SEARLE CENTER ON LAW, REGULATION, AND ECONOMIC GROWTH

2016-2017 Annual Report

SEARLE CENTER ON LAW, REGULATION, AND ECONOMIC GROWTH

is a nonprofit research and educational organization at Northwestern Pritzker School of Law. Founded in 2006 with a generous gift from the late Daniel C. Searle, the Searle Center was established to examine how government regulation, and the interpretation of laws and regulations by the courts, affect business and economic growth. The Center has a dual mission of research and education — we are committed to studying the impact of laws and regulations on economic growth, and also to providing academic, public policy, and judicial leaders with analytically rigorous and balanced information on important and timely issues.

The Searle Center takes only one position with respect to public policy: economic growth and economic efficiency are good. The Center supports research that is conducted in accordance with the highest standards — advanced analytic methods and empirical studies. Our research focuses on topics such as intellectual property, including patent, copyright, and trademark; antitrust and trade regulation; internet, including search, neutrality, and privacy; health care; and environmental regulation and climate change.

Conducting and participating in Searle Center programs are faculty from the Northwestern Pritzker School of Law, the Kellogg School of Management, and Northwestern University's Department of Economics, as well as a broad array of prominent scholars from other departments at Northwestern and from other leading universities.



LETTER FROM THE DIRECTOR



I am proud to report that in our tenth year, the Searle Center on Law, Regulation, and Economic Growth continues to produce innovative research and to host highly regarded academic events. We believe strongly that economic growth is good for the United States. Growth produces jobs for our citizens, opportunities for entrepreneurs, rising standards of living, and the wealth needed for protecting and preserving our freedoms.

The Searle Center's mission is to ask which laws and regulations create structures that nurture growth, rather than hinder it. Some hear "regulation" and immediately think that growth must be hindered. But research produced by the Searle Center and presented by others at our events show that this is not always the case.

The Searle Center is currently conducting large-scale research projects on Innovation Economics and on Workforce Science. The Project on Innovation Economics is centered on patents and standards, and fosters research on these topics in many ways. Perhaps the most exciting is the newly created database that is designed to stimulate new research on standards, standardsetting processes, standard-related and standard-essential patents, litigation related to standards, and the use of standards. This database will be available to scholars and, using an early release version, several very exciting working papers have already been produced. We expect many more to come with a wider release of the final database, planned for spring 2018.

The Project on Workforce Science examines the implications of big data for employment. This initiative explores the burgeoning possibilities and issues produced by the use of big data sets to manage workforces. We believe it will have huge impacts on our economy and workforce, producing economic growth in many different industries, and Searle looks forward to being the leader in this emerging field.

The conferences and roundtables that Searle runs provide an opportunity for scholars producing new research to present their work to an audience of fellow scholars, professionals, and regulators. The interactions press alternative visions and presumptions onto the work, producing better responses and new avenues for investigation.

The Searle Center, both within the projects on Innovation Economics and on Workforce Science and also in our work outside of the projects, concentrates on intellectual property, antitrust, internet commerce, entrepreneurship and innovation, and digitization of media. All five topics relate directly to the role of innovation and competition in stimulating economic growth.

Matthew L. Spitzer, Director

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Searle Center on Law, Regulation, and Economic Growth Howard and Elizabeth Chapman Professor Northwestern Pritzker School of Law

FOR MORE, VISIT US AT: law.northwestern.edu/searlecenter

INNOVATION ECONOMICS

The Searle Center's Project on Innovation Economics, under the direction of research director Daniel F. Spulber, is a five-year project designed to improve and change the nature of academic research and the policy debate on Standard Setting Organizations (SSOs) and patents. "Technology standards and standards organizations play a central role in Innovation Economics," Spulber says. "We have a lot more to learn about the connections between patents, technology standards, and innovative activity. This project will help to fill in that gap."

