

# The Challenge of Externally Generated Collaborative Governance: California's Attempt at Regional Water Management

American Review of Public Administration  
2020, Vol. 50(4-5) 428–437  
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DOI: 10.1177/0275074020908578  
journals.sagepub.com/home/arp



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## Abstract

Creating successful collaborative governance regimes is difficult, but can be especially hard when collaborations are externally generated by higher levels of government as opposed to self-generated by local agencies and stakeholders due to the lack of spontaneity. We analyze this problem as it applies to California's Integrated Regional Water Governance Program. Public administration theory indicates that a core element in a successful collaboration is empowering local leaders who share the collaboration's intended goal. However, the political concessions to local autonomy necessary to enact an externally generated collaboration can undermine its success. The tensions between maintaining local autonomy and creating a regional approach are inherently strong in a "layered collaborative governance" approach that acknowledges and accommodates local boundaries. Drawing on the concept of role differentiation, we hypothesize that the roles participants play in layered collaborative governance will frequently derive from their preexisting issue areas, geographic orientations, and power relations, but that program design incentives can influence which groups participate in the effort and how they engage. We test these hypotheses in the context of California's Integrated Regional Water Management (IRWM) program. We find evidence of role differentiation on grant leadership both with respect to the initial goal of regional collaboration as well as later efforts to address the water issues of disadvantaged communities.

## Keywords

collaborative governance, integrated water management, institutional layering, role differentiation, grant design

## Introduction

Because rivers and aquifers often span state and local borders, and because the actions on one part of a river or aquifer can affect others who share the same common pool resource, many experts believe that water planning and management should be undertaken at a regional or water basin scale. All too frequently, however, water operations are managed in a silo-like fashion by a diverse set of fragmented political entities such as cities, counties, private water utilities, and special districts (Mullin, 2009). This fractured governance approach often results in uncoordinated policies that serve parochial local needs as opposed to producing cohesive, comprehensive regional policy solutions (Kim et al., 2015; Mullin, 2008; Pincetl et al., 2016).

In recent decades, the management of water and other natural resources has turned to "collaborative governance" as a possible path toward a more integrated approach to water management (Ansell & Gash, 2008; Blomquist & Schlager, 2005; Emerson et al., 2012; Kallis et al., 2009; Sabatier et al., 2005). Ansell and Gash (2008) define "collaborative governance" as "a governing arrangement where one or more public agencies directly engage nonstate stakeholders in a collective decision-making process that is

formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets." Emerson et al. (2012) expand the definition more broadly as "the processes and structures of public policy decision making and management that engage people constructively across the spheres to carry out a public purpose that could not otherwise be accomplished."

Beyond the task of solving a particular policy problem, collaborative governance aspires to engage multiple government agencies and other stakeholders in consensus-oriented decision-making (Ansell & Gash, 2008). With respect to water management, this should ideally lead to a less parochial and more regional common orientation by the member agencies and stakeholders. However, recent empirical research suggests that the success of collaborative efforts in this respect has been limited, at best. Based on a survey of stakeholder participants in California's Integrated Regional

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Water Management (IRWM), Lubell and Lippert (2011) conclude that it resulted in only incremental progress in overcoming political fragmentation and conflict over the San Francisco Bay Area's water. Other case studies have reinforced that conclusion (Balazs & Lubell, 2014; Conrad, 2015; Grabert & Narasimhan, 2006; Hughes & Pincetl, 2014; Hui et al., 2018; Hui & Gambhir, 2017; Rodriguez, 2011). In this article, we explore why the IRWM effort in California fell short.

We contend that the extent to which a collaborative governance effort is able to achieve these goals (and others) depends critically on how it brings together various policy actors. Following Luyet et al. (2012), Peters and Pierre (1998), McGuire (2006), Feiock (2009), and others, we note that collaborative governance arrangements take many different forms. Emerson and Nabatchi (2015) usefully identify three main types: self-generated, independent, and externally generated. Our focus is on externally generated collaborative governance efforts, that is, collaborations that are initiated and incentivized by a higher level of government (e.g., the state) on local governments and stakeholders. These can range in institutional formality from joint power authorities (JPAs) to memorandums of understanding (MOUs) and ad hoc agreements.

California's IRWM process is an example of an externally generated collaboration (EGC) that was authorized and funded at the state level. It directed preexisting water agencies, cities, counties, nonprofits, and other stakeholders that were located within a common hydrological basin to come together, deliberate, and create a joint regional water management plan that would reflect shared regional interests. These new entities would then compete for a series of grants funded by two statewide bond measures (Propositions 50 and 84). The grant award criteria were also designed to incentivize integration and cooperation among the numerous entities within each IRWM region (see California Department of Water Resources [DWR], n.d., for details).

