#### **Research Statement of Amy Semet** (Articles available at www.amysemet.com/research)

### **Executive Summary**

My research focuses on applying empirical methods to the study of administrative law and intellectual property law. Thematically, I am interested in studying how political actors influence institutional structure and make policy decisions. Normatively, I also seek to better understand how administrative and judicial institutions could best be structured. In analyzing this range of questions, my work applies quantitative social science techniques, such as statistical, network and text analysis, in addition to qualitative and historical methods, to explore legal issues.

My research agenda is divided into three broad areas of inquiry. First, during my time as a Postdoctoral Research Associate at the Center for the Study of Democratic Politics at Princeton University, I am working on a book-length project studying administrative adjudication and appellate deference in the labor law, innovation law, securities law, privacy law and environmental law regulatory contexts. Second, I am working on several articles empirically examining court decision making in intellectual property law. Third, I am working on several projects empirically examining court decision making at federal courts and state supreme courts.

# I. Administrative Adjudication and Regulation

# A. Administrative Decision Making in NLRB Cases

My dissertation explored how decision making occurs at the NLRB. Using historical material from the agency archives, in an article published in the *Berkeley Journal of Employment and Labor Law*, I statistically analyzed the NLRB's unfair labor practice decisions from the Clinton and Bush presidencies. I coded the outcome and legal issues involved (in addition to other case-specific information) of almost 3,000 agency decisions spanning sixteen years. I then explored the extent to which Board member ideology impacted whether the Board will rule for or against the employer. Applying theories used primarily in the study of the federal courts, I looked at how different partisan configurations of the panel hearing the case influenced how the Board ruled. I found that there are partisan panel effects and that the random choice of a Democratic majority panel over a Republican one influences the propensity of the NLRB to rule in favor of labor.

In a second project, I use the NLRB database I created as part of my dissertation to analyze how agencies engage in statutory interpretation. While there have been many theories floated about how agencies *should* interpret statutes, empirical work is scarce as to which methodologies and canons of constructions agencies actually use to interpret the statutes that form the heart of the regulatory regime they are tasked to administer. In my project, I code both NLRB and appellate court cases to see what statutory methodologies agencies and reviewing courts actually use. I find that partisanship does not dictate the primary statutory methodology — textualism or purposive — used by the Board. I also find that reviewing appellate courts often use a totally different statutory methodology than that used by the Board to overturn the Board's interpretation of the statute. Using my hand coding of cases, I hope to employ text analysis to come up with a predictive model of how agencies and courts interpret statutes. In all, my research raises interesting questions about how regulatory agencies and courts to use in analyzing the policymaking functions of agencies.

Finally, in a third project, parts of which I presented at the American Law and Economics Association Annual Conference, I use the case of the NLRB to set forth theoretical explanations of when the appellate courts will defer to an agency. Using a database of over 1,300 appellate court cases, I then evaluate my hypotheses statistically to assess the extent to which political, economic legal and sociological characteristics of cases impact the court's decision whether or not to defer to the agency. I find that partisanship impacts outcomes but the effect is not as strong as commonly believed. Moreover, my results underscore how understudied the role that gender and minority status plays in explaining court decision making. I find that female judges are more likely to issue counter-ideological rulings even when controlling for other political, economic, legal and sociological variables and that in some circuits, having a female colleague may actually decrease the propensity to vote in a counter-ideological fashion. I also find that women and minority judges are less likely to defer to the agency. The results contribute to important debates in administrative law about the amount of deference that the appellate courts should give to agency decisions as well as the extent to which diversity impacts court decision making.

# **B.** Adjudication in Labor, Innovation, Securities, Privacy and Environmental Law Cases

In addition to studying adjudicatory issues at the NLRB, I am extending the analysis to other agencies that do work through adjudication in preparation for writing a book on administrative adjudication and regulation. In addition to labor policies, I analyze adjudicatory decisions of regulatory agencies dealing with innovation policy (United States Patent and Trademark Office, or "USPTO"), securities law (Securities and Exchange Commission or "SEC"), privacy law (Federal Trade Commission or "FTC") and environmental law (Environmental Protection Agency or "EPA"). By studying a diverse series of subjects — labor, patent, securities, privacy and environmental law — I hope to make some comparative statements on how politicization impacts agencies depending on the subject matter. More importantly, I extend the analysis to answer the question: What political, economic, legal and sociological factors influence the decision of the appellate courts to defer to an agency? Studying a diverse group of agencies can help us begin to understand the answers to these questions as well as assist us in proposing ways to reform the system if the results do not comport with what we desire in a separation of powers system.