The project focuses particular attention on the implications of technology standards, including standard-setting organizations, standard-essential patents, and market coordination related to standards. Our objective is to develop theoretical models, empirical analysis, and extensive data sets in Innovation Economics with particular emphasis on standards organizations.

We have a lot more to learn about the connections between patents, technology standards, and innovative activity."

— DANIEL F. SPULBER. Research Director



The Searle Center Database of **Technology Standards and Standard Setting Organizations**

The Searle Center Database of Technology Standards and Standard Setting Organizations will be the world's largest and best integrated database on Standards, SSOs, standard-setting processes and working groups, standardrelated patents, consortia and patent pools, and standard-related litigation. The database consists of three different datasets, which can be used separately from each other or in conjunction to address research questions in economics, management, law, and other social sciences. The first, a longitudinal dataset, provides information on a large sample of SSOs in the field of Information and Communication Technology. The second dataset provides very detailed information on standardization processes in a single SSO, 3GPP. The third dataset contains the most comprehensive information on declared standard-essential patents (SEPs), and is also the first dataset which allows this information to be matched to specific standards. The database, which will eventually be available to all serious researchers, should produce a large new wave of scholarship on standards, ultimately changing both the way in which standards are viewed and the policy debates surrounding them.

Noteworthy Events

Fifth Annual Research Roundtable on Patents and Technology Standards

This roundtable featured sessions on patents and litigation; patents, intellectual property, and innovation; technology standards and standard essential patents; and patents, licensing, and spillovers.

Tenth Annual Conference on Innovation Economics

(June)

The conference featured a keynote address by Kamil Kiljanski, Chief Economist, European Commission Internal Market and Industry Department, on "European Commission's Economics Research Agenda for the EU Internal Market." The conference featured 28 research papers that delved into topics including entrepreneurship and innovation; patent litigation and public policy; technology standards and patent boxes; and competition and incentives to innovate.

WORKFORCE SCIENCE PROJECT

Under the direction of senior research affiliate Deborah M. Weiss, the Workforce Science Project (WSP) examines the emerging field that is transforming the long-neglected management of the workplace. "The Workforce Science Project has been bringing together academics and employers for both knowledge exchange and joint research," Weiss says. "There are many exciting areas yet to be explored in understanding

what goes on in the workplace and improving both the economic mobility of workers and their productivity within the firm." The rapid expansion of workforce science is driven by the ever-increasing proportion of corporate value that consists of human capital and by the emergence of Big Data, which is poised to dramatically increase the accuracy of human capital measurement.

Better human capital measurement will have four major consequences: First, human resource management (HRM) will become more data-driven, just as financial and operations management are today. The increased use of data will improve the quality of human capital metrics, helping companies develop better HRM practices. Second, as new metrics become available, firms will begin to disclose human capital metrics in financial reporting. Financial markets will then accelerate improvements in HRM by focusing managerial attention on preserving and increasing human capital. Third, better human capital measurement will reduce some of the social problems caused by current

labor market imperfections. Fourth, better workforce science will provide a foundation for improvements in the legal regime governing human resources. The regulation of the employment relationship today is often based on unsubstantiated assumptions. In the future, the legal system will be able to incorporate more evidence about the effects of various HRM practices.

The goal of the Project is to promote this four-pronged evolution by sponsoring and disseminating research through businessacademic collaboration and by encouraging dialogue on policy issues through conferences that include regulatory groups and stakeholders.

There are many exciting areas yet to be explored in understanding what goes on in the workplace and improving both the economic mobility of workers and their productivity within the firm."

-DEBORAH M. WEISS, Director of the Workforce Science Project



WORKFORCE SCIENCE PROJECT

Ongoing Research Projects

Criminal Background and Job Performance

Job applicants with criminal records are less likely than others to obtain legitimate employment. This research presents the first evidence using civilian data on how exoffenders behave on the job. Our data indicate that individuals with criminal records have a much longer tenure and are less likely to quit their jobs voluntarily than other workers. Some results, however, differ by job. Customer service employees with a criminal record are no more likely than others to be discharged involuntarily, for example, while sales people with records may have a higher rate of involuntary discharge. This complex pattern suggests the need for expanding the public policy menu to include incentives that encourage employers to look more closely at their workforces and identify where the true risk groups are.

