Enforcement Networks

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Policy and academic debates often depict agencies as siloed, in solitary pursuit of their own statutory mandates. But such views overlook an important reality. Agencies do not work alone, but in fact exercise power via networks, in tandem with other federal and state agencies as well as foreign powers. While agencies have relied on networks for decades, the study of coordinated agency action has been slow to catch up. This inattention is particularly acute for enforcement, which can be a black box, with much of enforcement activity taking place outside of the public view.

This Article takes a novel approach to investigating how domestic and international agencies coordinate in civil investigation and enforcement. The Securities and Exchange Commission (SEC) often acknowledges coordination when it announces its enforcement actions, noting that it “appreciates the assistance of” or “thanks the following agencies for their cooperation and assistance.” The Article uses these acknowledgments to develop a tool—“automated acknowledgment indexing”—for evaluating and quantifying agency networks. Analyzing more than two decades of SEC acknowledgments (1998–2018) reveals a complicated network of domestic and international agencies. The study offers a window into the SEC’s enforcement network, with implications for agency practices and structures, and models a tool for analyzing agency networks more generally.

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Introduction

Academic and policy debates often conceptualize federal agencies as working as singular units. Deregulation debates focus on the actions of particular agencies—for example, whether the enforcement activities of the Consumer Financial Protection Bureau (CFPB) are bad for business.\(^1\) Political movements talk about abolishing Immigration and Customs Enforcement (ICE) for draconian enforcement behavior.\(^2\) Scholars and journalists talk about what

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the Securities and Exchange Commission (SEC) should or should not do in enforcement actions. Whether viewed as heroes or villains of a particular narrative, federal agencies are often cast as solo actors.

But, as this Article shows, such views overlook an important reality. Federal agencies do not work alone but in fact exercise power via networks, in tandem with other federal and state agencies as well as foreign powers. Many modern problems—money laundering, environmental degradation, investor fraud, cryptocurrency abuses—cannot be effectively addressed by solitary agencies. Instead cross-border and borderless problems require a coordinated response from multiple entities in separate locations with different expertise and roles. They require, in other words, a network.

While agencies have relied on networks for decades, the study of coordinated agency action has been slow to catch up. The administrative-law literature, for instance, has only recently looked beyond the single agency to coordination among agencies, and to date it has focused on their role as rulemakers. Where they exist, studies of coordination among agencies often focus on centralized attempts to coordinate, on bilateral relationships, or on international interactions.

This inattention is particularly acute for enforcement: investigation and actions to remedy or punish legal violations. Enforcement is a key part of


5. See, e.g., Joshua C. Macey, Note, Playing Nicely: How Judges Can Improve Dodd-Frank and Foster Interagency Collaboration, 126 YALE L.J. 806 (2017) (discussing coordination between the SEC and CFTC); Anthony O’Rourke, Parallel Enforcement and Agency Interdependence, 77 Mo. L. REV. 985 (2018) (interviewing prosecutors and SEC and CFTC staff to analyze parallel criminal and civil enforcement); Sunstein, supra note 4, at 1839-40 (discussing centralized coordination attempts at OIRA); infra note 19 (surveying the literature on international interactions among securities regulators).

6. Boundaries among categories of adjudication, enforcement, and rulemaking can be difficult to draw. This Article borrows from the SEC’s pragmatic division into “Regulatory Cooperation” and “Enforcement Cooperation.” Regulatory cooperation involves the “consultation, cooperation and the
making statutes and rules meaningful and can establish and express general agency policy. But enforcement and investigation can be a black box, with much enforcement activity taking place outside the public view.

This Article takes a novel approach to investigating and quantifying how domestic and international agencies coordinate in civil investigation and enforcement. It re-envisions agencies and other enforcing entities as nodes in a graph or network. This invites the use of a new set of tools, especially those from areas of study where network analysis is quite developed. It thus participates in a nascent literature that applies tools of network analysis to law and legal structures.

Drawing on computer and information-science analyses of social networks, the Article models a specific tool for studying enforcement networks: automated acknowledgment indexing. It uses this tool to develop a case study of the SEC’s enforcement network. The proxy for interagency connections is the list of organizations that the SEC thanks when it announces its enforcement actions. These publicly available litigation and press releases often close with an acknowledgment of coordination: the SEC “appreciates the assistance of . . .” or “thanks the following agencies for their cooperation and assistance . . . .” Taking advantage of this routine practice, a computer program was developed to extract and index the names of the acknowledged entities. This Article reports the results from 1998 through 2018.

The multidecade study of acknowledgments reveals a network characterized by a few repeat players and many more one shotters. Many of the repeat players are the usual suspects: U.S. Attorney’s Offices (USAOs), the Federal Bureau of Investigation (FBI), and the Financial Industry Regulatory Exchange of supervisory material,” while enforcement cooperation “facilitate[s] the ability of securities regulators to assist one another in investigations and prosecutions.” SEC’s Cooperative Arrangements with Foreign Regulators, SEC (Oct. 20, 2012) https://www.sec.gov/about/offices/oia/oia_coopfactsheet.htm [https://perma.cc/W2CL-K6K6]. The SEC’s definition refers to cross-border assistance, but the description of enforcement applies equally in the mixed international and domestic context here.

8. Although the Article uses new tools, it builds on the existing literature about networks in law, particularly in the global context. See, e.g., ANNE-MARIE SLAUGHTER, A NEW WORLD ORDER (2004).
11. Chaoyun Chen, then a graduate student in the Information School at the University of Illinois, Urbana-Champaign, developed the program for this project. Aditya Kadrekar provided later extension and developed additional programs.
Authority (FINRA) and its predecessors. These few entities account for half of all of the acknowledgments. But the top ten list also includes others who have received less attention, such as U.S. Postal Inspectors.

Outside of the top ten is a long list of varied entities that the SEC acknowledges only once or at most a few times: Hampshire Constabulary, Texas Railroad Commission, City of Chicago, etc. These entities are roughly equally divided among federal, private (such as stock exchanges), state and local, and international entities. Global coordination is accordingly part of the story of the SEC’s network, but so is coordination between federal and state authorities domestically.

The SEC provides a useful focus for this analytical tool. The agency is central to securities regulation in the United States. It therefore is a likely contact point for international securities regulators and, domestically, for state securities regulators. It also serves a coordinating and oversight role for self-regulatory organizations (SROs), such as stock exchanges and FINRA. Moreover, although much of investigation and enforcement happens behind closed doors, the agency has a long history of publicly reporting the results of its enforcement activities through its public releases and annual reports.

That said, the tools developed here in the context of the SEC’s enforcement network could be used effectively elsewhere. Some other agencies’ enforcement activities are closely analogous. For example, the enforcement division of the Commodity Futures Trading Commission (CFTC) issues public releases that acknowledge coordination.\textsuperscript{12} Moreover, like the SEC, the CFTC is a signatory to international and domestic memoranda of understanding (MOUs).\textsuperscript{13} Similarly, the Department of Justice (DOJ) “recognize[d] the substantial assistance of the SEC” and the assistance of the Financial Crimes Enforcement Network (FinCEN) in a multimillion dollar fraud action.\textsuperscript{14} Beyond these close comparisons, structured legal documents provide a rich source for the type of automated process modeled here.

The study provides an essential—and missing—empirical underpinning for theorizing agency coordination. Although the approach has limitations,\textsuperscript{15} tracking the SEC’s acknowledgments identifies agency enforcement interactions that would otherwise be invisible to the public eye. It provides new


\textsuperscript{13} See infra Appendix A (noting that the CFTC is also a signatory to some of the SEC’s international MOUs).

\textsuperscript{14} Press Release, DOJ, Former Chairman of Taylor, Bean & Whitaker Sentenced to 30 Years in Prison and Ordered to Forfeit $38.5 Million (June 30, 2011), https://www.justice.gov/opa/pr/former-chairman-taylor-bean-whitaker-sentenced-30-years-prison-and-ordered-forfeit-385 [https://perma.cc/YFX4-MEXL] (“The case is being prosecuted by . . . the Criminal Division’s Fraud Section and Assistant U.S. Attorneys . . . of the Eastern District of Virginia. This case was investigated by SIGTARP, FBI’s Washington Field Office, FDIC-OIG, HUD-OIG, FHFA-OIG and the IRS-CI.”).

\textsuperscript{15} See infra Section III.A.
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information and a new tool for quantifying interactions that cannot be detected through a study of formal structures and agreements.

Figuring out what the enforcement network looks like—who is in it and how the entities interact—is a necessary first step in addressing normative questions. The data alone cannot answer whether having an enforcement network is good or bad.\(^{16}\) For instance, the study does not resolve competing views about the utility of multiple regulators and whether overlap leads to undesirable “piling on”\(^{17}\) or useful redundancy.\(^{18}\) But its findings provide an empirical foundation for these questions.

For areas such as international financial regulation that are already concerned with coordination,\(^{19}\) the study also provides a view of the network as a whole. It avoids the partial view that comes from focusing on international coordination alone, instead developing a nuanced picture that includes domestic federal, state, and private coordination as well.

More broadly, the complexified picture of the boundaries of federal agency action raises questions at the heart of the regulatory state: the proper exercise of enforcement and rulemaking power, jurisdictional boundaries, and whether courts should broaden the scope of their inquiries into agency discretion. These central questions are worthy of renewed examination with the networked agency (rather than the solo actor) in mind.

The Article begins in Part I by establishing the context for enforcement networks and the approach this Article takes to studying them. It identifies categories of contemporary problems and describes the networked responses they provoke. It then introduces the legal network framework for analyzing both the problems and the responses.


Part II turns to the study of the SEC’s enforcement network. It begins by outlining the agency’s formalized cooperative arrangements, especially the MOUs that the SEC has entered with domestic and international actors. This Part lays the groundwork for understanding the interaction between the informal acknowledgment network and enforcement interactions more broadly at the SEC, with an eye to how much the contacts reflected in the acknowledgments should be viewed as supporting more formal coordination agreements and how much acknowledgments capture standalone, informal coordination.

Part III reports the methodology and findings of the study of the SEC’s acknowledgments, including the process of automated indexing. It describes the underlying source material and the program developed to map the SEC’s acknowledgments. It reports results for the time period January 1, 1998 to December 31, 2018. It also highlights some of the relevant findings—and open questions—about how and why agencies acknowledge other entities at all.

Implications of these data are taken up in Part IV. It uses the findings to examine the balance between informal and formal enforcement coordination and to integrate the international coordination function with the interaction among domestic entities. Here again the focus is two-fold: on the SEC and enforcement, but also on developing tools for understanding agency networks more generally. The Article then briefly concludes.

I. The Framework

A. Cross-border and Borderless Problems

Many contemporary problems involve multiple jurisdictions or are untethered to any physical location. The categories and examples in this section are intended as a reminder that the networked response grows out of a global structure that is increasingly taken for granted. The discussion of cross-border, borderless, and bordered problems below thus serves as a brief but necessary prelude to the analysis of enforcement responses that follows.

One classic cross-border problem arose in the context of trading losses by the so-called “London Whale.” In 2012, a JPMorgan trader lost almost six billion dollars using a trading strategy that the bank itself later called “flawed, complex, poorly reviewed, poorly executed, and poorly monitored.”20 The problem was cross-border in that it involved a London-based trader in a U.S.-

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organized investment bank and crossed national boundaries, involving two or more countries and their regulatory systems. And, in fact, regulators from both countries ultimately responded to the conduct, as is described in the next section.

The notion of “cross-border” that describes the London Whale does not capture a new set of problems driven by technological development. Initial Coin Offerings (ICOs) and cryptocurrencies are good examples. One of their central characteristics is the lack of physical presence and boundaries. The misuse of these digital currencies and ICOs can be thought of as borderless problems. While not all borderless problems implicate multiple regulators, addressing them often requires coordination to avoid gaps in a regulatory and enforcement system that has long been based on geographic and national boundaries.

These examples of cross-border and borderless problems are taken from the SEC and financial market contexts, but the list is obviously non-exclusive. Other examples are environmental degradation, money laundering, terrorism, and drug and human trafficking. Because of their ubiquity, it might make more sense to ask whether any bordered problems can be identified.

One indication that bordered problems may be difficult to identify is that even problems within national boundaries cross jurisdictions, particularly in federal systems. Even within the United States, state-to-state and agency-to-agency coordination are needed.

B. Networked Responses

Just as it is difficult to think of purely local problems, it is difficult to think of purely local solutions. How do regulators and other governmental authorities respond to cross-border and borderless problems? Take the example of the London Whale described above. In 2013, the SEC charged JPMorgan Chase with failing to detect and prevent these massive trading losses and with

21. Id. at ¶ 12-13 (describing JPMorgan as “a global banking and financial services firm” organized as a Delaware corporation and trading on The New York Stock Exchange, and describing the particular unit in which the trader worked as having offices in both New York and London).

22. See, e.g., Iris M. Barsan, Legal Challenges of Initial Coin Offerings (ICO), 3 REVUE TRIMESTRIELLE DE DROIT FINANCIER 54 (2017); Kevin V. Tu & Michael W. Meredith, Rethinking Virtual Currency Regulation in the Bitcoin Age, 90 WASH. L. REV. 271 (2015).


24. See, e.g., ALBERT-LASZLÓ BARABÁSI, LINKED: HOW EVERYTHING IS CONNECTED TO EVERYTHING ELSE AND WHAT IT MEANS FOR BUSINESS, SCIENCE, AND EVERYDAY LIFE (2003); SLAUGHTER, supra note 9.

25. See supra notes 20-21 and accompanying text.
misstating its financial results. The investment bank agreed to pay a $200 million penalty to settle the SEC action. In some sense this was an enforcement action by the SEC. But it was not an action only by the SEC. It was an action by an enforcement network.

