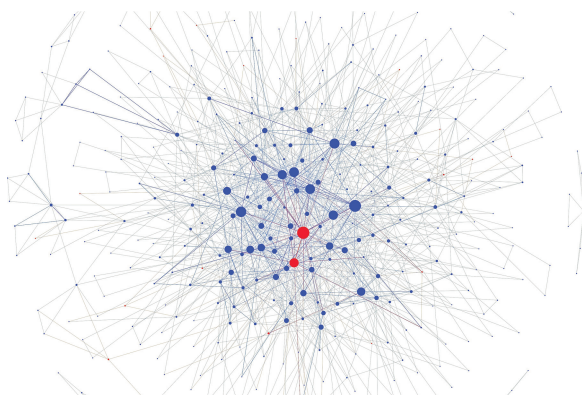

Social Capital in the Arbitration Market

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"The evil that we know is best."
Titus Maccius Plautus



Abstract

Scholars have often assessed and criticized the group of international arbitration professionals, some characterizing this group as a dense 'white, male' group. Faced with limited access and data, however, this critique has not been informed by a robust empirical component. Relying on all the appointments made in proceedings under ICSID between 1972 and February 2014, interviews with arbitration professionals, and an original database created for this project, this article is the first to assess the social structure of investor–state arbitrators. Using network analytics, a long-standing but recently popularized methodology for understanding social groups, the article maps the group of professionals by relying on formal appointments to tribunals. The subsequent analysis of this form of operationalizing the social group reveals who are the 'grand old men' (and formidable women) or 'power-brokers' that dominate the arbitration profession. The article argues, based on the evidence presented, that, among other factors, in addition to good timing and imperfect information, the structure of

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the process of appointment, and a risk averse culture, key arbitrators may benefit from heuristic biases, or the limited cognitive scope of lawyers making such appointments.

1. Introduction

International arbitration, the alternative dispute resolution process between transnational parties using independent arbitrators rather than national courts, is a growing legal field. Globalization and economic liberalization have led to an increase in the number of cross-national business interactions and a corresponding rise in transnational litigation and arbitration. Many of these arbitration proceedings are administered by a select number of arbitral institutions, some of which are expanding their services around the world. In spite of this general trend, most cases are decided by a seemingly small number of self-regulated professionals, constantly travelling to European capitals like London, Stockholm, The Hague, and Paris. Many of these arbitrators serve as decision-makers for cases under multiple institutions and act as counsel in other proceedings across the globe.¹

For the last two decades or so, international arbitration and the community of professionals around this field have generated academic interest, research, and criticism. In particular, explanations of the actual process through which non-elite actors are systematically excluded vary.² From social norms and pressures to market collusion, from deficient regulation to legal and institutional design, scholars have provided alternative explanations and debated their merits. At issue are different explanations of a mechanism that – according to some experts – fosters exclusion and what some characterize as a dense ‘white, male’ club.³

For instance, Dezalay and Garth’s influential study, *Dealing in Virtue*, uses Bourdieu’s construct of a social field to understand the evolution of arbitration into the preferred mode of transnational dispute settlement.⁴ Their sociological story is one of competition among European ‘grand old men’ (senior European academics, and retired judges) versus younger ‘arbitration technocrats’ (partners in large Anglo-American law firms who practise arbitration) over social norms, or the informal rules of the game of arbitration.⁵ To compete in this market, modern cosmopolitan lawyers use *symbolic power*,

¹ Helmer, ‘International Commercial Arbitration: Americanized, Civilized, or Harmonized’, 19 *Ohio State J on Dispute Resolution* (2003) 35. Drahozal, ‘Private Ordering and International Commercial Arbitration’, 113 *Pennsylvania State L Rev* (2008) 1031.

² See, e.g., Rogers, ‘The Vocation of the International Arbitrator’, 20 *Am U Int’l L Rev* (2004) 957 (reviewing the literature, exploring sociological explanations and proposing a methodology for developing clearer standards of conduct for international arbitrators, and an approach to review of allegations of misconduct).

³ Phillips, ‘ADR Continental Drift: It Remains a White, Male Game’, *The Nat’l LJ* (27 Nov. 2006) 1. Nathan, ‘Well, Why Did You Not Get the Right Arbitrator?’, *Mealey’s Int’l Arb Rep* (July 2000), at 10 (noting that ‘the majority in a multi-member international arbitral tribunal is always white’). Other authors have also shown the lack of diversity in international courts and tribunals more generally: see Grossman, ‘Sex Representation on the Bench and the Legitimacy of International Criminal Courts’, 11 *Int’l Criminal L Rev* (2011) 643–653.

⁴ P. Bourdieu, *Outline of a Theory of Practice* (1977), vol. xvi.

⁵ Y. Dezalay and B.G. Garth, *Dealing in Virtue: International Commercial Arbitration and the Construction of a Transnational Legal Order* (1996).

or authority, prestige, and reputation to increase their esteem and social standing that may translate into important economic gains.⁶

Ginsburg's work, *The Culture of Arbitration*, partially challenges the symbolic power argument. Using tools from law and economics and building on the legal culture concept of Friedman and others,⁷ Ginsburg describes arbitration practitioners as a *network* and highlights the role of incentives in creating a closed arbitration culture.⁸ According to him, the rapid spread of this culture makes it more likely that parties will be familiar with arbitration as a dispute resolution option, creating an intense competition to define the insiders and outsiders of this professional group. While the arbitration culture can be facilitative, encouraging effective communication and efficient processes, he argues, it also creates intense monopolistic impulses aimed at keeping new entrants out of the network. This account is similar to that of Rogers, who concludes in *The Vocation of the International Arbitrator* that 'international arbitration practice continues to operate in a market largely characterized by information asymmetries and barriers to entry' that benefit insiders.⁹

More cynically, Shalakany argues in *Arbitration in the Third World* that 'arbitration is a technocratic mechanism of dispute settlement'.¹⁰ Under this approach influenced by critical theory and neostructuralism, arbitration may be another form of imperialism; its expansion is the result of pressures by Western transnational elites who support globalization. The adoption of arbitration serves to legitimize the disempowerment of national legislation as a result of the 'internationalization' of domestic disputes. This substitution, according to Shalakany, limits diverse notions of distributive justice and economic participation and hampers the ability of developing countries to build effective domestic justice systems. For scholars under this tradition, arbitration professionals help in privatizing and 'disanchoring' disputes from the public hand of the state and benefit from the subsequent effects.¹¹ The group dynamics have important effects on outcomes as a result of conformity pressures of group members.

The vast scholarship briefly summarized and exemplified in this introduction makes important claims about the social dynamics of international arbitration, its roots, and potential consequences. Interestingly, scholars have failed to map systematically the basic social arrangements that may result from the interactions of the individuals within the social structure.¹² These patterns may reveal how the interconnections

⁶ P. Bourdieu, *Language and Symbolic Power* (1991), at 72 ('the weight of different agents depends on their symbolic capital, i.e., on the recognition, institutionalized or not, that they receive from a group').

⁷ L. Friedman, *The Legal System: A Social Science Perspective* (1975), at 15 (legal culture is 'those parts of general culture – customs, opinions, ways of doing and thinking that bend social forces toward or away from the law').

⁸ T. Ginsburg, 'The Culture of Arbitration', 36 *Vanderbilt J Transnat'l L* (2003) 1337.

⁹ Rogers, *supra* note 2 at 1120.

¹⁰ A. Shalakany, 'Arbitration and the Third World: Bias under the Scepter of Neo-Liberalism', 41 *Harvard Int'l LJ* (2000) 419, at 430.

¹¹ *Ibid.*, at 438.

¹² See, e.g., W.M. Reisman, *Systems of Control in International Adjudication and Arbitration: Breakdown and Repair* (1992) (explaining the value of arbitration and raising the question of arbitration as a form of social controls inherent in face-to-face relationships, small groups, and 'old boys' networks'). See also Peters, 'International Dispute Settlement: A Network of Cooperational Duties', 14 *EJIL* (2003) 1.

among arbitrators as well as the positions that each member occupies in the social hierarchy affect group behaviour and outcomes. This type of analysis also enables a systematic comparison with other professional groups or law-related networks as a means to understand the mechanisms of formation and growth of the social structure.¹³

While problematic – chiefly because different theories come with different prescriptions – this gap in the literature is understandable given difficulties with data availability. Rules governing confidentiality in international arbitration make it difficult for outsiders to operationalize and assess the network of professionals with quantitative data.¹⁴ An empirical study of the network of arbitration professionals and its relationship with legal outcomes or legal fees will remain a challenge so long as privacy continues to be a priority among the users of arbitration.¹⁵ However, the International Centre for Settlement of Investment Disputes (ICSID)¹⁶ provides an unprecedented opportunity for a more robust empirical analysis, or, as I call it, a small window to a powerful social network. Under the rules of this international organization, the Secretariat *must* make available to the public significant information concerning the proceedings, including the method of constitution and the composition of *all* arbitration tribunals.¹⁷

Relying on an original database created for this project that includes information about all the appointments until February 2014 and semi-structured interviews with participating arbitration professionals, this article is an effort to understand the role of ‘social capital’ in arbitration. It is the first to apply social network analysis – a long-standing but recently popularized methodology – to generate and operationalize a picture of the professional group and to understand how different factors interact in the formation and growth of the social structure of ICSID arbitrators.

The network analysis of ICSID arbitrators, I argue, can help to expand our understanding of international arbitration more generally. It provides important evidence of a dense network that reinforces prevailing norms and behaviours and insulates its most important members from outside influence. This phenomenon may have important effects on legal outcomes. More importantly, the article reveals that in addition to good timing and imperfect information, the structure of the appointment process, and

¹³ For examples of application of network analysis to map the basic structure of a professional group and possible effects see Katz *et al.*, ‘Reproduction of Hierarchy – A Social Network Analysis of the American Law Professoriate’, 61 *J Legal Education* (2011) 76. See also Ruhl, ‘The Fitness of Law: Using Complexity Theory to Describe the Evolution of Law and Society and Its Practical Meaning for Democracy’, 49 *Vanderbilt L Rev* (1996) 1407 (discussing general evolutionary model to understand legal change).

¹⁴ Van Harten, ‘A Total Lack of Transparency’, *Canadian Lawyer Magazine* (24 Oct. 2011). For a discussion see Collins, ‘Privacy and Confidentiality in Arbitration Proceedings’, 30 *Texas Int’l LJ* (1995) 121.

¹⁵ See the 2010 International Arbitration Survey: Choices in International Arbitration available at: www.arbitrationonline.org. According to the survey, ‘confidentiality is important to users of arbitration, but it is not the essential reason for recourse to arbitration’. However, at least 33% of companies surveyed reported to have confidentiality as a ‘mandatory requirement’.

¹⁶ Convention for the Settlement of Investment Disputes between States and Nationals of Other States, opened for signature 18 Mar. 1965, 575 UNTS 159 (entered into force 14 Oct. 1966) (‘ICSID Convention’).

¹⁷ Reg. 23 of ICSID Administrative and Financial Regulations available <https://icsid.worldbank.org/ICSID>.

a risk averse culture, key arbitrators may benefit from heuristic biases, or the limited cognitive scope of lawyers making such appointments.

Following this introduction, section 2 of this article begins with a brief description of network analysis and its application to legal studies. Section 3 describes the background and historical development of investor–state arbitration. As I argue in that section, notwithstanding important differences, the appointment of investor–state arbitrators characterizes the basic dynamics of the field of international arbitration more generally.

Section 4 represents this article’s core contribution. It begins with a description of the data collection effort undertaken to support the analysis. It follows with a brief discussion of how the appointment to ICSID cases serves to operationalize the network of arbitrators. Through a series of visualizations and corresponding statistical analysis, this section illustrates how social capital varies amongst arbitrators and identifies the central players. Finally, it suggests that prestigious arbitrators increase in prestige and peripheral arbitrators remain peripheral as a result of preferential attachment – a process where resources are distributed among a number of individuals according to their existing share of the same resources. Or, in the words of the old aphorism, the rich get richer.

The article concludes by providing some provisional thoughts about the emergence and growth of social structures in international arbitration having in mind this key insight. It also speculates on the possible effects of these dynamics on outcomes. It ends with a call to expand the use of network analysis to understand the international legal profession.

2. Social Network Analysis and the Law

A Basics: Nodes and Ties

A network maps connections between the members of a population or components of a system; it is a representation of the relationships between units.¹⁸ It has applications in computer science, natural science, and social science. A network could describe a system of digital connections, i.e., the World Wide Web; a system of physical connections, i.e., the human circulatory system; or a system of social relations, i.e., friendships.

Network thinking presumes that in complex systems: (1) the behaviour of individual units or *nodes* in a system, and (2) the output of a system are both affected by the interaction or *ties* between nodes; a component does not act in isolation from the system.¹⁹ Network analysis typically aims to measure and describe a network’s structure in a system and to understand how a network is formed and has evolved, and why it

¹⁸ P.J. Carrington, J. Scott, and S. Wasserman (eds), *Models and Methods in Social Network Analysis* (2005).

¹⁹ B.V. Carolan, *Social Network Analysis and Education Theory, Methods & Applications* (2013) (“The analysis of social networks is distinct, however, from the other individual-based approaches that dominate [because] the relationships that connect that individual to another are of central importance.”).

has evolved in a particular fashion. It also seeks to understand how a network's structure and evolution affect the output of a particular system.²⁰

B Origins: Graph Theory

The origins of network analysis are associated with graph theory.²¹ Euler's solution to the Königsberg bridge problem is considered the first theorem in graph theory.²² The city of Königsberg – now part of the Russian Federation – consisted of a land mass divided by a river including two islands. Seven bridges traversed the city. Could a traveller cross all seven bridges in a single trip without crossing any bridge more than once? In the late 18th century Euler provided a mathematical solution using nodes for each undivided land mass and edges for bridges connecting those nodes that proved the feat impossible.

