

# **Datasets and Quantitative Research in the Study of Intergovernmental Organizations**

3 September 2012

Erik Gartzke  
Associate Professor

Christina Schneider  
Associate Professor

Department of Political Science  
University of California, San Diego

The past half century has seen a dramatic rise in both the number of intergovernmental organizations (IGOs) and in participation levels by states and other actors. This exponential growth has been tracked increasingly through the collection and analysis of quantitative data. Some data collections can be divided according to the major subfields of international relations (security, international political economy), while others focus on the chief institutions (United Nations, European Union, International Monetary Fund, World Trade Organization). Much less attention has been devoted to collecting data on minor IOs, or to specialty organizations, which are no doubt worthy of additional scrutiny. In addition, very little large data collection efforts exists for regional IOs (with the notable exception of the European Union), as well as international non-governmental organizations.

The probably most integrated database on intergovernmental organizations is the COW IGO dataset. This contribution focuses on a description of the COW IGO database as well as a discussion of applications of this database in the academic literature. Our main goal is to provide a summary of the insights that have been gained from analyzing the COW IGO dataset. We then briefly summarize other datasets that are specific to important individual international governmental organizations. Here, we focus particularly on the United Nations, the International Monetary Fund, the World Trade Organization, and the World Bank (as well as other multilateral aid institutions). Based on these insights, we outline areas of future possible data collection or where datasets could be exploited for further analysis. We conclude by noting both the enormous successes of this literature and challenges to growth.

We should note that this essay is not designed to be an exhaustive catalogue of available sources, studies and their findings, but rather an informative (and hopefully useful) point of departure. We apologize in advance both to authors and readers for the many sources we will have omitted from the essay.

## **Correlates of War International Governmental Organization Dataset**

The broadest data on intergovernmental organizations (IGOs) comes from the Correlates of War (COW) project. These data are documented in Pevehouse, et al. (2004) and are an extension of an earlier COW dataset (Wallace and Singer 1970). Because of the two-phase collection effort, these data are available in five-year intervals from 1815-1965 and annually from 1965-2000. There are three different versions of these data, corresponding to different units of analysis (the IGO, the IGO-state, and the IGO-dyad). The first dataset simply lists every IGO that existed for

each year in the dataset. In the second version of these data, an observation represents a country year, with a count of the number of IGOs in which the state was a member in a given year. The final version of these data expands the unit of analysis to dyad years, where the count of IGOs listed is the number of organizations in which the two dyad members share joint membership.

A number of studies have applied these data to various questions both within and beyond the scope of international institutions.

### *Interstate Peace and Conflict<sup>1</sup>*

The core intended use of the COW IGO data was in the area of international security and peace. This, indeed, is where usage of these data is concentrated. Wallace and Singer (1970) provide a description of these data, while Singer and Wallace (1970) offer a series of bivariate statistical tests to analyze the effect of IGOs on war onset. This first foray into quantification of the pacific effects of international organizations ended in disappointment, as IGOs did not appear to lead to a reduction in war, though by the authors' admission the measures involved were quite crude.

Evidence of a statistical relationship between IGOs and peace has been slow to materialize. Jacobson, et al. (1986) evaluate a functionalist perspective on international cooperation (Mitrany 1933, 1966), asserting a general relationship between the number of IGOs and the absence of war in the international system. As the authors state "Functionalist predictions are upheld." While optimistic in broad strokes, the study's methodology is unable to demonstrate that it is the members of international organizations that are responsible (or experiencing) a reduced propensity to experience war. Similarly, Domke (1988) finds that there is no significant relationship between IGO membership and interstate war, though his decision to break down the analysis to individual years biases against finding such a relationship.

Interest in, and attention to the pacific consequences of international organizations was revitalized by the democratic peace theory (Doyle 1986, Maoz and Russett 1992, Russett 1993). Theories and evidence that initially concentrated on liberal domestic politics eventually expanded to encompass the effects of deliberative institutions on the international level (Russett, et al. 1998; Oneal and Russett 1999). Bruce Russett and John Oneal, along with co-authors, compiled a series of studies crediting a liberal "triad" of democracy, cross-border trade, and IGOs with promoting international peace (Russett and Oneal 2001; Russett, et al. 2003). The quantity of corroborative studies, and the increasing methodological rigor of each subsequent refinement of their basic argument and model seemed to offer considerable support for their claim that IGO membership promotes peace.

Despite repeated tests, these results have yet to yield a compelling answer. The association between IGOs and peace is certainly the shakiest of the three relationships in Oneal and Russett's Kantian triad. As Gartzke, et al. (2001) point out, and even some of the Oneal and Russett research demonstrates, the relationship has a tendency to switch signs. That is, under certain conditions joint IGO memberships are associated with *increased* conflict. This is at least partly due to over-aggregation; studies using the COW IGO data have generally relied on the

---

<sup>1</sup> A large and growing literature addresses the relationship between IGOs and civil conflict. For a discussion of this literature, see \*\*\* , this volume.

count of joint IGO memberships, assuming in effect that all IGOs are the same. Boehmer, et al. (2004) relax this assumption, testing a theory that only institutionalized IGOs are likely to affect conflict behavior. The study finds in fact that this is the case. The authors also show that it is easy to conflate variation in the diplomatic activity of states with the effects of IGOs. Finally, international organizations where major powers disagree on important issues seem much less effective in promoting peace than organizations where major powers agree on important issues.

Given this controversy, researchers have sought new ways to evaluate the relationship between IGOs and conflict. Chan (2007) analyzes whether the number of IGO memberships affects the conflict behavior of the great powers. Using general dispute initiation instead of bilateral MIDs, he finds that increased IGO membership promotes increased great power MID initiation, particularly between 1815-2000, with France being the only exception. States are also more likely to join more IGOs in the wake of an intense period of conflict (however, he finds the contrary result for Germany and Japan). Crescenzi et al. (2008) review the effect of cooperation on conflict onset between states. Does joint IGO membership decrease the likelihood of a MID in a dyad? Decisions by both members of the dyad to join the same IGOs in the same year are treated as a cooperative shock (weighted by the number of members in that IGO). The authors find that this cooperative shock in politically relevant dyads decreases the likelihood of conflict, but that joint joining has no effect on conflict in the sample as a whole.

