Toward a Realistic Perspective on Collaborative Design:
Evidence Across Several Intergovernmental Domains

Natural resources (e.g. water, wetland) and societal problems (e.g. air pollution, traffic congestion) often cross jurisdictional and administrative boundaries. As a result, intergovernmental collaboration has become increasingly important in managing these resources or mitigating these problems. Yet the inherent nature of institutional fragmentation hampers efficient and effective collaboration. By bringing insights from different domains that include, transportation, water, land-use, rising sea-level, air pollution, sustainability and climate change adaptation, the following three paper panels and round-table discussion address the following fundamental questions:

--How do institutional designs harm intergovernmental collaboration? And how can a change in the design facilitate collaboration?
--What are the factors that affect the dynamics of intergovernmental collaboration? How can new policies or administrative procedures help to increase efficiency, as well as to achieve desired policy outcomes?
AGENDA

Panel 1: Intergovernmental Collaboration and Sustainability

Chair: Iris Hui, Stanford University
Discussants: Nicola Ulibarri, UC Irvine; Iris Hui, Stanford University

* Presenting author

1.1 “Regional Collaboration and Policy Change: does it happen and what are the driving factors?”
Cali Curley*, Indiana University - Purdue University, Indianapolis; Rachel Krause, University of Kansas

1.2 "Multidirectional Collaboration in Designing and Managing Sustainability Policy"
Ann O’M. Bowman*, Texas A&M University; Kent E. Portney, Texas A&M University; and Jeffrey M. Berry, Tufts University

1.3 “Climate Adaptation, Sea-level Rise, and Complex Governance in the San Francisco Bay Area.”
Mark Lubell*, UC Davis

Richard C. Feiock*, Florida State University; Aaron Deslatte, Northern Illinois University

Panel 2: Making Collaboration Work

Chair: Megan Mullin, Duke University
Discussants: Megan Mullin, Duke University; Cali Curley, Indiana University - Purdue University, Indianapolis

* Presenting author

2.1 “Why Do Local Leaders Cooperate Across Boundaries? Results from a Survey Experiment on U.S. Mayors and Councilors”
Meghan E. Rubado*, Cleveland State University

2.2 “The Complexity of Uncertainty in Collaborative Governance Regimes
Nicola Ulibarri*, University of California, Irvine

2.3 “Service delivery fragmentation and the ecology of intralocal games”
Tyler A. Scott*, University of Georgia; Rob A. Greer, Texas A&M
2.4 “Can Stakeholders be Primed to Consider Regional Collaborative Goals Over Self-Interest? Iris Hui*, Stanford University; Bill Blomquist, Indiana University - Purdue University, Indianapolis; Bruce Cain, Stanford University; Elisabeth Gerber, University of Michigan, Ann Arbor

Panel 3: Collaboration Among Local Agencies
Chair: Bruce Cain, Stanford University
Discussants: Bruce Cain, Stanford University; Meghan Rubado, Cleveland State University

* Presenting author

3.1 “Choice and Design in the Designation of Metropolitan Planning Organizations
Nicholas Carney, University of Michigan; Elisabeth R. Gerber*, University of Michigan; Susan M. Miller, University of South Carolina

3.2 “Voluntary Local Cooperation with Regional Land Use Planning to Reduce GHGs”
Gian-Claudia Sciara*, University of Texas at Austin; Sarah A. Strand, University of California-Davis

3.3 “Coastal Climate Adaptation: Local Decision Rules and the Transfer of Storm-Related Risk”
Dylan McNamara, University of North Carolina; Megan Mullin*, Duke University; Martin D. Smith, Duke University

3.4 “Using Computer Simulations to Test Hypotheses about Collaborative Governance in the Absence of Large Data Sets”
Craig W. Thomas*, University of Washington; Tyler A. Scott, University of Georgia

Round-table Discussion

Toward a Realistic Perspective on Collaborative Design: Evidence Across Several Intergovernmental Domains

Chair: Bruce Cain, Stanford University

Panelists:
Ann Bowman, Texas A&M
Richard Feiock, Florida State University
Elisabeth Gerber, University of Michigan, Ann Arbor
Mark Lubell, UC Davis
Craig Thomas, University of Washington
Chris Ansell, University of California, Berkeley
Panel 1: Intergovernmental Collaboration and Sustainability

Title: “Regional Collaboration and Policy Change: does it happen and what are the driving factors?”