Indeed, in its related press release, the SEC thanked multiple entities. It indicated that it “appreciate[d] the coordination of the U.K. Financial Conduct Authority, Federal Reserve, and Office of the Comptroller of the Currency as well as the assistance of the U.S. Attorney’s Office for the Southern District of New York, Federal Bureau of Investigation, Commodity Futures Trading Commission, and Public Company Accounting Oversight Board.” Some of the acknowledged entities brought their own enforcement actions based on the same conduct (so-called “parallel actions”), but the SEC thanked other entities as well.

The SEC enforcement staff specifically tied its response to the London Whale to the need for international coordination in global securities markets. A statement by the SEC’s codirector of enforcement thanked the United Kingdom Financial Conduct Authority for “its tremendous collaboration” in the London Whale matter. Coordination was required, he said, because of the global securities market in which “many of the leading participants . . . operate all over the world.”

Complex cases like this one—involving cross-border conduct in New York and London—cannot be effectively investigated and prosecuted without close cooperation of financial regulators in different countries. Such cooperation is vital not only in developing the evidence of wrongdoing but in determining the appropriate regulatory response, including assessment of sanctions that reflect JPMorgan’s violation of the distinct laws in both countries but avoid duplication of punishment for the same conduct.

More generally, cross-agency collaboration is explicitly one of the SEC’s aims. The SEC’s fiscal year 2017 Annual Report pointed to the close work “with other agencies and foreign governments” and “[regular] collabor[ation]...
with both internal and external partners” as strategic goals.\textsuperscript{32} The SEC Enforcement Manual similarly points to the importance of coordination among agencies.\textsuperscript{33}

A specific example of a networked response to a borderless problem is “Operation Cryptosweep,”\textsuperscript{34} which involves the North American Securities Administrators Association (NASAA), an association of subnational securities regulators within the United States, Mexico, and Canada.\textsuperscript{35} In spring 2018, NASAA and its member state and regional securities enforcement agencies created a task group.\textsuperscript{36} This coordinated activity was designed to address “the persistently expanding exploitation of the crypto ecosystem by fraudsters,” which NASAA identified as “a significant threat to Main Street investors.”\textsuperscript{37} Under the task force’s umbrella, state securities regulators brought enforcement actions and investigations, described by NASAA as a “Coordinated International Crypto Crackdown.”\textsuperscript{38}

The examples above are drawn from the SEC and financial enforcement, but one could make a similar point using examples from criminal law (think INTERPOL, but also coordination under mutual legal assistance treaties), environmental law (think multilateral environmental agreements, or statutory regimes like the Clean Air Act that rely on cooperative federalism), and other contexts.

Much the same structure can be observed in criminal enforcement, which has become increasingly internationalized.\textsuperscript{39} One scholar of international criminal law noted a shift “from unilateral operations conducted by national agencies” to “the development of organizations that encourage wide

\begin{itemize}
  \item \textsuperscript{33} SEC, ENFORCEMENT MANUAL 82-95 (Nov. 28, 2017) [hereinafter ENFORCEMENT MANUAL], https://www.sec.gov/divisions/enforce/enforcementmanual.pdf [https://perma.cc/8HDU-2G7P].
  \item \textsuperscript{36} Webster, supra note 34.
  \item \textsuperscript{37} Id.
  \item \textsuperscript{38} Id.
  \item \textsuperscript{39} Mathieu Deflem, & Michael D. Bayer, International Law Enforcement, in THE ENCYCLOPEDIA OF CRIMINOLOGY AND CRIMINAL JUSTICE 1168-73 (Jay S. Albanese ed., 2014).
\end{itemize}
multilateral cooperation on a permanent basis,”\textsuperscript{40} such as INTERPOL and, in
the securities context, IOSCO. Interestingly, observers of the internationalizing
criminal-law context have also noted a companion to the multilateral
cooperation organization: “temporary and limited forms of cooperation
between agencies from two or more nations, usually for specific
investigations.”\textsuperscript{41} In this and other contexts, networked responses seem a
natural consequence of the characteristics of borderless and cross-border
problems.

\textbf{C. Legal Network Analysis}

In-depth study of a single agency, or the interaction among a few entities,
or between civil and criminal authorities, has many precedents in the legal
literature. But the study of more complex legal networks of enforcement has
been more limited to date. The tools used to study the interactions among two
or three agencies simply do not work to make sense of more complicated and
multinodal/multidirectional activity.

Networks are ubiquitous, so it is unsurprising that a set of tools has been
developed to study networked activity. Networks are not limited to one issue or
area. The study of networks and the tools used are accordingly deeply
interdisciplinary, with participation from computer science, math, political
science, sociology, and other disciplines.\textsuperscript{42}

Moreover, commentators, scholars, and lawyers have increasingly applied
notions and tools from network analysis and theory to law and legal studies.
Existing legal network studies often examine interactions among cases\textsuperscript{43} or
statutory provisions,\textsuperscript{44} but there is no reason to limit them to these contexts.\textsuperscript{45}
Part of the job of these studies, including the one reported here, is to figure out
which tools fit well with legal materials and with the underlying policy

\textsuperscript{40} Id.
\textsuperscript{41} Id.
\textsuperscript{42} BÁRABÁSI, supra note 24; ERNESTO ESTRADA & PHILIP A. KNIGHT, A FIRST COURSE IN
NETWORK THEORY (2015); SLAUGHTER, supra note 9.

\textsuperscript{43} See, e.g., James H. Fowler & Sangick Jeon, The Authority of Supreme Court Precedent, 30
SOC. NETWORKS 1 (2008); James H. Fowler et al., Network Analysis and the Law: Measuring the Legal
Importance of Precedents at the U.S. Supreme Court, 15 Pol. Analysis 324 (2007); Fabien Tarissan &
Raphaëlle Nollez-Goldbach, Analysing the First Case of the International Criminal Court from a
Network Science Perspective, 4 J. COMPLEX NETWORKS 616 (2016); Marc van Oprijen, A Model for
Automated Rating of Case Law, in PROCEEDINGS OF THE FOURTEENTH INTERNATIONAL CONVERGENCE
ON ARTIFICIAL INTELLIGENCE AND LAW—ICAIL ’13, at 140 (2013); Paul Zhang & Lavanya Koppaka,
Semantics-Based Legal Citation Network, in PROCEEDINGS OF THE ELEVENTH INTERNATIONAL
CONFERENCE ON ARTIFICIAL INTELLIGENCE AND LAW—ICAIL ’07, at 123 (2007).

\textsuperscript{44} See, e.g., Marios Koniaris et al., Legislation as a Complex Network: Modelling and
Analysis of European Union Legal Sources, in 271 FRONTIERS IN ARTIFICIAL INTELLIGENCE AND
APPLICATIONS 143-52 (Rinke Hoekstra ed., 2014).

\textsuperscript{45} See Matthew Jennejohn, The Private Order of Innovation Networks, 68 STAN. L. REV. 281
(2016).
questions. This study of the SEC demonstrates one tool, pointing both to its limits and to its promise.

Another literature about networks that is directly related to this study of the SEC’s enforcement network is the body of work outside legal scholarship that studies citations and acknowledgments, usually acknowledgments by authors of scientific or academic work. Some early network analyses studied the nature of a network in the context of scientific and academic coauthoring and citations, in part because the connections were formally documented. This allowed the study of how regular the network was, how random, how clustered, how many links each entity had—many of the questions taken up in the analysis of the SEC’s network below. Acknowledgments offer some of the same advantages as coauthoring and citations. The connections are observable and reflect some underlying interaction.

II. Formal Coordination at the SEC

Cross-border and borderless problems are ubiquitous, as are networked responses. But that observation gets us only so far. This Part and the next hone in on one concrete example: the SEC’s enforcement network.

SEC enforcement actions often begin with an information source. These can be varied and include information from whistleblowers, external tips and complaints, internal and external referrals, and/or market surveillance. It may include information from an entity—local, state, federal, or international—that has a formal arrangement with the SEC and/or is ultimately acknowledged by the SEC. The SEC staff reviews the initial information, in addition to market intelligence, to see if it is within the agency’s jurisdiction (e.g., does the misconduct concern securities). After deciding to start an enforcement action, the SEC investigates, first informally and then, with more centralized approval, formally. Instituting a formal investigation triggers a series of interactions with the target, the target’s lawyers, and the Commission.

This Part outlines the formal framework for cooperation between the SEC and other organizations provided by statutes, rules, memoranda of understanding (MOUs), and other arrangements. The international area is well documented, and coordination in this area is self-consciously part of the SEC’s

47. See BARABÁSI, supra note 24.
49. Potential underlying interactions in the SEC enforcement context are discussed infra Section III.B.2.
mission. The SEC has an Office for International Affairs (OIA)51 and provides a list of its international agreements.52 The Co-Director of SEC Enforcement gave a speech in December 2018 called “The Salutary Effects of International Cooperation on SEC Enforcement” that pointed to “critical” collaboration with “international regulators and law enforcement.”53

But interagency cooperation is not limited to the international sphere. Some of the same concerns about coordination and information sharing arise when the interaction is between states, among different agencies, or between other relevant jurisdictions. The SEC’s domestic MOUs with the U.S. Treasury, Internal Revenue Service (IRS), and other agencies are more scattered and are often overlooked in the literature. Including domestic MOUs in the study helps demonstrate that agency networks include both domestic and international entities: a theme that runs through the study of SEC acknowledgments.

The exploration of these formal enforcement interactions, both domestic and international, provides further evidence that it makes sense to think of agencies as part of an enforcement network—rejecting the solo-actor conception of an agency. It also provides context for interpreting the results of the study of SEC acknowledgments. Are the acknowledgments additional to other contacts, or do they reinforce existing agreements? What underlying relationship does the acknowledgment represent? This Part provides the information about formal coordination that is needed to formulate a response.

A. Form

Statutes play a limited role in shaping coordination among agencies. Indeed, one of their main functions has to do with the agency in isolation: statutes define the agency’s individual mandate and scope of jurisdiction. A classic example of a contested boundary is the interaction and sometimes overlap between the jurisdictions of the SEC and the CFTC.54 The jurisdictional statutes leave gaps, some of which are filled by the type of formal and informal coordination discussed below.

Beyond defining jurisdiction, statutes sometimes authorize cross-agency coordination. One such example is the statutory provision allowing coordination between federal and state securities authorities. The Securities Act of 1933 (“Securities Act”) explicitly permits the SEC to “cooperate, coordinate,
and share information” with state securities regulators for certain purposes.\footnote{Securities Act of 1933, § 19, 15 U.S.C. § 77s(d) (2018) (permitting cooperation with “any association composed of duly constituted representatives of State governments whose primary assignment is the regulation of the securities”). Most of these purposes relate to regulation and registration, but they also include broader categories, such as “maximum effectiveness of regulation.” Id.} The statute permits but does not dictate coordination. Part of the space is filled by the SEC’s Rules Relating to Investigations, which allow upper-level staff of the SEC to “discuss nonpublic information. . . with state regulatory agencies,” and “show (but not release) documents.”\footnote{17 C.F.R. § 203.2 (2019); Enforcement Manual, supra note 33, § 2.2.2.3 (“Pursuant to Rule 2 of the SEC’s Rules Relating to Investigations, the staff at the Assistant Director level or higher can discuss nonpublic information, including whether the staff has or will commence an investigation, with state regulatory agencies, and can show (but not release) documents.”); see also id. at § 5.1 (noting that “[c]ooperation and coordination with other law enforcement agencies often require the staff to engage in discussions of nonpublic information prior to the grant of a formal access request”).} The above example concerns coordination with domestic authorities, but similar statutory and regulatory authorization exists for cooperating and sharing information with non-U.S. securities regulators as well.\footnote{Securities Exchange Act of 1934 §§ 3(1), 21(a)(2), 24, 15 U.S.C. §§ 78c(50), 78u(2), 78x(c) (2018); SEC Rule 24c, 17 C.F.R. § 240.24c-1 (2019).}

Occasionally statutes will mandate particular coordination structures. One example is the Financial Stability Oversight Council (FSOC), which was created by Dodd-Frank, and in which nine federal agencies have membership.\footnote{Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010). Members are the SEC, Board of Governors of the Federal Reserve System, CFTC, FDIC, Federal Housing Finance Agency, National Credit Union Administration, OCC, Treasury Department, and CFPB. Financial Stability Oversight Council Member Agencies, U.S. DEP’T TREASURY (Oct. 24, 2012), https://www.treasury.gov/initiatives/fsoc/about/Pages/FSOC-Member-Agencies.aspx [https://perma.cc/9P4W-ANPK].} International conventions also establish some subject-matter-specific obligations. In foreign bribery cases, for instance, the Organisation for Economic Co-operation and Development (OECD) Convention on Combating Bribery of Foreign Public Officials in International Business Transactions provides for consultation among signatories with shared jurisdiction.\footnote{See Org. for Econ. Co-operation & Dev. [OECD], Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, 37 ILM 1 (Feb. 15, 1999), http://www.oecd.org/da/anti-bribery/ConvCombatBribery_ENG.pdf [https://perma.cc/2BGZ-AEH5].} But, in general, statutes, rules, and other hard law have a limited role in determining how and when agencies coordinate.

Instead the interactions are formally defined by centralized and bilateral agreements such as MOUs. These MOUs are, on their own terms, not legally binding.\footnote{See, e.g., Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information, INT’L ORG. SEC. COMMISSIONS 3 (May 2012), https://www.iiosco.org/library/pubdocs/pdf/IOSCOPD386.pdf [https://perma.cc/7UWC-GAPP] [hereinafter IOSCO MMOU] (“The provisions of this Memorandum of Understanding are not intended to create legally binding obligations . . . .”).} But they are the main way that securities regulators can formally and
publicly express commitment to coordination. The SEC’s international and domestic MOUs are listed in this Article’s Appendices.

Sometimes these agreements formalize the interactions with a centralized, coordinating agency. International enforcement coordination is primarily governed by a multilateral MOU (MMOU) reached under the auspices of the International Organization of Securities Commissions (IOSCO), a global group of securities regulators. As of June 2018, 118 IOSCO members—including the SEC—had signed the IOSCO MMOU on enforcement. The IOSCO MMOU was entered into in 2002 and revised in 2012. The SEC became a signatory in November 2002.