Kalbhenn (2011) explores the effects of interactions between liberal domestic politics and international institutions using shared river basins as an issue of cross-border governance. The results vary based on issue, but liberal variables are generally most helpful where the issues in dispute are most tractable. The greater the number of joint IGO memberships the lower conflict in border-crossing basins. However, IGO membership does not affect water quantity very much. On the back end of conflict processes, Shannon, et al (2010) argue that joint membership in certain IGOs, such as information providing or commitment enhancing IGOs, can lead to more rapid conflict resolution. They report that joint IGO membership reduces the duration of conflict, but *not* the likelihood of conflict onset (even in fatal disputes). IGO effectiveness also varies depending on their informational or commitment role. Hansen, et al. (2009) use the Issue Correlates of War (ICOW) to measure conflict in the Western Hemisphere. The authors find that IGOs are more likely to facilitate agreements if they are institutionalized, when they have more democratic members, and if they use binding conflict management techniques.

Pevehouse and Russett (2006) return to the issue of IGOs in promoting peace, arguing that the effect of international organizations is much less equivocal for the subset of democracies. The more joint memberships in IGOs are composed of democracies, the less likely it is that the states in a dyad will engage in fatal MIDs. Importantly, this effect is independent of democracy in a dyad. Joint IGO membership does not have an effect once joint membership in democratic institutions is controlled for (EU status is also controlled for in the analysis). Shannon (2009) examines the effect of IO membership on efforts to settle territorial claims peacefully. Shannon uses the Boehmer et al. (2004) data to identify IGOs whose charter is primarily security-oriented and MTOPS data to update the list of these institutions. She finds that joint membership in peace brokering IGOs increases attempts to settle disputes peacefully. However, joint membership in these IGOs does not have an effect on bilateral attempts when controlling for shared interests,

regime type and the history of such claims. On the other hand, joint membership seems to encourage settlement through third parties.

Work differentiating IGOs according to attributes or mandate has prompted additional attempts to identify not “whether IGOs matter” for peace, but “which IGOs matter.” Haftel (2007) adopts this approach, developing a new dataset on institutional design involving regional integration agreements (RIAs). He finds that more diverse and intense economic activity and regularly scheduled meetings are associated with a decline in member conflict behavior. McLaughlin et al. (2007) look for contexts where IGOs will be particularly challenged with keeping the peace. The authors identify contentious issues using the ICOW database, and then assess the effect of IGOs, both as active conflict mediators and as passive membership organizations, in defusing and resolving contentious interstate issues.

Given the growing evidence of indirect effects of international organizations, both in terms of unit-level interactions and levels-of-analysis issues, researchers have increasingly been drawn to the methodology of networks to try to unravel causal mechanisms.<sup>2</sup> Dorussen and Ward (2008) attempt to demonstrate that the effect of IGOs on international stability is not necessarily a direct effect of individual memberships. Using network analysis, the authors show that indirect linkages through IGOs are an important substitute for direct diplomatic ties. Ingram et al. (2005) use network analysis and the COW IGO data to show that trade flows between states increase with the strength of IGO ties between counties, thereby indicating a greater likelihood for cooperation in general. Interestingly, the apparent effect of IGOs on trade is not limited to organizations with an economic mandate, though IGOs that have strong institutional structures have a larger effect in promoting trade than those organizations that are minimally institutionalized. The authors attribute this effect to identity formation. Lupu and Greenhill (2011) posit that IGOs are communities of like-minded nations, reinforced by overlapping membership commitments. They combine an examination of the effects of IGOs with an assessment of the determinants of IGO membership, to address this endogeneity.

### *Global Governance*

Whereas the bulk of research utilizing the COW IGO dataset focuses on conflict behavior, a variety of studies have used the COW IGO data to examine relationship between IGO membership and global governance. Bernauer, et al. (2010) examines both domestic and international determinants of ratification of global environmental treaties. They find that countries that are more involved in international organizations tend to join more international environmental agreements. Generally, international factors (IO membership, treaty ratification) have a stronger effect than domestic factors (income, democracy). Looking at a large number of variables, Neumayer (2002) finds evidence that democracies take more actions associated with environmental commitment, but he finds much less evidence that their performance is better in terms of environmental outcomes. Similarly, Spilker (2011) shows that democracies do not exhibit better environmental behavior, but IGO membership can often lead to reduced pollution.

---

<sup>2</sup> On a more general level, Beckfield (2008) applies network analysis to the COW IGO data, finding that the structure of ties among organizations implies important challenges to major sociological theories of the organization of international affairs. Previous theoretical work on international organizations and even data-driven research underestimated the extent to which IGOs exhibit structural inequality.

Greenhill (2010) analyzes the effect of IGO membership on socialization toward human rights. He finds that the average human rights standards of IGO partners influence a country's human rights performance. Interestingly, the specific make up of IGOs (in terms of the human rights records of their member states) is much more important than the nature of the IGOs themselves. Bearce and Bondanella (2007) take the notion of socialization one step further, arguing that countries with common IGO memberships tend to converge toward similar worldviews. Using data on voting patterns in the United Nations, the authors find that states with more joint IGO memberships tend to vote more similarly in the UN General Assembly over time, suggesting that nations with many international ties are being socialized by their memberships.

### *IGOs and Democratization*

Given modern trends, organizational mandates and the normative context, it seems obvious that IGOs would serve as an important force motivating democratization in the international system. Pevehouse (2002a) seeks to identify the effect of IO membership on democratization. He argues that IOs with higher democratic density are more likely to be associated with liberal transition. His measure uses the average POLITY democracy score (Jagers and Gurr 1995) of the most democratic IO in which a given state is a member. Membership in democratic IOs is shown to increase the likelihood of a transition to democracy. Interestingly, this does not appear to be the case for regional IGOs. As Pevehouse (2002b) shows, regional IGOs are not associated with an increase in democracy, but they are associated with the durability of national efforts to liberalize. Pevehouse (2005) echoes and expands on this premise, arguing that regional IOs serve as a major commitment mechanism, allowing domestic leaders to make more credible claims to liberalize.