By: Cali Curley and Rachel Krause

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Although often treated in the literature as an end unto itself, collaboration is better seen as a means to achieve, among other things, more effective and efficient governance. The extent to which collaborative activities translates into concrete improvements or changes is an empirical question whose answer is likely dependent both on context and the nature of the outcome considered. In this paper, we examine the question: what factors influence whether or not regional collaboration results in city governments enacting policy change in the areas of sustainability, energy, and climate. Although there is likely an underlying mechanism, such as policy learning, that is responsible for policy change, we focus on identifying factors that determine whether a regional collaboration successfully activates those mechanisms.

Using data from the 2010 Integrated City Sustainability Database, we explore this question on a sample of approximately 600 US cities located in 209 different metropolitan statistical areas. Descriptive statistics indicate that although approximately 50 percent of cities in the sample have engaged in regional collaboration on these issues, only 20 percent have enacted changes to either policy or their comprehensive plan as a result. Several factors are hypothesized as affecting both the likelihood that a city participates in regional collaboration and that it enacts change as a result. One group of these factors is related to the city itself, including whether it is a leader or laggard on these issues. It is not clear, a priori, whether leader or laggard cities are more likely to change their policies based on collaborative regional efforts. A rationale exists for both, thus this is a key focus of the empirical tests. A second group of factors relates to the nature of the regional planning efforts themselves, specifically their robustness, relevance, and the degree to which they offer cities access to additional resources.

The analysis employs a multinomial logit regression with three categories: No participation in a regional collaboration, participation but no change, and both participation and change. This will provide information about the factors that enable regional partnerships to have policy relevant outcomes. A secondary analysis takes a closer looks at the collaborative efforts occurring within two MSAs for which we have a large number (over 25) of city respondents in our data. This enables us to better assess the extent and type of regional collaboration as well as the effect that the density of horizontal collaborative arrangements has on the likelihood of regional partnerships resulting in policy change.
Panel 1: Intergovernmental Collaboration and Sustainability

Paper proposal: Multidirectional Collaboration in Designing and Managing Sustainability Policy

Authors: Ann O’M. Bowman, Texas A&M University; Kent E. Portney, Texas A&M University; and Jeffrey M. Berry, Tufts University

Abstract: The paper touches on two of the broad themes of the proposed mini-conference: the dynamics of intergovernmental collaboration and the outcomes of collaborative efforts. Focusing on 50 of the 54 largest cities in the U.S., we surveyed city administrators who deal with environmental, land use, and economic development issues. (The average number of responses from each city was 8.5 administrators.) The survey included questions on the frequency of contact with other governments and the degree to which these other governments are included in policy deliberations. With these data, we can answer the following research questions: (1) how much interaction occurs among these governments, and (2) how much collaboration actually takes place. Using these measures of collaboration, we tackle the outcomes (or non-outcomes, as it may be) related to sustainability policy. This leads to a third research question: how does interaction and collaboration influence a city’s sustainability policies? In addition to the large-N analysis, we also take a more granular look at the connection between collaboration and outcomes, comparing cities in California to those in Texas and Florida. From these analyses, we draw conclusions about the impact of intergovernmental collaboration on sustainability policy in the U.S.