Similar tools were then used to graph social relations, illustrating how social structures were more densely interconnected than had otherwise been presumed, and how those connections facilitated transmissions of information.²³ For instance, in a key work in the field, Granovetter demonstrated that individuals organize in social clusters wherein those with *strong* ties are likely to share acquaintances, while those with *weak* ties are more likely to have distinct social groups.²⁴ A key insight made by this work is that because those with strong ties typically arrange in clusters, those with weaker ties can act as *bridges* and provide access to resources outside the cluster.

Network theory suggests that many network structures grow and evolve in similar fashion. Multiple studies find networks in which a small proportion of nodes have a large proportion of ties. The distribution of the number of ties across such a network is frequently a power law distribution, i.e., the fraction of nodes with a number of ties decays as a power of the number of ties. The few nodes with many ties are likely

²⁰ For the application of network analysis to legal studies see Strandburg *et al.*, 'Law and the Science of Networks: An Overview and Application to the "Patent Explosion"', 21 *Berkeley Technology LJ* (2007) 1293, at 1300–1301. In legal studies, network analysis has been deployed among others, to (i) identify important elements in a legal system; (ii) to categorize the different relationships between components of system; (iii) to delineate clusters; and (iv) to determine the vulnerability of systems to change.

²¹ Barnes and Harary, 'Graph Theory in Network Analysis', 5:2 *Social Networks* (1983) 235 (arguing that today, 'network analysts ... make too little use of the theory of graphs'); Katz and Stafford, 'Hustle and Flow: A Social Network Analysis of the American Federal Judiciary', University of Michigan Law & Economics, Olin Working Paper No. 08-004, 6, available at: <http://ssrn.com/abstract=1103573>.

²² N.L. Biggs, E.K. Lloyd, and R.J. Wilson, *Graph Theory: 1736–1936* (1976). For an explanation of the problem, see www.jcu.edu/math/vignettes/bridges.htm.

²³ See, e.g., Stanley Milgram's seminal study from the 1960s in which he sent letters to a sample of individuals in Kansas and Nebraska and asked them to deliver them to a particular stockbroker in Boston, Mass. On average, the letters travelled through 6.5 individuals to reach the target. Milgram concluded that social distances are short and on average randomly selected individuals are separated by 6 degrees of contact (also the basis of the parlour game popular in the US, '6 degrees of Kevin Bacon'). Milgram theorized that 6 degrees of separation would yield a contact group greater than the global population: Milgram, 'The Small-World Problem', 1 *Psychology Today* (1967) 61.

²⁴ Granovetter, 'The Strength of Weak Ties', 78 *Am J Sociology* (1973) 1360.

to be structurally significant (or socially prominent).²⁵ A network may evolve in this manner through a method of *preferential attachment* (where new nodes are added and attached to existing nodes with probability proportional to the existing nodes' degree). Nodes with many ties are more attractive to new nodes entering the system.²⁶

C Applications: Understanding Legal Institutions Over Time

While, to my knowledge, no study has applied social network analysis to the field of arbitration, some of these methodological tools are beginning to be applied to the study of law more generally.²⁷ A small but growing number of academics have studied legal networks and examined their evolution and possible effects on doctrine. As noted by Professor Katz, who has spearheaded social network research on law in the US, the manner in which doctrine changes cannot be divorced from its main social actors.²⁸

For instance, in a study on the American legal professoriate, Katz and others considered how the structure of legal academia could support the diffusion of ideas. They found that a small number of universities produce a large number of academics. Hence the intellectual ideas of a placing school will 'infect' a placee school.²⁹

Katz has conducted a similar analysis of judicial networks. In *Hustle and Flow* he uses the flow of legal clerks from lower level judges to superior courts to operationalize judges' social esteem on the basis that jurists who 'share clerks probably do so because the receiver ... respects the judgment of his or her colleagues'. Where centrality in the network is a rough proxy for that social esteem, he finds that Justices are most central, District Court judges are peripheral, and Circuit Court judges in the space between the two bodies.³⁰ According to Katz, identifying key judicial actors may also help us to understand how legal precedents diffuse across a network of courts.

²⁵ Barabási and Bonabeau, 'Scale-Free Networks', *Scientific American* (May 2003) 62, available at: <http://eaton.math.rpi.edu/csums/papers/FoodWebs/barabasisciam.pdf>. (in 'scale-free' [networks] hubs have seemingly unlimited number of links and no node is typical of the others. These networks also behave in certain predictable ways; for example, they are remarkably resistant to accidental failures but extremely vulnerable to coordinated attacks').

²⁶ Albert and Barabási, 'Statistical Mechanics of Complex Networks', 74 *Rev Modern Physics* (2002) 47, at 71 (preferential attachment, such that the likelihood of connecting to a node depends on the node's degree).

²⁷ At the end of Nov. 2012, Corporate Europe Observatory and the Transnational Institute published 'Profiting from Injustice', a report that looks at the role of law firms, arbitrators, and third-party funders in investment treaty arbitration. In it, this group argued that the arbitration industry has fuelled an investor-state dispute boom over the past two decades, promoting new cases and investor-friendly rulings, and lobbying against reform. The report also argues that investment arbitration is biased towards the interests of investors. The report uses some graph methods usually employed by social network analysis: 'Profiting from Injustice, How Law Firms, Arbitrators and Financiers are Fuelling an Investment Arbitration Boom', available at: <http://corporateeurope.org/trade/2012/11/profitting-injustice>.

²⁸ For a brief discussion of the use of formal network analysis – or invocation of its core concepts – in the legal, social science, and physics literatures see Katz, *supra* note 21, at 460–463 (also stating that social interactions between legal actors 'help generate systemic changes in the ... law').

²⁹ Katz *et al.*, 'Reproduction of Hierarchy? A Social Network Analysis of the American Law Professoriate', 61 *J Legal Education* (2011) 76 (Harvard and Yale were found to be key placing institutions).

³⁰ Katz, *supra* note 21, at 505 (arguing that this is important, although 'better understanding of the manner in which social factors structure the global outputs for the federal judicial hierarchy is [also] needed').

Finally, a number of academics have studied case and article citations to identify important precedents and predict citation behaviour. Fowler and others study the citations in the entire body of Supreme Court majority opinions.³¹ Like Smith, who analysed the citation network for all American federal and state cases, they found that often-cited cases attract new citations at a greater rate. Following these insights, Cross and Smith use citation network to study the effect of Reagan's appointments to the US Supreme Court,³² concluding that 'the Rehnquist Court ... made a dramatic alteration in the network of precedent'.³³

These studies provide at least the following insights: a small proportion of judges, cases, law schools, and legal articles are likely to have great influence on legal doctrine and law development; and, as legal networks grow, the skew is likely to increase. Descriptions of legal networks of operators (judges and lawyers), cases, and articles disclose small-world properties, power law distribution of ties, and intense clustering.

3. ICSID and Investor–State Arbitration

Before the main analysis, I provide a brief background to ICSID. Specifically, this section describes the evolution of ICSID from a system focused on the settlement of contractual disputes to a system predominantly concerned with the adjudication of cases under international investment treaties. After describing how arbitrators are appointed, I explain how investor–state differs from other forms of international arbitration but nevertheless may serve as a good way to evaluate the general social structures of international arbitrators.

A Evolution: From Contract to Treaty Disputes

ICSID is one of the five organizations of the World Bank (WB) and is the result of the 1965 Washington Convention.³⁴ ICSID was designed to facilitate the settlement of disputes between states and foreign investors as a 'step toward promoting an atmosphere of mutual confidence and thus stimulating a larger flow of private international capital'.³⁵ The Convention's practical utility to stimulate the flux of foreign investment continues to be fiercely debated.³⁶

³¹ Fowler *et al.*, 'Network Analysis and the Law: Measuring the Legal Importance of Precedents at the U.S. Supreme Court', 15(3) *Political Analysis* (2007) 324–346. For an analysis on work of citations see Cross, Smith, and Tomarchio, 'Determinants of Cohesion in the Supreme Court's Network of Precedents', *San Diego Legal Studies Paper* 07-67 (2006).

³² Cross and Smith, 'The Reagan Revolution in the Network of Law', 57 *Emory LJ* (2006) 1227.

³³ *Ibid.*, at 1228.

³⁴ ICSID Convention, *supra* note 16. The five organizations of the WB group are: IFC, MIGA, IBRD, IDA, and ICSID. See www.worldbank.org/en/about/history.

³⁵ ICSID, Report of the Executive Directors of the International Bank for Reconstruction and Development on the ICSID Convention, 18 Mar. 1965, at para. 9, available at <https://icsid.worldbank.org/ICSID>.

³⁶ For a summary of the multiple articles on this issue see Bellak, 'How Bilateral Investment Treaties Impact on Foreign Direct Investment: A Meta-analysis of Public Policy' (2013), available at: www2.gre.ac.uk.

The Convention, best described as an administrative treaty, established ICSID's Secretariat and mandates the creation of uniform procedural rules for arbitration (and conciliation) and a methodology for appointing arbitrators. ICSID tribunals adjudicate on a wide range of disputes arising out of cross-border investments, many of which are energy-related disputes, often ranging in the billions of dollars.³⁷

ICSID is not an international court. ICSID's Secretariat provides administrative support for disputes originating under international investment treaties (IITs), international investment contracts, and investment promotion laws.³⁸ The ICSID Convention offers a standing facility to resolve disputes for qualifying investors of state members who enjoy a private right of action.³⁹ Such investors can trigger a remedy for compensatory damages when affected by the 'excessive' intervention of a host state. Aron Broches, often referred to as the father of ICSID, explains the fundamental feature in the following terms:

From the legal point of view, the most striking feature of the [ICSID] convention is that it firmly establishes the capacity of a private individual or a corporation to proceed directly against a State in an international forum ...⁴⁰

ICSID was created with developing countries (as respondents) and major multinationals (as claimants) in mind. With a few exceptions, the state parties to ICSID proceedings have been developing countries. Conversely, the investors have been mostly companies controlled by nationals or corporate groups of Europe or the US.⁴¹

The first dispute submitted to ICSID was registered in 1972.⁴² In spite of a slow start, Ibrahim Shihata led ICSID's progress during the 1980s. In the early days of his 17-year tenure as Secretary-General, the organization entered into agreements with regional centres for international *commercial* arbitration and sponsored joint conferences.⁴³ This helped ICSID to build a community of professionals and to promote the

³⁷ See, e.g., Investment Arbitration Reporter, 'Ecuador must pay \$1.76 billion US to Occidental for expropriation of oil Investment', 5 Oct. 2012, available at: www.iareporter.com. About a quarter of the cases are energy-related: see ICSID, 'The ICSID Caseload-Statistics' (Issue 2013-1), available at: <https://icsid.worldbank.org/>.

³⁸ A. Parra, 'The Development of the Regulations and Rules of the International Centre for Settlement of Investment Disputes', 22(1) *ICSID Review: Foreign Investment Law Journal* (2007) 55.

³⁹ The Additional Facility (AF) system was created in 1978 for cases where only one of the states involved in the dispute is a party to the Convention. AF arbitrations do not result in awards that benefit from the enforcement scheme that shelters ICSID awards from the scrutiny of national courts; the cases benefit from similar procedural rules and the administrative support offered by ICSID: ICSID Additional Facility Rules, ICSID Doc. ICSID/11 (Apr. 2006); A. Broches, 'The "Additional Facility" of the International Centre for Settlement of Investment Disputes (ICSID)', 4 *Yrbk Commercial Arb* (1979) 373.

⁴⁰ A. Broches, 'Development of International Law by the International Bank for Reconstruction and Development', 59 *ASIL Proceedings* (1965) 33, at 34–38, reprinted in Aron Broches, *Selected Essays: World Bank, ICSID, and Other Subjects of Public and Private International Law* (1995) 79, at 80–84.

⁴¹ A. Parra, *The History of ICSID* (2012), at 136.

⁴² P. Lalive, 'The First World Bank Arbitration (*Holiday Inns v. Morocco*) – Some Legal Problems', 51 *British Yrbk Int'l L* (1980) 123, at 127–128 (discussing *Holiday Inns v. Morocco*, ICSID Case No. ARB/72/1). See also ICSID, *Annual Report* (1972).

⁴³ ICSID, 'ICSID Assists IDLI in Organizing an Arbitration Course', *News from ICSID* (Summer 1985), at 13. (reporting a 2-week training programme on the subject of resolving international contract disputes with the International Development Law Institute).

arbitration facility among the private sector. By 1987 a growing number of cases (19) had been registered, mostly against African states. During the first 25 years, with the exception of three cases, all the disputes before ICSID originated in investment contracts (mining, oil, infrastructure, and other similar concessions).⁴⁴

In the 1990s, the fall of the Berlin Wall, the Soviet collapse, and the rapid proliferation of IITs that often provide for prior general consent to ICSID arbitration brought new relevance to this international organization.⁴⁵ The growth of these instruments triggered a surge of membership and new cases. By the end of that decade, the membership of the Centre had grown by 60 per cent and a dramatic six-fold increase in ICSID's case load was a testament to the new times.

This growth of cases, combined with a change in nature of instruments of consent (from contracts to treaties), also triggered a wave of criticisms of the Centre.⁴⁶ For many, the decisions of ICSID tribunals showed that investor–state arbitration and IIT provided unprecedented protections to large transnational corporations. At the end of the 1990s, in what has been described as a 'backlash', ICSID began to be perceived as a mechanism to increase corporate power through the vague rules of IITs, enforced secretly before private arbitrators.