Purdy (2012) offers a framework that can be used to assess power imbalances. To begin with, adequate power is needed to convene stakeholders. But when government agencies act as both conveners and participants in collaborative process, agencies often play roles with conflicting interests. In addition, actors who are less powerful in terms of resources, voice, or legitimacy may be excluded from the process or co-opted by more prominent parties (O'Toole & Meier, 2004). We know from the existing literature that collaborative efforts on land use (Healey, 1998), coastal management (Cicin-Sain & Belfiore, 2005; Kearney et al., 2007), watershed (Imperial, 2005), and transportation (Gerber & Gibson, 2009) also often fall prey to parochial pressures and the priorities of the existing power hierarchy, failing to achieve a truly regional perspective (Brisbois & de Loë, 2015, 2016; Gerber et al., 2013; Newman et al., 2004). Changing perspectives is hard in any case, but especially difficult when it is imposed by the top as opposed to

self-generated by the local entities themselves (Emerson & Nabatchi, 2015).

We extend the thesis about the particular difficulty of EGCs by observing that in some instances the concessions needed to gain political acceptance for an EGC can undermine its effectiveness. More specifically, in the case of California's regional water management system, we observe that the layering of the regional water management boards on top of existing agency boundaries made regional water management less threatening to existing water authorities, but unintentionally fostered local stakeholder resistance to the state's goal of creating a stronger water basin perspective. In the language of Scott and Thomas (2017), the layering arrangement enabled many local public officials to reluctantly "follow" to obtain access to state bond funds rather than sincerely "lead" toward developing a more integrated orientation. Moreover, the task of incentivizing collaboration was undercut by the limited set of policy tools authorized for the program and by various principal-agent problems associated with delegating the IRWM implementation to the DWR and local entities. By comparison, when the state later decided to shift more IRWM resources to meet the critical water needs of disadvantaged communities (DACs), the new priority was more easily accommodated with its layered, local autonomy-preserving framework.

In the sections that follow, we first consider the particular difficulties of an externally generated collaborative design, drawing upon and extending previous theories in the literature. We then generate and apply these hypotheses to the California IRWM effort. Our particular focus is on the role that layering plays in determining who leads in the sense defined by Scott and Thomas (2017) on the development of projects submitted for the competition for state grants. We analyze grant sponsorship data in light of these hypotheses and consider the implications the results have for understanding leadership roles in collaborative governance.

## The Challenges of Collaborative Design

Creating a successful collaboration across jurisdictional lines is particularly challenging in the United States because so many policy and administrative responsibilities have devolved to multiple separate federal, state, and local entities (Healey, 1997; Ostrom, 1990, 2010). In virtually every area of public policy—from education to transportation to environmental policy to health care—decision-making responsibility is shared vertically and horizontally by myriad actors across numerous government levels and jurisdictional boundaries. A striking example is surface transportation, where billions of dollars are moved each year across the federal, state, local, and regional levels, allowing numerous actors to decide how and where to spend resources (Crabbe et al., 2005; Knight, 2004). The same is true of water management, which we describe below. Adding to the challenge of fragmented authority, local government itself has become more narrowly

focused as new special districts continue to sprout up throughout the country (Leon-Moreta, 2015; Mullin, 2009; Smith, 2011), each one carving out its own policy niche.

Modern governance is also in many ways more open to stakeholder involvement than it was in the past. Local, state, and federal governments frequently include private citizens and group representatives on commissions and advisory boards to guide policy. Many public decisions require significant and meaningful public input, both informal (through public comment and review) and formal (through direct citizen participation in governmental authorities). The public has ready access to vast amounts of information through the Internet and social media. This not only means more input in governmental decision-making from regular citizens, but also more involvement by a staggering array of other stakeholders in public policy formation and implementation (Vigoda, 2002). This broad stakeholder involvement offers many potential benefits in terms of local expertise and buy-in, but at the same time it raises transaction costs and creates potential obstacles to effective collective action (Koontz & Thomas, 2006; Lubell et al., 2002; Luyet et al., 2012).

Given the fragmentation of authority and the diversity of stakeholder interests on multiple dimensions, the prospects for meaningful collective action seem dim. One solution (*institutional layering*) aggregates existing relevant public and private entities into a new regional organization and tasks them with devising a collective (e.g., regional) policy perspective. Building on notions from deliberative democracy (Elster, 1998; Fishkin, 2011), the underlying assumption of this approach is that, over time, the interactions between these entities will forge a sense of common goals and vision, resulting in a more integrated and coordinated approach to policymaking. As Emerson and Nabatchi (2015) suggest, however, the degree to which this regional identity and perspective emerges can depend on whether the reorganization is initiated from the top or the bottom.