Panel 1: Intergovernmental Collaboration and Sustainability

Mark Lubell, UC Davis

Climate Adaptation, Sea-level Rise, and Complex Governance in the San Francisco Bay Area

As with many other coastal regional, the San Francisco Bay area is currently attempting to create a new set of governance institutions to address climate change impacts, especially for sea-level rise. This paper analyzes these new governance institutions from the ecology of games perspective, which argues that institutional change is driven by an evolutionary process where political actors experiment with a wide variety of possible new policy venues. The relevance of the ecology of games is obvious in the San Francisco Bay Area, where the issue of sea-level rise and associated climate change adaptation strategies are being debated in multiple venues at the local and regional levels. The process of institutional change is literally in motion in the region, and most stakeholder are unclear about when or how the final structure of governance will emerge. We develop and test some initial hypotheses using a combination of network analysis from archival data and qualitative interviews of over 40 key stakeholders in the Bay Area. The network analysis uses a bi-partite network where actors are linked to venues, and suggests that most of the coordination is occurring around venues but the patterns vary across levels of geographic scale. The research has general implications with respect to how complex
governance institutions evolve to address emerging issues, within the path dependent constraints established by existing institutions and actors.

**Panel 1: Intergovernmental Collaboration and Sustainability**


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In an era of unrelenting fiscal stress, local governmental efforts to achieve greater sustainability and collaborative service-delivery have become a central focus within urbanized regions. Collaborative actions may influence environmentally sustainable outcomes by diffusing policies across municipal boundaries, encouraging intergovernmental coordination, and minimizing risks for individual cities to take green-policy actions. This study investigates collaboration and fragmentation together to determine the extent to which collaboration mitigates the barriers to addressing externalities in environmental and land-use patterns. Jurisdictional fragmentation disburses resources and capacities more widely across urban regions. Cities are beholden upon their broader environment for the resources and knowledge necessary to achieve sustainability. Fragmentation is thought to increase pressure to compete for resources. A theoretical framework for understanding this nexus of fragmentation and collaboration has begun to emerge in recent years. But the empirical evidence for conditions under which jurisdictional fragmentation and inter-governmental collaboration are complementary or incompatible is conspicuously absent.

This study begins to fill this lacuna at two levels: first, utilizing the Integrated City Sustainability Database (ICSD) that integrates information from seven national surveys with multiple imputation to provide data on all US cities over 50,000 population. We explore the macro-level influence fragmentation has on a range of collaborative actions. Cities appear to make greater strides toward sustainability as they better balance their short- and long-term interests, finding
mutually beneficial policy arrangements to protect natural amenities alongside ancillary job-creation, retention or diversification activities. However, most environmental goods are complex products for which price, quality and quantity are difficult to determine. The Institutional Collective Action (ICA) framework suggests collaboration risks vary by the type of mechanism used and the nature of the problem.

Secondly, we examine collaboration barriers between Chicago and its surrounding cities and counties at a regional scale. The Chicago metropolitan region is among the most governmentally fragmented in the country, with more than 300 cities and counties. Individually, they confront disparate growth management, environmental and financial challenges, as well as growing demands for services. Chicago set a goal in 2012 to become “the greenest city in the world” by engaging public, private and nonprofit stakeholders on a variety of economic development, energy efficiency, transportation, waste, food, recycling and climate change mitigation goals. A separate initiative to forge a sustainability “compact” with suburban communities is underway. Despite these efforts, interviews and survey data from cities identify various dimensions of risk of collaboration which inhibit broader government collective action.
Panel 2. Making Collaboration Work

Why Do Local Leaders Cooperate Across Boundaries? Results from a Survey Experiment on U.S. Mayors and Councilors