Contrary to some predictions, in the past decade ICSID's case load had grown exponentially, averaging 25 cases yearly, almost exclusively due to claims involving IITs.⁴⁷ According to ICSID, as of 1 March of this year (2014) there were 465 cases, 185 pending and 280 concluded. In 2013 alone, ICSID registered 40 new proceedings, more cases than in the Centre's first 25 years combined.⁴⁸ Moreover, almost all cases in the last decade have relied on IITs and around one third have involved Latin-American countries. While in recent years Venezuela has claimed the title of most frequent repeat player, at least 50 registered cases feature Argentina. Most of these cases are the result of the economic emergency measures adopted by the South American nation as a result of the 2001–2002 crisis.⁴⁹

Today ICSID is one of the pillars in investment treaty arbitration, and the 'avalanche' of arbitration claims has made arbitration practitioners and other arbitral institutions more eager to participate in this area of legal practice.⁵⁰ Also, as a result of this boom, law professors and former governmental officials have entered the fray

⁴⁴ These cases are *Asian Agricultural Products Ltd. (AAPL) v. Republic of Sri Lanka*, 30 ILM (1992) 577; *Southern Pacific Properties (Middle East) Ltd. v. Arab Republic of Egypt*, 8 ICSID Review: Foreign Investment Law Journal (1993) 328; *Klöckner v. Cameroon*, Decision on Annulment, 3 May 1985, 2 ICSID Rep. 162.

⁴⁵ *News From ICSID* (Summer 1993), at 6 (e.g., announcing that with Russia and other former Soviet states there were 118 signatories to the Convention).

⁴⁶ See, e.g., ICSID, *Annual Report* (2002), available at: <https://icsid.worldbank.org/>. For the criticism see G. Van Harten *et al.*, *Public Statement on the International Investment Regime*, 31 Aug. 2010, available at: www.osgoode.yorku.ca/.

⁴⁷ Parra, *supra* note 38, at 241.

⁴⁸ See ICSID, 'The ICSID Caseload-Statistics' (Issue 2013-2), available at: <https://icsid.worldbank.org/>.

⁴⁹ See ICSID, 'The ICSID Caseload-Statistics' (Issue 2014-1), available at: <https://icsid.worldbank.org/>.

⁵⁰ Casley, 'International Arbitration – The End of the Boom?', available at: www.chambersmagazine.co.uk (quoting Eric Schwartz, of LeBoeuf Lamb Greene & McRae, 'it's hard to get publicity for commercial arbitration work because of confidentiality. With investment arbitrations, you can boast').

by participating in cases as arbitrators, special counsels, advisers, expert witnesses, and as commentators on the growing case law of this field.

The exponential growth of cases in recent years, however, has also exposed fundamental weaknesses in this form of dispute settlement. ICSID processes and outcomes have raised doubts whether arbitrators are truly impartial and independent.⁵¹ According to its critics, under the ICSID system important decisions have been placed primarily within the control of an exceedingly small pool of super-elite, like-minded international business lawyers with strong pro-investor views who operate largely separate from any local political process or investment decisions.⁵² Moreover, because many arbitrators wear several hats simultaneously, i.e., arbitrator, expert, and counsel to a party, there is concern that the growing number of potential conflicts of interest is affecting the neutrality of ICSID arbitration.⁵³

B Arbitrators: Between Expertise and Reputation

1 Appointment and Expertise

ICSID arbitration tribunals are typically composed of three members. Article 37 of the Convention provides that tribunals shall consist of a single or uneven number of arbitrator(s). However, if the parties do not agree 'upon the number of arbitrators and the method of their appointment, the tribunal shall consist of three arbitrators, one arbitrator appointed by each party and the third, who shall be the president of the Tribunal, appointed by agreement of the parties'.⁵⁴

All arbitrators are supposed to be neutral and impartial, including the two party-appointed arbitrators (or 'wing arbitrators'). The parties are free to appoint any individual provided that arbitrators exhibit 'high moral character and recognized competence in the fields of law, commerce, industry or finance, who may be relied upon to exercise independent judgment'.⁵⁵

While mostly lawyers act as arbitrators, non-lawyers, including two architects, two maritime experts, and one economist, have been appointed in a few instances.⁵⁶ In ICSID arbitration cases, a law degree is preferable but not an absolute requirement; as stated by Article 14(1), '[c]ompetence in the field of law shall be of particular importance'.⁵⁷ This specific formulation is a compromise between drafters of the Convention

⁵¹ W. Park, 'Arbitrator Integrity', in M. Waibel *et al.* (eds), *The Backlash against Investment Arbitration* (2010), at 189, 191.

⁵² J.W. Yackee, 'Pacta Sunt Servanda and State Promises to Foreign Investors Before Bilateral Investment Treaties: Myth and Reality', 32 *Fordham Int'l LJ* (2008–2009) 1550, at 1611. See also Kahale, 'Is Investor–State Arbitration Broken?', available at: www.curtis.com/.

⁵³ Kaushal, 'How the Past Matters for the Present Backlash against the Foreign Investment Regime', 50 *Harvard Int'l LJ* (2009) 491 (explaining the mounting critique against the regime and its internal contradictions).

⁵⁴ Art. 37, ICSID Convention, *supra* note 16.

⁵⁵ *Ibid.*, at Art. 14.

⁵⁶ ICSID, 'Composition of ICSID Tribunals', *News from ICSID* (Summer 1987), at 6. The economist was Dr Jose-Luis Alberro in *Aguas del Tunari, SA, v. Bolivia*, ICSID Case No. ARB/02/3. For the background of Dr Alberro see www.ceey.org.mx/.

⁵⁷ Art. 14(1), ICSID Convention, *supra* note 16.

demanding that legal qualification be ‘given some kind of preponderance’, drafters demanding ‘arbitrators to be lawyers’, and drafters arguing that ‘non-lawyers should not be prevented from being arbitrators’.⁵⁸

Given the nature of the disputes, the Convention also attempted to limit perceptions of bias due to national alliances. Recognizing that actual and perceived neutrality of arbitrators was essential for confidence in the fairness of disputes involving investors abroad, arbitrators cannot have the nationality of either party.⁵⁹ As with many procedural rules, this requirement can be (and often is) waived by the parties.

Arbitrators usually accept ICSID appointments. In addition to the visibility and reputational value of an appointment to an investor–state case, the financial incentives are considerable.⁶⁰ At US\$3,000.00 an eight-hour day (plus expenses), arbitrators make on average \$200,000 per case.⁶¹ Of course, conflicts of interest (a growing problem), strategic decisions on the part of the arbitrator (e.g., accepting only appointments as president), or simply lack of interest in the case at issue (for economic or other reasons) may result in an arbitrator refusing to accept a nomination. In that case, the nomination of another arbitrator will follow in accordance with the method of the previous nomination.

Presiding arbitrators are frequently appointed by agreement of the parties or, alternatively, by agreement of the two wing arbitrators if the parties agree on that as the method of appointment, as they often do. However, to prevent the frustration of the arbitration process, the Convention gives authority to the Chairman of ICSID’s Administrative Council (i.e., the WB’s President) to select from among a Panel of Arbitrators the remaining arbitrator(s), most commonly the president of the tribunal. In practice, this function is performed on the recommendation of ICSID’s Secretary-General. The Panel is composed of a list in which the state members of ICSID each

⁵⁸ ICSID, Documents Concerning the Origin and Formulation of the Convention on the Settlement of Investment Disputes between States and National of other States at 728–730.

⁵⁹ This is a traditional practice in arbitration. Most leading institutional arbitration rules provide that a presiding or sole arbitrator shall not have the same nationality as that of any of the parties (unless otherwise agreed). See, e.g., ICC Rules, Art. 9(5); LCIA Rules, Art. 6(1). Compare AAA Rules, Art. 6(4). See also Paulsson, ‘Moral Hazard in International Dispute Resolution’, 25 *ICSID Review: Foreign Investment Law Journal* (2010) 339 (arguing that rules that preclude appointing of an arbitrator who shares the nationality are ‘a step in the right direction’).

⁶⁰ Although it is impossible to know the rate of failures to accept an appointment, anecdotal evidence suggests that the rate is low. This may be the consequence of informal consultations between the parties and the arbitrator prior to the appointment, a practice broadly permitted by arbitration. This factor, of course, creates methodological challenges that, although they are not insuperable, should instil some caution. I thank Martina Polasek (ICSID) for this important insight.

⁶¹ Privately, some arbitrators complain about the low rates of pay of ICSID (US\$375) as compared to other arbitration venues. For one, the LCIA set the hourly rate at US\$700 (£450). Also, other institutions calculate arbitrators’ fee as a proportion of the amount in dispute. For example, in the ICC for a US\$100 million dispute, arbitrators could earn on average up to US\$350,000. One arbitrator interviewed said that this may deter arbitrators in high demand in better-remunerated facilities or with offices in costly locations such as London from participating in ICSID cases: interview with Arbitrator 1, Friday, 11 Jan. 2013. Another arbitrator acknowledged that some arbitrators, with a private law background, consider ICSID ‘*pro bono*’ and refuse to take many cases: Interview with Arbitrator 12, 15 Jan. 2013.

appoint up to four persons in addition to the 10 people appointed by the Chairman.⁶² Panel members serve for a renewable term of six years.⁶³

The Convention allows for arbitrators to be challenged if there is reasonable doubt about their competence or impartiality. A party may initiate a formal process for disqualification, but an informal intimation to the tribunal may be sufficient for the resignation of an arbitrator whose ethical behaviour has been reasonably questioned. The Convention provides for specific rules to fill a vacancy due to disqualification as well as resignation or inability to serve.⁶⁴

The parties to the ICSID Convention proceedings are bound by the final award, which is not subject to appeal or to any other remedy except those provided for by the Convention. The remedies provided for are revision (Article 51) and annulment (Article 52). In addition, a party may ask a tribunal that failed to decide a submitted question to supplement its award (Article 49(2)), and may request interpretation of the award (Article 50).⁶⁵ If possible, revisions, supplements, and interpretations shall be submitted to the same tribunal that made the award. If this is not possible, either because a member is no longer available or because of the nature of the allegation in the proceeding, e.g., the discovery of some fact concerning the ethical conduct of an arbitrator, a new tribunal shall be constituted.

In contrast, there are no party-appointed arbitrators in proceedings resolving annulment applications – the control mechanism most commonly used – though it is limited to very narrowly defined circumstances. In these proceedings the WB's President appoints an *ad hoc* Committee of three people. The Convention contains a number of requirements for members of *ad hoc* Committees, but mainly:

[n]one of the members of the Committee shall have been a member of the Tribunal which rendered the award, shall be of the same nationality as any such member, shall be a national of the State party to the dispute or of the State whose national is a party to the dispute, shall have been designated to the Panel of Arbitrators by either those States ...⁶⁶

2 Incentives and Social Standing

The importance of the individuals who are selected as arbitrators should not be underestimated. Like migratory birds, litigants choose carefully from jurisdictions to

⁶² Art. 14, ICSID Arbitration Rules available <https://icsid.worldbank.org/ICSID>.

⁶³ *Ibid.*, Art. 14(2) states that '[t]he Chairman, in designating persons to serve on the Panels, shall in addition pay due regard to the importance of assuring representation on the Panels of the principal legal systems of the world and of the main forms of economic activity'. Other than this, ICSID has never published specific guidance on the criteria used for making these designations. At least one designation has been the result of the Chairman's 'appreciation' of past service (Broches). ICSID's former officials have admitted that designations are not always made 'with due regard of assuring representation [of the principal legal systems]' and that public officials from some states have not always been regarded as 'appropriate candidates': Parra, *supra* note 41, at 129, 162, 207, 241, and 265.

⁶⁴ C. Schreuer, L. Malintoppi, A. Reinisch, and A. Sinclair, *Commentary to the ICSID Convention* (2nd edn, 2009), Arts 37, 38, and 40.

⁶⁵ *Ibid.*

⁶⁶ Art. 52(3), ICSID Convention, *supra* note 16.

take advantage of favourable statutory conditions.⁶⁷ In arbitration, especially in a self-contained and delocalized arbitration setting like the ICSID Convention cases (insulated from scrutiny by domestic courts), litigants spend a great deal of time and effort scrutinizing the backgrounds of arbitrators. The assessment may include the analysis of their ethical behaviour, prior appointments, ‘judicial’ or decision-making philosophy, and potential scheduling conflicts, as well as the managerial style of the president of the tribunal.⁶⁸

The role of an arbitrator can be fundamental in the outcome of proceedings, and of course arbitrators’ views vary. As explained by Waibel and Wu in the context of investor–state arbitration:

the views of arbitrators may diverge, depending on their background, life experience, and ideology. We would expect ‘conservative’ arbitrators to tend to favor the protection of property rights without much reservation, whereas ‘progressive’ arbitrators would tend to give greater weight to other societal values such as protection of the environment or public service delivery. The balancing may differ depending on the arbitrator’s view of the world.⁶⁹

ICSID tribunals are not isolated, as litigants and arbitrators interact routinely; some may argue, too frequently. While reputation, persuasion, collegiality, and deference may all play some role in this close-knit community, conformity pressures are also probably common.⁷⁰ Indeed, a prominent lawyer in investor–state arbitration has recently stated that ‘arbitrators have a tendency to compromise [and] the arbitration community seem to place a premium on unanimity’.⁷¹

The incentives for re-appointment may also affect an arbitrator’s behaviour. Securing a reputation, for example, as ‘conservative’, ‘progressive’, or ‘independent’ (using Waibel and Wu’s terminology) may trigger strategic decisions of an arbitrator either to ensure future appointments or otherwise to advance his/her prior decisions or view of the world. In spite of preferences, however, an arbitrator may decide with the majority because his co-arbitrators convinced him/her or as a result of conformity pressures.⁷² Moreover, arbitrators may perceive some indirect gains by agreeing or disagreeing with colleagues (i.e., an arbitrator may be simultaneously advising another party in other proceedings and therefore prefer a particular legal interpretation that benefits his client in such other proceedings).⁷³

In the context of ICSID, no rule prevents arbitrators from sitting simultaneously at the arbitration level (original proceedings) and the annulment level (review mechanism). Hence, arbitrators in *ad hoc* Committees may find themselves in the awkward

⁶⁷ M. Gomez, ‘Like Migratory Birds: Latin American Claimants in U.S. Courts and the Ford-Firestone Rollover Litigation’, 11 *Southwestern Journal of Law and Trade in the Americas* (2005), 297.