Torfason and Ingram (2010) argue that the network of IGOs diffuse democratic norms and transmit information among democratic members. They find that democracies have more influence in the IGO network than autocracies. Their evidence also supports the claim that networks diffuse democracy, accelerating the shift to democracy among those states heavily engaged in the IGO network. Donno (2010) explores the issue of reinforcement of existing democratic norms. Examining reports of election violations in the sample of COW IGOs, she finds that enforcement varies with importance, but that observers and the content of their reports influence IGO sections and enforcement.

### *The Determinants of IGO Membership*

Recently, scholars have devoted more attention to explaining IGO membership itself. Interest in IGO formation is a natural, and possibly necessary, adjunct to studies of IGO effects. Rey and Bardull (2005) use the older Singer/Jacobson version of the COW data to evaluate the effect of democracy on joining IGOs. They find that states with more competitive party systems and multiple legislative chambers (especially for wealthy Western democracies) tend to lead to more IGO memberships. Less competitive party systems with unicameral legislatures and low per capita gross domestic product tend to decrease IGO memberships. In addition, what they describe as consensus democracies join more IGOs. Presidentialism, on the other hand, has no effect on IGO membership.

Mansfield and Pevehouse (2006) seek to identify why states accede to IGO membership. They find that states, which experience a democratic transition over the past five years, tend to increase the number of their IGO memberships by 20% relative to states that did not undergo regime change. Autocratizing states are less likely to enter IOs than stable regimes, while democracies are more likely to join IGOs at a more rapid rate. Major powers and former communist countries are also more likely to join IGOs, while states involved in MIDs display a lower propensity to become IGO members. Eroding hegemony stimulates IGO joining. In contrast to previous research, Mansfield and Pevehouse find no evidence that the number of years that a country has been sovereign, economic development, GDP or commercial openness affect IGO joining. Mansfield and Pevehouse (2008) further explore the determinants of IO accession. They argue that democratizing states have more reason to join standards-based and economic IOs than political organizations, given the functionality of these organizations as commitment devices for domestic democratic politicians. They find that democratizing countries are more likely to enter significantly more economic, political and standards-based organizations than stable autocracies. The influence of democratization on IGO joining also appears to be independent of the effects of stable democracy. There is also satiation in IGO membership; as a state participates in more IOs of a given type, it enters fewer IOs of the same type, but more IOs of different types. Finally, Mansfield et al. (2008) examine the effects of domestic factors on membership in Regional International Agreements (RIAs). The study reveals that, while democracies are generally more likely to join RIAs than non-democracies, those with the most veto players are relatively less likely to become members. The level of integration serves to magnify the effect of veto players; more integrated RIAs have fewer democratic members.

Boehmer and Nordstrom (2008) analyze why states are jointly members in certain IGOs but not in others. They differentiate between levels of institutionalization, and between economic and security organizations. The authors find that dyads, which are economically dependent or democratic and at peace are more likely to join highly institutionalized IGOs. Militarized interstate disputes modestly reduce the likelihood of states sharing IGO memberships. Economic development and alliances increase joint IGO memberships. Trade ties are the most important determinant of joint IGO membership. Interestingly, the tendency among newly democratizing countries may be to form new IGOs, rather than to join existing international organizations (Poast and Urpelainen 2012). At the same time, IGO membership among non-democracies is something of a mystery, if in fact IGOs act to inhibit and convert non-democratic regimes (Rodgers and Volgy 2009).

Where the bulk of research addresses the dominant phenomenon of IGO joining, some studies have branched beyond this. Shanks, et al. (1996) explore both the growth and demise of IGOs along five dimensions. While the aggregate number of IGOs grows, many are also “set aside.” As the authors state, “only two-thirds of the IGOs that existed in 1981 were still active in 1992” (p. 594). Second, emanations – where existing IGOs create new organizations – are an important source of IGO formation. Third, evolution of IGOs means that the population of intergovernmental organizations has shifted over time. Newer organizations allocate membership differently. Fourth, states vary in the pattern of their memberships cross-sectionally and over time. In some cases, countries belonged to fewer IGOs in the 1990s than previously. Finally, the end of the Cold War led to new IGO formation that reflected reduced international competition. Shanks, et al. (1996) offer a number of empirical findings. Perhaps most surprising

of all, countries that are autocratizing (i.e. becoming *less* democratic) tend to have *more* IGO memberships. The age of a country and its development are associated with an increase in IGO memberships. Ingram and Torfason (2010) address the determinants of IGO termination. They show that IGOs, which are dependent on major powers, suffer a much higher rate of organizational demise than IGOs, which are not dependent on major powers. Interestingly, IGOs that help to promote trade, democracy and peace do not survive longer than those serving other functions.

## Examples of Organization Specific Datasets

The COW IGO data set is probably the most integrated data collection effort on international organizations, particularly from a comparative perspective. Whereas the contribution of this handbook chapter focuses on the COW IGO data set, other data collection efforts are worth mentioning, particularly because they provide important ideas about potential future avenues for the data collection and analysis efforts within the COW IGO framework.<sup>3</sup>

### *United Nations*

The most widely used database within the realm of the United Nations is the voting data from the United Nations General Assembly (UNGA).<sup>4</sup> One arm of quantitative research involves the effect on voting behavior in the UNGA on the level of international cooperation or conflict. Gartzke (1998, 2000, 2007) uses the similarity of UNGA vote patterns to argue that it is interests, and not institutions, primarily responsible for the democratic peace. Indeed, this measure has generally become a measure of interests in international relations research. As Voeten (2012) notes, “indicators based on UN votes have now become an almost obligatory ingredient in models that explain bilateral and multilateral lending, international conflict, and a host of other outcomes” (p. 12). Other approaches to measuring interests rely on alliances (Bueno de Mesquita 1981, Bueno de Mesquita and Lalman 1992) or IGOs (Maoz, et al. 2006).