Emerson and Nabatchi (2015) maintain that there are crucial differences between an externally and self-generated collaboration. A self-generated collaboration comes together when local stakeholders realize that they have an acute problem such as water scarcity or pollution and that the responsibility for solving this problem is “diffused” across existing jurisdictional boundaries. Local actors can be motivated to come together to act because they perceive that they have a “direct stake” in solving the problem. Their initial organization would typically seem “ad hoc and emergent,” and their participation would be “voluntary” while retaining a relatively high level of “autonomy.”

Contrast this with a collaboration imposed by the state. In an EGC, local actors may resist the imposition of a regional approach to governance. Minimally, we might expect less initial enthusiasm than when a collaborative governance arrangement emerges voluntarily from the local level. This will be true even if the state does due diligence by soliciting feedback before implementing its plan.

But there is more to be said about the problems associated with EGCs. A state that tries to organize local entities into a collaboration must navigate the vertical fracture of federalism through a series of formal delegations. That process begins with the authorization and funding of a collaborative program by state elected officials. The implementation and details would then be delegated to experts in an executive agency who would in turn need to delegate the task of setting up the regional collaborations to local public officials. Each of these delegations raises classic principal-agent problems that limit the ability to monitor and control how the next agent down reshapes the original intent of the collaborative program. Technical experts in the water agency charged with drafting the implementation design might care more about the quality of the engineering work than achieving a regional focus. Local officials might seek to meet the state’s demand while still preserving their separate autonomy and share of water resources.

A critical link in an EGC is between those officials that initiate it at one level and those that are charged with carrying it out at the implementation level. As Scott and Thomas (2017) note, there are different leadership patterns in a collaborative effort. The “leaders” will be those who embrace an opportunity to work across jurisdictional boundaries to solve a recurring problem, leverage their resources with those of others, co-opt possible objections, and preempt possible litigation from stakeholders. At the other end of the spectrum will be the followers who will “seek to protect their resources,” “free ride” on the actions of others, and enhance their “social capital” (i.e., go along to get along) but unlike the leaders may be warier of giving over decision-making to other partners.

## Interests and Incentives

Each public and private stakeholder in a collaborative governance arrangement brings a particular perspective and set of interests to the governance table. Public agencies are charged with different missions. Some have a more general public goods orientation (e.g., counties and cities that provide a wide variety of local services), whereas others provide specific services and have specialized expertise (e.g., a mosquito abatement or fire district that focuses on one particular service area). They vary in terms of their resources, technical capacity and expertise, as well as the number and range of constituent groups competing for their resources. The same is true of nonprofits and advocacy organization, private sector actors, and the like.

Each actor in a collaborative governance effort has distinct interests, preferences, and resources. This translates into varying degrees of power that we expect to further translate into different patterns of engagement with other collaborative governance partners. Depending on the specifics of institutional layering, these power relationships may derive largely from the participants’ prior situations (e.g., their

previous relationships as preserved in a new collaboration) or from the altered incentives and opportunities created by the new groupings (e.g., new partnerships between jurisdictions that had not previously cooperated with one another). In the IRWM case, the regional boundaries were largely based on preexisting roles and relationships.

Two factors are potentially important in determining the roles organizations might play in putting together project proposals: *issue dimensionality* and *geographic scale*. Issue dimensionality refers to the number of issues on which an organization works. On one extreme is a narrowly focused special district (such as a sanitation/sewer district) or nonprofit (especially one that is created specifically to deal with an immediate issue). On the other extreme is a large county government (that may have thousands of employees and dozens of separate departments) or a multi-issue nonprofit (such as the Sierra Club). An organization’s issue dimensionality may change over time due to leadership changes, strategic opportunities, funding environment, and so on.

Issue dimensionality matters in collaborative governance as it affects the types of resources a participating organization brings to the table. Narrowly focused organizations can develop high levels of expertise in their area of specialization. By contrast, multi-issue organizations tend to have dense networks of relationships and experience working with other actors in a region.

Geographic scale refers to the area that an actor considers to be its operational territory. For government actors, geographic scale is determined by their formal geographic boundaries that specify the people and places to whom the government officials are ultimately accountable. For nonprofits, geographic scale is often determined endogenously, as part of the organization’s strategic planning process.

Geographic scale matters because it helps define the people and interests to whom the actor is accountable. This may involve a formal accountability relationship as with elected officials and their electors, or a more informal relationship as with a local nonprofit whose mission designates certain communities as their primary constituency.

These two factors may be important on their own, and they may also work in combination. Two single-issue nonprofits may advocate for different kinds of projects depending on whether their geographic scale is local or regional. And two locally focused governments may take the lead on different kinds of projects depending on whether they have a great deal of topical expertise due to their issue specialization or whether they have experience working with diverse partners due to their multi-issue focus. Figure 1 provides examples of these various types of organizations.