Meghan E. Rubado, Cleveland State University

This paper argues that adoption of interlocal cooperation among general-purpose local governments in the United States is driven by diffusion mechanisms. The paper presents findings from an original national survey experiment on U.S. mayors and councilors designed to test for independent effects of these mechanisms. The theory argues that learning, development of trust, and interlocal competition are key drivers of the spread of interlocal cooperation. Local leaders learn from the cooperative experiments of neighboring jurisdictions and replicate them in order to remain competitive for taxpayers and development. They develop trust among new partners over time as this diffusion occurs. More than 800 mayors and councilors participated in an online survey experiment designed to test the theory. Results provide support for the learning and trust development mechanisms, but a treatment designed to isolate the effect of interlocal competition had no effect. Local leaders were more interested in pursuing a proposed cooperative agreement when it involved a city they had cooperated with in the past and when they learned about positive outcomes of cooperative experiments among neighboring jurisdictions. The study not only adds to our understanding of why local governments cooperate with neighbors for service provision, but it also expands diffusion theory by incorporating a new mechanism that lends itself to multi-partner policies – the development of networks of trust. The importance of this mechanism is the strongest and most consistent finding.
Panel 2. Making Collaboration Work  
The Complexity of Uncertainty in Collaborative Governance Regimes

Nicola Ulibarri 
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The collaborative governance literature highlights the role of uncertainty in collaborative governance regimes, namely in bringing together stakeholders in complex environments and in affecting stakeholders’ abilities to predict what programs or decisions will do. However, uncertainty can play many other roles that affect collaboration’s performance. This paper builds a more comprehensive understanding of uncertainty’s effects on agency and stakeholder decision-making in collaborative governance processes. Using an ethnographic analysis of a process to license a hydropower dam in California, I explore the types of uncertainty managers face in collaborative decision-making processes, how these uncertainties affect the process and the decisions reached, and how these uncertainties interact with the collaborative process.

I first characterize the types of uncertainty stakeholders faced. Scientific uncertainty—the distribution of potential outcomes—played a significant role in negotiations. However, many other types of uncertainty were relevant to decision-making: administrative uncertainty, such as timing of a permit to conduct a study (the results of which will help address scientific uncertainty); uncertain physical constraints, most notably an extreme drought that affected the timing and generalizability of studies; shifting boundary conditions within which the license would operate, including changing regulatory environments and inflows from upstream dams; and uncertainty of participants, including an absent regulatory agency. These uncertainties often influenced one another, expanding the range of potential realities that stakeholders had to manage.

I then explore each type of uncertainty’s impact on decision-making, including identifying when and why uncertainties serve as a barrier to decision-making and when stakeholders are able to triage around them. I lastly investigate the relationship between uncertainty and collaboration. Collaboration helped stakeholders work through and/or triage around uncertainties, especially when stakeholders define jointly what the uncertainties are and how they might impact decisions. At the same time, uncertainties both generated collaboration—e.g., bringing stakeholders together to solve a problem—and hindered it—e.g., undermining trust during regulatory delays. This suggests that while collaboration can be a tool to overcome uncertainty, active management of uncertainty is important for allowing collaboration to function.

Managing uncertainty is central to effective governance, but until scholars and practitioners acknowledge all potential uncertainties when designing decision-making processes, they will be less effective. By understanding uncertainty’s role in collaborative governance, I explore ways that decision-makers can address uncertainties and expand our knowledge of when and where collaboration is an effective governance tool.
Panel 2. Making Collaboration Work

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Service delivery fragmentation and the ecology of intralocal games

Governance arrangements for complex social-ecological systems (SES) are typically characterized by large networks of public and private actors that span multiple policy forums and issue areas. These systems are polycentric, in that they are non-hierarchical and comprised of many different independent authorities. The burgeoning Ecology of Games literature focuses on how public, private, and nonprofit network actors participate in--and venue shop amongst--multiple rule-governed forums in order to solve transboundary collective action dilemmas that exist within polycentric systems. This paper explores the implications of the ongoing proliferation of local special purpose government entities within the Ecology of Games; instead of focusing on the effectiveness and impacts of transboundary policy forums, we use the Ecology of Games framework as a theoretical lens that can also explain how service delivery fragmentation affects environmental governance outcomes within local jurisdictions as well.