The Value of Psychological Tests in **Predicting Work Outcomes**

Through a partnership with the University of Texas Medical Branch, WSP researchers have the unprecedented opportunity to develop a psychometric test battery for use in preemployment hiring. These tests measure personality, cultural fit, and ability, and evaluate which elements of the instrument are most predictive of a wide range of performance measures.

Toxic Employees

Everyone has worked with a "toxic employee" whose very presence in the workplace detracts from everyone else's performance and may even pose a legal risk to their employer. We study termination reason codes (for example, sexual harassment, or drug/alcohol policy violations) to determine whether opaque questions at the point of application can offer up an accurate signal about an applicant's honesty and integrity.

Employer-Subsidized Credentials: Improving the New Training Paradigm

(in partnership with Baylor Scott & White Health and Burning Glass Technologies)

Some employers have begun to address the skills gap with a new model of employee training in which employers collaborate with educational institutions to provide portable educational credentials. This study examines whether employee participation can be increased by improving the information accessible to employees regarding available training and its likely return in their future career.

What Privacy Rights Do Employees Value?

As with any use of Big Data, talent analytics raises the challenge of protecting individual privacy rights. With diminishing practical constraints on data collection and analysis, privacy advocates have increasingly turned to legislative and regulatory restrictions. This push for governmental intervention is based on guesses and assumptions rather than an empirical understanding of what data employers use, how employers use that data,

and what monitoring most concerns employees. This project attempts to shed light on these issues through a series of surveys that seek to determine what types of monitoring and data usage raise the greatest degree of privacy concerns.

The Legal Regulation of the **Employment Relationship**

A small but increasingly significant amount of economic literature examines the effect of employment laws on outcomes such as employment levels. Variations in state law and changes in the law over time are used to untangle the causal effect of laws themselves from other factors that might affect the measures of interest. Although this literature represents an important beginning, it has several limitations. We are coding a large set of employment laws into a more nuanced form that can be used for statistical analysis. We will use this novel data to investigate the extent to which the employment laws affect economic activity.

Recessions and Productivity

In the last three U.S. recessions, productivity ceased to move with output but instead began to increase before the recessions officially ended. Utilizing millions of data points on worker productivity from a variety of different industries, we test two explanations for this change: (1) firms selectively fired poor performers or hired better performers; or (2) employees worked harder and became more productive in order to retain their jobs. These explanations are not necessarily competitive; they could both be right.

Noteworthy Events

In November 2016, the Searle Center hosted the Third Annual Leadership Roundtable on Talent **Analytics and Workforce Science** to discuss advanced issues in the analysis of talent and the workforce. Participants included analysts in top leadership positions in firms with an established Talent Analytics practice, including Apple, Inc, Ericsson, Facebook, Microsoft Corporation, Sears Holding Corporation, Target Corporation, and Uber Technologies Inc.



Ninth Annual Conference on Antitrust Economics and Competition Policy (September)

The preeminent competition policy conference, this event brings together legal and economic academics from top universities and representatives from government regulatory agencies such as the U.S. Department of Justice, the Federal Trade Commission, and the Federal Communications Commission to discuss leading-edge research on the law and economics of competition policy. This year's conference featured keynote addresses by leading personnel from the Obama administration: Jason Furman, Chairman, White House Council of Economic Advisers and Howard Shelanski, Administrator of the Office of Information and Regulatory Affairs.