This typology leads to our first hypothesis. Some participating organizations, by the generality of their function and the breadth of their interactions with other local entities, will be more inclined to be “leaders” in collaborative efforts around topics like water governance. Others, due to their narrower function and geographic scope, will be inclined more

		Issue Specificity	
		General	Few
Geographic Scale	Regional	(1) Large counties, COGs	(2) Water districts, utilities
	Local	(3) Cities, local nonprofits, tribes	(4) Special districts, local nonprofits

**Figure 1.** Typology of organizations in layered collaborative governance.

Note. COGs = councils of governments.

toward parochialism and preserving their specialized autonomy—to be “followers.” A layering strategy that generates a collaboration out of existing entities will create heterogeneity in each collaboration that will manifest itself in the type of projects that collaboration members will sponsor.

**Hypothesis 1 (H1):** Institutional layering will result in partner organizations with broad issue foci and regional scope taking leadership roles in EGCs and those with narrow issue foci and/or local scope taking follower roles.

### Tools and Powers

An EGC’s success also depends on the tools at its disposal. In some cases, the tools consist of *regulatory authority* such as the ability to dictate the terms for new construction in coastal areas (e.g., California’s Coastal Commission), or to take over a prescribed task if the locality does not do so itself (e.g., California’s new Groundwater Sustainability law). Another common tool in the intergovernmental toolbox is *inducing cooperation* through grants or other financial incentives (positive incentives) or threatening to withhold program funds (negative incentives). Subsidies, matching grant funds, or other kinds of financial inducements can be designed to induce individual actors to put aside their parochial interests and work toward regional goals.

Not all incentives are created equally, however. As previous research reminds us, the extent to which grant programs induce collaborative governance efforts to produce regionally focused policies depends on specific details of the grant process (Sprague et al., 2019) as well as features of the regional governance effort itself (Gerber & Gibson, 2009). This leads to our second hypothesis.

**Hypothesis 2 (H2):** State actors can change specific patterns of participation in EGCs (in this case, increase inclusiveness) through revising design of grant criteria.

### Case Study: California IRWM

We test our hypotheses with data on participation and involvement in California’s recent IRWM initiative. Prior

to 2002, California's approach to water governance was highly fractured, involving many state agencies, counties, cities, water utilities, and special districts defined by geography and function. The initial step in fostering the integration of these many disparate efforts, as set out in the IRWM Planning Act of 2002, was to encourage the formation of regional water management groups between three or more local public agencies (two of which had to have statutory authority over water) and other relevant actors, which would then be eligible—on a regional level—for state grants. Stated goals of the Act were that these IRWMs would span an entire hydrological region, reduce conflict between local interests, and achieve social, economic, and environmental objectives (for details, see California DWR). Although the process was overseen by two state water agencies (the DWR and the State Water Resources Control Board [SWRCB]), local communities had a fair amount of discretion, especially in the early years of the IRWM process, to define their region's boundaries, plans, and procedures. Hence, although the state hoped that eight or nine regions would be created to roughly align with the state's hydrological regions, they instead received proposals for 54 in the first rounds of funding under Prop 50. By 2012, the state was able to reduce the number of regions to 48 and to enact more control over the definition of a regional group through its Regional Acceptance Process (RAP). But it is fair to say that, in the end, the vision of organizing IRWMs by hydrological region was compromised by other, often more parochial considerations, including preexisting working relationships (i.e., H1). This meant that the IRWM collaborations were destined to replicate to some degree the preexisting roles and relationships that various participating organizations had developed over time (Hui et al., 2018; Lubell & Lippert, 2011).

The state took a second run at further consolidating the regional group fracture by prespecifying "consolidated funding regions" (33 for Prop 50 grants and 11 for Prop 84 grants). The state set targets for the amounts of total awards for each funding area. If more than one IRWM formed in a given funding region, they would compete for those funds in a "winner-takes-all" fashion. In the end, however, only three IRWMs coincided exactly with their funding area boundaries, which meant that most of the IRWMs had to compete for their designated funds. This reveals the degree to which the IRWMs prioritized their local working networks over the more certain funding prospects of working together as a larger, more integrated region.

One can interpret the state's efforts in implementing IRWM as an instance of institutional layering designed to induce a regional mind-set and reduce political fragmentation over water management. However, several features of the state's approach to implementing IRWM undermined its potential to achieve effective collaborative governance. As mentioned above, participating organizations were able to draw their own regional boundaries, which served to

reinforce preexisting roles and power relationships. Another factor that undermined the incentive to move from preexisting roles to a more integrated regional mind-set was the fact that the state's DWR decided to allow many types of preexisting regional planning documents (e.g., watershed management, multispecies conservation, and floodplain management plans) to serve as the IRWMs' planning documents. Admittedly, renegotiating these arrangements would have been extremely costly and time-consuming. But by not requiring the IRWMs to engage in thorough regional planning processes, the players who forged these earlier agreements had an incentive to maintain their original roles, priorities, and power dynamics instead of entering into new, uncertain arrangements.