⁶⁸ Salomon, ‘Selecting an International Arbitrator: Five Factors to Consider’, 17 *Mealey’s Int’l Arb Rep* (2002) 1.

⁶⁹ Waibel and Wu, ‘Are Arbitrators Political?’ (2012), available at: www.wipol.uni-bonn.de.

⁷⁰ *Ibid.*

⁷¹ Kahale, *supra* note 52, at 7.

⁷² *Ibid.*

⁷³ See, e.g., Peterson, ‘ICSID tribunal admits counter-claim in BIT dispute; outcome is a setback for counsel that had recently sat as arbitrator in case where counter-claims are excluded’, *Investment Arb Reporter* (3 July 2012), available at: www.iareporter.com. See also Ross, ‘Tribunal Rules on Burundi Bank Expropriation’, *Global Arb Rev* (6 July 2012), available at: www.globalarbitrationreview.com.

position of having to scrutinize a similar position to one adopted by the reviewing member in a prior, different arbitration. This situation has instigated an important debate as to whether arbitration proceedings, like annulment applications, should also move to exclusive institutional appointment, a move that, according to experts, could also deliver greater consistency.⁷⁴ In any event, lacking *stare decisis*, strong ethical rules, and a formal hierarchy, strategic behaviour on the part of arbitrators is likely to be more prevalent, whether to secure future appointments, to advance the authority of positions, or to persuade other arbitrators about the correctness of their previously held decisions.

The over- or under-representation of a particular demographic of arbitrators is an issue of constant concern among most critics and many supporters of arbitration. Empirical research has demonstrated that the views of a decision-maker are unlikely to be completely independent of those of her colleagues or, more generally, of those of the professional community.⁷⁵ The deliberative process before the arbitral tribunal is likely to be crucial and, therefore, the diversity of views may be fundamental for a fair process and outcome. If the community of arbitrators is dense and homogenous, and, as noted by Waibel and Wu, one in which developing countries or women are significantly under-represented, one would expect a more narrowly informed body of doctrine.⁷⁶

The purpose of this article is not to engage in a debate over the specific political preferences of arbitrators. While common among scholars studying courts, empirical analyses of the politics of the arbitral process is novel territory for research in the field of arbitration. I leave the evaluation of such questions to scholars more directly grappling with such issues. Instead, this article is more modest and seeks to describe the network of arbitrators as a first step to further empirical investigations on the relationship of the overall social structure with broader jurisprudential trends.

C Limitations: Specialized Nature of Investor–State Arbitration

ICSID provides for a good but limited way of understanding the network of international arbitrators. Its limitations are in part structural. ICSID is a specialized facility; its focus is international investment. The specificity of factors involved in investor–state arbitration, patterns of litigation, and litigants may not be present in other arbitration settings.

ICSID facilitates specialized forms of international investment dispute settlement, including what is termed arbitration without privity.⁷⁷ ICSID's field is proceedings where a state (or constituent subdivision or agency of the state) is a party. The

⁷⁴ For an interesting debate on this issue see Sacerdoti, 'Is the party-appointed arbitrator a "pernicious institution"? A reply to Professor Hans Smit', 35 *Perspectives on topical FDI Issues* by the Vale Columbia Center on Sustainable International Investment (15 Apr. 2011).

⁷⁵ Many studies have pointed to a large role for collegial politics emerging from the interaction of judges for judicial outcomes. See, e.g., Ho and Ross, 'Did Liberal Justices Invent the Standing Doctrine? An Empirical Study of the Evolution of Standing, 1921–2006', 62 *Stanford L Rev* (2010) 591; Epstein and Mershon, 'The Formation of Opinion Coalitions on the US Supreme Court', conference of the Midwest Political Science Association, Chicago (1993) available <http://epstein.usc.edu/research/conferencepapers.1993MPSA.pdf>; Eskridge, 'Overriding Supreme Court Statutory Interpretation Decisions', 101 *Yale LJ* (1991) 331.

⁷⁶ Waibel and Wu, *supra* note 69.

⁷⁷ Paulsson, 'Arbitration without Privity', 10 *ICSID Review: Foreign Investment Law Journal* (1995) 232. Arbitration without privity takes place in a setting where the investor (and potential claimant) need not have a contractual relationship with the state (or potential defendant).

international arbitration proceedings provided for by ICSID may involve private and public law, contractual and general rights and obligations, private and state participation, and national and international law.

In spite of the specificity of the ICSID arbitration system, some of its defining characteristics and historical developments have also allowed international lawyers, especially business lawyers, to become dominant actors in the field. The adjudicatory process gives lawyers an edge, and in recent years the profile of cases and publication of awards has invited intense scrutiny of the hermeneutics of decisions and methods of internal legal construction. Today, legal discourse prevails.

For ICSID arbitrators, in addition to law, competence in commerce, industry, or finance is also very relevant. Investment disputes often require an understanding of business transactions, commercial agreements, transnational legal frameworks, and investment decisions. Indeed, since Dezaley and Garth documented the emergence of a transnational elite of arbitrators dominated by business law practitioners, some of the arbitrators mentioned in the seminal study have become arbitrators frequently appointed in ICSID proceedings.⁷⁸

In addition, globalization and the Centre's strategic promotion have resulted in the combination of different groups of arbitrators. Since the 1980s, ICSID has partnered with international arbitration institutions such as the AAA/ICDR, LCIA, and ICC to develop, enlarge, and share their experts.⁷⁹ Today, there is substantial overlap between arbitrators and counsel involved in commercial arbitration and investor–state arbitration.

Notwithstanding the important differences between ICSID and other facilities, it is probable that in the aggregate the appointment of ICSID arbitrators operationalizes some of the basic dynamics and the general structure of the network of international arbitrators. To be sure, factors such as specialization, publicity, scrutiny, and incentives, as well as competition between ICSID and other forums, may exclude some arbitrators from participating in ICSID cases and require that broad generalizations of this analysis be taken with a grain of salt. The network analysis advanced in this article relies upon displayed preferences by the appointing entity (litigation parties, arbitrators, and the institution) to provide a larger picture of the network's aggregate topology. Simply put, ICSID offers a unique and more scientific window because it is the only facility where the information of each and every appointment is publically available.⁸⁰

4. ICSID: A Window to a Powerful Social Network

In this section, I survey all appointments to ICSID proceedings until the end of February 2014 and use the tools of network analysis to visualize the relationships. The

⁷⁸ Dezaley and Garth, *supra* note 5, at 144 (e.g., Jan Paulsson, Albert Jan van den Berg).

⁷⁹ For an elaboration of this evolution see S. Puig, 'Emergence and Dynamism in International Organization: ICSID, Investor-State Arbitration and International Investment Law', 44 *Georgetown J Int'l L* (2013) 531–605.

⁸⁰ E.g., the 2006 amendments included provisions to make decisions more accessible: see Parra, *supra* note 38, at 65 ('With the deluge of new cases, there came new criticisms of process, in particular calls for greater efficiency and transparency – the latter particularly in view of the public importance of issues at stake in many of the new cases.').

visualizations confirm a dense core of the network. Bolstered by subsequent analytics, I show that preferential attachment – a process where appointments are distributed among arbitrators according to their existing share of prior appointments – may be an important mechanism of this network. Hence, I propose ways to refine prior explanations of the factors behind the growth of the professional group and its possible implications.

A Data Collection: Sources and Approach

To map the network, I use all the appointments made in all ICSID Convention and ICSID's Additional Facility arbitration proceedings until February 2014. The data contain specific details on 1,468 appointments, including any appointments made in subsequent stages of a case (i.e., resubmission, annulment, 'second' annulment, interpretation, and revision). Information was also collected (but excluded from part of the analysis) for all other proceedings administered by ICSID, including conciliation proceedings.⁸¹

Most of the information in the database was obtained from ICSID's website. The information collected includes the name of the case, the date of registration, the tribunal's composition, including each arbitrator's name, national origin, date of appointment, gender, method of appointment, and the subject matter of the case. Coding the method of appointment was particularly laborious. Where the procedural history contained no details on who appointed a particular arbitrator (i.e., claimant(s), respondent(s), chairman of the Administrative Council, agreement of the parties, co-arbitrators, or Secretary-General), I obtained confirmation of appointment status directly from ICSID's Secretariat or the arbitrators themselves. Additionally, I obtained information on all the resignations, disqualifications, and instances of an arbitrator dying during the proceeding. The same information was gathered for the arbitrators who filled a vacancy during the proceedings. Finally, I conducted a series of semi-structured interviews with arbitrators and practitioners to understand different elements of the appointment process (e.g., nomination and acceptance), the profession, and, more generally, the possible use of influence and reputation and trust to secure appointments to arbitral tribunals.

B General Description: An Imbalanced Distribution of Appointments

A close look at the survey of appointments shows that 419 different arbitrators sat on ICSID tribunals and *ad hoc* Committees during the period analysed. However, more than half of the individuals were appointed only to a single proceeding. What is more extreme is that 10 per cent of the total pool accounts for half of the appointments.

For obvious reasons, most appointments (around 82 per cent) were made in arbitrations (accounting for the largest number of ICSID proceedings) followed by

⁸¹ Cases registered where the tribunal has yet to be constituted, cases settled before the constitution of the tribunal, and all non-ICSID cases administered by the Centre were also excluded. ICSID has also administered a number of cases under the UNCITRAL Arbitration Rules and one inter-state dispute. This was the *Southern Bluefin Tuna case – Australia and New Zealand v. Japan*, for which ICSID administered the jurisdiction hearing. Additionally, ICSID was recently involved in the expert determination process carried out under the provisions of the Indus Waters Treaty. See ICSID, *News From ICSID* (2006), at 2.

appointments in annulment applications (around 12 per cent). Adding the appointments in the corresponding resubmissions and second annulments, the appointments in these four procedural stages represent 95 per cent of the total survey.

The survey by source of appointments reveals nothing new: the majority of appointments are party appointed with a slight advantage for the claimants, as respondents failed to appoint arbitrators on several occasions. Out of the institutional appointees around half were to *ad hoc* Committees deciding annulments where the WB's President acts as the appointing authority. Most appointments by agreement of the parties were arbitrators appointed to preside over a proceeding. Arbitrators in 72 proceedings, mostly presidents, were appointed by agreement of arbitrators (plus one during an interpretation proceeding).⁸²

Professor Stern (French) has the highest number of appointments. Her record of 48 appointments – 44 times by states – may give some insights into her political preferences. This trend of appointment by one type of litigant, more commonly observed among 'progressive' arbitrators, contrasts sharply with that of Charles N. Brower (American).⁸³ Like Stern, Judge Brower accumulates an impressive record of 25 appointments. However, a reputation as a 'conservative' (or 'pro-investment', as Judge Brower would probably say) may be deduced from his 23 appointments by claimants. One decision exemplifies the potential issues that result from this growing ideological divide.⁸⁴

From the data on appointments, however, one can conclude that most repeat appointees are not as polarizing as Brower or Stern.⁸⁵ For instance, Yves Fortier (Canadian) has been appointed by all six possible methods. Other arbitrators seem to enjoy a high degree of trust by ICSID. Former ICJ President Gilbert Guillaume (French) has 10 appointments by the Chairman of ICSID, and one by the Secretary-General. Other arbitrators like Professor Kaufmann-Kohler (Swiss) – appointed five times by agreement of the arbitrators – seem particularly influential among their peers.

The size of the core of the arbitration network is small. What stands out, however, is that around 93 per cent of all the appointments are of male arbitrators, suggesting an

⁸² Additionally, nine appointments have been made in five conciliation proceedings. The six revision proceedings during this period were conducted by the same tribunals issuing the award. However, in *American Manufacturing & Trading Inc. v. Zaire* an arbitrator was appointed to replace Mr Golsong, who died after serving on the original tribunal. There have been six interpretation proceedings, four of which were analysed by the same tribunal. However, in *Tanzania Electric Supply Company Limited v. Independent Power Tanzania Limited* the claimant appointed a new arbitrator, and in *Wena Hotels Ltd v. Arab Republic of Egypt* the tribunal was reconstituted with two different arbitrators, one appointed by the respondent and the President of the Tribunal appointed by the co-arbitrators. Finally, a tribunal constituted to decide an application for consolidation of proceedings under NAFTA became the tribunal in *ADM et al. v. Mexico*.

⁸³ Mr Chris Thomas, Professor Georges Abbi-Saab, and Professor Pedro Nikken are other examples of arbitrators exclusively appointed by states. Similarly, claimants made all but one of Canadian arbitrator Henri Alvarez's appointments.

⁸⁴ *Impregilo SpA v. Argentine Republic*, ICSID Case No. ARB/07/17 (Italy/Argentina BIT) (In the decision, Professor Brigitte Stern disagreed with the majority decision on jurisdiction and used a dissenting opinion to warn of the 'great dangers' of allowing claimants to bypass a treaty's jurisdictional requirements by invoking MFN clauses. Judge Brower also issued a separate/dissenting opinion on the assessment of the damages, the claim of expropriation, and the treatment of the affirmative defence.)

⁸⁵ Indeed, an arbitrator interviewed for this project expressed a desire to be appointed by both claimants and respondents, adding: 'it is not good for your career as arbitrator to be appointed only by States': interview with Arbitrator 3, 18 Jan. 2013.

extreme gender imbalance. It gets even worse: only two women, Professors Stern and Kaufmann-Kohler combined, held three-quarters of all female appointments, pushing the male–female composition of arbitrators in the network to an embarrassing 95 per cent to 5 per cent proportion.

In terms of nationality, the imbalance is also clear. While 87 nationalities are represented among the appointees, most arbitrators are from specific developed countries. Individuals of seven nations (New Zealand, Australia, Canada, Switzerland, France, the UK, and the US) represent almost half of total appointments. Of course, nationality requirements of arbitrators, litigation patterns, and the global trends of FDI may be implicated in this trend.