Another arm of quantitative research involves the effects of major IGOs (and in particular the UN) on domestic public opinion. Chapman and Reiter (2004), and also Chapman (2009), show that the US president can demonstrate international support by obtaining approval from the UN Security Council (UNSC). Tingley and Tomz (2012) use an experiment to assess the causal pathways between UNSC resolutions and popular support. In contrast to the view of UN

---

<sup>3</sup> Whereas it is beyond the scope of this contribution to summarize existing data sets on regional organizations, particularly data collection efforts in European Union research provide important insights as to the possibilities for data collection for other international organizations more broadly. For example, the *Decision-making in the European Union (DEU)* data set measures the policy positions of the member states, the Commission, and the European Parliament on 70 legislative proposals adopted between 1999-2001 (Thomson et al. 2006). For another example, Warntjen et al. (2008), collected data on the ideological composition of governmental coalitions in the Council of Ministers. Such data collection efforts on a more general level could contribute to an increased understanding of the effect of policy preferences, and domestic politics, on intergovernmental bargaining in these institutions.

<sup>4</sup> Strezhnev and Voeten (2012-06) provides a codebook. Gartzke (2010) offers data on UNGA voting affinity.

resolutions as signals of quality or a reflection of international material support, the authors find that resolutions serve as commitments, causing publics to back military uses of force abroad.

This still begs the important questions about the origins of national interests, and how they translate into voting in the UNGA or UNSC. Alker (1964) and Alker and Russett (1965) were among the first to apply quantitative data of UNGA roll-call votes to the study of international politics. They used factor analysis to identify coalitions and cleavages among voting members. Kim and Russett (1996) argue that the Cold War, in which an East-West divide was dominant, has been re-shaped by the rise of a split between the North and the South. Voeten (2000) uses the NOMINATE scaling technique to evaluate roll call voting in the UNGA. He seeks to determine whether claims of multi-polarity after the Cold War have weight, whether there are important changes in voting patterns generally with the collapse of the Soviet Bloc, and whether research can identify consistent determinants of UN voting. Voeten finds that the post-Cold War world is uni-dimensional, where basically the United States and its closest friends stand against all other states. Regime type and wealth are important determinants of UN voting patterns, but the old East-West dimension still dominates over the North-South dimension.

Relaxing the assumption of the monolithic state, researchers have been interested to see whether domestic political change has any discernable effect on voting patterns in the UNGA. Hagan (1989) uses data on regime transitions in a sample of 87 developing countries to document that realignments in the General Assembly are often tied to domestic political change. Dreher and Jensen (2012) re-examine the effects of domestic political change on voting in the UN General Assembly. In addition to a longer time-series and larger cross-section of countries, they examine distinctions between “key” and “non-key” votes and the similarity of voting patterns with that of the United States. They find that leadership transition is associated with changes in vote patterns in the UNGA. Transitions seem to lead to convergence. “While we find that foreign policy is leader-specific, it is systematically influenced by the United States” (Dreher and Jensen 2012).

Studies that examine UN voting have been criticized for not paying attention to the manipulation of UN voting. In particular, given the low cost of casting a vote, powerful nations may be able to “purchase” roll-call outcomes with offers of foreign aid and other favors. Early studies produced contradictory evidence of vote buying in the UNGA (Rai 1972, 1980; Kegley and Hook 1991; Sexton and Decker 1992). Wang (1999) finds that U.S. foreign aid did influence politically important UNGA voting in a sample of 65 developing countries in the 1980s and 1990s.

Other studies extend the notion of vote buying to the Security Council. Kuziemko and Werker (2006) estimate the value to a country in foreign aid of obtaining one of the ten temporary seats on the UNSC (there are five permanent members with veto power). Dreher, et al. (2009) apply this logic to the prospect of UNSC members obtaining World Bank loans. Temporary UNSC membership does increase the probability of success in obtaining funding from the World Bank, though UNSC influence of this kind does not seem to increase the size of the loans obtained.

### *World Trade Organization*

The World Trade Organization (WTO), and its dispute settlement procedure, provides an ideal laboratory to empirically analyze questions of compliance and enforcement of cooperation in



international institutions. Over time, scholars have collected a database of several hundred GATT/WTO disputes, starting with the initial data collection efforts by Hudec (1993). This initial database was substantively revised and reformatted by Reinhardt (1996) and subsequently supplemented by Reinhardt (2000), Busch (2000), and Busch and Reinhardt (2003, 2006).<sup>5</sup> The database incorporates information on over 600 bilateral disputes from 1948 to 2000. In addition, the database includes information on the dispute escalation, policy outcomes, compliance with the rulings, and other factors of interest for analyzing enforcement of cooperation within the WTO. In a recent data collection effort, Busch et al. (2009) collected data on legal capacity of WTO members using a 48-question survey. Many scholars have used these data to analyze important questions such as who initiates disputes, why are some disputes never resolved whereas others never reach the formal stage, etc. Busch and Reinhardt (2002) and Davis (2012) provide an excellent overview of the insights that have been drawn from these data.

### *International Monetary Fund*

Data collection efforts in IMF research have focused primarily on the determinants of IMF lending, conditionality choices, as well as borrower performance. Vreeland (2003) provides data on the number of years a country is in an IMF program and the time a country negotiates a program.<sup>6</sup> Gould (2003, 2006), Dreher and Jensen (2007), and Copelovich (2010a,b) provide measurements of IMF conditionality operationalized as the number of conditions imposed in each given IMF loan. For example, Copelovitch (2010a) collects data of 197 non-concessional IMF loans to 47 countries from 1984-2003 using IMF archival documents to measure loan size as well as the number of conditions for each loan. He distinguishes “hard” and “binding” conditions from “soft conditions.” Stone (2008, 2011) proposes a different way of measuring the scope of IMF conditionality, using quantitative macroeconomic performance criteria and structural benchmarks as reported in the IMF’s Monitoring of Agreements Database. The database codes conditionality in 19 categories, ranging from fiscal and monetary policy to exchange rate restrictions and structural reforms. Stone’s measure of scope is operationalized as the number of categories of conditions subject to test in a particular review. With these data, Stone demonstrates how U.S. interests continue to prevail in the organization, despite waning contributions. The United States is able to wield disproportionate power by combining formal and informal mechanisms. Finally, some effort has gone into providing adequate measures for borrowers’ compliance. Killick (1995) argues that credit agreed but left undrawn under a program is a good indicator of performance. Dreher (2003) measures performance as a binary variable that takes one if in a particular year at least 25 per cent of the amount, which would be available for that year under equal phasing remains undrawn. He uses this data to analyze the effect of elections on IMF program interruptions. Using these data, scholars have addressed various questions, such as the influence of powerful states, preference heterogeneity, and agency behavior on IMF lending and conditionality. Copelovitch (2010a,b) provides a detailed summary on the quantitative literature on this question. Vreeland (2007) conducts a meta-analysis of data-based studies of the IMF, offering a criticism of some IMF lending practices and the influence of major powers.