In addition to how they approached institutional layering, state actors who designed the IRWM program also had the potential to shape incentives for collaboration through their design of the grant process. In general, we expect the time horizon over which participants will interact to matter in terms of building and sustaining collaboration/cooperation (Conrad, 2015; Hui et al., 2018). In the case of IRWM, the grants were one-time awards for specific projects funded by statewide bond measures, with no guarantee of a continuing source of money. The episodic nature of these grant competitions may have blunted the incentive for actors to engage in new types of relationships and meaningful new forms of collaboration, instead reinforcing preexisting roles and relationships.

Although regional water management group leadership was restricted to public agencies, including counties, cities, water districts, and water authorities, the grants themselves could include and even be led by private utilities, tribes, and nonprofits. Here too the roles that different actors played were conditioned by the rules and incentives of the program's design. Learning from their earlier experience with Prop 50 grants, in which many IRWMs simply submitted water projects that were already in the planning phase (and only added new partners), the new Prop 84 guidelines were much more extensive (growing from three pages in Prop 50 to 40 pages in Prop 84) and attempted to broaden both the program's objectives and the level of stakeholder involvement. The new objectives included "32 different water management strategies, 4 different types of integration, 7 goals in developing objectives, and climate change impacts and adaptation strategies" (Sprague et al., 2019). This mattered because, as we shall see, some actors in the collaboration were more suited to lead some projects and pursue some objectives than others.

For instance, realizing that the expense and expertise required to put forward a technical matching grant proposal related to water management precluded many DACs from participating in the earlier rounds, the Prop 84 guidelines required more outreach to DACs and made it easier for them to apply by offering matching grant waivers, planning grant funds, and some preference in the grant award criteria. This

had the effect of opening up a new set of grants to be led by newly empowered actors (e.g., DAC-related nonprofits).

In sum, although state actors who designed the IRWM program employed some of the strategies that can be associated with effective collaborative governance, specific details of how they went about implementing these strategies would appear to have weakened the effort's potential to achieve its stated goals of pursuing a consensus-based regional approach to water management and instead reinforced preexisting roles and relationships, consistent with H1. In the next section, we more explicitly test our hypotheses about what these roles might be and how various actors would engage in the CG effort.

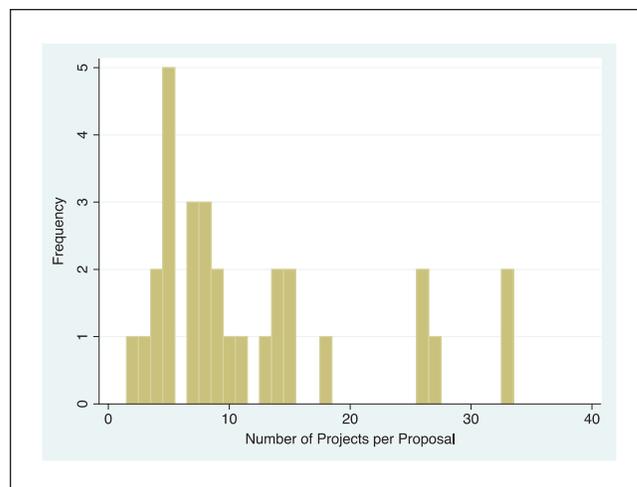
## Empirical Analysis

To more rigorously test H1, we seek to investigate the relationship between the projects that were funded during the two rounds of IRWM funding through Prop 84 and the types of organizations that were involved in developing and leading the project proposals. Of course, promoting and sponsoring projects is not the only role an organization can play in the IRWM process. For example, a handful of the regions undertook new collaborative planning processes in which partner organizations could participate. One or a few organizations in each region assumed other leadership roles as well. These examples notwithstanding, however, for most IRWM partner organizations, promoting projects through the grant process is their primary means of engaging with the IRWM. Therefore, examining the types of projects sponsored by different types of groups provides insight into the roles that participating organizations played in the process.

We gathered our data from three separate sources. First, we obtained a database of funded projects directly from the California DWR. The dataset contains both Round 1 and Round 2 implementation proposals that were submitted and funded under Prop 84. Altogether, there are 348 proposals in the dataset with complete information. Second, DWR evaluated and scored these proposals based on a number of criteria that correspond to IRWM program preferences and state priorities.<sup>1</sup> Third, we obtained data from a published DWR report on the types of stakeholders that were actively engaged in the development and implementation of each of the IRWMs' plans.<sup>2</sup> This contextual data allow us to measure the broader set of actors that were active in each region.