Close to 15 per cent of the appointments are of arbitrators of five Latin-American countries. This is in part thanks to the high number of appointments of single arbitrators such as Professor Orrego-Vicuña (Chilean), Eduardo Silva Romero (Colombian), Rodrigo Oreamuno (Costa Rican), Claus von Wobeser (Mexican), and Horacio Grigera (Argentinian). A quick look at the background of this sub-group of arbitrators indicates the importance of having a law degree from schools in England, France, or the US for developing a pedigree as an international arbitrator. With the exception of Oreamuno (the former First Vice-President of Costa Rica), all of them obtained an additional graduate degree in one of these countries.

Most arbitrators have sat only in arbitration proceedings. This is expected since there are far more arbitrations than remedy proceedings. Also, not all arbitrators have been designated to ICSID's Panel list and therefore are not eligible to decide applications for annulment.

With the increase in ICSID proceedings the number of requests to disqualify arbitrators has also risen. Apart from the fact that the threshold for such challenges remains 'high',⁸⁶ the ICSID rule places the two arbitrators in the uncomfortable position of deciding on a challenge to one of their peers.⁸⁷ Thus, a substantiated challenge may result in the resignation of an arbitrator before a decision on the request is made. This may have been the case in some of the 73 resignations of arbitrators.⁸⁸ However, experts believe that most resignations have been the result of other factors, including illness on the part of arbitrators.⁸⁹ In the remarkable history of ICSID, nine arbitrators

⁸⁶ Waibel and Wu, *supra* note 69, at 15 citing *Alpha Projektholding GmbH v. Ukraine*, ICSID Case No. ARB/07/16; *Suez, Sociedad General de Aguas de Barcelona SA and InterAguas Servicios Integrales del Agua SA v. The Argentine Republic*, ICSID Case No. ARB/03/17; *BG Group v. Argentina*, Case No. 08-0485 (RBW) (DDC); *Perenco Ecuador Ltd. v. Ecuador*, ICSID Case No. ARB/08/06). *Cf.* Decision on the Proposal for Disqualification of Professor Francisco Orrego Vicuña (13 Dec. 2013) in *Burlington Resources, Inc. v. Republic of Ecuador*, ICSID Case No. ARB/08/5, on the basis of manifestly evidencing an appearance of lack of impartiality with respect to the Republic of Ecuador and its counsel for accusing Ecuador's counsel of mismanaging confidential information.

⁸⁷ If the arbitrators failed to reach a decision on the proposal to disqualify an arbitrator, such proposal would be taken by the Chairman in accordance with the Convention: Art. 58, ICSID Convention, *supra* note 16.

⁸⁸ See, e.g., *BG Group v. Argentina*, *supra* note 86 (challenge to Albert Jan van den Berg on the grounds that he signed inconsistent decisions, despite the same circumstances and similar claims).

⁸⁹ Parra, *supra* note 41, at 176. According to Arbitrator 1, litigants are using challenges more strategically to 'intimidate' them from taking a case. According to such arbitrator, 'prudish' arbitrators are resigning more often than before. S/he saw this as an unacceptable 'assault': interview, 11 Jan. 2013.

unfortunately died during proceedings, leaving a vacancy in 11 arbitration proceedings and one revision proceeding. The ICJ's former President, Dr Mohammed Bedjaoui (Algerian), Professor Orrego-Vicuña (Chilean) and José María Alonso (Spaniard) are the only three arbitrators ever to have been disqualified while serving. [Table 1](#) summarizes the information in this section.

Table 1: Summary of ICSID Appointments

Appointments	Observations	Percentage
-By 'Stage'	1465 (total)	100
1. Arbitration	1208	82.4
2. Resubmission	20	0.14
3. Annulment	175	12.0
4. Second Annulment	9	0.61
5. Conciliation	15	1.02
6. Interpretation	13 (3 new arbitrators)	0.89
7. Revision	19 (1 new arbitrator)	1.3
8. Supplementary	3 (no new arbitrator)	0.20
9. Consolidation	3	0.20
-By 'Source' ('stages' 1 to 4)	1412 (total appointments)	100
1. Claimant(s)	385	27.25
2. Respondent(s)	377	26.69
3. Chairman Admin. Council	383	27.12
4. Agreement of Parties	165	11.68
5. Co-arbitrators	73	5.16
6. Secretary-General	29	2.05
-By Gender ('stages' 1 to 4)	1412 (total appointments)	100
1. Female	99 (19 arbitrators)	7.02
2. Male	1313 (400 arbitrators)	92.98
-By Nationalities ('stages' 1 to 4)		
1. U.S.	163	11.54
2. France	155	10.97
3. U.K.	133	9.41
4. Canada	107	7.57
5. Switzerland	92	6.51
6. Mexico*	48	3.39
7. Chile*	45	3.07
9. Argentina*	33	2.33
9. Colombia*	30	2.12
10. Costa-Rica*	21	1.48
-Vacancies	84 (total appointments)	5.95
1. Resignation	69	4.88
2. Death	12	0.84
3. Disqualification	3	0.21

C Enhanced Analysis: 'Grand Old Men' and 'Formidable Women'

The distribution of appointments reflects often-recognized characteristics of the network. First, most arbitrators are male from Western nations, lending minor credit to Shalakany's argument about the nature of politics of arbitration and its homogenous experts. Secondly, most appointment involve arbitrators from specific developed countries, suggesting that the competition among European 'grand old men' and Anglo-American 'arbitration technocrats' proposed by Garth and Dezaley some years ago is a very plausible explanation for this distribution. Thirdly, a small number of key arbitrators seems to control most of the appointments, suggesting deep entry barriers that benefit insiders, as Ginsburg argued.⁹⁰

More nuanced data also reveal other important characteristics of arbitration, some specific to ICSID's system. The data on the nationality of arbitrators confirms that arbitration is constrained by rules, including rules on nationality. As explained, the data on vacancies suggest the operation of strategic behaviour and professional norms. Finally, the data on appointments to different stages of proceedings confirm a very porous hierarchy. There is no 'remedy bar'; arbitrators in the Panel list are often appointed to arbitration *and* annulment proceedings.

While these numbers help us understand the general distribution of appointments, they provide limited insight into why, in spite of the gender imbalance, two women dominate ICSID's appointments, who is winning in the competition (and why): 'grand old men' or 'arbitration technocrats'; or what specific barriers are benefitting insiders. More importantly, the distribution of appointments says very little about the emergence and growth of this professional group in general. Some of these limitations can be addressed with the tools of network analysis as I now explain.

1 Terminology and Measurements

By analysing network structures, social scientists have systematized how investments in relations can be accessed for instrumental actions.⁹¹ Scholars define this process as *social capital* and have developed specific terminology to understand its basic properties. Given the significance of resources and relations in social capital, it is not surprising that scholarly research has shown differential focus with respect to the key to understanding social capital.

The concept of *centrality* aggregates measures of the importance of a particular node of a network (or a person in a social group). Some centrality measures focus on the number of direct ties (embedded resources); some focus on the location of the individuals in a social map (network location).⁹² Whether the focus is on network location, embedded resources, or both, varied measures of centrality are employed to understand social capital as a means to refine prior theoretical explanations about the mechanisms at work in a dynamic network.

⁹⁰ See *supra* notes 5, 8, and 10.

⁹¹ N. Lin, K.S. Cook, and R.S. Burt, *Social Capital: Theory and Research* (2001), at 12–17.

⁹² For a summary of the role of centrality measures see Landherr, Friedl, and Heidemann, 'A Critical Review of Centrality Measures in Social Networks', 2 *Business & Information Systems Engineering* (2010) 371, available at: <http://aisel.aisnet.org/bise/vol2/iss6/5>.

The simplest form of centrality, one that focuses on the number of ties, is called *degree*, or the measure of the number of ties a node has. Degree centrality presumes that actors with a high number of connections are likely to be more important (and more effective in an instrumental action) because they can directly access and influence a high number of actors within a network. Degree centrality, however, does not take into account the differences in the prominence (or location in a social map) of a given node. In this sense, *eigenvector* centrality is an alternative measure of importance that controls for the prominence of the connections. This measure is designed to account for the variable value of each connection and presumes that location within the network is a key element for identifying social capital. A node connected to high quality nodes is likely to be more important within a network than a node connected to low quality nodes. Eigenvector centrality also presumes that the importance of a node is proportional rather than equal to the importance of the nodes with which it is connected.⁹³ In this sense, the measure depends on the number *and* quality of connections a node has.

Closeness is a measure that requires information on the pattern of ties and takes into account *indirect* ties; that is, data about the relation and distance between the nodes or, in simpler terms, the ties of other nodes (think of ‘friends of friends’). The intuition is that *closeness* captures the average distance each actor is from all other actors in the network. Intuitively, being close may provide an advantage by, for example, giving early access to new information travelling in the network. Similarly, *betweenness* is used to identify the bridges between different communities embedded in the network. This is an important measure in networks where information is being transmitted along the edges of the network. It is also a location-based measure and calculates the shortest paths (known as geodesics) between all pairs of vertices, identifies the frequency of each node appearing on those paths, and then normalizes the statistic.⁹⁴ Nodes that exhibit high *betweenness* may connect different *clusters* (well connected internally, but having few links between them) that represent internal communities within the network.

Finally, *hub* and *authority* are measures to describe relationships between nodes in *directed graphs*, where arrows represent the directions of connection between nodes. These measures assume that in a large network there are different types of nodes that serve different functions. The key distinction is represented in the direction of their relationship to other nodes (it is relevant if lines are coming or going), and the scores operate similarly to eigenvector (it is relevant from whom the lines are coming and going). A vertex with a strong *hub* score displays connections towards important authorities, while a vertex with a strong *authority* score features connections from important hubs. Moreover, related to these scores *reciprocity* indicates the degree to which actors in a directed network select one another.⁹⁵

In addition to identifying central nodes, social scientists are often interested in classifying the structural properties of the entire network. Among others, size, density, and

⁹³ Bonacich, ‘Power and Centrality: A Family of Measures’, 92 *Am J Sociology* (1987) 1170.

⁹⁴ N. Kourtellis, et al. ‘Identifying High Betweenness Centrality Nodes in Large Social Networks’ 3.4 *Social Network Analysis and Mining* (2013) 899–914.

⁹⁵ Carolan, *supra* note 19, at 102–104. See Fowler, Grofman, and Masuoka, ‘Social Networks in Political Science: Hiring and Placement of Ph.Ds, 1960–2002’, 40.02 *Political Science & Politics* (2007) 729.

degree distribution are common classifications. The first illustrates the average number of nodes that are *directly* connected. Size matters as it indicates the amount of potential resources embedded. Density represents the extent to which nodes are connected to one another. Dense networks tend to insulate key players from outside influence. Finally, degree distribution illustrates the general range of degrees for the nodes in the entire network, or whether particular degree values are more common than others.

In the final section, I will come back to these measures and their specific meaning in the context of this study.

2 Creating a Social Map Using Appointments

Generating consistent and unbiased maps or visualizations of a network is a complex task facilitated by computerized drawing procedures. To understand most of the visualizations in this article, imagine that the nodes are all of the arbitrators of the network ever appointed and the ties represent an appointment in the same case.⁹⁶ Unless indicated, the automated drawing procedure used in this article is called Fruchterman-Reingold. This drawing procedure increases the difficulty of remaining in the centre, pushing less connected nodes to orbits with larger circumferences.⁹⁷ Thus, for the most part, the closer the node (in this case, a particular arbitrator) is to the centre of the visualization, the more central is the represented arbitrator. In most cases, I have calibrated the size of the node to reflect a higher number of appointments or the edge

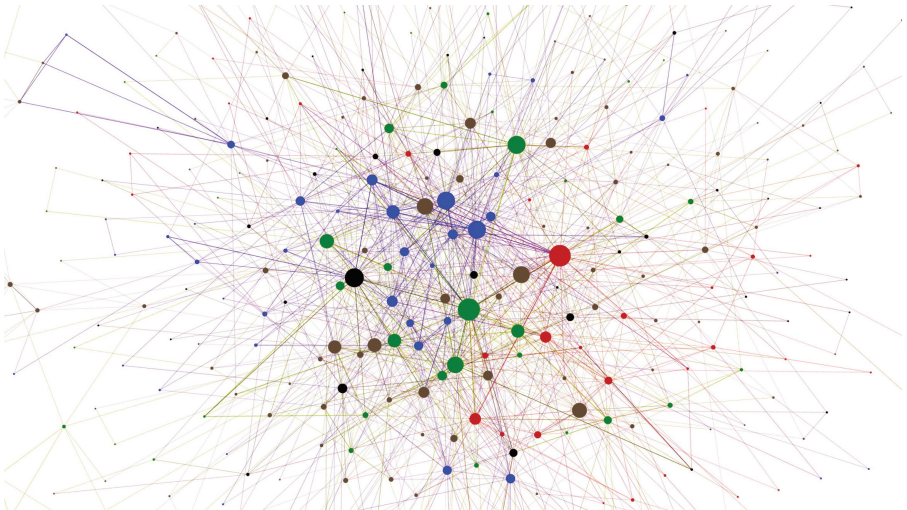


Figure 1: Network by National Origin (Black: US; Blue = Common Law (Can., UK, Aus., NZ & RSA); Green: Europe; Red: Latin-American; Grey: Other Countries).

⁹⁶ Some network scholars believe the choice of algorithms to visualize a network is determined by the size and density of the network. The recommended cut-off point for Fruchterman–Reingold, the method used here, is 500 nodes: Fruchterman and Reingold, ‘Graph Drawing by Force-Directed Placement’, 21 *Software: Practice and Experience* (1991) 1129. See also Katz, *supra* note 21.