### *World Bank and Other Multilateral Aid Institutions*

---

<sup>5</sup> Note, that there does not exist one integrated data set as the different efforts focus on different time periods.

<sup>6</sup> The dataset was updated by Abouharb and Cingranelli (2009).

Research on the World Bank and other multilateral aid institutions has long relied on the OECD's International Development Statistics to analyze aid commitments and disbursements from various regional and multilateral development banks, including the World Bank. In a recent effort, Tierney et al. (2011) provided a more comprehensive data set on bilateral and multilateral aid flows. Both data sets have been used to address a variety of interesting questions related to economic development, and provided important insights for our understanding of multilateral aid allocation decisions (see for example, Milner 2006; Lyne et al. 2009; Hicks et al. 2008; Schneider and Tobin 2012a). In addition, in an attempt to enable the comparison of various multilateral aid institutions, McLean (2012) and Schneider and Tobin (2012b) collected data on contributions to and allocation of a number of multilateral aid institutions in order to understand why governments delegate resources to a variety of IGOs with oftentimes overlapping goals.

### **Future Applications of Quantitative Data on IOs**

While much has been achieved in the initial exploitation of the COW IGO data, some important questions remain. Perhaps greatest question of all remains the effects of IGOs on peace. A major source of ambiguity is the over-aggregation of the indicator itself. Counts of these data pose the risk of an ecological fallacy; identifying relationships in populations does not mean that one can infer efficaciousness for individual organizations or memberships (Robinson 1950). Research using these data has generally not disaggregated these data.<sup>7</sup> Inferences meant to reflect the effects of IGOs in conflict are actually demonstrating the effect of accumulating memberships. Given the high variation in membership levels among countries, it is very likely that the factors that lead states to join more IGOs may themselves be responsible for variation in conflict behavior. This has already been shown in the case of countries that are more active in the international system. Future research should seek to disaggregate the effects of IGOs on various dependent variables. The data collected on individual IGOs, as summarized above, provides a useful starting point for this.

The existing efforts in data collection for specific international organization provide further ideas for the development and application of the COW IGO database. Whereas much effort has been spent to analyze the effectiveness of IGOs on promoting peace, there is less understanding about the effectiveness of IGOs in their own fields. Based on the ongoing efforts to provide more fine-grained codings in respect to IGO characteristics and policy fields, future research could gain insights about IGO effectiveness using comparative methods.

In addition, many scholars of the IMF, the World Bank, and the WTO have focused on the influence of bargaining power on policy outcomes. Most of this work relies on either the influence of the most powerful member states, such as the US (Stone 2008), or on the influence of a group of powerful states (Copelovitch 2010). More fine-grained analysis would require the collection of data about the informal and formal bargaining power of individual member states. Much of this work has already been completed in EU research, and scholars have used these measures of power, to analyze various questions related to formal and informal bargaining inputs and outputs in the EU (Carrubba 1997; Rodden 2002; Thomson et al. 2006; Slapin 2008; Aksoy 2010; Schneider 2011, 2012; Schneider and Tobin 2012a). This could serve as a foundation for

---

<sup>7</sup> For an exception, see Gartzke, et al. (2009).

future data collection efforts that result in a comparable dataset of bargaining power in IGOs.

Another interesting question that has only been explored partially is the development and existence of IGOs in various issue fields that oftentimes have overlapping or even similar goals (Raustiala and Victor 2004; Alter and Meunier 2009). Some research has discussed the beneficial effects of such regime complexes. For example, Busch (2007) argues that it allows governments to forum shop. Schneider and Tobin (2012) argue that it gives governments the ability to diversify the risks of delegation. Whereas these studies provide explanations that are specific to particular issue fields, the COW IGO dataset could provide the foundation for future data collection that allows answering such questions.

While much has been accomplished in terms of methodological sophistication, there remains room to further refine analysis of key relationships through better theory and estimation techniques. In particular, little has been done to date to mate formal theoretical models with tests of hypotheses about international cooperation using the COW IGO data. Given the compatibility of these data with other COW datasets, and the extensive use of formal modeling in the general conflict literature, this would seem to be an obvious course for future research. A related but more general challenge involves endogeneity. Studies to date explore the effects of IGOs on democracy, peace and global governance; and of democracy and other variables on the tendency for states to join IGOs. It is very probable that estimating these relationships separately biases apparent effects; democracy both influences and is influenced by international institutions. Future research has to tackle these challenges if it wants to provide more conclusive statements about the relationship between IGOs and international cooperation and conflict.

## Works Cited

- Abouharb, M. Rodwan and David L. Cingranelli. 2009. "IMF Programs and Human Rights, 1981-2003." *Review of International Organizations* 4(1):47-72.
- Aksoy, Deniz. 2010. "Who Gets What, When, and How Revisited: Voting and Proposal Powers in the Allocation of the EU Budget." *European Union Politics* 11(2): 171-194.
- Alker, Hayward R., Jr. 1964. "Dimensions of Conflict in the General Assembly." *American Political Science Review* 58(3):642-657.
- Alker, Hayward R., Jr., and Bruce M. Russett. 1965. *World Politics in the United Nations General Assembly*. New Haven, CT: Yale University Press.
- Alter, Karen J. and Sophie Meunier. 2009. "The Politics of International Regime Complexity." *Perspectives on Politics* 7(1):13-24.
- Bearce, David H., and Stacy Bondanella. 2007. "Intergovernmental Organizations, Socialization, and Member-State Interest Convergence." *International Organization* 61(4):703-733
- Beckfield, Jason. 2008. "The Dual World Polity: Fragmentation and Integration in the Network of Intergovernmental Organizations." *Social Problems* 55(3):419-442.
- Bernauner, Thomas, Anna Kalbhenn, Vally Koubi, and Gabriele Spilker. 2010. "A Comparison of International and Domestic Sources of Global Governance Dynamics." *British Journal of Political Science* 40(3):509-538.
- Boehmer, Charles, Erik Gartzke, and Timothy Nordstrom. 2004. "Do intergovernmental organizations promote peace?" *World Politics* 57(1):1-38.
- Boehmer, Charles, and Timothy Nordstrom. 2008. "Intergovernmental Organization Memberships: Examining Political Community and the Attributes of International Organizations." *International Interactions* 34(3):282-309.
- Busch, Mark L. 2000. "Democracy, Consultation, and the Paneling of Disputes Under GATT." *Journal of Conflict Resolution* 44(4):425-446.
- Busch, Mark L. and Eric Reinhardt. 2002. "Testing International Trade Law: Empirical Studies of GATT/WTO Dispute Settlement.", in Daniel M. Kennedy and James D. Southwick (eds.), *The Political Economy of International Trade Law: Essays in Honor of Robert Hudec*. Cambridge: Cambridge University Press.
- Busch, Mark L. and Eric Reinhardt. 2003. "Developing Countries and GATT/WTO Dispute Settlement." *Journal of World Trade* 37(4):719-735.