A centralized, coordinating organization also exists at the U.S. subnational level, with state and regional securities authorities organized into the NASAA. One of NASAA’s express functions is to enable its members to “participate in multi-state enforcement actions and information sharing.” This function is not just on paper. The organization reports ingoing and outgoing enforcement referrals among U.S. regulators. MOUs define some aspects of the relationship between NASAA and the SEC.

61. See Brummer, supra note 16, at 263 (pointing out that regulators lack power to enter into treaties and that often these agreements are entered with formality and commitment, complicating the “soft law” label); Michael D. Mann et al., The Establishment of International Mechanisms for Enforcing Provisional Orders and Final Judgments Arising from Securities Law Violations, 55 LAW & CONTEMP. PROBS. 303, 304 (1992).
62. IOSCO MMOU, supra note 60.
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These centralized arrangements are accompanied by bilateral agreements signed by single entities. Since 1982, the SEC has signed bilateral MOUs on enforcement cooperation with authorities from twenty jurisdictions. The SEC has also entered into MOUs with various federal agencies and other organizations.

MOUs are not the exclusive means of formal coordination by the SEC. International coordination also takes place through formally documented “dialogues,” agreements that provide for meetings and good intentions. Some of these have the enforcement aim of “[i]mprov[ing] cooperation and the exchange of information in cross-border securities enforcement matters.” Some domestic MOUs also provide for regular meetings, “periodic meetings,” or reports.

Other types of semiformal arrangements include working groups and task forces. A few examples—each with its own configuration and origin story—are the Enron Task Force, an interagency group formed in response to the collapse of Enron; the Residential Mortgage-Backed Securities (RMBS) Working Group; and the President’s Working Group on Financial Markets.

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69. Cooperative Arrangements with Foreign Regulators, supra note 52. Most of the bilateral MOUs predate the IOSCO MMOU or go beyond what the IOSCO agreement provides. Id. The SEC also lists Communiqués or Joint Statements with Costa Rica, the European Commission, South Africa, and Sweden. Id. The SEC’s international MOUs are listed in Appendix A below.

70. Enforcement MOUs the SEC has entered with domestic U.S. entities are collected in Appendix B infra.

71. Cooperative Arrangements with Foreign Regulators, supra note 52.


74. History: Famous Cases and Criminals: Enron, FED. BUREAU INVESTIGATION (2019), https://www.fbi.gov/history/famous-cases/enron [https://perma.cc/U0X0-K573] (“The sheer magnitude of the case prompted creation of the multi-agency Enron Task Force, a unique blend of investigators and analysts from the FBI, the Internal Revenue Service-Criminal Investigation Division, the Securities and Exchange Commission, and prosecutors from the Department of Justice.”).


B. Content

Information sharing is a key component of MOUs and other formal arrangements relating to enforcement, which both provide for information sharing and include details about the need to keep nonpublic information confidential. Statutes and rules may also govern the sharing of information among agencies. For example, section 24(c) of the Exchange Act and SEC Rule 24c-1 permit the SEC to allow access to nonpublic information “in its discretion and upon a showing that such information is needed,” and with “assurances of confidentiality.”77 Access can be given only to certain types of entities. These include “federal, state, local or foreign government[s] or any political subdivision, authority, agency or instrumentality of such government,” Self-Regulatory Organizations (SROs), and “foreign financial regulatory authorit[ies].”78

The agencies coordinating with the SEC may also have statutes that regulate or restrict information sharing. One domestic example is the statutory limitation on the ability of the Internal Revenue Service to share certain information with other agencies.79

Information sharing is also central to many of the SEC’s MOUs in the enforcement area.80 Signatories to the IOSCO MMOU—including the SEC—must “make all reasonable efforts to provide . . . the other Authorities with any information that it considers is likely to be of assistance to those other Authorities . . . .”81 The 2017 MOU between the SEC and NASAA governs the sharing of nonpublic information.82 And enforcement MOUs between the SEC and the CFTC or the Department of Labor are also primarily about information sharing, providing that the agencies intend “to consult, cooperate, exchange information, and share data in connection with areas of common regulatory interest.”83 Even MOUs that focus primarily on regulation referenced

80. ENFORCEMENT MANUAL, supra note 33; Eduard H. Cadmus, Note, Revisiting the SEC’s Memoranda of Understanding: A Fresh Look, 33 FORDHAM INT’L L.J. 1800 (2011) (evaluating how MOUs can help the SEC successfully get confidential files from foreign institutions).
81. See IOSCO MMOU, supra note 61, at app. A.
82. SEC & NASAA MOU, supra note 68 (“This MOU sets forth the understanding of the Parties with respect to the treatment of non-public information . . . when the Parties elect to share . . . non-public information regarding their observations of, or discussions about, existing, new and amended exemptions and related requirements.”); Press Release, SEC, NASAA Sign Info-Sharing Agreement for Crowdfunding and Other Offerings (Feb. 17, 2017), https://www.sec.gov/news/pressrelease/2017-50.html [https://perma.cc/BF4J-44CJ].
83. See SEC & CFTC INFORMATION SHARING MOU, supra note 74, art. II(4); Press Release, SEC, SEC and CFTC Announce Approval of New MOU (June 28, 2018),
information sharing. For example, the language in the MOU between the SEC and the Federal Reserve identifies broad enforcement goals, including the entities’ “ongoing practice of sharing information between their enforcement functions.”

C. Intertwined Domestic and International Coordination

Domestic and international coordination should not be viewed in isolation, but are part of an intertwined domestic and international network. This mix is reflected in part by the list of international MOUs, which several have both domestic and international signatories. In particular, several of the international MOUs include the SEC, CFTC, and an international entity or entities. This was the case for agreements with Jersey financial market regulators, a 2002 statement of intent signed with Japanese regulators, a 2000 MOU with Singapore, and agreements with the United Kingdom. In particular, several of the international MOUs included the SEC, CFTC, and an international entity or entities. This was the case for agreements with Jersey financial market regulators, a 2002 statement of intent signed with Japanese regulators, a 2000 MOU with Singapore, and agreements with the United Kingdom.
Other non-U.S. securities regulators entered into separate MOUs with the SEC and CFTC, but the agreements were negotiated and signed at the same time.  

Similarly, subject-focused task forces combined federal and state regulators. The Financial Fraud Enforcement Task Force, for example, included more than twenty-five federal and state agencies and regulators. The Residential Mortgage-Backed Securities (RMBS) Working Group is another model, including criminal and civil authorities at both state and federal levels.

In sum, the structure of the SEC’s formal coordination supports the view of enforcement as the activity of a network, rather than a single agency in isolation. It is concerned with both international and domestic interactions. It also gives context to the study of the SEC’s acknowledgments, laying the groundwork for assessing the extent to which the acknowledgments should be viewed as supporting more formalized agreements and the extent to which acknowledgments capture additional, ad hoc, coordination.

III. Constructing the SEC’s Acknowledgment Network

One of the challenges of studying this area is developing a picture that does not overemphasize formal relationships. An understanding of agency enforcement that focuses exclusively on statutory or regulatory structure and MOUs risks capturing only formal coordination. But both the formal and informal are key. Indeed, the SEC’s MOUs contemplate the coexistence of formalized arrangements with “ongoing, ad hoc, communications to ensure coordination.”

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93. See SEC & CFTC, supra note 73, art. II(4) (“[T]he Parties encourage their respective staffs to maintain ongoing, ad hoc, communications to ensure coordination, as appropriate, of the day-to-day
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Information about informal cooperation between agencies and other entities, particularly in the context of enforcement actions, is sometimes difficult to capture. Enforcement and investigation, in general, can be a black box; most enforcement activity takes place outside of the public view.

This Part proposes an approach to developing a more complete picture of an enforcement network. This approach takes advantage of one feature of the SEC’s enforcement practices. In addition to the more formal agreements discussed above, the SEC acknowledges the assistance of other organizations in public announcements of its enforcement actions. The text of litigation and press releases often closes with an acknowledgment of coordination: “The SEC appreciates the assistance of . . .” or “thanks the following agencies for their cooperation and assistance . . . .”

An SEC acknowledgment network can be constructed from these releases, providing useful information about the SEC’s enforcement network as a whole. Although this approach has limitations, described in more detail below, tracking these acknowledgments and using them to construct a network provides a nuanced description of enforcement interactions that may otherwise be invisible to the public eye.

A. Methodology

1. Dataset: SEC Litigation and Press Releases

The SEC routinely issues public releases—litigation and press releases—announcing and briefly describing the enforcement actions it has taken. According to the SEC, one of the functions of these releases is to give “public notice of the institution and disposition of an administrative, civil, or criminal proceeding brought under the Federal securities laws or related statutes.” Sources support the notion that issuing these releases is a routine part of the SEC’s practices. For instance, former SEC commissioner, Harvey Pitt, has

operations of the Parties. The Parties intend to continue their ongoing practice of sharing information between their enforcement divisions, pursuant to customary access requests and grants, and nothing in this MOU is intended to modify or replace such sharing, agreements, or the current practices of the Parties governing and permitting the use of such enforcement referral information by a Receiving Party.”).

94. See supra Part II.

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written that a litigation release is issued “every time the agency takes or commences formal enforcement action.”

SEC litigation releases report activity relating to the SEC’s civil suits in federal court. In many instances, SEC enforcement actions are settled at the same time a complaint is filed, leading to a single litigation release reporting the filing and resolution. Litigation releases might also report other types of action within the judicial process: the agency may issue a litigation release if it requests an asset freeze, files a complaint, amends a complaint, settles an action, gets court approval of a settlement, distributes funds to investors, etc.

SEC press releases, according to the agency’s website, are “[o]fficial announcements highlighting recent actions taken by the SEC and other newsworthy information.” In other words, they are essentially what one would expect a press release to be, although note the use of the phrase “official announcements.” This study captures only press releases that both report enforcement activity and acknowledge assistance. But the subject matter of SEC press releases varies wildly, including enforcement actions, but also the comings and goings of SEC officials, roundtables and presentations, creation of committees, rulemaking and requests for comments, agency response to world events, and other varied topics.

Having two sources of acknowledgments—litigation and press releases—presents challenges for studying underlying enforcement interactions, which are discussed more in the next Section. Including both litigation and press releases is important, however, for understanding the SEC’s enforcement program overall. The SEC can bring an enforcement action in federal court or

97. See THE SECURITIES ENFORCEMENT MANUAL, supra note 50, at 272 (“The initiation of an SEC injunctive action, even if settled at the same time, is always publicly disseminated by an SEC litigation release (and sometimes a press release as well.”); Harvey L. Pitt & Karen L. Shapiro, Securities Regulation By Enforcement: A Look Ahead at the Next Decade, 7 YALE J. ON REG. 149, 185 (1990).

98. Litigation Releases, supra note 95 (describing litigation releases as “concerning civil lawsuits brought by the Commission in federal court”).


100. Press Releases, supra note 95.


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can institute an administrative action before an administrative law judge (ALJ). The balance between the two venues has shifted over time as the availability of remedies and the ability to reach targets in administrative actions has expanded. Successful challenges to the SEC’s use of ALJs have also forced adjustments in where the SEC brings its actions. For this project, the key point is that the litigation releases do not report actions brought by the SEC in an administrative forum. To capture such administrative enforcement actions, a study must include press releases. Not every administrative action is reported in a press release, but if an administrative action results in an acknowledgment of assistance, the press release is the place to find it.

Public documents about the SEC’s practices (such as the SEC Enforcement Manual) do not include guidance about whom to acknowledge or when an acknowledgment should be made. Some anecdotal evidence, however, suggests that the practice is longstanding. A litigation release from 1973, for instance, concluded with: “Mr. Moran [for the SEC] acknowledges the cooperation and assistance rendered . . . by Ms. Bess Myerson’s office of the New York City Department of Consumer Affairs.”

2. Construction of the Network

To construct the network, SEC litigation releases and press releases on the SEC website were scraped. The acknowledgment sentences were extracted using a series of grammar rules, which looked for the subject (“SEC” and “Commission”) and verb (“thank,” “appreciate,” “acknowledge,” and variations). This Article reports results from January 1, 1998, to December 31, 2018, organized by calendar year.

The structure of the releases and the language of the acknowledgments were quite standardized. The acknowledged entities, however, varied widely. The acknowledgments also often used different names, abbreviations, or phrasing to refer to the same entity. For example, “U.S. Attorney’s Office” could alternatively be listed as “USAO.” Other names were long (e.g.,

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103. Id.
104. See SEC Litig. Rel. No. 5810, 1 SEC Docket 9, 21 (Mar. 26, 1973); see also SEC Litig. Rel. No. 5812 (Mar. 26, 1973) (noting that “[the National Association of Securities Dealers, Inc. of New York City assisted the Commission in its investigation leading to the filing of its Complaint . . . .”).
105. The description of the SEC Acknowledgment Entity Recognition draws on information provided by Chaoyun Chen, who wrote the underlying program.
106. The starting date is not inherent to the program; the constraint derives from the information published on the SEC’s webpage. The webpage was established in September 1995. The first year for which the SEC’s website provides a full set of litigation releases is 1996 and the first full set of press releases is 1998.
107. A sample of litigation releases from 1995 to June 2018 (every tenth litigation release) was manually reviewed to identify the language used by the SEC to acknowledge the assistance of other entities.
“Massachusetts Secretary of State William Francis Galvin’s Securities Division”), quite rare (e.g., “Barnstable County District Attorney Office”), or varied in whether they listed a subdivision (e.g., Division of Securities). An entity dictionary helped the program identify the most common examples as the same entity. Manual review was used to correct other entity names that had been incorrectly parsed.

The resulting report indexed the acknowledged entities for the user input date range, identifying each entity and the number of times they were thanked. The report also indicated the release in which they were thanked.