⁹⁷ *Ibid.*

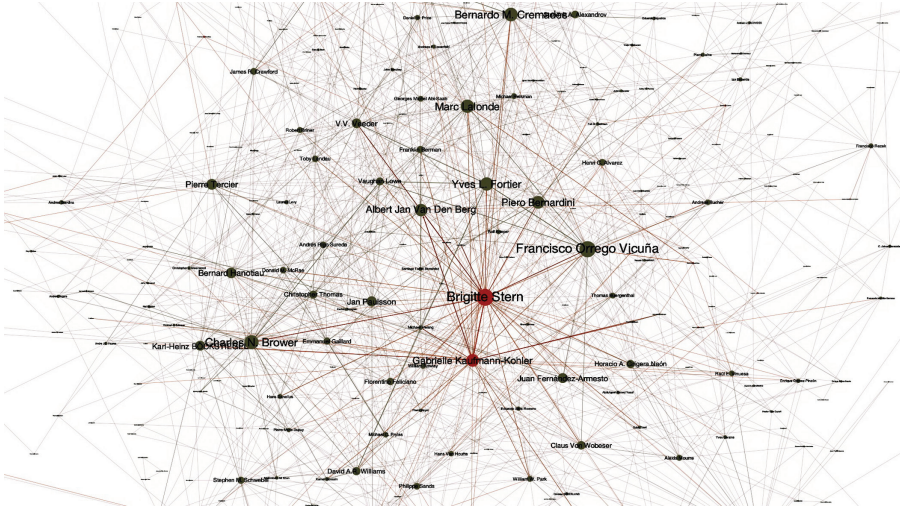


Figure 2: Zoom-in of ICSID Network by Gender (Grey: Male; Orange: Female).

to reflect a higher number of shared cases. With this introduction, consider the foregoing visualizations of the network using appointments in ICSID proceedings.⁹⁸

The first two visualizations show the network of arbitrators operationalized using appointments to tribunals in a formation called core–periphery. These formations are typical in cases where a few members of the network have most connections and therefore display a densely connected centre. The network also shows very few nodes unconnected to the network, in this case arbitrators mainly involved in early disputes based on investment contracts.⁹⁹ This form is radically different from a permanent or semi-permanent body where all members share a similar number of ties. Consider Figure 3, the Appellate Body of the World Trade Organization organized by clusters based on the number of cases shared between them. It shows a random process of allocation of appointments.

Contrasting the position of the arbitrators by origin in Figure 1, it is interesting that most Americans (the largest group represented) remain at the periphery of the network. In other words, more Americans are appointed but more Americans are also *not* re-appointed.

A careful review by gender in Figure 2 displays a familiar imbalance. Most of the women are far from the core. However, two ‘formidable women’ (Professors Stern and Kaufmann-Köhler) are remarkably central.¹⁰⁰ This visualization suggests that while

⁹⁸ To improve the experience of the reader, I’ve created an online resource with interactive visualizations, available at: <http://weboflaw.com/SocialCapital/> or www.weboflaw.linkurio.us.

⁹⁹ E.g., the five arbitrators in the bottom-left of the first figure represent the tribunal in *Adriano Gardella SpA v. Côte d’Ivoire*, ICSID Case No. ARB/74/1. Each node represents one of the following arbitrators: Zellweger, Poncet, Panchaud, and the two arbitrators who filled the vacancies, Grossen and Cavin.

¹⁰⁰ Professor Yackee uses this term. See Yackee, ‘Controlling the International Investment Law Agency’, 53 *Harvard Int’l LJ* (2012) 391 (n. 247: the network ‘increasingly these days include formidable women’).

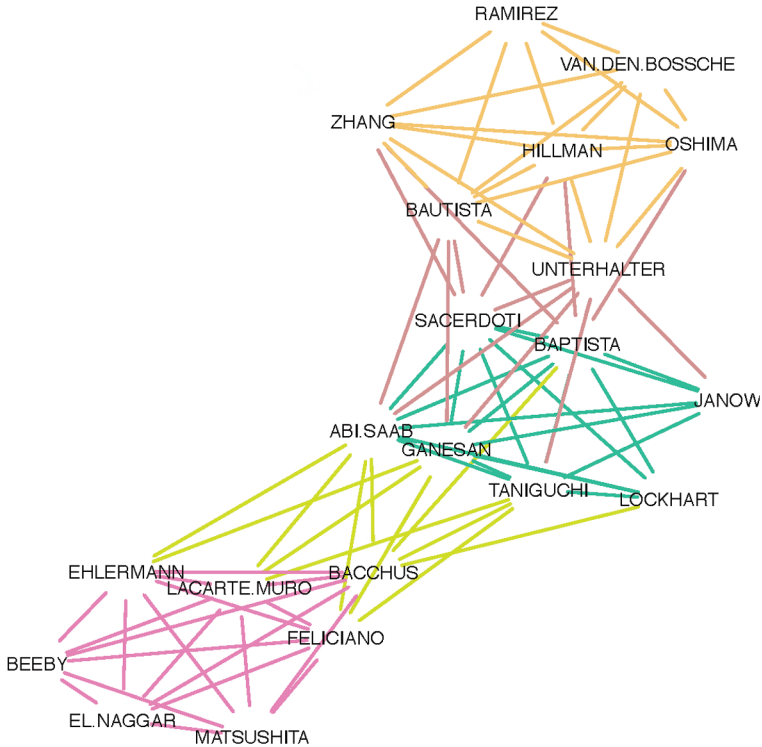


Figure 3: WTO's Appellate Body Network (organized by clusters based on 'common' cases).

gender imbalance is an important aspect of the network, this dynamic follows the general characteristics of the entire network. In other words, the microcosm of female appointees is a concentrated version of the dynamics of the entire network. While progress with respect to gender dynamics has been made, it has been done through the appointment of the same professionals. A similar gender dynamic has been observed in other contexts.¹⁰¹

Also intriguing is looking at the core of the network as represented in Figure 4, where I depict the 25 most central arbitrators (using degree centrality) in a *circular graph*. The graph also represents the number of total connections by calibrating the size of the node and indicates the number of internal connections with the core. From this image we can observe that members at the core are unlikely to escape the observation of, or relationships with, other members of the core (the density is very high (.47)), but may be insulated from outside influence and protect themselves from outsiders, just as Ginsburg predicted.¹⁰² Moreover, the core shows a high proportion of European nationals as well

¹⁰¹ K. Klenke, *Women in Leadership: Contextual Dynamics and Boundaries* (2011) (see particularity chapters 1 and 4).

¹⁰² Ginsburg, *supra* note 8, at 1344 ("Those inside the relatively closed world of international arbitration can use claims of an "arbitration culture" to highlight their own expertise. Those who are "outside the culture" are less desirable participants."). The density of a network is the proportion of possible ties that are present in the network. This means that the 25 central arbitrators connect with 47% of the network.

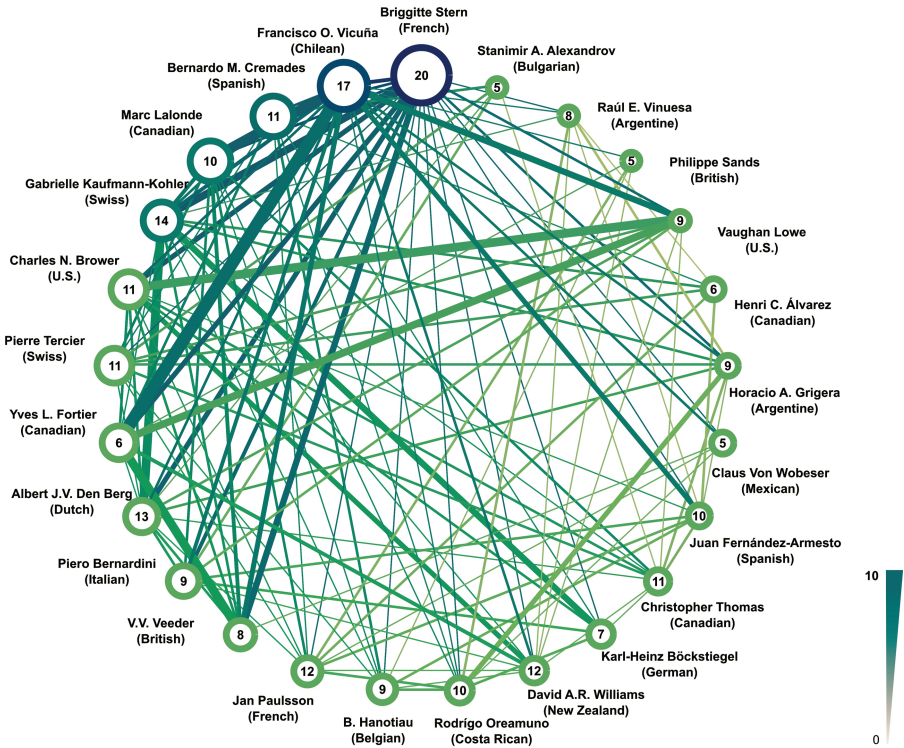


Figure 4: Core of ICSID Network (representing both inside of and outside of core ties, and common cases).

as nationals of countries that share history, culture, and traits in their legal systems, i.e. the UK, US, New Zealand, and Canada, but partially defies the explanation of Garth and Dezaley. Francisco Orrego-Vicuna (Chilean) is at the centre of the social structure and some Latin-American arbitrators also stand out, perhaps as a consequence of the high number of claims against countries of that region (including Mexico, claims against which represent more than 40 per cent of cases) under ICSID.

Figure 5 displays arbitrators in the network with more than one appointment, by method of appointment. The five main nodes are calibrated to show the number of appointments and the edges are calibrated to represent the extent to which the position on the map is due to a particular type of appointment. The fifth visualization is designed to depict the role of the arbitrator’s political preferences (using cumulative appointments as a proxy) in the placement within the network.

As explained, Figure 5 is designed to illustrate the manner in which the method of appointments informs the network structure. First, it shows that institutional authority is important but far from determinative in the position of an arbitrator within the social network. For one, only a few arbitrators (e.g., Oreamuno, Guillaume, and Fernandez-Armesto) owe their position to appointments by the institution. In fact, an

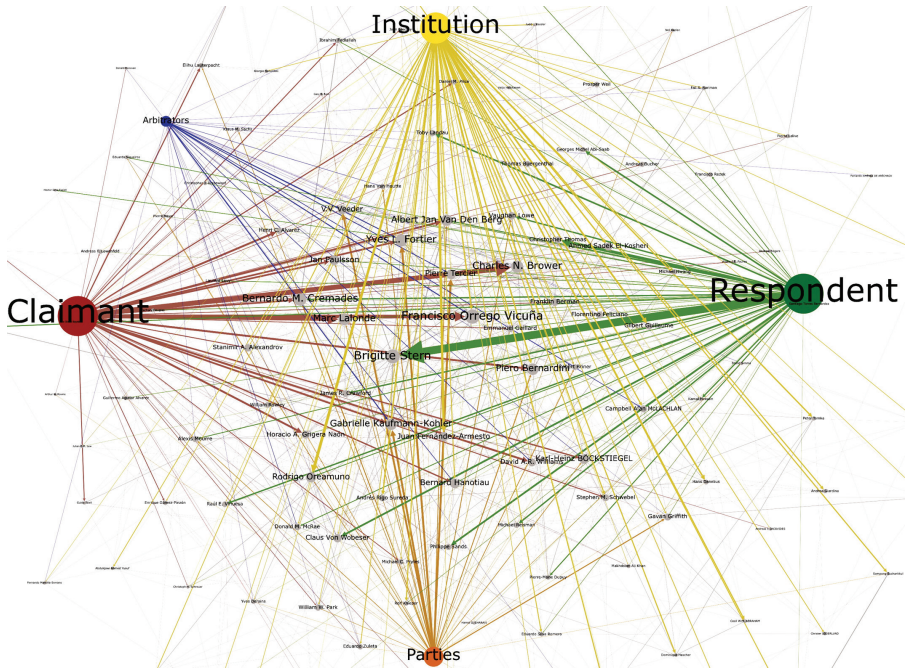


Figure 5: Zoom-in of ICSID Network by Source of Appointment.

important subset of arbitrators owe their position within the network to cumulative appointment (e.g., Stern, Thomas, Landau, Orrego-Vicuña, Brower, and Lalonde). If one takes the repeat appointments as a proxy of political preferences, there is some indication that this is a relevant factor in determining centrality.¹⁰³

The final figures tell a complementary story. Figure 6 shows the subset of 73 appointments of ICSID arbitrators by other members of the tribunal. It is designed to provide insights into the role of informal authority *within* the participants of the social network. For that purpose, Figure 6 uses a directed graph (or sociogram) in which an inward connection represents an appointment by a colleague, whereas an outward connection represents an appointment of a colleague (each appointment has two inward connections). As explained, three measures can be explored with this type of figure: ‘authority’ and ‘hub’ as well as reciprocity. In this subset of the network, a hub is an arbitrator who appoints *important* arbitrators, while an authority would be a jurist who accepts an appointment by *important* hubs. Reciprocity serves to express the degree to which actors select one another.

The figure shows an interconnected network of appointments that behaves like the general structure: a densely connected centre with some clusters. Moreover, if

¹⁰³ See Waibel and Wu, *supra* note 69, at 21–23 (using repeat appointments by one category of parties or another to observe political ‘philosophy’ of arbitrators).