While special purpose entities are often championed as a way to benefit from specialization and economies of scale, we consider how fragmentation of authority by service delivery area creates a new set of “games” within, rather than across, localities. Network coordination potentially provides a way to take advantage of key economies of scale while avoiding spillover effects and decision externalities that are fostered by the presence of many different decision-making authorities. We draw from an extensive literature concerning institutional collective action and how network structures influence coordination within ecologies of games to formulate hypotheses about how specialized service delivery creates intralocal decision externalities and test how network coordination can mitigate these effects.

This research uses the case of land use and development in the state of Georgia (US), in which as of 2016 there are more than 1100 registered special purpose entities (as compared to 159 counties and just over 600 incorporated municipalities). Specifically, we analyze how service delivery fragmentation influences land use and development outcomes by creating new collective action dilemmas with respect to permitting, zoning, and other development incentives and restrictions. Using longitudinal remote sensing land cover data and detailed expenditure and revenue data from both general and special purpose local governments, we model the link between service delivery fragmentation and three environmental outcomes: (1) wetlands and riparian area modification; (2) modification of identified critical habitat areas; and (3) open space development. In order to understand how network coordination can be a mediating factor, we then incorporate network metrics based upon personnel overlap between different local entities (e.g., overlapping board memberships or directors who transition from one entity to another). These data are used to test whether the outcomes described above differ based upon the social capital (e.g., bridging and bonding network structures) and the degree of network connectivity amongst intralocal public authorities.
Panel 2. Making Collaboration Work

Can Stakeholders be Primed to Consider Regional Collaborative Goals Over Self-Interest?

Iris Hui, Stanford University
Bill Blomquist, Indiana University - Purdue University, Indianapolis
Bruce Cain, Stanford University
Elisabeth Gerber, University of Michigan, Ann Arbor

Stakeholders play an important role in regional collaboration. On the one hand, they act as delegates from their local jurisdictions. Their primary task is to protect local interests and maximize benefits for their home constituents. On the other hand, they are also tasked to act as collaborators to consider regional interests. There is competing tension between protecting their ‘home turf’ and balancing regional interests.

We examine this tension in the realm of the integrated regional water management (IRWM) in California. IRWM is created by the California Department of Water Resources as a collaborative effort to address water issues and differing perspectives of all the entities involved through mutually beneficial solutions.

We recruit our survey respondents by sampling attendees who have participated in one of the 48 IRWM regions in the state. We devise a series of survey-embedded experiments to prime stakeholders in IRWM meetings about regional collaborative goals, and examine if these priming would change the way they handle resources allocation. Our findings will offer policy recommendations about how to handle tension between stakeholders’ self-interests and regional goals.
Panel 3. Collaboration Among Local Agencies

Choice and Design in the Designation of Metropolitan Planning Organizations

Nicholas Carney, University of Michigan
Elisabeth R. Gerber, University of Michigan
Susan M. Miller, University of South Carolina

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Abstract

Federal law requires U.S. states to designate metropolitan planning organizations (MPOs) to distribute federal highway funds within their metro areas. States have a great deal of discretion over the process used to designate these organizations, and perhaps not surprisingly, the resulting MPOs demonstrate a great deal of variation in terms of their size, scope, resources, procedures, composition and governance. Previous research suggests that these institutional differences matter in terms of the types of transportation policy decisions made by MPOs (Gerber and Gibson 2007). We consider the prior question of how state government actors advance their policy goals in their choice and design of MPOs. We will develop a model of state government decision-making about MPO designation to identify factors that lead state actors to make various institutional choices. We will test hypotheses generated from the model with data from a large sample of metropolitan areas and several in-depth case studies. Our study has implications for understanding the relationship between federal, state and local government actors in the area of transportation policy and for evaluating the performance of regional policy-making institutions.
Panel 3. Collaboration Among Local Agencies

Voluntary Local Cooperation with Regional Land Use Planning to Reduce GHGs

Gian-Claudia Sciara, The University of Texas at Austin
Sarah A. Strand, University of California-Davis