As a validity check, SEC litigation releases from the SEC’s 2015 fiscal year (October 1, 2014, to September 30, 2015) were coded by hand. A search for acknowledgment language identified the body of entities that were thanked. The names of the acknowledged entities were manually extracted and indexed and compared to the results of the automated process. The manual review and automated program identified the same litigation releases that contained acknowledgments for the October 1, 2014 to September 30, 2015 period.

The study of acknowledgments in public releases has some inherent limitations. These limitations are particularly important to keep in mind when connecting the SEC’s practice of acknowledging assistance—the acknowledgment network—to the underlying enforcement interactions with other agencies and entities.

108. Other variations included how the names were punctuated, or typos in the original text.

109. For example, all variants of the United States Attorney’s Office (“U.S. Attorney’s Office” etc.) are normalized to USAO for the program to recognize them, then ultimately changed back to “U.S. Attorney’s Office.”

110. The program’s first output was in the form of excel sheets listing the litigation releases, showing the extracted text, and showing the extracted entity names. These files were manually reviewed and corrected. A separate analysis batch file was run to convert validated files to final output files.

111. Some of the releases also acknowledged or named internal SEC divisions or particular people, which are outside the scope of this Article. Searches and automated acknowledgment indexing also occasionally identified acknowledgments of the cooperation of target corporations. These are not included in the reported results. See, e.g., Press Release, SEC, Nortel Networks Pays $35 Million to Settle Financial Fraud Charges (Oct. 15, 2007), https://www.sec.gov/news/press/2007/2007-217.htm[https://perma.cc/C6V9-7AEJ] (“In settling the matter, the Commission acknowledges Nortel’s substantial remedial efforts and cooperation); Press Release, SEC, SEC Charges Two Former Finance Executives of Newpark Resources, Inc., and Principal of Key Newpark Vendor in Fraudulent Accounting Scheme (July 16, 2009), https://www.sec.gov/litigation/litreleases/2009/lr21137.htm[https://perma.cc/WZF8-GFEB] (“The Commission acknowledges the cooperation of Newpark in its investigation.”).

112. SEC litigation releases issued between October 1, 2014, and September 30, 2015, were searched for the use of the terms “assistance or thank or appreciate or acknowledge” including word variations. The search was conducted on Bloomberg Law in the SEC Litigation Releases database. SEC press releases were also manually searched and reviewed for 1996-2017. The SEC press releases were searched in Bloomberg Law using these terms: “thanks OR thank OR appreciate OR appreciates OR appreciation OR assistance OR acknowledge OR acknowledges.”

113. The manual review identified a draft as well as an amended version, but later eliminated this because it was a duplicate. The manual review and automated program also identified the same total number of acknowledgments for that period.
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The SEC’s issue of acknowledgments is routinized and fairly standardized. However, the study of the SEC’s acknowledgment practices, like the citation and acknowledgment network studies on which this is modeled, is not necessarily a comprehensive account of underlying enforcement activity, and may pick up changes in acknowledgment practices as well as changes in the underlying interagency interactions. By definition, for instance, it does not include unacknowledged coordination or enforcement activity that does not result in a public release.

Other caveats about the relationship between the acknowledgments and the underlying enforcement activity stem from the study’s reliance on litigation and press releases. In particular, there is not necessarily a one-to-one correspondence between a public release and an enforcement action.

The SEC may issue multiple releases referring to the same conduct and target in different stages of the enforcement process. For instance, the agency may issue a release when a complaint is filed and a separate release when a matter is resolved. The same conduct may involve multiple targets or defendants, sometimes resulting in multiple releases about the different individuals or entities. Finally, in some instances, even an SEC action for the same underlying misconduct, same target, and at the same stage of enforcement can lead to the issuing of both a press release and a litigation release in the

114. See, e.g., THE SECURITIES ENFORCEMENT MANUAL, supra note 50, at 272.
115. See infra Section III.B.1.
116. One example of enforcement coordination that might not lead to a release is when the SEC refers a matter entirely to another agency or entity. Evaluating the effect of referrals on results is difficult, however. Examples exist where the SEC reports another agency’s action in its public releases, even when the SEC has not completed an action. See, e.g., Litigation Release, SEC, SEC Brings Enforcement Actions Against Three Individuals, Goldman Sachs, and Massachusetts Financial Services Company Related to Trading Based on Non-Public Information About the Treasury’s Decision to Cease Issuance of the 30-Year Bond (Sept. 4, 2003), https://www.sec.gov/litigation/litreleases/lr18322.htm ("The Commission has investigated this matter—which remains open—in coordination with, and acknowledges the cooperation and assistance of, the United States Attorney’s Office for the Southern District of New York, which has entered into a plea agreement with [one target] and obtained the indictment of [another target].").
117. What counts as a single enforcement action can itself have tricky boundaries. Counting problems are common to any empirical study of SEC enforcement. What counts as a single enforcement action? Should the number of targets be reported? Should all actions coming out of an underlying event be grouped together into a single matter? Cf. Verity Winship & Jennifer K. Robbennolt, An Empirical Study of Admissions in SEC Settlements, 60 ARIZ. L. REV. 1, 15-16 (2018) (noting the differing results of counts based on separate settlements with the SEC and those based on matters “related [to] actions for the same underlying conduct”).
118. Administrative and Litigation Release System, supra note 96 (pointing out that releases provide notice of the “institution and disposition” of enforcement actions).
same press-worthy action. In each of these categories, the releases may contain acknowledgments.

The links in the SEC’s acknowledgment network thus differ from those in the academic or scientific acknowledgment studies where each article appears once. The analogy to studies of citation networks might be closer if the body of articles studied included multiple drafts and final versions.

Nonetheless, for several reasons, variations in how enforcement actions are announced likely have limited effect on the numbers of acknowledgments and releases. Most enforcement actions are settled at the same time they are filed, which minimizes the concern that multiple releases were issued at different stages of a matter. Moreover, the results indicate that about half of the entities were acknowledged only once in the study’s timeframe. Because they were thanked in only a single release, these players—the majority—cannot have received multiple, duplicate acknowledgments for the same underlying enforcement action.

In general, the article reports the acknowledgment network, including all SEC litigation and press releases for the time period studied. However, adjusted numbers are also reported where it is helpful to illustrate the connection between the acknowledgment network and underlying enforcement interactions. The adjusted numbers exclude press releases that report enforcement activity against the same target within the same calendar year as a


121. One study found that 97% of actions against public companies were settled at the same time they were initiated in FY2016, and that the median was 87% for financial-year 2010 to financial-year 2015. See Choi, supra note 98.

122. See infra Section III.B.1.ii.
litigation release. For convenience, this Article refers to these as “same-target” press releases.

Because of these limitations, it makes sense to avoid conflating the acknowledgment network with the enforcement network, recognizing the study of acknowledgments as a tool that complements other information (including the structure of statutes, rules, and MOUs). Together they help map the enforcement network as a whole.

B. Findings

This section analyzes the nodes, edges, and network characteristics of the SEC’s acknowledgment network. These correspond respectively to the acknowledged entities; the acknowledgments and the underlying coordination that they represent; and the characteristics of these interactions, including the changing number of entities acknowledged in any single release. The analysis below examines acknowledgments from January 1, 1998 to December 31, 2018.

The findings below are reported in terms of three main categories: (1) acknowledgments, (2) entities, and (3) releases. “Acknowledgments” refer to each time the SEC acknowledges any entity. “Entities” are the agencies and other organizations the SEC acknowledges.


For the purpose of this Article, “releases” or “releases containing acknowledgments” are the SEC’s press and litigation releases that contain one or more acknowledgments. Findings reported in terms of “all releases” include the releases without acknowledgments as well.

An example illustrates how these are counted. Assume the SEC thanked the FBI and the U.S. Attorney’s Office in one litigation release (one release, two acknowledgments). Assume, realistically, that the SEC then thanked the FBI again in a separate release (one release, one acknowledgment). The totals would be two releases and three acknowledgments. Overall, the SEC thanked two entities: the U.S. Attorney’s Office and the FBI.

For the whole time period, 25% of all litigation releases included acknowledgments of assistance, but this mean over the full time frame masks year-to-year variation, from a low of 8% in 1998 to 44% in 2018.

Over the full time frame approximately 16% of press releases acknowledged assistance. Limited conclusions can be drawn from this low percentage, particularly for press releases, because such releases are used to announce a wide variety of events. In addition to the announcements of enforcement actions that are the concern of this study, press releases announce hirings and departures of SEC staff and supervisors, agendas for meetings, and various announcements related to SEC rulemaking.

During the study’s time period, the total number of SEC litigation and press releases that contained one or more acknowledgments was 2,959 (2,177 litigation releases and 782 press releases). The number of acknowledgments identified was 6,721 (4,730 in litigation releases and 1,991 in press releases).

1. Nodes/Acknowledged Entities

The list of acknowledged entities is long, and the entities themselves are heterogeneous. Over twenty-one years (1998 through 2018), the SEC acknowledged approximately 490 unique entities. Some formal agency

125. Press Releases, supra note 95 (noting that the SEC issues press releases to “highlight recent actions taken by the SEC and other newsworthy information”).

126. See Administrative and Litigation Release System, supra note 96.

127. These numbers include same-target press releases. If the same-target press releases are excluded, the total number of public releases that contained acknowledgments was 2,526, and the total number of acknowledgments was 5,612. See discussion supra notes 130-34 and accompanying text (describing methodology).

128. Closely related names were manually consolidated to eliminate duplicates. The resulting total is approximate. For example, it does not take into account agencies whose names or roles were changed in the time period reported. It counts separately, for instance the French securities authorities, Commission des Opérations de Bourse, and its successor, the Autorité des Marchés Financiers. See IOSCO MMOU, supra note 61, at app. A (noting this transition). In a few instances the SEC thanked a category—for example, “foreign authorities”—rather than an individual entity. These were counted as one entity and one acknowledgment. See, e.g., Litigation Release, SEC, Federal Court Approves Global Research Analyst Settlement (Oct. 31, 2003), https://www.sec.gov/litigation/litreleases/lr18438.htm [https://perma.cc/N432-TSFX] (acknowledging “state securities regulators”); Litigation Release, SEC, SEC Charges Former CEO of Kellogg, Brown &
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materials refer to inter-agency coordination or coordination specifically among securities regulators, as in the case of connections made through IOSCO and some MOUs. The entities that the SEC acknowledges are, however, much more varied on a few dimensions. The SEC thanks state, federal, and international entities; big-city U.S. Attorneys’ General Offices; small-town police departments; the FBI; self-regulatory organizations (SROs); and others.

A clear division emerges from the data, however, between the short list of entities that are repeat players and which account for half of the acknowledgments over the whole period, and the much longer list of entities that are one-shotters or are, at least, acknowledged only a few times over the whole period.

i. Repeat Players

For the full period (1998-2018), the top-ten entities with the greatest number of acknowledgments were the following:

- U.S. Attorneys’ Offices
- Federal Bureau of Investigation (FBI)
- Financial Industry Regulatory Authority (FINRA)/National Association of Securities Dealers (NASD)/NASDAQ Regulation
- U.S. Department of Justice (DOJ)
- U.S. Postal Inspection Service
- Internal Revenue Service (IRS)
- New York Stock Exchange (NYSE)/NYSE Regulation
- Options Regulatory Surveillance Authority
- Commodity Futures Trading Commission (CFTC)
- Ontario Securities Commission & British Columbia Securities Commission (tied)

The very top of the list—U.S. Attorney’s Offices, the FBI, and FINRA entities—together account for approximately half the acknowledgments for the time period (51% or 3449/6721). The SEC releases included 1,419

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129. See supra Part II.
131. The list is the same if the same-target press releases are excluded, except for minor changes at the bottom of the list, where the Ontario Securities Commission has one fewer acknowledgment than the British Columbia Securities Commission, tying with the Texas State Securities Board.
132. The percentage is the same if same-target press releases are excluded. Using these adjusted numbers, the U.S. Attorneys’ Offices, the FBI, and FINRA entities taken together account for
acknowledgments of U.S. Attorneys’ Offices;\textsuperscript{133} 1,212 acknowledgments of the FBI; and 818 combined of FINRA, NASD and NASD Regulation.\textsuperscript{134} Of the 2,959 releases containing acknowledgments, 1,044 (35\%) acknowledged both the FBI and the U.S. Attorney’s Office in the same release, with 491 of those releases acknowledging these two entities only.

The identification of these entities as repeat players is consistent with the SEC’s general description of its coordination. In its 2017 Annual Report, the agency noted that the SEC Enforcement Division “primarily collaborates . . . with the DOJ, the 94 U.S. Attorneys’ Offices, and the FBI.”\textsuperscript{135} The 2017 Report does not list FINRA among the other “federal and state agencies” with whom it collaborates, but describes elsewhere the “over[view] of broker-dealers” as “in many ways a coordinated effort with the Financial Industry Regulatory Authority (FINRA).”\textsuperscript{136} A similar relationship holds, presumably, for FINRA’s predecessor NASD and the NASD’s wholly owned subsidiary, NASD Regulation.

The U.S. Postal Inspection Service may be the entity on the top-ten list that is most overlooked in the literature. Established by Benjamin Franklin, the service investigates misuse of the postal system.\textsuperscript{137} Postal Inspectors are “authorized by Congress to enforce nearly 200 federal statutes related to crimes involving the U.S. Mail and postal system.”\textsuperscript{138} It is a law-enforcement agency;

\textsuperscript{133} Treating the U.S. Attorney’s Offices as a single entity masks some regional distribution. The acknowledgment often specifies the particular U.S. Attorney’s Office—for example, thanking the U.S. Attorney’s Office for the Southern District of New York or the U.S. Attorney’s Office for the District of Utah. Sometimes a single release acknowledged more than one regional U.S. Attorney’s Office. \textit{E.g.}, Litigation Release, SEC, SEC Obtains Emergency Court Orders Halting $88 Million Nationwide Prime Bank Scam and Preserving Assets (Apr. 5, 2002), https://www.sec.gov/litigation/litreleases/lr17459.htm[https://perma.cc/R33Z-E88A] (acknowledging the “U.S. Attorney’s Offices in Phoenix and Cincinnati”). This was counted as a single acknowledgment of the U.S. Attorneys’ Offices, rather than two distinct acknowledgements of each individual office.