- Busch, Mark L. and Eric Reinhardt. 2006. "Three's a Crowd: Third Parties and WTO Dispute Settlement." *World Politics* 58(3):446-477.
- Busch, Mark L., Eric Reinhardt, and Gregory Shaffer. 2009. "Does Legal Capacity Matter? A Survey of WTO Members." *World Trade Review* 8(4):559-577.
- Bueno de Mesquita, Bruce. 1981. *The War Trap*. New Haven, CT: Yale University Press.
- Bueno de Mesquita, Bruce, and David Lalman. 1992. *War and Reason: Domestic and International Imperatives*. New Haven, CT: Yale University Press.
- Carrubba, Clifford, J. 1997. "Net Financial Transfers in the European Union: Who Gets What and Why?" *Journal of Politics* 59(2): 469-496.
- Chapman, Terrence, 2009. "Audience Beliefs and International Organization Legitimacy." *International Organization* 63(4):733--64.
- Chapman, Terrence L., and Dan Reiter. 2004. "The United Nations Security Council and the Rally 'Round the Flag Effect." *Journal of Conflict Resolution* 48(6):886-909.
- Copelovitch, Mark. 2010a. "Master or Servant?: Common Agency and the Political Economy of IMF Lending." *International Studies Quarterly* 54(1):49-77.
- Copelovitch, Mark. 2010b. *The International Monetary Fund in the Global Economy: Banks, Bonds, and Bailouts*. Cambridge: Cambridge University Press.
- Crescenzi, Mark J.C., Andrew J. Enterline, and Stephen B. Long. 2008. "Bringing Cooperation Back In: A Dynamic Model of Interstate Interaction." *Conflict Management and Peace Science* 25(3):264-280.
- Davis, Christina L. 2012. *Why Adjudicate? Enforcing Trade Rules in the WTO*. Princeton: Princeton University Press.
- Davis, Christina L. and Sarah Blodgett Bermeo. 2009. "Who Files? Developing Country Participation in GATT/WTO Adjudication." *Journal of Politics* 71(3):1033-1049.
- Domke, William. 1988. *War and the Changing Global System*. New Haven, CT: Yale University Press.
- Donno, Daniela. 2010. "Who Is Punished?: Regional Intergovernmental Organizations and the Enforcement of Democratic Norms." *International Organization* 64(4):593-625.
- Dorussen, Han, and Hugh Ward. 2008. "Intergovernmental Organizations and the Kantian Peace: A Network Perspective." *Journal of Conflict Resolution* 52(2):189-212.

Doyle, Michael. 1986. "Liberalism and World Politics." *American Political Science Review* 80(4):1151-1169.

Dreher, Axel. 2003. "The Influence of Elections on IMF Program Interruptions." *Journal of Development Studies* 39(6): 101-120.

Dreher, Axel, and Nathan Jenson. 2007. "Independent Actor or Agent? An Empirical Analysis of the Impact of US Interests on IMF Conditions." *Journal of Law and Economics* 50(1):105-124.

Dreher, Axel, and Nathan Jenson. 2012. "Country or Leader?: Political Change and UN General Assembly Voting." Typescript. Washington University.

Dreher, Axel, Peter Nunnenkamp and Rainer Thiele. 2008. "Does US Aid Buy UN General Assembly Votes: A Disaggregated Analysis." *Public Choice* 136(1-2):139-164.

Dreher, Axel, Jan-Egbert Sturm, and James Raymond Vreeland. 2009. "Development Aid and International Politics: Does Membership in the UN Security Council Influence World Bank Decisions?" *Journal of Development Economics* 88(1):1-18.

Gartzke, Erik. 1998. "Kant We All Get Along?: Opportunity, Willingness, and the Origins of the Democratic Peace." *American Journal of Political Science* 42(1):1-27.

Gartzke, Erik. 2000. "Preferences and the Democratic Peace." *International Studies Quarterly* 44(2):191-210.

Gartzke, Erik. 2007. "The Capitalist Peace." *American Journal of Political Science* 51(1):166-191.

Gartzke, Erik. 2010. "The Affinity of Nations Index, 1946-2002." Typescript. University of California, San Diego.

Gartzke, Erik, Quan Li, and Charles Boehmer. 2001. "Investing in the Peace: Economic Interdependence and International Conflict." *International Organization* 55(2):391-438.

Gartzke, Erik, Timothy Nordstrom, and Charles Boehmer. 2009. "Disaggregating International Organizations." Typescript. University of California.

Gould, Erica R. 2003. "Money Talks: Supplementary Financiers and International Monetary Fund Conditionality." *International Organization* 57(3):551-586.

Gould, Erica R. 2006. "Money Talks: The International Monetary Fund, Conditionality, and Supplementary Financiers." Palo Alto: Stanford University Press.

Greenhill, Brian. 2010. "The Company You Keep: International Socialization and the Diffusion of Human Rights Norms." *International Studies Quarterly* 54(1):127-145.