Using Regional Land Use Governance to Reduce GHGs in California. Local authority over land use planning and development is a defining feature of U.S. government. Cities and towns craft the general plans that provide long-term roadmaps for future growth, and they adopt the zoning ordinances and other laws that guide where and how development may occur. Local governments exercising land use authority without mechanisms for multijurisdictional coordination can contribute significantly to inefficiencies, spillover problems, and environmental harms across a metropolitan region. One city’s approval of a regional retail center on its edge may increase its local tax revenue but add to regional automobile traffic, congestion, and associated air pollution and greenhouse gas (GHG) emissions. Or, consider a city where attractive employers have clustered and job growth is exploding; if the city seeks simultaneously to preserve its traditional low density residential character and fails to expand housing opportunities, future workers will locate far from jobs, experience long commutes, and add to regional vehicle miles travelled (VMT), highway congestion, and associated GHGs. In this way, local land use planning can present a regional institutional collective action problem.

An unprecedented effort to improve regional scale land use governance has been underway in California since 2008, when the state passed the Sustainable Communities and Climate Protection Act (Senate Bill 375). The law complements earlier state policy to reduce statewide greenhouse gas emissions across an array of sectors. SB375 specifically encourages regional land use planning that, when coupled with supportive transportation investments, would help to reduce automobile dependent patterns of land use and sprawl. It imposes new requirements on each of the state’s 18 metropolitan planning organizations (MPOs) to develop future regional land development visions that will help to meet each region’s greenhouse gas reduction target and to integrate land development and transportation planning over the long term.

Implementation of each MPO’s region-serving land use vision, however, relies entirely on voluntary cooperation by local governments in the MPO’s jurisdiction. Local governments in no way bound by the MPO’s land use plan; SB375’s statutory language explicitly upholds local government ultimate authority over land use.

Research Question. This study seeks to understand two main questions. First, it asks to what extent California local governments are adopting local land use policy and development decisions that reflect the MPO’s regional land use vision? We ask this question at a point when the SB375 experiment is eight-years old and when the California land market has rebounded sufficiently from the Great Recession to observe local growth pressure. We assume that local
governments across the state are responding differently to the new SB375 planning framework. Some local governments will work energetically to adopt plans, policies, and development decisions that support SB375 and MPO efforts to reduce automobile-dependent sprawl. Such policies may include increasing local density, enabling mixed use development, and restricting greenfield development. Other local governments, however, will not. Thus, second, the study asks: What factors make some local governments more likely to cooperate with regional land use visions, and what makes others less likely to do so?

**Theory.** We seek to test various hypotheses about what makes individual California local governments more or less likely to adopt land use policies and decisions that support regional GHG-reducing plans. Some jurisdictions adopt land use decisions largely to increase local tax benefits, for instance, regardless of regional automobile travel and GHGs generated by such decisions. Using Feiock’s theory of institutional collective action problems, we anticipate local governments will make land use decisions supporting SB375 when the perceived risks to them of doing so are low and when the perceived benefits are high. For instance, the ability of local governments to be well informed about the land use and development preferences of other jurisdictions in the region is important; if a city decides to deny development approval to an automobile dependent retail center, forsaking associated tax revenues, does it know whether its neighboring jurisdictions will do the same? Further, how do local governments perceive the costs and benefits to them of aligning local land use with regional land development plans to reduce auto-dependent sprawl? We anticipate that a local government will move to increase density, zone for mixed uses, expand affordable housing, or restrict development on unprotected natural lands when it believes such actions will provide economic, environmental, or social equity benefits, for instance by attracting new businesses, improving air quality, or increasing housing supply. Following work by Lubell, Gerber, and Henry we also anticipate that a local government will be more likely to collaborate with the MPO’s GHG-reducing regional land use vision when it has been involved in pre-existing regional collaborative efforts on other issues, especially environmental or resource issues, such as water management or habitat conservation. Further, following Sabatier’s insights on policy implementation, we anticipate a local government will be more likely to support regional GHG reduction with local land use planning when it feels that the MPO has clearly communicated the goals for the regional land use vision and when there is general support among stakeholders for the MPO’s vision of future growth and development.