Public Policy Forum on the FTC's Report on Patent Assertion Entities (October)

Held in Washington, D.C., this conference coincided with the release of the FTC's Report on Patent Assertion Entities, and included a discussion between panelists including Hon. Douglas H. Ginsburg, Senior Judge, U.S. Court of Appeals for the District of Columbia Circuit and Professor of Law, Antonin Scalia Law School, George Mason University; Mark A. Lemley, William H. Neukom Professor of Law, Stanford Law School; Anne Layne-Farrar, Vice President, Charles River Associates; Suzanne Drennon Munck, Chief Counsel for Intellectual Property, Deputy Director, Office of Policy Planning, Federal Trade Commission; and David L. Schwartz, Professor of Law, Northwestern Pritzker School of Law.

Importing Prior Art Automatically and **Streamlining Patent Issuance Roundtable**

Together with The Elijah J. McCoy Midwest Regional United States Patent and Trademark Office, the Searle Center hosted a roundtable focused on new ways to efficiently identify prior art for patent applications.

Research Roundtable on Energy Regulation, **Technology, and Transaction Costs: Cross-Cutting Perspectives** (November)

As part of this roundtable on energy regulation, a small group of academics discussed working papers on topics that included evolution and organization of environmental agencies, energy efficiency and emissions intensity standards, the value of local regulation from the fracking boom, air pollution costs of moving crude oil to refineries, and technology platforms and retail electricity market design for transactive energy.

Electricity Dialogue at Northwestern (May)

During this event, utility regulators and industry representatives openly discussed issues in electricity transmission. Sessions included: "An RTO Perspective - Reliability and the Challenges with Integrating RE, DG, DERs and NG;" "Planning Distribution System Investments Given DER Growth;" "Energy Infrastructure: Making Sure We Have What We Need When and Where We Need it to Assure Reliability, Security, & Resiliency 24/7/365;" "Customer Focused Solutions Regarding Distribution – How Can All Players Participate?"

Eighth Annual Chicago Forum on International **Antitrust Issues** (June)

Co-sponsored by Baker & McKenzie, Mayer Brown, Jones Day, Compass Lexecon, Microsoft Corporation, MLex Market Intelligence, and Qualcomm, this forum featured panelists from around the world and a timely keynote address by Jonathan Faull, Former Director General, EC, Brussels, on BREXIT's Impact on the UK and EU. Panels included: "What to Expect in the New Trump Administration?;" "In-House Counsel: Antitrust Hot Topics in Key Jurisdictions;" "International Perspective: Intersection of Intellectual Property and Antitrust;" and "Contrasting Approaches to Abuse of Dominance Globally."

Third Annual Research Roundtable on Animal Law and Regulation: Local Food Law, Animal Welfare, and Sustainability (July)

The third roundtable on Animal Law and Regulation, this event included a mix of academics as well as representatives from public interest groups such as the Animal Legal Defense Fund. Bradley Roback, Coordinator of Economic Development from the City of Chicago's Department of Planning and Development, Sustainability/Open Space Division, presented on "Food Policy and Land Use Planning." Other discussions included: "Comparative, International and Transnational Governance and Food;" "Food as a Globalized Factory Production; and Food Policy and Land Use Planning."

LOOKING AHEAD

Tenth Annual Conference on Antitrust **Economics and Competition Policy** September 15-16, 2017

Research Roundtable on Economics of Mass Digitization: How to Advance More Public Access to In-Copyright Works? October 12-13, 2017

Fourth Annual Leadership Roundtable on Talent Analytics and Workforce Science October 19-20, 2017

Tenth Annual FTC Microeconomics Conference (Washington D.C.) November 2-3, 2017

Second Annual Research Roundtable on Energy Regulation, Technology, and **Transaction Costs: Cross-Cutting** Perspectives November 16-17, 2017

MISO Grid 2033: Preparing For the Future (St. Louis, MO) November 29-30, 2017

Second Annual Research Roundtable on Global Climate Change Governance April 30-May 1, 2018

Electricity Dialouge at Northwestern May 7-18 2018

Sixth Annual Roundtable on Standard **Setting Organizations and Patents** May 17-18, 2018

Eleventh Annual Conference on Innovation Economics (co-sponsored by the USPTO) June 21-22, 2018

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