Integrating Research into Classroom Teaching
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Economics can bridge a number of fields while it provides a framework for integrating many themes related to public policy and global issues. My international and interdisciplinary activities have influenced my research, providing me the opportunity to utilize unique data sets, explore the implications of different institutional settings for infrastructure sector performance, and learn about the political, technological, and legal constraints facing managers around the world. This research, in turn, has affected what (and how) I teach. Globalization is now a key element in all my courses.

My research has also led to university service activities that complement my teaching, such as involvement in several area-studies programs on campus. I serve on the Faculty Advisory Committee for the UF Water Institute and helped shepherd the idea through campus discussions that led to the creation of this new interdisciplinary initiative. I also serve on the Faculty Advisory Committees for the Center for Business and Economic Research and the Center for Transnational and Global Studies. These interactions have helped me appreciate the international linkages between foreign languages, area studies, economics, and other fields. In addition, because infrastructure policy is by its very nature interdisciplinary, I have collaborated with scholars in engineering and other fields.

When I became the Public Utility Research Center's (PURC) Director of Water Studies, I helped a group of graduate students get involved in research on performance of regulated firms. A number of papers have emerged from these projects—some articles are co-authored, but I encourage sole authorship by the students so they begin to make their individual contributions to the scholarly and policy literature. Publications help students with job placement. The development of *Managing in Deregulated Industries* (an MBA course) and (subsequently) the creation of *Public Utility Economics: International Infrastructure* both reflected an intersection of my research interests and course content.

During my career, my major research area has been Public Utility Economics and Industrial Organization. On reflection, I now recognize patterns in my publications and my teaching. In the past I published articles (and a book) on research and development and incorporated innovation into my courses. I realized that technological change was a fundamental feature of our economy and could provide some unifying themes for my courses on introductory microeconomics and public policy. In the 1970s, I conducted research on energy policy, drawing graduate students into those initiatives. In the 1980s, I focused on telecommunications and learned about spectrum allocation, compatibility standards, and other topics. As I conducted this research and supervised dissertations, I built up a significant amount of specialized knowledge. Since I was teaching the graduate course in Public Utility Economics, I was also synthesizing material for my students. That led to the creation of course notes, which became the catalyst for my (co-authored) Cambridge University Press volume, *Natural Monopoly Regulation: Principles and Practice* (1988). That volume was used in graduate courses throughout the nation. I have applied microeconomic principles to international infrastructure in my research.

Research on and contact with regulators has affected my classroom teaching: undergraduate courses on public policy toward business, and graduate courses on managerial economics, reflect the broader social context, helping students see the importance of public policy changes. In the 1990s, I turned to international infrastructure issues, as new regulatory commissions were being created around the world. The PURC International Training further shaped my research interests, as I learned about issues facing agencies in developing nations. When I stepped down from the PURC Directorship, I became the Director of Water Studies—which has led to my exploring issues in another infrastructure sector.

My research has fed back into my teaching. Laws set the boundaries for corporate behavior; therefore, I spend more time on social issues than is typical in most courses in Managerial Economics. Discussions of current events help engage students in course material. Since 2000, I have primarily taught Managerial Economics in the college MBA and MSM programs. Although the course outlines have the same format over the past five years, the examples and course activities change over time to provide up-to-date examples. The course focuses on decision-making at the firm level and provides a framework for integrating material from other business fields. For both the internet and on-campus courses, the challenge is how to apply economic principles in solving practical, managerial problems. I view the course concepts and technical terminology as a kind of scaffolding—essential for creating a decision framework but to be hidden (or even discarded) as structure is provided by courses covering the functional areas of business. Basically, I want students to become steeped in the basics of comparing incremental benefits and incremental costs. I present a host of examples so that students start developing their pattern recognition skills—preparing them for cases covered in other classes and for on-the-job responsibilities. The internet is integral to my teaching. For example, the Body of Knowledge for Infrastructure Regulation developed for regulators is an important resource for the undergraduate course on Global Infrastructure that I developed in 2007.

When my own children went to college and shared their reactions to various professors with me, I finally understood the impact mentors had on their students. I realized that I do not really teach economics, I teach young adults (and experienced professionals). The course content matters, but stimulating passions for learning matters even more. A major research university has an obligation to expand the frontiers of knowledge, distill insights for the current generation of students, and strengthen their skills in critical thinking. Both my participation on the Water Institute Launch Team and related interdisciplinary research promote cross-campus dialogues. I enjoy sharing ideas with students and colleagues, and hope I can contribute to strengthening our teaching mission in other venues. No discipline can exist in splendid isolation and remain for long on the cutting edge. I will continue my work in integrating economics into other fields and in applying tools from other disciplines to complicated policy issues.