\textsuperscript{134} These are counted together because FINRA was created in July 2007 as the consolidation of NASD and its separate regulatory, enforcement, and arbitration functions. See SEC Rel. No. SR-NASD-2007-023, Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Approving Proposed Rule Change to Amend the By-Laws of NASD to Implement Governance and Related Changes to Accommodate the Consolidation of the Member Firm Regulatory Functions of NASD and NYSE Regulations, Inc. (July 26, 2007).

\textsuperscript{135} SEC, 2019 \textit{BUDGET JUSTIFICATION}, \textit{supra} note 32, at 97. The rest of the list of collaborators is not as closely tied to the findings over the full period. In addition to the most frequent collaborations, the annual report pointed to coordination with other agencies “including, among others, the Consumer Financial Protection Bureau (CFPB), the Commodity Futures Trading Commission (CFTC), the Department of Education, the Department of Labor, the Federal Trade Commission (FTC), the Internal Revenue Service, the Financial Crimes Enforcement Network (FinCEN), and the Office of the Comptroller of the Currency (OCC).” \textit{Id}.

\textsuperscript{136} \textit{Id}.


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although its 2017 Annual Report has “Connecting With Customers” on the contents list, the accompanying photo is a postal inspector pointing a gun.\textsuperscript{139}

Coordination with other agencies is built into the U.S. Postal Inspection Service’s descriptions of its own activities. For example, it formed part of a post-Enron Corporate Fraud Task Force created through presidential executive order and has worked closely with the DOJ’s Criminal Fraud Section.\textsuperscript{140} The agency has issued publications aimed at helping federal, state, and local law-enforcement agencies “understand how the Postal Inspection Service can assist in . . . investigations.”\textsuperscript{141} The same publication indicated the service’s interest in “sharing its knowledge and experience, intelligence data, resources, and personnel,” albeit “within the limits of legal restrictions, staffing, and physical distance.”\textsuperscript{142}

Most of the time—in 150 of 179 acknowledgments (84%)—the U.S. Postal Inspectors were acknowledged at the same time as a U.S. Attorney’s Office. In other releases, they were acknowledged in conjunction with other criminal authorities, such as the DOJ’s Criminal Fraud Division.\textsuperscript{143} The service was acknowledged by itself three times. One example was when a company “intentionally delayed the retrieval of mail” so that it could use the next day’s price for financial contracts.\textsuperscript{144}

ii. One-Shotters

What the big-three or top-ten lists leave out is the prevalence of one-time and other infrequent coordination. As noted above, approximately 490 separate entities were acknowledged over the reported time period. Approximately 44% (216 of 490) of these were acknowledged only once in the whole multi-decade time period. The SEC acknowledged approximately 71% (347 of 490) of all entities three or fewer times.

iii. Missing Entities

As noted above, an inherent limitation of any study of acknowledgments is that it does not identify unacknowledged behavior. To test what might be missing, a few categories of entities lend themselves to predictions either about

\textsuperscript{139} U.S. POSTAL SERV., FY2017 ANNUAL REPORT TO CONGRESS (2017), https://about.usps.com/who-we-are/financials/annual-reports/fy2017.pdf [https://perma.cc/8CC2-YPVH]

\textsuperscript{140} Id.


\textsuperscript{142} Id.


the related acknowledgment practice or about the underlying coordination. For example, one might expect coordination or assistance with no acknowledgment when entities are intelligence agencies or are governmental authorities in tax havens. In both of these instances one might predict a preference not to be acknowledged, or to be acknowledged only generically (e.g., thanks to “several foreign law enforcement agencies”\textsuperscript{145}).

Indeed, no intelligence agencies were identified as receiving acknowledgments within the time period. On the other hand, authorities from jurisdictions that are considered tax havens do appear in the data.\textsuperscript{146} Both results suggest that the dynamic of thanking and publicity of being acknowledged may vary depending on the entity being acknowledged.

The relationship between the SEC and the CFTC provides another opportunity to probe unacknowledged coordination, but again illustrates the difficulty of gauging the connection between assistance and acknowledgment of assistance. Based on materials outside of this study, one might predict coordination, or at least interaction, between the SEC and CFTC. The agencies have overlapping mandates,\textsuperscript{147} sometimes pursue parallel enforcement actions,\textsuperscript{148} and have entered formal information-sharing arrangements.\textsuperscript{149} On the other hand, the relationship between the agencies has sometimes been contentious,\textsuperscript{150} perhaps making it less likely that interaction would be

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{149.} See infra Appendix B.
\item \textsuperscript{150.} Macey, supra note 5; O’Rourke, supra note 5.
\end{enumerate}
\end{footnotesize}
acknowledged. The SEC acknowledged the CFTC 104 times over the study’s period. Was the CFTC over- or underthanked for the amount of coordination? Without having other information about how often the agency provided assistance, it is difficult to gauge the connection between assistance and acknowledgment of assistance.

iv. Mix of Entity Types

The entities were categorized into federal, private (especially SROs such as FINRA and the stock exchanges), state and local, and international (non-U.S.). None of these categories is limited to securities regulators; they also include other government authorities and SROs.

When all acknowledgments are included (including the dominant three repeat players), 55% of the acknowledgments are of federal entities, 18% are of private entities, 12% are of state and local entities, 14% are of international entities, and 0.5% acknowledge other entity types.

If the dominant repeat players—U.S. Attorneys’ Offices, the FBI, and FINRA entities—are excluded, the remaining acknowledgments are fairly evenly distributed among entity types. Excluding the top-three repeat players, the SEC acknowledged federal entities in 32% (1,063 of 3,272) of the remaining acknowledgments, private entities in 13% (424 of 3,272), state and local entities in 25% (824 of 3,272), international in another 28% (925 of 3,272), and miscellaneous others for the remainder.

Examination of the list of entities that were acknowledged, without regard to the number of acknowledgments per entity, reveals a long list of U.S. state and local entities and an almost equally long list of international ones. These two entity types accounted for 42% (206 of 490) and 37% (181 of 490), respectively, of the total number of unique entities. In contrast, federal entities accounted for 13% of the entities (62 of 490), private entities for 3% (16 of 490), and other types for 5% (25 of 490). These findings are summarized in Table 1 below.
Table 1: Acknowledged Entities by Types (1998-2018)

<table>
<thead>
<tr>
<th>Entity Type</th>
<th>Number of Acknowledgments</th>
<th>Number of Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Federal</td>
<td>3690(^\text{151}) (55% of total)</td>
<td>62 (13% of total)</td>
</tr>
<tr>
<td>U.S. Private (e.g., SROs, Exchanges)</td>
<td>1242(^\text{152}) (18% of total)</td>
<td>16 (3% of total)</td>
</tr>
<tr>
<td>U.S. State and Local</td>
<td>824 (12% of total)</td>
<td>206 (42% of total)</td>
</tr>
<tr>
<td>International</td>
<td>925 (14% of total)</td>
<td>181 (37% of total)</td>
</tr>
<tr>
<td>Other</td>
<td>40 (1% of total)</td>
<td>25 (5% of total)</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>6721</strong></td>
<td><strong>490</strong></td>
</tr>
</tbody>
</table>

Taken together, this categorization of acknowledgement by entity type suggests two main points. First, it reflects parity between international and domestic state and local entities, both in percentage of acknowledgments and in the number of different entities thanked at least once in the time period. Second, it suggests that the SEC’s acknowledgments of federal entities dominate the number of acknowledgments, but are concentrated in fewer separate entities. These findings are consistent with the predominance of federal entities on the top-ten list and the presence of U.S. Attorneys’ Offices and the FBI (both in the U.S. federal category) on the list of the top-three dominant repeat players.

v. U.S. State and Local Entities

The SEC acknowledged entities from forty-nine U.S. states, as well as Puerto Rico, the District of Columbia, NASAA (the member organization for state securities regulators), and local police departments or other local authorities.

The states with the top total number of acknowledgments during the whole period were New York and Texas, with Massachusetts and Florida tied for third.\(^\text{153}\) At the entity level, the top-three state and local entities were the Texas State Securities Board, New York State Attorney General’s Office, and the Massachusetts Secretary of State, Securities Division. These three entities accounted for 20% (165 of 824) of the total acknowledgments of state and local entities.

\(^{151}\) This figure includes 1,419 acknowledgments of a U.S. Attorney’s Office and 1,212 of the FBI.

\(^{152}\) This figure includes 818 acknowledgments of FINRA and its predecessors, NASD and NASDR.

\(^{153}\) These totals are of all acknowledgments of entities in that jurisdiction.
Texas provides an example of the variety of acknowledged entities. When the SEC acknowledged an entity from Texas, most of the time it was the Texas State Securities Board. (These acknowledgments were not concentrated around a single time period.) The rest of the acknowledgments, however, were of varied state and local entities, including the Texas Attorney General, the Dallas Police Department, the Harris County District Attorney’s Office, the Texas Departments of Insurance and of Public Safety, the Texas Lottery Commission, the Railroad Commission of Texas, and the Texas Rangers.

**vi. International Entities**

The SEC acknowledged entities from seventy-seven different international jurisdictions. The jurisdictions with the top three total number of acknowledgments during the whole period were Canada, the United Kingdom, and Switzerland. The three entities with the largest number of acknowledgments during the whole period were the Ontario Securities Commission, British Columbia Securities Commission, and the U.K. Financial Services Authority (FSA) /U.K. Financial Conduct Authority (FCA). Two Canadian securities regulators—the Ontario Securities Commission and the British Columbia Securities Commission—had a relatively high number of acknowledgments when compared to domestic entities as well.

In the international context, a pattern emerges where a few entities and jurisdictions garnered the majority of the acknowledgments, while many entities and jurisdictions were one-shotters. More than one fourth of all the acknowledgments of international entities were of the top three (Ontario Securities Commission, British Columbia Securities Commission, and the U.K’s FSA/FCA).

In contrast, most of the jurisdictions (77% or 59 of 77) were acknowledged ten or fewer times during the time period. At the entity level, 41% (75 of 181) of the international entities were acknowledged only once.

The type of international entity varied. The SEC often acknowledged securities regulators from other countries. The releases acknowledged, for instance, the Australian Securities and Investments Commission (ASIC) and...

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154. The term “jurisdictions” is used here because the list includes countries (Australia, Brazil, Japan, Vanuatu, etc.), but also includes jurisdictions like the Cayman Islands, the Turks and Caicos Islands, and the Isle of Man, some of which are British Overseas Territories. It also includes acknowledgments that referred to the region or continent (“Europe,” “foreign authorities in Asia”) rather than a particular nation or entity.

155. This total is organized by jurisdiction rather than entity. It includes acknowledgments of all entities within the jurisdiction.

156. See the top-ten list supra in Section III.2.B.1.i.

157. The top-three international entities were acknowledged in 26% (240 of 925) of all acknowledgments of international entities. This figure counts the FSA and its successor, the FCA, as a single entity.

158. This total is organized by jurisdiction rather than entity. It includes acknowledgments of all entities within the jurisdiction.
the Securities Commission of the Bahamas. They also acknowledged non-U.S. entities that were not securities regulators, such as police departments (e.g., the Royal Canadian Mounted Police and the Police Department of Tayside, Scotland) and public prosecutors (e.g., The Federal Prosecutor’s Office of Switzerland).

The U.K. acknowledgments provide an example of the range of entities in the international context. The majority of acknowledgments were of the main securities regulator: the FSA and, later, the FCA. The remaining acknowledgments were more varied, although concentrated in law enforcement: City of London Police, Department of Trade and Industry, Her Majesty’s Treasury, the Serious Fraud Office, Crown Prosecution Service, Metropolitan Police Service, Hampshire Constabulary, and the Northumbria Police.

In addition to other countries’ domestic authorities, the SEC acknowledged a few international or regional entities. These included the U.N. Independent Inquiry Committee and the African Development Bank.

Both the international and domestic state acknowledgments included a few examples of generic acknowledgments (e.g., thanks to “foreign” regulators or to “state securities regulators”). In one large group, the SEC thanked “regulatory and law enforcement officials of more than a dozen foreign jurisdictions” for their help in a multi-million dollar “sophisticated and fraudulent international boiler room operation” conducted from Spain, Mexico, and the United States.  

vi. Change in Entity Mix Over Time

The entity mix has changed from year to year. At the beginning of the study’s time period, the acknowledgments concentrated on private SROs and Exchanges. Over time, though, the acknowledgments became dominated by federal entities. For every year from 2002 to 2018, half or more of all SEC acknowledgments were of federal entities.

These changes are reflected in the chart below, which reports entity type as a percentage of total acknowledgments for each year. In addition to reporting by year, the time periods are marked by the composition of the SEC. The Commission is made up of five commissioners, with no more than three of a single political party. 

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160. The totals do not add up to 100% because the “Other” category amounted to 0% to 2% per year. It is not depicted in the chart.


162. Id.
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below reports the president who appointed the SEC chair for the related time period.163

Figure 1. Entity Type as Percentage of Acknowledgments

The findings for state and local entities mirror those for international entities when averaged over the full time period, but their representation in the total mix goes in different directions over that period, with state and local representing a decreasing percentage and international an increasing one. Figure 2 below breaks down this comparison by year. It compares the acknowledgments of U.S. state and local entities with those of international entities, reporting them as a percentage of the total number of acknowledgments.