One feature of the IRWM grant program is that the projects were ultimately evaluated and funded/rejected by the DWR as a package, that is, not as individual projects. Figure 2 shows the distribution of the number of individual projects within the funded IRWM project packages. This number ranges from 2 to 33, with a mean of 11.87.

From these data, we construct our dependent variables, which measure various attributes of the projects. The first is its geographic scope. Three independent coders read each project description and coded the scope of the projects. This



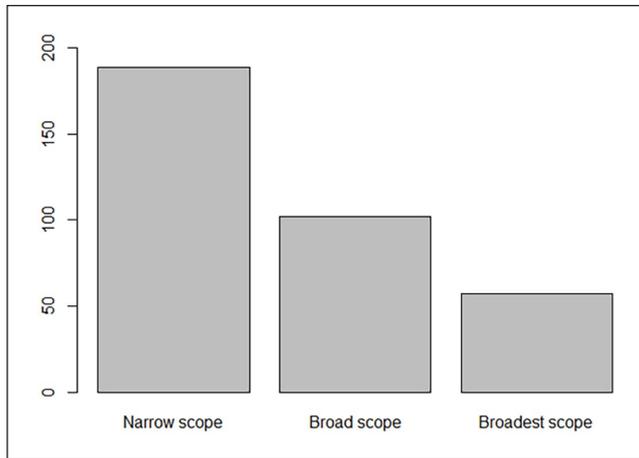
**Figure 2.** Number of projects within funded proposals.

dependent variable is ordinal in scale and ranges from 1 to 3: 1 if a project has a narrow geographic scope and would directly benefit only a specific location; 2 if a project spans across multiple locations or communities; and 3 if a project is regional in scope. Examples of geographically targeted projects include construction of wellhead facilities in an existing groundwater well to monitor groundwater level, or replacement of a dilapidated section of pipe in a community. Examples of regional projects include conducting cleanup and assessment of legacy mine pollution and coordinating a regional mercury forum. Figure 3 shows the distribution of this project scope variable across the 348 funded projects, for which we were able to ascertain its scope.

It is revealing in light of H1 to note that, despite the requirement that each IRWM's package of projects be approved at the regional level, the majority of individual projects ( $N = 189$  or 54%) are narrow in scope. Only 16% ( $N = 57$ ) are truly regional in scope. In part, this is because the priority of regionalism was not reflected in the scoring criteria for the grants. The DWR engineers awarded far more points to the quality of the engineering than to the goal of regional scope (Sprague et al., 2019), illustrating the slippage in intent between those who initiate a CG initiative versus those in charge of implementing it.

A second dependent variable is whether the project is designated as a DAC project. As explained above, one of the program goals was to address the water-related needs of DACs. The grant guidelines were clear that not every project needed to explicitly focus on DACs, but that extra points and matching grant waivers would be given to an IRWM's package of proposals if it contained DAC projects. In total, 32% of the 348 individual projects are designated as DAC projects. The third and fourth dependent variables are the total project cost and percent local match, respectively.

As for the independent variables, we coded the lead agency for each project into four types according to the



**Figure 3.** Variation in project scope.

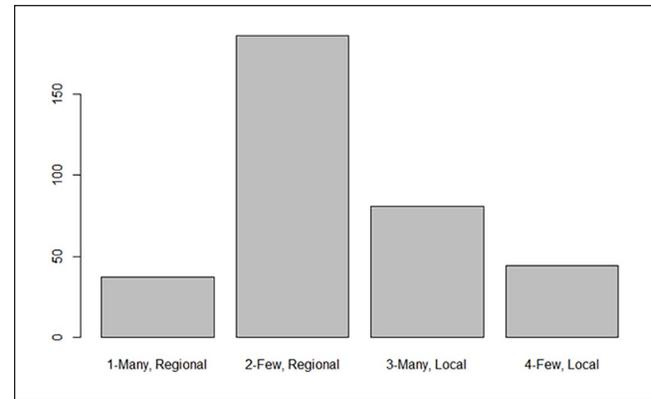
typology in Figure 1. The categorical variable takes on a value of 1 if a project is led by a regionally focused, multi-issue organization like a large county or council of governments; 2 if a project is led by a regionally focused, single-issue organization like a regional water agency or utility; 3 if it is led by a multi-issue local organization such as a city; and 4 if it is led by a local single-issue group. We also counted the number of each type of stakeholder group in each IRWM's process (these are coded at the level of the IRWM rather than the individual project). Figure 4 shows the distribution of organization type that serves as the project lead.

