems behind us. What are the paths forward for utilities and policy makers? "Getting to Zero - Creating New Ways Forward" was the focus of the 50th Annual PURC Conference, hosted in-person from February 22-23, 2023.

Neo-Brandeisian Antitrust: Repeating History's Mistakes

On February 1, 2023, PURC's Mark Jamison moderated an AEI discussion between former chairmen of the Federal Trade Commission, AEI's Timothy J. Muris and Deborah Platt Majoras, on how the Biden administration has returned to the neo-Brandeisian tradition of antitrust policy. Mr. Muris began by reflecting on his recently published research that analyzes the legal and intellectual path of antitrust policy and how the Biden administration's current reversion to the framework that dominated before the 1980s hurts consumers. Ms. Majoras expressed concern that if the FTC moves away from the consumer welfare standard that has been used for the past several decades and stops using an approach using economics, then the agency will have little grounding when enforcing antitrust policy. She then discussed the role that the employees of large companies play in enforcing antitrust law and how this reversion to an antitrust mindset that "big is bad" will turn into greater costs for companies and, thus, higher prices for consumers. Finally, Mr. Muris and Ms. Majoras fielded questions from the audience, particularly addressing concerns about large technology companies and Amazon. Mr. Muris emphasized that the antitrust policy should be focused on the consumer, not the competitor.

Annual PURC Award for Best Paper in Regulatory Economics

The 2023 Public Utility Research Center Prize for the best paper in regulatory economics was awarded to Phoebe Tian (Bank of Canada) and Chen Zheng (Brattle Group) for *Unintended Consequences of Policy Interventions: Evidence from Home Affordable Refinance Program*. Training and Development.

TRAINING AND DEVELOPMENT

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

Fifty-three (53) regulatory and utility professionals participated in our June and October 2023 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.

52nd & 51st PURC/ World Bank International Training Program on Utility Regulation and Strategy

Ninety-six (96) 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 October 16 – 25 and June 5 – 14, 2023.

Executive Retreat for the Utilities Regulation and Competition Authority (URCA)

How can an executive team design the best future for their institution, understand stakeholders, and ensure the organization is ready for this future? How can the executive team learn about its members' leadership styles, use everyone's strengths to support the organization, and plan their next steps? These are the challenges addressed by the Executive Team of the Utilities Regulation and Competition Authority (URCA) during the retreat conducted by PURC director of leadership studies Araceli Castaneda, and PURC director Mark Jamison in The Bahamas October 5 - 6, 2023.

Advanced International Practices Program: Benchmarking Infrastructure Operations course

We hosted thirteen 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 7 – 10, 2023.

Advanced International Practices Program: Energy Pricing course

We hosted twenty-nine 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 31 – August 4, 2023.

Customized PURC Training in Water Regulation for ANA

Key personnel from the National Water and Sanitation Agency of Brazil (ANA) travelled to PURC for a customized 8-day training program designed to prepare them with the knowledge and skills needed to establish a water tariffing system. ANA is charged with setting guidelines for states and municipalities to follow when regulating water utilities. The program covered all aspects of ratemaking, from accounting systems to final prices. This program was delivered July 12 - 21, 2023 at the University of Florida.

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: the impacts of distributed generation, the efficacy of relocating power lines, the complexity in determining optimal levels of carbon dioxide abatement, and the effects of restructured electricity markets. 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. His work on carbon abatement includes insight into the marginal cost curves for abatement. Theoretically, we can equate the marginal cost with the marginal benefits of abatement to determine optimal levels of emissions. 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 contributed to a number of PURC in-person programs through the delivery of training sessions such as 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. Ms. Castaneda also co-delivered PURC's one-day leadership workshop Practicing Leadership in a Political Environment in June and October of 2023.



Sanford V. Berg, Senior Fellow

Dr. Sanford (Sandy) Berg, PURC Senior Fellow, continues to examine internal and external governance mechanisms in the context of infrastructure reform. After the December 2018 Conference in Manila (sponsored by the Bill and Melinda Gates Foundation), he assisted the Eastern and Southern Africa Water and Sanitation Regulators Association by reviewing their Gates-sponsored report on sanitation initiatives in the region. PURC is exploring a now has a funded project to assist in training and the development of resource materials. Berg also conducted a study for Jamaica's Office of Utility Regulation on reducing Non-Revenue Water. In addition, Berg continues to assist in the delivery of PURC eLearning and training programs for international participants.



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.

Bet, Germán, Shana Cui, and David E. M. Sappington. 2021. "The Impact of Vertical Integration on Losses from Collusion." *The International Journal of Industrial Organization*, Vol. 77, June 2021, Article 102756.

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. 2021. "Principles and Strategies for Effective Leadership in the 'New Normal' " University of Florida, Warrington College of Business, 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.

Channagiri Ajit, Tejaswi, and Mark A. Jamison. 2021. "Platform Competition and Differentiation: Developer Choices in Mobile Platforms" University of Florida, Warrington College of Business, PURC Working Paper.

Costello, Kenneth. 2021. "The Challenges of Reviewing Merger Proposals" University of Florida, Warrington College of Business, PURC Working Paper.

Cox, David. 2021. "Leveraging Digital Transformation for Capital Markets Development: Closing the Digital Divide" University of Florida, Warrington College of Business, PURC Working Paper.

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