- Hafner-Burton, Emilie N. and Alexander H. Montgomery. 2006. "Power Positions: International Organizations, Social Networks, and Conflict." *Journal of Conflict Resolution* 50(1):3-27.
- Hudec, Robert. 1993. *Enforcing International Trade Law: The Evolution of the Modern GATT Legal System*. Salem, NH: Butterworth Legal Publishers.
- Haftel, Yoram Z. 2007. "Designing for Peace: Regional Integration Agreements, Institutional Variation, and Militarized Interstate Disputes." *International Organization* 61(1):217-237.
- Hagan, Joe D. 1989. "Domestic Political Regime Changes and Third World Voting Realignments in the United Nations, 1946-1984." *International Organization* 43(3):505-541.
- Hansen, Holley E., Sara McLaughlin Mitchell, and Stephen C. Hemeth. 2009. "IO Mediation of Interstate Conflicts: Moving Beyond the Global versus Regional Dichotomy." *Journal of Conflict Resolution* 52(2):295-325.
- Hicks, Robert L., Bradley C. Parks, J. Timmons Roberts, and Michael J. Tierney. 2008. *Greening Aid? Understanding the Environmental Impact of Development Assistance*. Oxford: Oxford University Press.
- Ingram, Paul, Jeffery Robinson, and Marc Busch. 2005. "The Intergovernmental Network of World Trade: IGO Connectedness, Governance and Embeddedness." *American Journal of Sociology* 111(3):824-58.
- Ingram, Paul, and Magnus T. Torfason. 2010. "Organizing the In-Between: The Political Dynamics of Network Weaving Organizations in the Global Interstate Network." *Administrative Science Quarterly* 55(4):577-605.
- Jagers, Keith, and Ted Robert Gurr. 1995. "Transitions to Democracy: Tracking Democracy's 'Third Wave' with the Polity III Data." *Journal of Peace Research* 32(4):469-482.
- Jacobson, Harold K., William Reisinger, and Todd Mathers. 1986. "National Entanglements in International Governmental Organizations." *American Political Science Review* 80(1):141-159.
- Kalbhenn, Anna. 2011. "Liberal Peace and Shared Resources: A Fair-weather Phenomenon?" *Journal of Peace Research* 48(6):715-735.
- Kegley, Charles, and Steven Hook. 1991. "U.S. Foreign Aid and U.N. Voting: Did Reagan's Linkage Strategy Buy Deference or Defiance?" *International Studies Quarterly* 35(3):295-312.
- Kim, Soo Yeon, and Bruce Russett. 1996. "The New Politics of Voting Alignments in the United Nations General Assembly." *International Organization* 50(4):629-652.
- Kuziemko, Ilyana, and Eric Werker. 2006. "How Much Is a Seat on the Security Council Worth?: Foreign Aid and Bribery at the United Nations." *Journal of Political Economy* 114(5):905-930.

Lupu, Yonatan, and Brian D. Greenhill. 2011. "Clubs of Clubs: A Networks Approach to the Logic of Membership in Intergovernmental Organizations" Typescript. George Washington University.

Lyne, Mona M., Daniel L. Nielson, and Michael J. Tierney. 2009. "Controlling Coalitions: Social Lending at the Multilateral Development Banks." *Review of International Organizations* 4(4): 407-433.

Mansfield, Edward D., Helen V. Milner, and Jon Pevehouse. 2008. "Democracy, Veto Players, and the Depth of Regional Integration." *The World Economy*, 67-96.

Mansfield, Edward D., and Jon Pevehouse. 2006. "Democratization and International Organizations." *International Organization* 60(1):137-167.

Mansfield, Edward D., and Jon Pevehouse. 2008. "Democratization and the Varieties of International Organizations." *Journal of Conflict Resolution* 52(2):269-294.

Maoz, Zeev, and Bruce Russett. 1993. "Normative and Structural Causes of the Democratic Peace, 1946-1986." *American Political Science Review* 87(3):624-638.

Maoz, Zeev, Ranan D. Kuperman, Lesley Terris, and Ilan Talmud. 2006. "Structural Equivalence and International Conflict." *Journal of Conflict Resolution* 50(5):1-26.

McLaughlin Mitchell, Sara, and Paul R. Hensel. 2007. "International Institutions and Compliance with Agreements." *American Journal of Political Science* 51(4):721-737.

McLean, Elena V. 2012. "Donors' Preferences and Agent Choice: Delegation of European Development Aid." *International Studies Quarterly* 56(2): 381-395.

Milner, Helen V. 2006. "Why Multilateralism? Foreign Aid and Domestic Principal-Agent Problems," in: Darren G. Hawkins, David A. Lake, Daniel L. Nielson, and Michael J. Tierney, eds. *Delegation and Agency in International Organizations*. Cambridge: Cambridge University Press, p107-139.

Mitrany, David. 1933. *The Progress of International Government*. New Haven: Yale University Press.

Mitrany, David. 1966. *A Working Peace System*. Chicago: Quadrangle.

Neumayer, Eric. 2002. "Do Democracies Exhibit Stronger International Environmental Commitment?: A Cross-Country Analysis." *Journal of Peace Research* 39(2):139-164.

Oneal, John R., and Bruce Russett. 1999. "The Kantian Peace: The Pacific Benefits of Democracy, Interdependence, and International Organizations, 1885-1992." *World Politics* 52(1):1-37.