How many SEC acknowledgments are linked to international interaction? One way of addressing that issue is to look at the percentage of SEC releases that include an acknowledgment of one or more international entities. Of the releases that contained acknowledgments during the period, 15% (445 of 2,959) acknowledged at least one international entity. Figure 3 below reports the change over time as a percentage of the SEC litigation and press releases containing acknowledgments and as a percentage of all of the SEC litigation and press releases, including those without acknowledgments.
The 2007 peak is consistent with the description of the post-financial-crisis focus on international coordination. The SEC’s Office of International Affairs, for example, has noted that efforts to “advance[e] international regulatory and enforcement cooperation . . . increased significantly after the global financial crisis of 2007-2008.”

The peaks do not correspond with the entry into MOUs or events that helped prompt the MOUs. The IOSCO MMOU came into effect in 2002, and the SEC became a signatory then. The IOSCO MMOU in turn was framed in part as a response to the September 11, 2001, attacks, which “underscore[d] the importance of expanding cooperation among IOSCO Members.” But there was not a corresponding jump in acknowledgments of international entities around that time. Moreover, no clear pattern emerges by comparing the number of international acknowledgments to the political composition of the Commission.

How much of this pattern is driven by changes in the type of enforcement actions being brought? For example, some types of actions may be more likely to involve multiple players and coordination. This study does not break down the releases by case type, so it cannot give a full response. However, a useful indirect comparison can be made to a category of cases likely to involve multi-entity interaction: enforcement of the Foreign Corrupt Practices Act (FCPA), which prohibits bribery internationally. It is one of two areas that the 2018

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165. See IOSCO MMOU, supra note 60.
166. Id. at 2.
167. See Historical Summary of Chairmen and Commissioners, supra note 163.
The pattern of FCPA enforcement actions does not seem to drive the interactions here. According to one study, the first year that the SEC brought more than ten FCPA cases was 2007, with ups and downs since, but a high of twenty-nine cases in 2016.  

2. Edges/Acknowledgments

What do the connections (edges or links) between acknowledged entities represent? What is the activity or relationship that gives rise to the acknowledgment? Like some of the literature about acknowledgments, for simplicity, this study treats the links as a single class. Although this study was not designed to identify or quantify the relationship that the link represents, the same data source—the underlying litigation and press releases—provides examples of the SEC’s own descriptions of the coordination that led to the acknowledgment. The information in the releases can be read in light of information about the SEC’s enforcement routines: information that triggers investigation, factual development and investigation, and the bringing of a formal SEC action, sometimes as part of a constellation of legal actions brought by multiple agencies.

Of course, the SEC’s own descriptions of the underlying activity may not capture the motivations for acknowledgments. Indeed the task of identifying possible motivations is intertwined with open questions about the functions of institutional acknowledgments that are discussed below. Nonetheless, the releases and other information about the SEC’s enforcement practices can provide information about the stages of enforcement in which the acknowledged entities interact with the SEC.

Taken together, these data suggest several possible overlapping categories of acknowledgments. Links may indicate: (1) participation in the investigation; (2) information sharing for the purposes of investigation, litigation, or prosecution; (3) referrals to or from the SEC; (4) parallel actions against the

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169. Stephen Peikin, supra note 23. The other area is “cryptoassets and ICOs,” but because this is a recent development, it provides a less useful metric over the long timeframe of this study.


171. Cf. Khabsa et al., supra note 10, at 358 (noting, in the context of scientific and academic citations, that the “edges” in the graph “might express discussions, help in writing a paper, or acknowledgment of funding” but “collaps[ing] for simplicity all the edges into one class”). But see Koniaris et al., supra note 44, at 143-52 (“Our modelling approach transforms legislation corpus into a multi-relational network: a network with a heterogeneous set of edge labels that can represent relationships of various categories in a single data structure.”).

172. Questions about the function of organizational acknowledgments—why an agency would thank another—are taken up in Section III.C infra.
same target for the same conduct by different entities; (5) related support actions; and/or (6) reinforcement of formal arrangements.  

(1) Participation in the investigation. Sometimes the underlying press or litigation release provides additional specifics about the nature of the coordination or the stage at which coordination occurred. It indicates, for instance, assistance in “conducting its investigation” in “investigating jointly,” or “in the investigation of the facts leading to this action.”

(2) Information sharing. Information sharing is clearly related to investigation but is identified here as a separate category because it is also relevant to other contexts, such as litigation or regulation. The underlying public releases generally do not refer to information sharing. However, the SEC develops the underlying concept in its enforcement MOUs, which often focus on sharing information among securities regulators internationally or among domestic entities.

(3) Referrals. The term “referral” is used to mean notification of another entity about underlying conduct that seems to be an appropriate subject for action by that entity. In this context, the term includes both referrals where the

173. Cf. Khabsa, supra note 10, at 358 (citing Blaise Cronin et al., A Cast of Thousands: Coauthorship and Subauthorship Collaboration in the 20th Century as Manifested in the Scholarly Journal Literature of Psychology and Philosophy, 54 J. AM. SOC’Y INFO. SCI. & TECH. 855 (2003)) (suggesting that acknowledgments in academic and scientific papers can be organized into the following “categories of acknowledgment”: (i) moral support; (ii) financial support; (iii) editorial support; (iv) presentational support (e.g., presenting a paper at a conference); (v) instrumental technical support; and (vi) conceptual support, or peer interactive communication (PIC)).


177. See, e.g., SEC & COMISIÓN NACIONAL DE VALORES DE ARGENTINA, MEMORANDUM OF UNDERSTANDING ON CONSULTATION, TECHNICAL ASSISTANCE, AND MUTUAL ASSISTANCE FOR THE EXCHANGE OF INFORMATION 8 (Dec. 9, 1991), https://www.sec.gov/about/offices/oia/oia_bilateral.argentina.pdf [https://perma.cc/29FL-X9M6] (committing to help with “the conduct of investigations, litigation, or prosecutions in cases where information located within the jurisdiction of the requested Authority is needed to determine whether, or prove that, the laws or regulations of the State of the requesting Authority may have been violated”). See generally supra Section II.B.
referring entity does not bring its own action and also referrals for parallel action.\textsuperscript{178}

Litigation and press releases sometimes expressly identified referrals to the SEC from one of the acknowledged entities. Examples include referrals from the FBI,\textsuperscript{179} the NASD/FINRA,\textsuperscript{180} and state securities regulators.\textsuperscript{181}

Similarly, in its own reports, NASAA reports referrals from state securities regulators to the SEC.\textsuperscript{182} In annual reports, the SEC also sometimes reports the number of outgoing referrals it made to criminal authorities\textsuperscript{183} or foreign securities regulators.\textsuperscript{184} The SEC Enforcement Manual also discusses referrals at length.\textsuperscript{185} It provides the staff with guidance about incoming referrals received from the Public Company Accounting Oversight Board (PCAOB), state securities regulators, Congress, and SROs; and outgoing “informal referrals” from the SEC to criminal authorities, SROs, the PCAOB, and state agencies.\textsuperscript{186} Taken together, these indicate that referrals form part of the SEC’s practice, and may be one activity that results in an acknowledgment.

(4) Parallel actions. To what extent do the acknowledgments reflect parallel actions: actions by other government entities for overlapping conduct and targets? The study was not designed to identify parallel actions, but the

\textsuperscript{178} The scope of referral used here is consistent with some of the SEC’s reports of referrals that include both “investigations that SEC continues to pursue, as well as referrals more appropriately handled by other regulators or authorities.” See SEC, FY 2011 PERFORMANCE AND ACCOUNTABILITY REPORT 64 (2011), https://www.sec.gov/about/secpar/secpar2011.pdf [https://perma.cc/G2B5-PAN7].


\textsuperscript{181} See, e.g., Litigation Release, SEC, SEC Freezes Assets of California Corporation that Received Proceeds of Fraudulent Investment Scheme (June 28, 2006), https://www.sec.gov/litigation/litreleases/2006/lr19744.htm [https://perma.cc/AP2G-BDHY] (“The Commission acknowledges Massachusetts Secretary of State William Francis Galvin’s Securities Division, which first alerted the Commission to Russo’s activities and at the same time imposed a temporary restraining order against Russo on May 25, 2006, requiring him to cease all investment advisory activities.”).

\textsuperscript{182} NASAA 2017 Enforcement Report Based on 2016 Data, supra note 35 (reporting that its members made referrals to the SEC in approximately 164 cases in 2016).

\textsuperscript{183} SEC, supra note 172, at 66 (reporting 134 referrals to criminal authorities).

\textsuperscript{184} Id. at 44 (reporting 457 requests from foreign authorities in FY2010 and 492 in FY2011, while the SEC made 604 and 772 outgoing requests for the respective years).

\textsuperscript{185} ENFORCEMENT MANUAL, supra note 33, at 82-95.

\textsuperscript{186} Id. The Enforcement Manual also discusses referrals of public tips and referrals involving Bank Secrecy Act material. Id.
underlying releases provide examples of both criminal and civil parallel actions by acknowledged entities.

A criminal proceeding may be based on the same underlying conduct as an SEC action. The SEC thanked, for instance, the U.S. Attorney’s Office for the District of Massachusetts for “its efforts in prosecuting the parallel criminal case.” 187 Other litigation releases “acknowledged the assistance” of a particular U.S. Attorney’s Office, while also reporting that that office had arrested the enforcement target for securities fraud. 188 Others reported “related” criminal actions brought by acknowledged entities and criminal charges for the “schemes” described in the SEC’s complaint, 189 or “parallel investigation.” 190


Information about the acknowledged entities can also be used as a marker for parallel civil and criminal actions. Of 2,959 releases containing acknowledgments, 1,419 (48%) acknowledged a U.S. Attorney’s Office. The proxy for parallel criminal actions is rough: the U.S. Attorney is not the only criminal authority on the list of acknowledged entities. A criminal action could have been brought after the SEC’s public announcement. And the presence of the U.S. Attorney does not necessarily mean that a parallel action was brought; it could have been involved in some other way in the matter.

Parallel civil enforcement actions can also be brought, and some releases noted that acknowledged civil authorities had brought an action based on the same underlying conduct. SEC releases in this study referenced parallel civil actions by the CFTC and state securities regulators, for instance.

(5) Related support actions. These actions are not for the same underlying conduct, but support the SEC’s investigation. For example, another entity may bring a criminal action against enforcement targets for lying to the SEC or may freeze assets in support of the SEC’s collection efforts. One litigation release announced, for instance, that a target had been indicted for perjury and for obstruction of justice relating to the SEC’s earlier (and unsuccessful from the

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[https://perma.cc/3M3T-TC3P] ("[T]he U.S. Attorney’s Office for the Middle District of Florida today announced related criminal charges against Della Penna. The SEC acknowledges the substantial assistance of that office and the Tampa Division of the U.S. Secret Service in this investigation.").

191. The reference here is to enforcement actions by government entities for the same conduct, usually with overlapping targets or defendants. It does not include civil litigation by private litigants, whether individual or a class.

192. See SEC Litigation Release No. 214614, supra note 149 (thanking the CFTC and noting that it filed a complaint against the same enforcement target on the same day as the SEC); SEC Litigation Release No. 18356, supra note 148 (acknowledging the CFTC’s assistance and noting that it “simultaneously commenced a civil lawsuit” against the same enforcement targets).

193. Litigation Release, SEC, Court Enters Final Judgment Against Massachusetts Hedge Fund Manager in Fraud Scheme (Sept. 17, 2008), https://www.sec.gov/litigation/litreleases/2008/lr20723.htm ("The Commission acknowledges the assistance of the Securities Division of the Secretary of State of the Commonwealth of Massachusetts, which previously filed a separate action against Andersen."); Litigation Release, SEC, Criminal Charges Filed Against Massachusetts Investment Adviser for Defrauding Investors (July 8, 2013), https://www.sec.gov/litigation/litreleases/2013/lr22743.htm ("The SEC acknowledges the assistance of the Massachusetts Securities Division, which today filed separate charges against [the target]."); Litigation Release, SEC, SEC Charges Massachusetts Company and Its Principal with Fraud in Connection with Unregistered Company Offering of Securities (Feb. 21, 2007), https://www.sec.gov/litigation/litreleases/2007/lr20011.htm ("[A]cknowledg[ing] the assistance” of the Massachusetts Securities Division and the Pennsylvania Securities Commission “which previously filed separate actions” against the same enforcement target); Litigation Release, SEC, SEC Obtains Asset Freeze in the United Kingdom Against Hedge Fund Manager (May 19, 2008), https://www.sec.gov/litigation/litreleases/2008/lr20585.htm ("The Commission acknowledges the assistance of the Financial Services Authority of the United Kingdom and the Securities Division of the Secretary of State of the Commonwealth of Massachusetts, which also filed an action against the parties . . . ").
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SEC’s perspective) insider-trading investigation and enforcement action. The litigation release thanked the U.S. Attorney’s Office for indicting the target for, among other things, having withheld information about his Swiss bank account from the SEC. Another litigation release thanked the Federation of St. Kitts and Nevis for “restrain[ing] over $1.3 million of defrauded investor funds” in support of an SEC action.

(6) Reinforcement of formal arrangements. Finally, the Article introduces the term “reinforcement thanks” to describe the acknowledgment of entities that are in formal or semiformal coordination relationships with the SEC, often via statute, rule, or MOU. Occasionally the underlying litigation or press release refers to a formal agreement, or to a task force, rather than a particular entity. In one case involving securities fraud and an attempt to scam the post-financial-crisis Troubled Asset Relief Program (TARP), the SEC acknowledged a list of federal agencies and their inspectors general, then pointed to their formal grouping into a task force, noting that “[t]he SEC brought its enforcement actions in coordination with these other members of the Financial Fraud Enforcement Task Force.”

These anecdotes showing that the SEC acknowledges entities in a formal arrangement with the SEC are bolstered by the data in this study. The acknowledged entities were grouped into those that had an enforcement MOU with the SEC and those that did not. Approximately 21% (104 of 490) of the entities were IOSCO MMOU signatories, members of NASAA, or had entered an international or domestic MOU with the SEC.

The proposed categories of acknowledgment—investigation, information sharing, referral, parallel action, support action, and reinforcement—may

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195. Id.

