Summary: Achieving Regulatory Excellence
Seminar by Professor Cary Coglianese

Regulatory excellence is governmental excellence. Three primary mechanisms exist for promoting regulatory success: Procedure, Management, and Technology.

PATHS TOWARD REGULATORY EXCELLENCE
Historically, U.S. policymakers have devoted substantial attention to the design of legal procedures as a means of encouraging sound regulatory decisions. Procedures are important but regulatory excellence also depends on quality management at regulatory agencies as well as effective use of technology at these agencies.

I. Procedure
Section 553 of the Administrative Procedure Act of 1946 dictates how new regulations get written. The process has become more complicated over the years but the steps of notification, public comment, and review are still at the core of how any rule is created, amended, or repealed. These steps ensure transparency and public participation.

Another distinctive procedural process that encourages regulatory excellence in the U.S. was established by executive order. It requires the White House Office of Management and Budget to review an economic analysis of any rule deemed significant. A rule is considered significant if it is expected to have an economic impact of $100M or more per year or presents a novel policy issue. Furthermore, the Unfunded Mandates Reform Act (UMRA) also requires that agencies conduct an economic analysis of rules that may result in expenditures of $100M or more in any one year. Both UMRA and the executive order apply only to executive branch agencies.

Since 1995, Congress has asked for an annual report of regulations and consequently at least two full administrations have provided data on the economically significant regulations vetted by full cost-benefit analysis. The results of the estimated annual economic impacts across the Obama and Bush Administrations show that benefits have outweighed the costs (Figure 1). Even under a worst-case scenario that assumes that regulations achieve benefits at the lowest end of the estimated range and costs at the highest end, the significant rules issued in the Bush Administration would have delivered estimated annual net benefits of $61B, while the significant rules in the Obama Administration would yield estimated annual net benefits of $131B.

If excellence is conceived of in terms of accountability, transparency, public participation, and analysis, it is clear that there are requirements for procedural steps that aim to promote all of these values.

II. Management
Although procedures can point agencies generally in the direction of regulatory excellence, by themselves they are not enough. Agencies still have much discretion in how they implement procedures and in the substantive policy choices they must make when developing, implementing, and enforcing regulation. Excellence in regulation also demands excellent regulatory management.

Figure 1: Costs and Benefits of Economically Significant Regulations

Regulatory Net Benefits: Best vs. Worst Cases

- **Best Case:** (Upper Benefits - Lower Costs) (B$2016)
- **Worst Case:** (Lower Benefits - Upper Costs) (B$2016)
The Penn Program on Regulation’s (PPR) “Best-in-Class Regulator Initiative” set out to create a model of regulatory excellence that could serve as a management framework for any agency. Through PPR’s research, there emerged three overarching qualities and nine tenets of regulatory excellence, each linked together as illustrated in Figure 2.

**Figure 2: Three Qualities and Nine Tenets of Regulatory Excellence**

The model of regulatory excellence developed at PPR starts at the organizational level, with people writing the regulations, but then it proceeds through their actions and decision making, transfers to the behaviors of the regulated, and ultimately results in outcomes (Figure 3). Excellence is a fluid and flexible process that requires diligent measurement and reflection to assess what is working as well as what areas exist for improvement.

“**The keys to regulatory excellence include internal management, priority-setting, problem-solving, and external engagement.**”

### III. Technology

Today’s world is undoubtedly one of expanding complexity. New technology has introduced regulatory challenges unfathomable 40 years ago with issues such as cybersecurity, the sharing economy, advances in genetic technology, nano-technology, artificial intelligence, self-driving vehicles, bitcoin, blockchain, and more. Along with these new regulatory challenges comes an explosive growth in data. According to a U.S. GAO report entitled ‘Strategic Plan: Serving the Congress and the Nation, 2014 - 2019,’ data volume is estimated to double about every 3 years. Machine learning, a predictive approach to data analysis that can adapt in functional form to meet the context of the data, has the potential to improve accuracy and precision in analyzing big data for regulatory purposes, as described in more detail in the box below.

**Regulating by Robot: Administrative Decision Making in the Machine-Learning Era**

Professor Cary Coglianese and Penn alumnus David Lehr co-authored an article looking at the possibilities of government using big data to improve and make smarter decisions about regulation. While most people associate the use of big data analysis with private-sector companies such as Amazon and Zillow, some of the earliest examples of machine learning can be found in the public sector. For instance, the U.S. Postal Service pioneered a machine-learning algorithm to read handwriting and automate mail delivery. The National Oceanic Atmospheric Administration uses machine learning for weather forecasting. Clearly, the government is using machine learning but it has not yet applied it extensively to the area of regulation. Regulating by Robot takes a look at different regulatory uses of machine learning and how they might fit under existing administrative law. [https://www.ssrn.com/abstract=2928293](https://www.ssrn.com/abstract=2928293)

### CONCLUSION

There is no single technological fix that is going to make regulation better. Regulatory excellence should be something that prompts regulators and government officials to consider possibilities of how machines might do a better job than humans in some regards. However, even in instances where machines can provide assistance, there will remain the need for human oversight, analysis, and relational skills. The regulatory workforce needs to be up to the task to take on the challenges of an increasingly complex economy. We need to ensure regulators continue to attract people who are committed to striving for the empathic engagement, stellar competence, and utmost integrity that are the foundation of regulatory excellence.