**Methods.** Our study surveys California local governments within the service areas of the state’s 18 MPOs. We have recently pilot tested our instrument and will administer it in early 2017. The survey instrument includes several question batteries designed first, to collect data on local government land use and development practices post-SB375 (the dependent variables in our study) and second, to ascertain local government perceptions, attitudes, and experiences in those areas expected to influence those land use and development practices (the independent variables). Survey questions accomplishing the latter address: local government perceptions of
the MPO’s regional planning process, regional information sharing about land use planning and development, local attitudes on land use and development issues, and anticipated costs and benefits of implementing the regional land use plan. We will use multivariate regression to analyze our survey results and test our hypotheses. Our analysis will also account for other factors that we expect to influence the level of local government cooperation with the regional land use plan, for instance: local government size and growth rate, level of urbanization, median household income, and predominant political party among registered voters.

**Contribution.** The environmental implications of local land use decisions reverberate beyond local borders; this is especially true for impacts due to the transportation outcomes of land use and development choices. Land use authority in the U.S. is tightly held by local governments, and this is unlikely to change in the current political climate. This study aims to yield practical insights about garnering local cooperation on environmentally oriented regional land use planning and more broad theoretical insights about the dynamics and determinants of regional cooperation in the face of intractable institutional collective action problems.
Local efforts to adapt to climate change risks raise questions about appropriate scale for decision making. Initiatives designed to protect lives and property in one location can increase vulnerability in another, and disparities in wealth between jurisdictions may result in the transfer of risk. This paper will evaluate the consequences of decision making at different scales in the context of local investments to stabilize shorelines against erosion. The geoengineering of U.S. coastlines creates opportunities for wealthy homeowners to systematically transfer storm-related risk to neighboring communities less able to build protective structures. The proposed paper analyzes how the location and structure of coastline decision making influences the distribution of costs and benefits of erosion control. We couple a barrier-island physical model with an agent-based model of real estate markets to show how expenditures on geoengineering vary across different spatial distributions of residents’ wealth and preferences and across different rules for aggregating preferences. Measuring the length of time until risks and defensive expenditures surpass the value of real estate in the market, we test how the ability of high value property owners to pass risks on to renters and/or low value owners changes across coastline configurations, spatial concentrations of property value, and decision and financing rules.
Panel 3. Collaboration Among Local Agencies

Using Computer Simulations to Test Hypotheses about Collaborative Governance in the Absence of Large Data Sets

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Policymakers have increasingly been using multi-organizational collaborative processes to solve complex, multi-jurisdictional policy problems. Great theoretical strides have been made in understanding these collaborative processes, but all-too-often large data sets are unavailable for testing key hypotheses from these theories. Computer simulations are a means for testing these hypotheses in the absence of large-N data sets. Our paper will provide a research agenda for using computer simulations to test specified hypotheses and will present the findings of an initial study assessing the trade-offs between increasing the diversity of representation of membership in collaborative efforts with both the timeliness and ability of collaborative groups to reach consensus. More specifically, this paper builds upon empirical studies of complex policy networks to explore what happens when a public official initiates a collaborative governance process to achieve a public purpose. We use agent-based modeling (ABM) to simulate the long-run effectiveness and representativeness in collaborative governance processes as a function of key network characteristics such as group size and which network actors participate. ABM provides a platform to explore the implications of key network assumptions, test different initiation strategies, model emergent properties resulting from interactor deliberation, and simulate long-run outcomes. We focus on the agreement-reaching stage (as opposed to implementation and ongoing collaborative management), and find that support for an agreement amongst deliberators does tend to decline as overall representation increases. Further, we show that the number of competing interests within a network seems to affect the probability of reaching an agreement more so than which actors are selected to represent each coalition. We conclude by posing a suite of simulations that should be conducted to build upon the findings of this study of the agreement-reaching stage by focusing on the subsequent implementation phase.