196. Litigation Release, supra note 159.


200. See infra Appendices A & B. This estimate counts entities as being party to an MOU if there was one at any time during the time period; the acknowledgment may have predated the entry of the agreement.
appear in combination. Different entities acknowledged in the same action and release may have different roles in relation to the matter. In one insider trading case, for example, the SEC “acknowledge[d] the assistance of NASD Regulation—which uncovered some of the trading at issue” and also the assistance of “the United States Attorney’s Office for the District of New Jersey in the investigation of this matter.”

The categories are not mutually exclusive. A single entity may fall into several acknowledgment categories. In fact, overlap is likely. For instance, information sharing is often one aspect of participation in an investigation. Moreover, given the focus of many of the MOUs on information sharing, many acknowledgments that reinforce formal arrangements likely involve sharing information.

The list is also not necessarily exhaustive. It categorizes the underlying coordination activity as identified by the SEC, but does not capture other possible reasons for acknowledgment. At least a few releases report actions that were not brought by the SEC—e.g., criminal actions. Although couched as acknowledgments, these releases could plausibly serve as a reminder that the SEC was involved in the action too (“remember our participation”).

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202. See supra Section II.B.

acknowledgments (e.g., of “state securities regulators”) are also not necessarily explained by these categories.\textsuperscript{204}

Finally, the degree of underlying assistance may vary. Although it likely does not make sense to put too much weight on the precise wording of the acknowledgment, it is worth observing that most acknowledgments simply acknowledged or “appreciated” the assistance of another agency or entity. A few acknowledgments, however, pointed to “substantial,” “significant,” or “valuable assistance.”\textsuperscript{205} One release suggested a reason for this, thanking the Houston FBI for its “significant assistance” in “bringing the Commission’s action and in coordinating the execution of its search warrant,” while in the next sentence merely acknowledging the “assistance” of the Texas State Securities Board in the investigation.\textsuperscript{206}

3. Network Characteristics

What does this network of SEC acknowledgments look like? Network studies often look at the number of links between entities. Although early models assumed that the number of links was fairly evenly and randomly distributed in a network, empirical studies since have identified uneven

\textsuperscript{204} See supra note 148 and accompanying text.


numbers of links. In fact, many networks have a few hubs or connectors with many links, while a vast majority of nodes in the network have only a few links.\textsuperscript{207}

This Section asks similar questions of the SEC’s acknowledgment network, albeit in a nonmathematical way. Whereas the above discussions focused on the entities and edges, this section puts them together to look at the patterns of connection within the SEC’s acknowledgment network.

To begin, the figure below provides a snapshot of one calendar year of the SEC’s acknowledgments. It depicts the SEC’s network of acknowledgments for 2016. The SEC is at the center. The straight dark lines are from the SEC to the entities it acknowledges in public releases. The curved lines are from entity to entity and represent the fact that the SEC acknowledged them within the same release, reporting the same enforcement action. The size of the circles for the nodes/entities increases as the entity is acknowledged more often. The shading reflects the type of entity: federal (black), state and local (white), or international (grey).

\textsuperscript{207} BARABÁSI, supra note 24, at fig. 4.1.
Although Figure 4 provides a snapshot of a single year, it is typical of the whole period (1998 through 2018). In particular, it reflects the predominance of
three repeat players accompanied by one-shotters. As noted above, the U.S. Attorneys’ Offices, FBI, and FINRA/NASD accounted for more than half of all acknowledgments in the full time period. The remaining acknowledgments are fairly evenly divided among categories of entity.

The figure is grouped by entity category. One of the advantages of organizing it in that way is that connections among entity categories—from international to state, for instance—become more visible. In the 2016 figure, lines go from the New Hampshire Bureau of Securities Regulation to various Canadian securities regulators (for an enforcement action against a Massachusetts-based investment advisor). Connections that cross entity categories indicate that a single enforcement action may involve a mix of international entities and domestic state-level entities, as well as at least one federal entity, since the starting point is the connection to the SEC. Underlying releases include examples where the SEC acknowledged both international and domestic entities in the same action.

Another way of picturing the SEC’s network is to examine how many entities are involved in one enforcement action. The rough proxy for involvement here is the number of entities that the SEC acknowledges in a single release. Many litigation and press releases acknowledged only one entity. For the whole period, 37% (1,081 of 2,959) of releases containing acknowledgments thanked only one entity.

The change over time in the mean number of entities thanked in a single release is reflected in Figure 5 below. Figure 5 reports the mean number of entities thanked per release, providing yearly means for comparison. It includes both litigation and press releases and reports two calculations. One is the mean number of entities acknowledged per release when only the releases containing an acknowledgment are considered. The second is the mean number of acknowledged entities for all releases, including those that have no acknowledgment at all.

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208. See supra Section III.B.1.


210. See, e.g., supra note 209; Litigation Release, SEC, SEC Charges Nevada MicroCap Issuer and Individuals with Unregistered, Fraudulent Offering (Aug. 21, 2018), https://www.sec.gov/litigation/litreleases/2018/lr24241.htm [https://perma.cc/8CP4-JL3D] (thanking “the various state, federal, and foreign authorities that provided valuable assistance in this matter”); Litigation Release, SEC, SEC Obtains Asset Freeze in the United Kingdom Against Hedge Fund Manager, supra note 193 (“The Commission acknowledges the assistance of the Financial Services Authority of the United Kingdom and the Securities Division of the Secretary of State of the Commonwealth of Massachusetts, which also filed an action against the parties.”).

211. This proxy is rough because the agency may issue several releases relating to the same underlying conduct or action. See supra notes 117-120 and accompanying text.

212. Not shown is a separate calculation that shows an increasing proportion of the releases acknowledge multiple entities over this timeframe.
Figure 5. Mean Number of Acknowledged Entities Per Release (1998-2018)

Five key findings stand out from this study of the nodes, edges, and network characteristics in the SEC’s acknowledgments.

First, the SEC predominately acknowledged the assistance of a few repeat players: U.S. Attorneys’ Offices, the FBI, and FINRA entities. Together acknowledgments of these entities accounted for half of all acknowledgments in the period studied.

Second, approximately half of the entities were acknowledged only once within the two-decade time period.

Third, both international and domestic entities are part of the network, with a similar number of acknowledgments and unique entities in each category.

Fourth, most acknowledged entities were not subject to one of the SEC’s enforcement MOUs or members of IOSCO or NASAA.

Fifth, over time, the SEC has thanked an increasing number of entities per release.

C. Function of Organizational Acknowledgments

This Article generally treats acknowledgments as a rough proxy for agency interactions. Whom the SEC thanks indicates an underlying relationship or interaction, with a few main candidates for what that interaction may be. Complicating this account are questions about the function of these interactions.
acknowledgments in this governmental and organizational setting. The map of the SEC’s enforcement network thus raises an intriguing set of questions about how the act of acknowledgment reflects and affects network development and interactions. A few observations can be made here based on the study’s deep dive into the SEC’s acknowledgments, with the caveat that this study is a first step in an area that deserves further exploration.  

First, the SEC does not seem to be alone in acknowledging other agencies. Although it is unclear how widespread a practice it is, examples exist. The CFTC seems to use quite similar language: “The CFTC appreciates the assistance of the National Futures Association in this matter.” Similarly, the DOJ noted that six different entities participated with the U.S. Attorney’s Office and the DOJ in a fraud investigation and “recognize[d] the substantial assistance of the SEC” and the assistance of the Financial Crimes Enforcement Network (FinCEN). The U.S. Attorney’s Office “commended special agents of IRS-Criminal Investigation,” and repeatedly lists various state and federal actors who participate in the investigation. Here too is an elaborated example from the EPA:

Through the diligent work of EPA’s Criminal Investigation Division and their state and federal law enforcement partners, including the Defense Criminal Investigative Service (DCIS), the U.S. Army Criminal Investigation Command – Major Procurement Fraud Unit (USACID-MPFU), the U.S. Department of Transportation – Office of Inspector General, the Louisiana Department of Environmental Quality – Criminal Investigations Section, and Troopers from the Louisiana State Police Emergency Services Unit, the defendants were held accountable for their actions which endangered communities, defrauded tax payers, and resulted in multi-million

214. A literature exists about gratitude and expressions of gratitude, but tends to focus on individual interactions, rather than entities or institutions. See, e.g., Shereen J. Chaudhry & George Loewenstein, Thanking, Apologizing, Bragging, and Blaming: Responsibility Exchange Theory and the Currency of Communication, 126 PSYCHOL. REV. 313 (2019).


216. Press Release, DOJ, supra note 14 (“The case is being prosecuted by . . . the Criminal Division’s Fraud Section and Assistant U.S. Attorneys . . . of the Eastern District of Virginia. This case was investigated by SIGTARP, FBI’s Washington Field Office, FDIC-OIG, HUD-OIG, FHFA-OIG and the IRS-CI.”).


218. See, e.g., Press Release, DOJ, Maryland MS-13 Member Pleads Guilty in Violent Racketeering Conspiracy (Sept. 2, 2014), https://www.justice.gov/opa/pr/maryland-ms-13-member-pleads-guilty-violent-racketeering-conspiracy [https://perma.cc/397J-U4HW] (“This case was investigated by HSI Baltimore, the Prince George’s County and Montgomery County Police Departments, the Prince George’s County State’s Attorney’s Office, the Takoma Park Police Department and the Montgomery County State’s Attorney’s Office, with assistance from the Prince George’s County Sheriff’s Office, HSI Baltimore’s Operation Community Shield Task Force and the Maryland Department of Corrections Intelligence Unit.”)
dollar hazardous waste cleanup sites across Louisiana and Arkansas.219

Second, and tied to the function of organizational acknowledgments, is the question of the intended audience for the SEC’s acknowledgments. Several possibilities are the thanked organization, Congress (funders of the SEC), supervisors of SEC staff, or the targets and potential targets of enforcement action. These are not mutually exclusive. Multiple audiences are also possible and different releases may have different aims.

Thanks may be aimed at the entity that coordinated the enforcement, possibly to encourage repetition of cooperation.220 Acknowledgments may reinforce or acknowledge cooperation that is already formalized in an MOU or similar arrangement.221 Or it may be freestanding, inviting future cooperation from that particular entity. Even when entities are acknowledged only a single time, such acknowledgment might encourage cooperation from others in that particular category—international actors or state securities regulators, for instance—or from co-members of a centralized organization such as IOSCO or NASAA.

One indication that the named entity is the intended audience is the use of acronyms or names of local police departments that may be unfamiliar to a more general reader: when the SEC thanks the East Lampeter Police Department, for instance, without any other details about location.222 Perhaps these acknowledgments are aimed at the thanked entity or those in the region who would be familiar with the case and local actors.

The language of a few SEC releases suggests that the audience may not be the organization that is being acknowledged. In one release, the SEC acknowledged “the assistance of the Commission des Operations de Bourse (the French securities authority).”223 Another example thanked the Brazilian authorities, acknowledging “the Comissão de Valores Mobiliários (the

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220. Cf. Adam M. Grant & Francesca Gino, A Little Thanks Goes a Long Way: Explaining Why Gratitude Expressions Motivate Prosocial Behavior, 98 J. PERSONALITY & SOC. PSYCHOL. 946, 946-47 (2010) (studying the effect of expressions of gratitude on individuals’ willingness to repeat their helping action and citing multiple experiments showing that “when helpers are thanked by the beneficiaries of their help, helpers are more willing to help these beneficiaries again”).

221. Cf. Brummer, supra note 16 (noting that cooperation and reciprocity make MOUs more enforceable than their “soft-law” label suggests).


Securities and Exchange Commission of Brazil)." The added explanatory parentheticals might be directed at an audience other than the staff of the French or Brazilian securities authority itself, who presumably know their agency's name.

The funders and overseers of the SEC are another possible audience. There are indications that Congress is interested in the SEC's ability to coordinate. A set of examples follows the 2007 financial crisis, where legislators pointed to the need for domestic financial regulators to coordinate with their international counterparts.

To the extent that the task of drafting the public press and litigation releases is given to individual SEC staff, another possible audience is the supervisors of those staff members. Interagency collaboration is reportedly a criterion in SEC performance reviews and the SEC created "cross-agency working groups" to facilitate cooperation. Strategic goals of the agency also include internal and external coordination.

Another possibility is that the list of acknowledged entities is aimed at the targets of enforcement, perhaps as a caution. This version relies on a robust view of the readership of these releases, maybe an overly robust view. However, these releases seem to filter through the press, at least for high-profile cases. They might also filter to targets through lawyers, a conjecture bolstered by the existence of a specialized and repeat-player securities defense bar.


227. SEC, 2019 BUDGET JUSTIFICATION, supra note 32, at 87 ("[T]o foster and enforce compliance with the federal securities laws, the SEC works closely with other agencies and foreign governments... [T]o establish an effective regulatory environment, several SEC divisions and offices regularly collaborate with both internal and external partners."); see also SEC, STRATEGIC PLAN, FISCAL YEARS 2018-2022, supra note 32 (noting that the “need for coordination with fellow financial regulators, including foreign regulators, will continue to rise,” pointing to “global risks” and the domestic effects of “wrongdoing [that] occurs outside our country”).

IV. Implications and Future Work

A. Methodological Lessons

As noted above, one purpose of legal network studies such as this one is to figure out which tools fit well with legal materials and with the underlying policy questions. Accordingly, it is worth a few concluding notes on the methodological lessons one might take from this Article’s application of automated acknowledgment indexing to the SEC’s acknowledgments.

First, it makes sense to think of automated acknowledgment indexing as a hybrid between automation and manual review. Automation broadens the scope of study, but the process also involves extensive manual human review and is far from an idealized simple push of a button.

Second, limitations are inherent in any set of primary materials. The SEC study reported here allows definitive answers about the acknowledgments: whom the SEC thanked and when. But, while it is reasonable to track acknowledgments back to underlying interactions, the acknowledgments are only a proxy for underlying enforcement interactions, mediated by the agency’s own announcement practices and intermediate questions about the public releases and about thanking practices.