# II. Applying Empirical Analysis in Intellectual Property Law

### A. Exploring Role of Specialized Trial Courts in Making Decisions in Patent Law

Congress set up a ten-year pilot project to change the way patent cases are heard in the federal courts. In the new system, fourteen district courts act as specialized patent courts and decide more than their share of patent cases. Now that the five-year mark passed, my job market paper, presented as a poster at the Conference on Empirical Legal Studies this October at Cornell Law School, examines what impact the pilot project had in influencing patent law doctrine and court decision making generally. I find that pilot judges do not differ from non-pilot judges in how they are reviewed on appeal. I also surprisingly find that judges who previously sat by designation at the Federal Circuit are less likely to be reversed on appeal, underscoring the importance of personal connections. In line with my background in administrative reform, I argue that instead of focusing on specialized trial courts, reformers of patent law should focus on making multi-institutional reforms to the way patent law is litigated, starting first with reforming the USPTO by giving it more

rulemaking authority to make substantive rulings on patent law issues. In a second project using an original 20,000 case database I constructed, I analyze the district court decisions in a more in-depth fashion, discerning what factors influence how they rule in infringement and invalidity cases. The results of my study were cited in testimony before the House Judiciary Committee on the workings of the pilot program.

# **B.** Applying Network and Textual Analysis to Explain Precedent Diffusion in IP Cases

In examining judicial influence, scholars have traditionally focused on the case outcome to determine court ideology and influence. However, in recent years, scholars have increasingly employed new statistical techniques such as network analysis and textual analysis in order to gain a greater appreciation of how actual opinion content influences how judges both reach their decisions and in choosing what precedent they rely on to support their analysis. In this project, the beginnings of which I presented earlier this year at the Empirical Methods in IP Conference at Benjamin F. Cardozo School of Law, I aspire to use these more sophisticated statistical tools to gain a greater appreciation of how intellectual property law doctrine diffuses in the judicial system. I seek to answer the following questions: 1) How do courts cite precedent? In patent law, for instance, do district courts favor citation of Supreme Court over Federal Circuit precedent? How in turn does the Federal Circuit cite precedent, that is, does it favor certain district courts over other courts?; and 2) How do higher appellate court induce compliance among the lower courts in their citation of precedent? Scholars have often debated whether the Federal Circuit optimally transmits its precedent to the lower court. Using textual analysis, what can we say about how well both the Supreme Court and appellate courts transmit precedent?; and 3) Finally, how does precedent diffusion differ for patent law (which has a specialized appellate court) as compared to copyright or trademark law (where appellate cases are heard regionally)? Such analysis lends insight into whether specialized appellate courts work better than diffuse, regional courts in inducing compliance among the lower judiciary.

# III. Understanding How Courts Make Decisions

### A. The Influence of Public Opinion and Campaign Contributions on State Supreme Court Decisions

Recent research has found that judicial elections affect hot-button high salience issues such as the death penalty and abortion. Yet little attention has been paid to low salience issues, which comprise the majority of judicial decision making. In a joint project with Princeton Woodrow Wilson School Vice Dean Brandice Canes-Wrone and Emory University Professor Tom Clark, we address this problem by examining judicial responsiveness to public opinion on environmental law cases in a paper presented at the Conference of Empirical Legal Studies this October. To do so, we constructed original datasets of all cases heard before state supreme courts on the environment since 1990. We evaluate our hypotheses that institutional arrangements — namely the method of judicial selection — conditions judicial responsiveness to public opinion in deciding cases. We find that public opinion largely does not impact judge decision making irrespective of the method of selection. We are currently in the process of analyzing how campaign contributions affects decision making as well, and in a follow-on study, we hope to apply this same analysis to do a comparative

analysis of cases with varying levels of salience, such as search and seizure cases and abortion cases.

# **B.** Opinion Clarity in Determining Deference in Judicial Decisions in the Lower Federal Courts

The use of text analysis is in its infancy in the study of judicial institutions. I test the hypothesis concerning the role that opinion clarity has in influencing decision making in the lower courts. Scholars have used text analysis programs to calculate measures of "opinion clarity," reasoning that the Supreme Court writes clearer opinions when encountering more ideologically distant courts and when it decides cases against administrative agencies that poorly function. I turn the analysis around to look at the appellate courts, to discern whether the same logic applies in whether the appellate courts can use opinion clarity to induce greater deference among lower district courts. My preliminary results indicate that like the Supreme Court, in some instances, appellate courts use opinion clarity in a limited way as a tool to induce compliance among the lower federal judiciary.

# C. Using Network Analysis to Understand Case Law Diffusion Among States

Network analysis has been used in the social sciences to better understand relationships among actors and it can be readily imported to understand the legal system as well. In this particular project, I use network analysis to explore how state supreme court courts use the law of a sister supreme court in devising doctrine. I code citation counts of state supreme court decisions for both issue content as well as for how the judges in the case actually use the sister state supreme court decision. For instance, are the judges simply citing another state supreme court case in passing as an example? Or are they using another state's law to bolster the precedent they seek to set in their own case? Network analysis is an ideal vehicle to help us understand these relationships not only between and among state supreme courts, but among federal actors as well.

# IV. Conclusion

In all, the type of work I have done for my dissertation on agency institutional structure and decision making can be applied to study a host of other legal institutional structures in administrative law, intellectual property and other subject areas. Moreover, the quantitative training I received as part of my doctoral studies provides me with a useful skill set that I can apply to study legal issues empirically to better understand how administrative agencies, federal courts and state supreme courts make decisions.