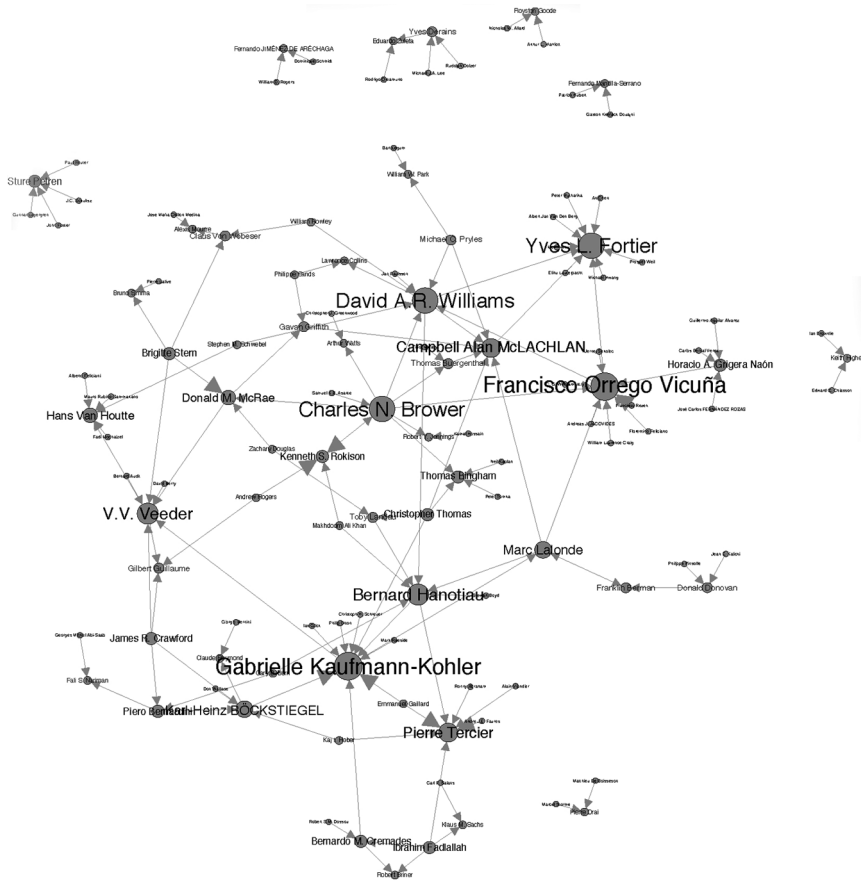


Figure 6: *Sociogram of Appointments (appointment of arbitrators by other appointed arbitrators).*

the subset used in this final figure helps to represent informal authority and influence amongst arbitrators, this final visual helps to locate the ‘grand old men’ and confirm the ‘formidable women’ of the network who have significant influence and are regarded as important ties for the other members of the network.

While the visualizations help to display the standing of arbitrators within the network as well as the broad structure of the network, the network statistics provide greater detail regarding the various components of the network.

3 Interpreting the Maps and Identifying Sources of Social Capital

Table 2 illustrates four different centrality measures, including the scores of the 25 leading arbitrators. Each measure must be interpreted contextually as its meaning can vary across networks. Combined, however, the different scores give a good picture of the central actors of this network as operationalized by appointments to ICSID tribunals.

Table 2: Degree, Eigenvector, Betweenness, and Closeness Scores of Top 25 Arbitrators (*never designated to the ICSID Roster Panel)

Rank	Degree	Ties	Eigenvector	Score	Betweenness	Score	Closeness	Score
1	Stern	51	Stern	1	B. Cremades	5594.6	Stern	2.14
2	Orrego Vicuña	48	Orrego Vicuña	0.81	Orrego Vicuña	5592.4	Orrego Vicuña	2.22
3	B. Cremades	44	Kaufmann-Kohler	0.71	Stern	5457.8	Fortier	2.27
4	Lalonde*	43	Fortier	0.70	Fortier	4874.9	B. Cremades	2.28
5	Kaufmann-Kohler	42	Brower	0.67	Lalonde*	4730.6	Van Den Berg	2.28
6	Brower	41	Van Den Berg	0.67	Van Den Berg	4350.5	Tercier	2.28
7	Tercier	41	Lalonde*	0.67	Tercier	4332.3	Lalonde*	2.30
8	Fortier	39	B. Cremades	0.64	Bernardini	4003.6	Kaufmann-Kohler	2.31
9	Van Den Berg	38	Bernardini	0.62	Oreamuno	3714.0	Paulsson	2.32
10	Bernardini	36	Paulsson	0.61	Hanotiau	3506.3	Bernardini	2.33
11	V.V. Veeder	36	Tercier	0.58	Böckstiegel	3459.7	V.V. Veeder	2.34
12	Paulsson	35	Oreamuno	0.57	Paulsson	3369.8	Brower	2.36
13	Hanotiau	32	Williams*	0.57	Lauterpacht	3348.1	Oreamuno	2.39
14	Oreamuno	32	Hanotiau	0.57	Brower	3258.2	Hanotiau	2.39
15	Williams*	31	V.V. Veeder	0.57	Kaufmann-Kohler	3104.4	Böckstiegel	2.39
16	Böckstiegel	31	Fernández-Armesto	0.55	El-Koshi	3064.9	Fernández-Armesto	2.40
17	C. Thomas*	26	C. Thomas*	0.52	V.V. Veeder	3015.2	Briner	2.40
18	Fernández-Armesto	26	Böckstiegel	0.51	Keba Mbaye	2858.8	El-Koshi	2.42
19	Von Wobeser	26	V. Lowe	0.49	Alexandrov	2584.7	Berman	2.43
20	Grigera Naón	25	R. Briner	0.47	A. Giardina	2508.7	C. Thomas*	2.43
21	H. Alvarez	25	Grigera Naón	0.44	V. Lowe	2397.4	Williams*	2.44
22	V. Lowe	25	El-Koshi	0.43	I. Fadlallah	1974.2	Reisman	2.46
23	P. Sands	24	Von Wobeser	0.41	G Griffith	1920.9	V. Lowe	2.48
24	R. Vinuesa	23	Feliciano	0.41	Fernández-Armesto	1793.8	Feliciano	2.49
25	Alexandrov	23	C. McLachlan	0.40	Feliciano	1788.0	Rigo Sureda	2.52

For instance, the four scores consistently show 18 out of 25 arbitrators listed. By any measure, Professors Stern, Orrego-Vicuna, Tercier, and Kaufmann-Kohler, as well as Bernardo Cremades, Yves Fortier, Albert Jan Van Den Berg, and Judge C. N. Brower (to mention just a few), are at the core of the social structure of investor–state arbitrators. These 18 arbitrators – according to this analysis – dominate ICSID and thus may play an important role in the field of international arbitration more broadly. Of course, some are more important than others, as is the case with Professor Stern, who is at the centre.

With the exception of three arbitrators the arbitrators listed in Table 2 are currently or have been prior to this date on the roster of arbitrators of ICSID. Whether arbitrators are assigned to the list because they already have a well-developed reputation, or the assignment to the list generates social capital that results in more appointments, or a combination of both is a research question beyond the confines of this article. What is interesting is that most people assigned to the list are never appointed as arbitrators, suggesting that being on the list is not sufficient to achieve appointments, nor is being appointed by the institution a definitive factor in the centrality of arbitrators.¹⁰⁴

The different measures also help to identify arbitrators who, like Professor Bernardini (Italian), owe their centrality to their number of appointments, and others like Professor El-Koheri (Egyptian), who owe their centrality not to the number of cases, but to the ties shared with central figures in the field. This means that arbitrators with high degree scores may have had more opportunities to connect, to influence, and be influenced by more colleagues, whereas arbitrators with high eigenvector scores may have had more opportunities to connect, to influence and be influenced by important arbitrators.

With the information analysed, it is impossible to ascertain the reason for these observed trends, but future research can test how background variables such as education, professional memberships, or the quality of legal reasoning may affect arbitrators' positions within the investor–state arbitration network. Centrality ranks could be used as outcome variables for a more nuanced understanding of the role of sharing a case with valuable ties in future appointments or the spread of specific ideas embedded in legal analysis.

The betweenness list, on the other hand, highlights arbitrators who link different clusters or groups of arbitrators. Bernardo Cremades (Spaniard) appears as the most important 'bridge'; he links a high number of professionals, serving as a key link in the connectivity of the network. Interestingly, the betweenness list also shows arbitrators who do not appear on the other lists. Some of these arbitrators participated in disputes in the 1990s such as Judge Kéba Mbaye (e.g., *American Manufacturing & Trading, Inc. v. Republic of Zaire*), Ibrahim Fadlallah (e.g., *Wena Hotels v. Egypt*), Andrea Giardina (e.g., *Tradex Hellas S.A. v. Albania*), and Professor Elihu Lauterpacht (e.g., *Compañía del Desarrollo de Santa Elena S.A. v. Republic of Costa Rica*). While they play a less prominent role within today's

¹⁰⁴ See also Shihata, 'Obstacles Facing ICSID's Proceedings and International Arbitration in General', 3 *News from ICSID* (1986) 1, at 9 (complaining that most designees are public officials who 'may not always be appropriate candidates ... and may not have the time to serve as arbitrators').

social structure, from this analysis it is clear that at one point these arbitrators served as important intergenerational links or ‘transmission belts’ within the network.

In the same fashion, future research could use betweenness scores to explore what specific main characteristics have changed in the core of investor–state arbitrators over time, and confirm (or reject) some hypotheses of important academicians in the field.¹⁰⁵

The closeness scores of the core are also revealing. Stern and Orrego-Vicuña connect with almost all the core of the network. Moreover, on average there is a distance of 2.5 arbitrators of separation in the entire network! This is remarkable as each arbitrator is only two and a half steps away from almost all other arbitrators in the network.¹⁰⁶

Finally, Figure 6 illustrates the 73 appointments of ICSID arbitrators (usually presidents) by other members of the tribunal (usually party-appointed). Table 3 relies on

Table 3: Authority and Hub Ranks of ICSID Arbitrators Appointed by Other Arbitrators (**tops both lists)

Rank	Authority	SCORE	Hub	SCORE
1	Kaufmann-Kohler	1	Brower	1
2	Orrego-Vicuña	0.94	Gaillard	0.88
3	Tercier	0.93	Bockstiegel**	0.67
4	Fortier	0.4	Rezek	0.58
5	Williams	0.35	Faures	0.57
6	Bingham	0.31	Fadlallah	0.4
7	Watts	0.26	Thomas	0.4
8	Feliciano**	0.26	Cremades**	0.36
9	Buergenthal	0.24	Lalonde	0.36
10	Jennings	0.24	Stern	0.35
11	Rokison	0.24	Hober	0.32
12	Briner	0.17	Glick	0.31
13	Reymond	0.16	Hanotiau**	0.31
14	Veeder	0.14	Otton	0.31
15	Hanotiau**	0.12	Raeside	0.31
16	Von Wobeser	0.11	Schreuer	0.31
17	Bockstiegel**	0.11	Weeramantry	0.29
18	Cremades**	0.09	Feliciano**	0.29
19	Sachs	0.09	Grigera Naon	0.29
20	Berman	0.08	Craig	0.29
21	Simma	0.08	Abraham	0.29
22	Guillaume	0.04	Jacovides	0.29
23	Bernardini	0.03	Sekolec	0.29
24	Mclachlan	0.03	Viandier	0.29
25	Park	0.03	Greenwood	0.16

¹⁰⁵ A. Roberts, ‘Clash of Paradigms: Actors and Analogies Shaping the Investment Treaty System’, 107 *AJIL* (2013) 45, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2033167 (dissecting changes in the field by reference to an underlying clash of paradigms of actors with different backgrounds).

¹⁰⁶ For the closeness measure, I excluded 35 nodes unconnected to the network. As explained, these are arbitrators that have, on average, had one appointment and acted as arbitrators in contractual disputes.

such subset of the data on appointments to show related facets of the network. It ranks the arbitrators owing their position to *authority* (those selected by the arbitrators) and *hub* (those that select arbitrators).

The two lists in Table 3 clearly show central figures of the network. For instance, they confirm Professor Kaufmann-Kohler as the ‘most “highly regarded” figure in arbitration’, a recognition given by a respected professional publication based on a poll of peer arbitrators’ opinions.¹⁰⁷ Professors Orrego-Vicuna and Tercier – stand-outs in the four centrality scores – are also probably influential authorities within the hierarchy.

Related to the authority scores, the hub top scorers are arbitrators appointed only or predominantly by one type of litigant: for example, Thomas (only) or Rezek and Stern (predominantly) appointed by states, or Hober and Faures (only) or Brower and Lalonde (predominantly) appointed by claimants. This confirms other important ties of the network such as Professor Gaillard, a top practitioner in the arbitration field, and Professor Bockstiegel, the past president of the Iran–United States Claims Tribunal (1984–1988). However, the hub list clearly shows the role of *different* kinds of informal authority in an increasingly polarizing field. Indeed, in contrast to Table 2, these measures show only four arbitrators on both lists. On average, arbitrators who have high authority scores do not have a high hub score. Moreover, the four arbitrators who are among the top 25 arbitrators in both lists show a lower authority score than hub score. While the relativity score (the degree to which actors select one another) is low, the story is incomplete as arbitrators often act as counsel and also select other colleagues.¹⁰⁸

Future research can expand on why some central arbitrators are appointed to serve as third, presiding arbitrators, and why some are not. Are authorities more neutral or convincible? Or are hubs more (or less) aware of the preferences of other arbitrators? Perhaps more cynically, one may hypothesize that arbitrators are more strategic. Authorities may accept appointments only as presidents and hubs may seek the benefits of appointing authorities, such as linking with important ties. Hence, how does appointing an authority relate to future appointments? These are some examples of future lines of inquiry that could build on this project.

By relying on social network analysis, this article has not only detected many important lines for future empirical investigation, but provided a more nuanced picture of the arbitration network, which can be summarized as follows:

- (a) *Small World Properties*: the arbitrator network is dominated by a small, dense and interconnected group, where members at the core are unlikely to escape the observation of other members of the core, but may remain insulated from outside influence.

¹⁰⁷ Karadelis, ‘Female Arbitrator Tops Who’s Who Legal List’, *Global Arb Rev* (26 Oct. 2012), available at: www.globalarbitrationreview.com.

¹⁰⁸ For a discussion on the problems resulting from different roles played by arbitrators see Ziadé, ‘How Many Hats Can a Player Wear: Arbitrator, Counsel and Expert?’, 24 *ICSID Review: Foreign Invest LJ* (2009) 49.

- (b) *Exceptional Professionals*: the arbitrator network is dominated by arbitrators from Europe as well as Anglo-American professionals; however, Latin-American arbitrators trained in Europe, the UK and the US play a fundamental role in the social structure.
- (c) *Formidable Women*: the arbitrator network remains male-dominated; however, Brigitte Stern and Gabrielle Kaufmann-Kohler are at the core of the structure. While there are different reasons for the centrality of the two top female arbitrators, the distribution of female appointments is consistent with the behaviour of the network.
- (d) *Political Signalling as a Source of Capital*: party appointments play a fundamental role in propelling arbitrators' centrality, based in part on effective means to signal identifiable preferences detectable to litigants.