- Oneal, John R., Bruce Russett, and Michael L. Berbaum. 2003. "Causes of Peace: Democracy, Interdependence, and International Organizations." *International Studies Quarterly* 47(3):371-394.
- Pevehouse, Jon. 2002a. "Democracy from the Outside In?: International Organizations and Democracy." *International Organization* 56(3):515-549.
- Pevehouse, Jon. 2002b. "With a Little Help from My Friends?: Regional Organizations and the Consolidation of Democracy." *American Journal of Political Science* 46(3):611-626.
- Pevehouse, Jon. 2005. *Democracy from Above: Regional Organizations and Democratization*. Cambridge: Cambridge University Press.
- Pevehouse, Jon, Timothy Nordstrom, and Kevin Warnke. 2004. "The COW-2 International Organizations Dataset, Version 2.0." *Conflict Management and Peace Science* 21(2):101-119.
- Pevehouse, Jon, and Bruce Russett. 2006. "Democratic International Governmental Organizations Promote Peace." *International Organization* 60(4):969-1000.
- Poast, Paul, and Johannes Urpelainen. 2012. "Fit and Feasible: Why Democratizing States Form, not Join, International Organizations." Typescript. Columbia University.
- Rai, Kul B. 1972. "Foreign Policy and Voting in the UN General Assembly." *International Organization* 26(3):589-594.
- Rai, Kul B. 1980. "Foreign Aid and Voting in the UN General Assembly, 1967-1976." *Journal of Peace Research* 17(3):269-277.
- Raustiala, Kal, and David Victor. 2004. "The Regime Complex for Plant Genetic Resources." *International Organization* 58(2):277-309.
- Reinhardt, Eric. 2000. "Aggressive Multilateralism: The Determinants of GATT/WTO Dispute Initiation 1948-1998." Typescript. Emory University.
- Rey, Denis, and John Barkdull. 2005. "Why Do Some Democratic Countries Join More Intergovernmental Organizations Than Others?" *Social Science Quarterly* 86(2):386-402.
- Robinson, William S. 1950. "Ecological Correlations and the Behavior of Individuals." *American Sociological Review* 15(3):351-357.
- Rodden, Jonathan. 2002. "Strength in Numbers? Representation and Redistribution in the European Union." *European Union Politics* 3: 151-175.
- Rodgers, Stuart, and Thomas J. Volgy. 2009. "Substituting for Democratization: A Comparative Analysis of Involvement in Regional Intergovernmental Organizations," Thomas J.

Volgy, Zlatko Sabic, Petra Roter, and Andrea K. Gerlak, eds. *Mapping the New World Order* New York: Wiley.

Russett, Bruce. 1993. *Grasping the Democratic Peace: Principles for a Post-Cold War World*. Princeton, NJ: Princeton University Press.

Russett, Bruce, John R. Oneal, and David Davis. 1998. "The Third Leg of the Kantian Tripod for Peace: International Organizations and Militarized Disputes, 1950–1985," *International Organization* 52(3):441-448.

Russett, Bruce, and John R. Oneal. 2001. *Triangulating Peace: Democracy, Interdependence, and International Organizations*. New York: W. W. Norton.

Schneider, Christina J. 2011. "Weak States and Institutionalized Bargaining Power in International Organizations." *International Studies Quarterly* 55(2): 331-355.

Schneider, Christina J. 2012. "Domestic Elections, Political Competence, and Distributional Bargaining in the European Union." *World Politics* (forthcoming).

Schneider, Christina J. and Jennifer L. Tobin. 2012a. "Tying the Hands of its Masters?: Interest Coalitions and Multilateral Aid Allocation in the European Union." *International Studies Quarterly* (forthcoming).

Schneider, Christina J. and Jennifer Tobin. 2012b. "Multilateral Aid Portfolios." Typescript. University of California, San Diego.

Slapin, Jonathan B. 2008. "Bargaining Power at Europe's Intergovernmental Conferences: Testing Institutional and Intergovernmental Theories." *International Organization* 62: 131-162.

Stone, Randall W. 2008. "The Scope of IMF Conditionality." *International Organization* 62(4):589-620.

Sexton, Edwin A., and Terence N. Decker. 1992. "U.S. Foreign Aid: Is It for Friends, Development or Politics?" *Journal of Social, Political and Economic Studies* 17(3-4):303-15.

Shanks, Cheryl, Harold K. Jacobson, and Jeffrey H. Kaplan. "Inertia and Change in the Constellation of International Governmental Organizations, 1981-1982." *International Organization* 50(4):593-627.

Shannon, Megan, Daniel Morey, and Frederick J. Boehmke. 2010. "The Influence of International Organizations on Militarized Dispute Initiation and Duration." *International Studies Quarterly* 54(4):1123-1141.

Singer, J. David, and Michael Wallace. 1970. "Intergovernmental Organization and the Preservation of Peace, 1816-1964: Some Bivariate Relationships." *International Organization* 24(3):520-547.

- Spilker, Gabriele. 2011. "Helpful Organizations: Membership in Inter-Governmental Organizations and Environmental Quality in Developing Countries." *British Journal of Political Science* 42(2):345-370.
- Stone, Randall W. 2011. *Controlling Institutions: International Organizations and the Global Economy*. Cambridge: Cambridge University Press.
- Strezhnev, Anton; Erik Voeten. 2012-06. "United Nations General Assembly Voting Data." <http://hdl.handle.net/1902.1/12379> UNF:5:iiB+pKXYsW9xMMP2wfY1oQ== V3 [Version]
- Thomson, Robert, Frans N. Stokman, Christopher H. Achen and Thomas König, eds. 2006. *The European Union Decides*. Cambridge: Cambridge University Press.
- Tierney, Michael J., Daniel L. Nielson, Darren G. Hawkins, J. Timmons Roberts, Michael G. Findley, Ryan M. Powers, Bradley Parks, Sven E. Wilson, and Robert L. Hicks. 2011. "More Dollars than Sense: Refining our Knowledge of Development Finance Using AidData." *World Development* 39(11):1891-1906.
- Tingley, Dustin, and Michael Tomz. 2012. "How does the UN Security Council Influence Public Opinion?" Typescript. Harvard University.
- Torfason, Magnus T. and Paul Ingram. 2010. "The Rise of Global Democracy: A Network Account." *American Sociological Review* 75(3):355-377.
- Voeten, Erik. 2000. "Clashes in the Assembly." *International Organization* 54(2):185-215.
- Voeten, Erik. 2012. "Data and Analysis of Voting in the UN General Assembly." Typescript. Georgetown University.
- Vreeland, James R. 2003. *The IMF and Economic Development*. Cambridge: Cambridge University Press.
- Vreeland, James R. 2007. *The International Monetary Fund: Politics of Conditional Lending*. New York: Routledge.
- Wallace, Michael, and J. David Singer. 1970. "International Governmental Organization in the Global System, 1815-1964: A Quantitative Description." *International Organization* 24(2):239-287.
- Wang, T.Y. 1999. "U.S. Foreign Aid and UN Voting: An Analysis of Important Issues." *International Studies Quarterly* 43(1):199-210.
- Warntjen, Andreas, Simon Hix, and Christopher Crombez. 2008. "The Party Political Make-Up of EU Institutions." *Journal of European Public Policy* 15(8):1243-1253.