## Results

To test H1, we first ask which types of organizations are most likely to sponsor projects with the various characteristics measured in our dependent variables. Table 1 reports the results of separate bivariate regression-type analyses between the project characteristics and each of the four types of organizations. We ran a hierarchical linear model or hierarchical binomial linear model (when the dependent variable is binary) where projects were nested within IRWMs.

Column 1 of Table 1 offers evidence of role differentiation based on preexisting roles. The coefficients for Type 3 and 4 organizations are both negative, which indicates that these organizations were less likely to lead projects that were regional in scope. Type 2 organizations were more likely to submit projects with the highest total cost, whereas Type 1 organizations were more likely to have higher local funding matched (as indicated by the intercept term). None of the organization types were significantly more likely than others to promote projects that represent the interests of DACs.

Building on these initial estimates, we next estimate a series of models that add measures of the organizational context in each IRWM region and that capture changes in the role that sponsoring organizations play in the two Prop 84 funding rounds. Table 2 reports four hierarchical linear



**Figure 4.** Frequency of organization type as project lead.

models. In the first column, project scope is the dependent variable. We account for the type of sponsor organization and control for the organizational context in the IRWM region. We see that the results from Table 2 are robust to these contextual factors. Again, we see that Type 3 and 4 organizations, which focus primarily on local issues, were less likely to propose broad regional projects. The only significant contextual variable is the number of tribes in the IRWM region, suggesting that, in the presence of tribes, regions are more likely to promote regionally focused projects (though these are not necessarily sponsored by the tribes themselves).

The results in Tables 1 and 2 are consistent with H1: Organizations that already had a regional focus, such as councils of governments and regional water authorities, assumed leadership roles within the IRWMs by taking the lead on projects that were consistent with their pre-IRWM regional orientations. More locally focused organizations (i.e., Types 3 and 4) were more likely to lead on less costly, narrowly focused local projects.

Next, we turn to H2: State actors can change patterns of participation in EGCs through the design of grant criteria. As discussed above, the California legislature changed the proposal scoring criteria after the first funding round of Prop 84, acknowledging that the first set of proposals failed to adequately address the water needs of DACs. In Table 3, we examine whether this change in scoring criteria translated into changes in the roles CG participants took in grant leadership. Building on the results in Table 2, we interact the organizational type term with whether the projects were from the Round 2 funding cycle.

Table 3 indicates that in Round 1 narrowly focused organizations (Types 2 and 4) were less likely to lead DAC project proposals, compared with Type 1 organizations, whereas in Round 2 narrowly focused local organizations (Type 4) were more likely to lead DAC project proposals. These latter organizations tended to be local nonprofit and community-based organizations that organized specifically around the goal of obtaining funding for local water projects. This shift

**Table 1.** Bivariate Relationships Between Project Lead and Project Characteristics.

Variables	Project scope	Total cost	Percentage matched	DAC project
Intercept	1.741*** (0.14)	14.592 (35.074)	30.465*** (5.28)	-0.297 (0.573)
Lead 2 (Few, Regional)	0.073 (0.146)	76.726** (36.082)	10.223* (5.295)	-0.591 (0.575)
Lead 3 (Many, Local)	-0.518*** (0.163)	17.536 (40.227)	-1.69 (5.887)	-0.293 (0.612)
Lead 4 (Few, Local)	-0.372** (0.187)	30.467 (46.464)	-2.907 (6.884)	-0.16 (0.727)
Projects	348	348	348	348
IRWM	30	30	30	30

Note. Results were from the hierarchical linear model (or the hierarchical binomial linear model when the dependent variable is binary). Projects were nested within IRWMs. DAC = disadvantaged community; IRWM = Integrated Regional Water Management.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

**Table 2.** Analysis of Role Differentiation, Regional Context, and Project Characteristics.

	Project scope	Total cost	Percentage matched	DAC project
Intercept	1.598*** (0.186)	-2.361 (41.779)	24.823*** (6.584)	0.011 (0.745)
Lead 2 (Few, Regional)	0.054 (0.146)	69.159** (33.85)	10.823** (5.085)	-0.688 (0.57)
Lead 3 (Many, Local)	-0.612*** (0.169)	8.438 (39.806)	-0.009 (5.891)	-0.449 (0.636)
Lead 4 (Few, Local)	-0.405** (0.186)	39.844 (42.884)	0.687 (6.533)	-0.082 (0.72)
Number of cities	-0.004 (0.007)	1.254 (1.421)	0.484** (0.239)	-0.004 (0.028)
Number of counties	-0.007 (0.043)	-6.273 (9.232)	-1.173 (1.571)	0.057 (0.186)
Number of NGOs	0.007 (0.005)	-0.534 (1.009)	-0.207 (0.172)	-0.015 (0.021)
Number of DACs	0.005 (0.02)	12.327*** (4.288)	0.634 (0.707)	0.233*** (0.087)
Number of tribes	0.035** (0.015)	-6.053* (3.153)	-0.188 (0.549)	-0.057 (0.068)
Number of water agencies	-0.002 (0.008)	2.869 (1.741)	0.365 (0.293)	-0.024 (0.035)
Number of privately owned water companies	0.002 (0.015)	-4.042 (3.19)	0.213 (0.536)	-0.01 (0.062)
Round 2	0.054 (0.083)	7.75 (19.602)	0.175 (2.876)	-0.436 (0.317)
Projects	348	348	348	348
IRWM	30	30	30	30