4 The Properties of the Arbitrator Social Network

Social networks are dynamic. The network visualizations offered in the previous section, however, represent a static glimpse. While the dynamism complicates the identification of the process responsible for producing particular networks, common traits of generative and growth processes can be easily observed with a simple analysis.

A common technique for classifying social structures is to determine the distribution of the connections, or degree distribution. For example, the distribution could be relatively uniform – with a large number of actors possessing a moderate (and similar) level of connections (e.g., the WTO's AB random selection). However, in a large number of self-organizing networks, the degree distribution is such that a small number of prominent actors develop a high number of ties (e.g., case and article citations or social standing of judges).¹⁰⁹ This is exactly the case in the network at issue. In fact, one could break down the arbitrators based on the number of connections to create the following, somehow arbitrary, hierarchy of the professional group: 'Power-Brokers', 'Elite Arbitrators', 'Repeat Players', and 'Single-Shooters'. The first two groups represent 20 per cent of the network and the second two groups represent 80 per cent of the network as in Table 4.

Table 4: Degree Distribution of Network

Number Of Ties	Arbitrators	Network	Mean Of Ties	Density
Power-Brokers ≥ 20	33	8%	30	0.37
Elite Arbitrators 10 to 19	45	11%	14	0.068
Repeat Players 4 to 9	106	25%	5.6	0.012
Single Shooters ≤ 3	235	56%	2.2	0.004

¹⁰⁹ Katz, *supra* note 29, at 78 (in particular n. 5). See also Leskovec, 'Dynamics of Large Networks', *ProQuest* (2008) 13.

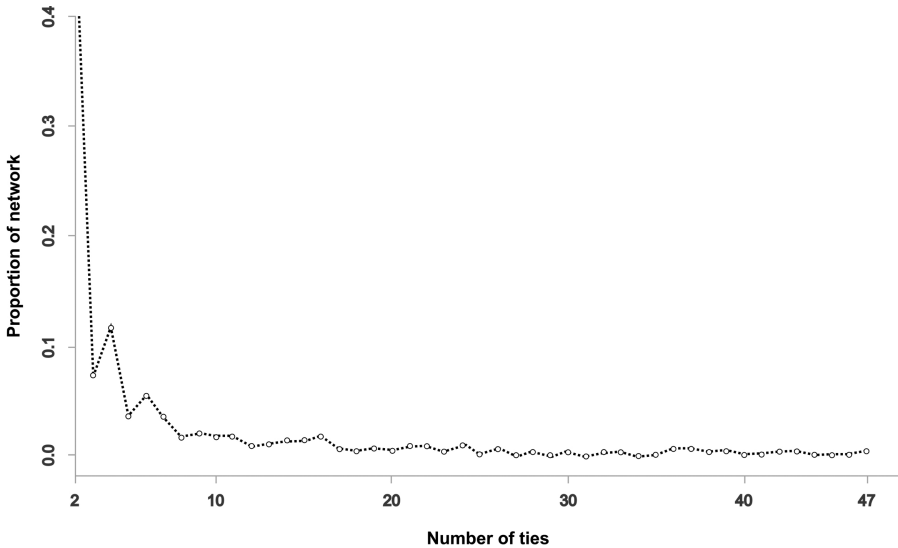


Figure 7: Degree/Ties Distribution of ICSID Network.

Figure 7 is a graph of the distribution of edges. It shows that a large percentage of the network has a low number of connections, but some nodes (the power-brokers) have a very high level of connections. The L-shaped curve with some spikes is consistent with the extreme skewing identified with the analysis of the social esteem in other judicial networks.¹¹⁰ This concentration of degrees over a small subset of actors yields a ‘heavy-tailed’ distribution and is most commonly associated with the *power law distribution*.¹¹¹

For the purpose of this article, what matters is that the possible degree distribution models of growth of the network share a characteristic: the number of connections a node displays at a given moment is a function of the number the node possessed at an earlier point in time. Thus, the distribution of connections in a system organized under such conditions tends to be very susceptible to conditions in time and evolves in a manner that suggests preferential attachment.¹¹²

With the information analysed in this article it is hard to make broad generalizations about the arbitration network. Most social networks do not grow from initially random conditions. Moreover, as the network evolves over time, individuals enter and exit it and social connections are formed and dissolved. In the case of the investor–state arbitration network, the deluge of cases in the last 10 years has skewed the results towards specific arbitrators who were appointed early in this

¹¹⁰ Katz. *Ibid.*

¹¹¹ See A. Clauset, C.R. Shalizi, and M.E.J. Newman, 51(4) ‘Power-law Distributions in Empirical Data’, *SIAM Rev* (2009) 661, available at: http://arxiv.org/PS_cache/arxiv/pdf/0706/0706.1062v1.pdf.

¹¹² See M. Newman, ‘Power Laws, Pareto Distributions and Zipf’s Law’, 46 *Contemporary Physics* (2005) 323, at 343.

stage and whose careers had been consolidated by or ripened around the end of last century. However, if the appointment analysis reasonably operationalizes the professional group, then the highly skewed degree distribution can inform different hypotheses over the processes responsible for producing a dense and exclusive network.

Among others, one of the points of departure for future research is how a process of preferential attachment may start reconciling diverging theories about how non-elite actors are systematically excluded from the network. While it seems very plausible that arbitrators operate in a *market* where each supplier (arbitrator) relies on *symbolic capital* (individual reputations, e.g., ‘progressive’, ‘conservative’, ‘independent’) and has an interest in furthering his or her own status as *insider* as well as the group’s *culture* more generally (e.g., values, norms, and interests), this market, according to the evidence presented here, is very sensitive to specific conditions in time. Those arbitrators who were appointed early on (or in this case, during the early days of the boom in investor–state arbitration) can use social or professional standing in subsequent periods. Once members of the profession work together or know about others appointments, this information is passed on and translates into a proportionately greater number of appointments.

Figure 8 shows how, despite the fact that most ICSID cases were registered in the last 10 years, most ‘power-brokers’ or those arbitrators at the top of the profession entered the network in or prior to 2004. Certainly, some arbitrators appointed after 2004 could (and will) eventually become central players in the network. However,

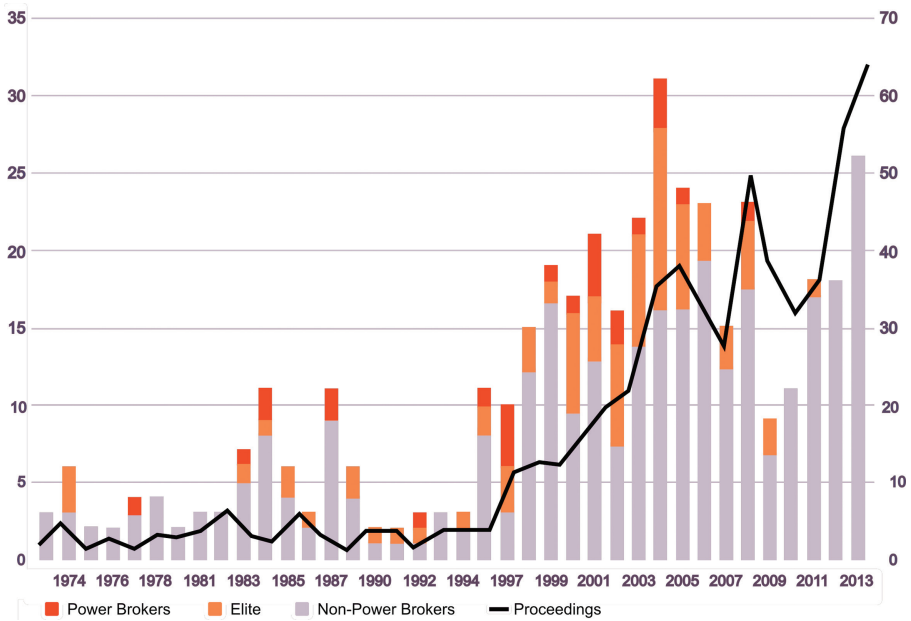


Figure 8: Tribunals in ICSID Proceedings and First Time Arbitrator Appointments (y-axis).

arbitrators who enter the network at or prior to that key moment may be able to exploit their relative advantage over arbitrators at a later starting point.

This suggests that, with time, the existing features of a structure become more prominent. Once arbitrators become central, they are likely to remain central – indeed become even more central. This could have (and probably already has had) an impact on doctrine since central arbitrators will be appointed to a large number of tribunals, connect and engage with more arbitrators, and hence will influence international investment law to a greater extent. Thus, legal knowledge advanced and preferred by power-brokers, and with that their political preferences, will probably become more dominant. To some extent, this mechanism may also give much needed stability and predictability as the same arbitrators are appointed again and again. In this sense, it is likely that preferential attachment reflects a structure in which, in addition to good timing, central arbitrators profoundly benefit from the limited cognitive scope, or heuristic biases, risk aversion, and the desire for predictable outcomes on the part of those making appointments (whose main source of information is often other arbitrators).

Preferential attachment may also partly explain why informal policies implemented by ICSID to benefit underrepresented groups that take into consideration factors such as ‘national origin’ and ‘gender’ have been largely ineffective.¹¹³ Affecting this kind of networks requires ‘coordinated attacks’ as the structure tends to be very resistant.¹¹⁴ Hence, to affect the gender composition an *exponentially* higher number of females should be appointed, requiring litigants to nominate more women without prior experience in ICSID cases, apparently a risky proposition for some lawyers representing parties in ICSID proceedings.¹¹⁵

5 From the Descriptive to the Prescriptive

At least three important prescriptions may be derived from understanding the growth mechanism of the network of international arbitration as a consequence of preferential attachment. Firstly, understanding causal inferences between final decisions and arbitrators’ backgrounds, or qualitative or other aspects of a case requires a theoretical understanding of the manner in which social factors (including conformity pressures) structure outputs as well as network effects – or, how the value that parties place on particular outcomes increases as others rely on those who deliver such outcomes.¹¹⁶ Statistical inference analysis should focus more attention on the ways in

¹¹³ Shihata, ‘Obstacles Facing ICSID’s Proceedings and International Arbitration in General’. Speech delivered in Oct. 1985 at ICC symposium, reported in ICSID, *News From ICSID* (winter 1986). See generally Caron, ‘ICSID in the Twenty-First Century: An Interview with Meg Kinnear’, 105 *ASIL Proceedings* (2011) 413.

¹¹⁴ Barabási and Bonabeau, *supra* note 25.

¹¹⁵ A female arbitrator interviewed for this project stated this as a plausible reason. Litigants respond to their clients and only care about winning. ‘[Firms] don’t want to take more risks’: interview with Arbitrator 5, 16 Jan. 2013.

¹¹⁶ See generally Lemley and McGowan, ‘Legal Implications of Network Economic Effects’, 86 *California L Rev* (1998) 479 (describing how legal analysis can incorporate network economic theory and network effects in law).

which a small group of actors may disproportionately impact outputs and doctrine as well as influence and determine decision-making choices.

Secondly, while the international arbitrators' network may share important properties with other social networks, arbitrators, as compared to other judicial groups, are used more instrumentally and are relatively less constrained and (often) less accountable. Unlike judges, arbitration professionals wear different hats, such as counsel, experts, and arbitrators. Since appointments may translate into direct and indirect economic gains, future socio-legal research should attempt to understand how social capital is created and translates into appointments, fees, and other economic advantages. A system in which preferential attachment plays such an important role probably means that actors make many strategic choices to become, or connect with, socially prominent actors in the field, and therefore research should investigate the benefits of limiting some of these practices.

Finally, a recent politically charged publication has harshly criticized the network of arbitrators involved in investor–state arbitration, labelling them 'a mafia' and urging regulation.¹¹⁷ The authors of the report – rightly – described the club as small, heavily interconnected, and cohesive, but assumed that 'it is run' in this way. This is an overstatement that ignores and dismisses the general dynamics of many social networks, including the arbitrator network.¹¹⁸ Running a mafia implies some level of coordinative mastermind, or *capos*; the arbitrators' network seems, more likely, the result of different actors behaving rationally and independently in a convenient and constantly evolving environment. Certainly, some practices within the professional community merit scrutiny, perhaps even harsh criticism, and the field seems ripe for coordinated regulation. However, critics should also understand that those responsible for appointments place value on some level of expectation about the decision-making process and outcomes. Parties' attempts to navigate the complexity of possible arbitrator combinations are likely to produce heuristic solutions that are as much an art as a science, and may result in the recommendation and appointment of those who may deliver more predictable solutions, even if wrong or imperfect.¹¹⁹ After all, as the saying goes, *the evil that we know is best*.

5 Conclusion

The network of international arbitration professionals is heavily dependent on a small number of socially prominent actors. As in other judicial networks, a process of preferential attachment may be responsible for the generating process: arbitrators who have been appointed more frequently are more likely to attract further appointments.

¹¹⁷ See Corporate Europe Observatory, *supra* note 27, at 42.

¹¹⁸ See similarly Paulsson, 'Ethics, Elitism, Eligibility', 14 *J Int'l Arb* (1997) 13, at 19 (arguing against the term 'mafia').

¹¹⁹ Another arbitrator interviewed for this project gave this as a plausible reason ('[firms] don't want to take more risks' than necessary): interview with Arbitrator 3, 18 Jan. 2013.

In this sense, the core of the arbitration network is the result of a combination of timing as well as the limited cognitive scope or heuristic biases, risk aversion, and a desire for predictable outcomes on the part of those making the appointments. This article should be an important precursor to understanding the social dynamics in the growing international legal profession. It should also motivate further empirical investigations in international law, a field ideal for a variety of complex systems-based approaches including, but not limited to, network analysis.