One of its benefits in this context—enforcement—is that there are few other ways of identifying and quantifying enforcement interactions. Such a study is particularly useful as an indirect approach where information is not available elsewhere. However, a study like this one obviously depends on some form of available information. The project is enabled by the SEC’s longstanding practice of publicizing enforcement activity.

Finally, the analysis was simplified by the standardization of the language in the public releases and the standardization of the format of releases. Litigation releases, in particular, lend themselves to automated review because of their limited subject matter (relating to court proceedings) and their standardized format. Press releases sometimes require more manual review because of the greater degree of variation in both form and subject matter. In other words, some standardization of language helped, although was not required, and this need will likely change as the tools change.

B. Enforcement Implications

One lesson for the SEC and the field of financial regulation is that enforcement structures have to account for the mix of repeat players and single interactions. These may require two different types of strategies, targeted either at an ongoing multicontact relationship or a one-off interaction.

The SEC has self-consciously identified some of the entities that correspond to the most acknowledgments: the U.S. Attorneys’ Offices, the FBI,
and FINRA (and its predecessors). And in many cases an apparatus exists to govern these repeat relationships. For the FBI and the U.S. Attorneys’ Offices, manuals and guidance include detailed instructions about the interaction between civil and criminal parallel actions.\textsuperscript{229} It includes semiformal guidance about “pile on” penalties and how information may be shared in the context of parallel proceedings, given different criminal and civil protections.\textsuperscript{230}

Perhaps even more formally defined, sometimes in statute, are the relationships between the SEC and SROs like FINRA and the stock exchanges. This formality is unsurprising given the SEC’s ongoing supervision of these entities, and the interaction between SROs’ rules and enforcement and the SEC’s rules and enforcement—both contemplated in the securities statute that originated this relationship.\textsuperscript{231}

The most frequently acknowledged entities thus confirm many of the SEC’s own reports of its most frequent collaboration, although there are some relatively unsung entities in the mix. Notably, the U.S. Postal Inspectors are in the top ten for the full period but are sometimes overlooked in discussions of securities enforcement or coordinated criminal-civil actions, as well as in the SEC’s other materials.\textsuperscript{232}

The concentration of interactions with the top repeat players is only one aspect of this network; overall, single interactions with the SEC prevailed. Almost half of all entities were acknowledged only once in the multi-decade time period, and seventy percent were acknowledged three or fewer times. For these one-shotters, dense statutory and semi-formal guidance does not necessarily exist.

One approach is to interact with these dispersed entities via a centralized organizing body—IOSCO in the international context or NASAA in the domestic and regional contexts. The findings thus highlight how important these organizations can be for coordinating communication between their member regulators and the SEC. Another approach is to use some of the mechanisms for gathering information from dispersed one-shotters in other contexts, perhaps whistleblowers and consumer or investor complaints. Part of the response may also be as simple as training and meeting with international, state, and local regulators,\textsuperscript{233} some of which is already built into SEC practices.\textsuperscript{234}


\textsuperscript{230.} Id.


\textsuperscript{232.} SEC, 2019 BUDGET JUSTIFICATION, supra note 32, at 97 (noting collaboration with an extensive list of entities, but excluding the U.S. Postal Inspectors).

Enforcement Networks

The one-shotters cannot be ignored. A comparison can be made to the study of connections in other types of networks. A classic sociological study identified the importance of “weak ties” for job seekers.\textsuperscript{235} It found that information from acquaintances rather than close friends or family was often more important for job leads.\textsuperscript{236} The weak tie provided information from outside of the cluster of more intense ties; the closer and more intensely involved, the more likely they were to already have the same information rather than new information.\textsuperscript{237} A plausible analogy could be made to the SEC’s ongoing connections with the US Attorneys’ Offices versus the one-time information sources, which may be more likely to identify previously unknown conduct.

The study is not designed to identify the specific interaction that led to an acknowledgment, so it provides limited information about the nature of the tie between the SEC and the acknowledged entity and the ties among the entities acknowledged in a single release. Although the releases suggest some of the underlying interactions that give rise to the acknowledgments,\textsuperscript{238} they do not distinguish between plausible accounts of the coordination that is taking place.

One possibility is that the connections reflect the flow of information, especially tips and referrals that help uncover bad conduct. The underlying releases and reports from the SEC and other agencies suggest an active incoming and outgoing referral process.\textsuperscript{239} NASAA officials have suggested that state and local regulators are an important originator of information that prompts an action by the SEC and/or criminal authorities.\textsuperscript{240}

The SEC-acknowledgments data may reflect information coming into the SEC, with other entities acting as an information source. But this is not the only possibility. Another is that the SEC sets a national law-enforcement agenda in the area of securities and enlists other entities. A question for further inquiry accordingly involves direction: is the SEC enlisting entities/referring cases, or is the entity providing information/flagging conduct for the SEC?

\textsuperscript{234} See, e.g., SEC’s Technical Assistance Program, SEC. & EXCH. COMMISSION (Apr. 8, 2014), https://www.sec.gov/about/offices/oia/oia_emergtech.shtml [https://perma.cc/7T66-EZLX].

\textsuperscript{235} Mark S. Granovetter, \textit{The Strength of Weak Ties}, 78 Am. J. Soc. 1360 (1973).

\textsuperscript{236} \textit{Id}.

\textsuperscript{237} \textit{Id}.

\textsuperscript{238} See supra Section III.B.2 (identifying categories of conduct that may have led to acknowledgment).

\textsuperscript{239} See supra notes 159-167 and accompanying text.

\textsuperscript{240} See \textit{Ensuring Effectiveness, Fairness, and Transparency in Securities Law Enforcement: Hearing Before the H. Comm. on Fin. Servs.}, 115th Cong. 114-28 (2018) (“[S]tate securities regulators are often first to discover and investigate our nation’s largest frauds. . . . From the investigation into the role of investment banks in the Enron fraud, to exposing securities analyst conflicts, ‘market timing’ in mutual funds, and to uncovering problems in the auction rate securities market, state securities regulators have consistently been in the lead.”).
Finally, the findings provide a snapshot of a single agency, with the SEC as a common connector or a hub. But the SEC connects to other entities that themselves may be hubs. For example, a similar analysis may be possible for the interagency interactions of the CFTC, which has its own network of statutes, MOUs, and acknowledgments.\textsuperscript{241} The DOJ too has its own acknowledgment network.\textsuperscript{242} The Hong Kong securities authority is a non-U.S. example: it has information-exchange MOUs with four different domestic entities and formal connections to ten other countries and the European Union.\textsuperscript{243} The broader enforcement network is accordingly a potential area of further inquiry.

C. The Networked Agency

Agencies are sometimes thought of as solo actors as if they fulfill their duties alone, in solitary pursuit of their own statutory mandates. This perception is particularly common for independent agencies like the SEC, which are often viewed as insulated from the regulatory state. The findings here challenge the vision of the siloed agency, providing specifics about an agency that acts in coordination and demonstrating that it makes sense to think in terms of networks rather than solo actors.

The findings also challenge existing literatures to look at both domestic and international actors and both state and federal domestic actors. Some literatures, especially in administrative law, depict the regulatory state as entirely domestic. And certainly the findings here reflect interactions between levels of government domestically, with both state and local regulators and law enforcement (and others) interacting with federal agencies and federal law enforcement.

\textsuperscript{241} See, \textit{e.g.}, Press Release, CFTC, CFTC Charges Forex Trader and Firm with Fraud and Registration Violations (Aug. 29, 2018), \url{https://cftc.gov/PressRoom/PressReleases/7778-18} [https://perma.cc/LV94-56X9] (“The CFTC appreciates the cooperation and assistance of the United Kingdom’s Financial Conduct Authority and the New York State Office of the Attorney General.”);

\textsuperscript{242} See, \textit{e.g.}, Press Release, DOJ, supra note 14 (“The case is being prosecuted by . . . the Criminal Division’s Fraud Section and Assistant U.S. Attorneys . . . of the Eastern District of Virginia. This case was investigated by SIGTARP, FBI’s Washington Field Office, FDIC-OIG, HUD-OIG, FHFA-OIG and the IRS-CI. The department recognizes the substantial assistance of the SEC. The department also recognizes the assistance of the Financial Crimes Enforcement Network (FinCEN) of the Department of the Treasury.”).

enforcement. The story of the SEC’s enforcement network is accordingly in part a story of domestic cooperation.\textsuperscript{244}

Other literatures, like the literature about the global securities markets, treat agency cooperation as primarily international.\textsuperscript{245} Part of the discussion in financial regulation is how U.S. regulators and enforcers interact with authorities from other countries to address conduct “in the global marketplace.”\textsuperscript{246} Certainly the findings reflect global cooperation: the SEC acknowledged more than seventy international jurisdictions and acknowledged international entities more than nine hundred times. The findings reflect both centralized coordination through IOSCO and decentralized coordination: the SEC’s one-time thanks to the Hampstead Constabulary, for instance.

The findings here complicate both the domestic and international accounts, however. It is neither just a domestic-focused cooperative-federalism story, nor an international-coordination story. It is both.

Overall, understanding the group behavior of agencies and the ways they rely on one another as resources can help paint a richer picture of the regulatory state and can inform a better understanding of the actions of individual agencies. Having an inaccurate model of agency behavior matters because it can lead to mispredictions and misunderstandings of agency decisionmaking. Being able to understand and model agency behavior more thoroughly thus offers important dividends in the form of a better understanding of the functioning of the regulatory state.

Conclusion

Problems are increasingly cross-border or borderless. In response, even agencies’ own materials point to the need for interaction and coordination among multiple entities. Current analytical approaches in the legal literature are not well suited to heterogeneous interactions that go in multiple directions and involve many types of entities in different locations. To understand enforcement in this interconnected context requires different tools. A natural place to look is at tools developed to understand other types of networks. This Article identifies one such tool, adding to the growing body of work analyzing legal networks.

This Article uses the SEC’s enforcement network as an example. It demonstrates how a tool used to study social networks—automated

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{245} See supra note 19.
\item \textsuperscript{246} See, e.g., Jisun Park, Enforcement of Securities Law in the Global Marketplace: Cross-Border Cooperation in the Prosecution of Transnational Hedge Fund Fraud, 39 BROOK. J. INT’L L. 231 (2014).
\end{enumerate}
\end{footnotesize}
acknowledgment indexing—can be used to identify specific coordinating entities and the changes over time. The study of the SEC enforcement network picks up, in part, that type of cooperation for particular investigations that would otherwise largely be unobserved, enriching the study of financial enforcement. By investigating enforcement networks, this Article also participates in an emerging literature about agency coordination outside the rulemaking context.

But the Article’s basic intuition tackles a much broader category: all entities tasked with responding to classical cross-border problems that involve multiple jurisdictions and to problems driven by ubiquitous technological change that is untethered to geographical location. These require a networked response and new tools to study them.
Appendix A: The SEC’s International MOUs

<table>
<thead>
<tr>
<th>Signatory Securities Regulators (with U.S. SEC)</th>
<th>Date(s) Entered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Dec. 9, 1991</td>
</tr>
<tr>
<td>Australia</td>
<td>Oct. 20, 1993</td>
</tr>
<tr>
<td>Brazil</td>
<td>July 1, 1988</td>
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<tr>
<td>Chile</td>
<td>June 3, 1993</td>
</tr>
<tr>
<td>France</td>
<td>Dec. 14, 1989</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Oct. 5, 1995</td>
</tr>
<tr>
<td>IOSCO(^{248})</td>
<td>December 19, 2002</td>
</tr>
<tr>
<td>Israel</td>
<td>Feb. 13, 1996</td>
</tr>
<tr>
<td>Italy</td>
<td>May 3 &amp; 5, 1993</td>
</tr>
<tr>
<td>Japan(^{*})</td>
<td>May 23, 1986; May 17, 2002; Jan. 12 &amp; 16, 2006</td>
</tr>
<tr>
<td>Jersey(^{*})</td>
<td>May 22, 2002</td>
</tr>
<tr>
<td>Mexico</td>
<td>Oct. 18, 1990</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Dec. 11, 1989; July 1, 1992</td>
</tr>
<tr>
<td>Norway</td>
<td>Sept. 24, 1991</td>
</tr>
<tr>
<td>Portugal</td>
<td>Oct. 10, 1997</td>
</tr>
<tr>
<td>Singapore(^{*})</td>
<td>May 16, 2000</td>
</tr>
<tr>
<td>Spain</td>
<td>July 8, 1992</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Aug. 31, 1982; Nov. 10, 1987; Nov. 3, 1993</td>
</tr>
<tr>
<td>United Kingdom(^{*})</td>
<td>Sept. 23, 1986; Sept. 25, 1991</td>
</tr>
</tbody>
</table>

\(^{*}\)The U.S. CFTC is also a signatory to at least one of the MOUs listed for this entity.

\(^{247}\) Cooperative Arrangements with Foreign Regulators, supra note 52.

Appendix B: The SEC’s Domestic MOUs

<table>
<thead>
<tr>
<th>Signatory (with U.S. SEC)</th>
<th>Year(s) Entered</th>
<th>Title/Coverage</th>
<th>Source</th>
</tr>
</thead>
</table>

249. In addition to a literature review, a search of the materials on the SEC’s website, including litigation and press releases, was used to identify domestic enforcement MOUs.
<table>
<thead>
<tr>
<th>Signatory (with U.S. SEC)</th>
<th>Year(s) Entered</th>
<th>Title/Coverage</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(superseded by 2018 MOU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signatory (with U.S. SEC)</td>
<td>Year(s) Entered</td>
<td>Title/Coverage</td>
<td>Source</td>
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<tr>
<td>Signatory (with U.S. SEC)</td>
<td>Year(s) Entered</td>
<td>Title/Coverage</td>
<td>Source</td>
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