Note. Results were from the hierarchical linear model (or the hierarchical binomial linear model when the dependent variable is binary). Projects were nested within IRWMs. DAC = disadvantaged community; NGO = nongovernmental organization; IRWM = Integrated Regional Water Management.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

**Table 3.** Analysis of Role Differentiation and Project Characteristics.

	DAC project
Intercept	0.848 (0.88)
Lead 2 (Few, Regional)	-1.438* (0.755)
Lead 3 (Many, Local)	0.12 (0.824)
Lead 4 (Few, Local)	-2.207* (1.163)
Round 2	-1.326 (0.909)
Number of cities	0.013 (0.028)
Number of counties	-0.02 (0.185)
Number of NGOs	-0.027 (0.02)
Number of DACs	0.196*** (0.084)
Number of tribes	-0.052 (0.067)
Number of water agencies	-0.029 (0.034)
Number of privately owned water companies	-0.034 (0.061)
Lead 2 × Round 2	1.596 (1.004)
Lead 3 × Round 2	-0.573 (1.086)
Lead 4 × Round 2	3.436** (1.43)
Projects	348
IRWM	30

Note. Results were from the hierarchical linear model (or the hierarchical binomial linear model when the dependent variable is binary). Projects were nested within IRWMs. DAC = disadvantaged community; NGO = nongovernmental organization; IRWM = Integrated Regional Water Management.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

is consistent with the state regulators' stated goal of increasing inclusiveness by empowering DACs within the IRWM process through the grant process.

## Discussion and Conclusion

The IRWM program illustrates the difficulties of externally generated collaborative governance regimes, as initially postulated by Emerson and Nabatchi. When collaborations are initiated by a higher level of government such as the state (or the federal government), they must necessarily delegate much of the EGC implementation to other agencies and stakeholders. However, the collaboration initiator's priorities are not necessarily conveyed as intended through the delegation chain. H1 maintained that layering the collaboration over existing jurisdiction boundaries enabled a parochialism on the part of many of the local agencies and stakeholders. Leaders in the regional focus tended to be large players with broad connections and expertise. Sponsors of narrow projects tended to be local and specialized in function. Other features of the program—including the episodic nature of the grant competition, short time frame, ability to draw relationship-preserving boundaries, and reliance on preexisting planning processes and documents—did little to change the

orientations of participating actors toward a more regional and less parochial focus. Instead, early rounds of the program saw actors included in the IRWM boundaries playing the roles they were already equipped to play and replicating previous patterns of engagement in the water management process. Organizations whose scope was limited to the city or neighborhood level took the lead on locally focused projects, including later those that were intended to help DACs. Organizations that combined both expertise and a regional focus led on the most regional water projects. As the total cost and percent match equations in Table 2 demonstrate, the regional narrow organizations were more able to take on the big, expensive projects and to provide large funding matches.

But as the IRWM program matured, the increasingly diverse and Democratic Party–controlled state legislature began to realize that features of the program—including the matching component and high technical requirements of the grant competition—implicitly favored the more advantaged communities over the disadvantaged ones. So, for Round 2 of the Prop 84 funding, the state stepped up its incentives for IRWMs to offer DAC-related projects and expand their outreach efforts to new partners. The consequence was a new role for groups that had previously sat on the IRWM sidelines, including smaller DAC-oriented nonprofits, and hence a higher degree of inclusivity in the process and the ultimate package of funded projects. The new emphasis did not challenge the parochial interests of local officials and stakeholders in the same way as the effort to reorient the IRWM program did.

In the end, the IRWM program had mixed success, because there were “leaders” as defined by Scott and Thomas who had compatible goals with the state on forging a more regional water solution. The task moving forward is to improve the intergovernmental tools (especially grant design) and incentivize more regional thinking. Future research can study various types of grant design and assess which type is more likely to attain certain political goals, such as increasing diversity in representation, balancing regional versus local interests, and increasing inclusiveness of DACs and ethnic minorities.

### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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### Notes

1. We thank Mary Sprague and Kate Wilson for sharing the scoring data with us.

2. <https://water.ca.gov/Programs/Integrated-Regional-Water-Management>

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