2010

The Political Logic of Local Collaboration in Regional Planning in California

Elisabeth R. Gerber
University of Michigan - Ann Arbor, ergerber@umich.edu

Adam Douglas Henry
West Viginia University, adam.henry@mail.wvu.edu

Mark Lubell
University of California, Davis, mnlubell@ucdavis.edu

The Political Logic of Local Collaboration in Regional Planning in California

Elisabeth R. Gerber, University of Michigan
Adam Henry, West Virginia University
Mark Lubell, UC Davis

May 2010

Abstract

We study the effects of ideological polarization on regional planning networks. Over the last several decades, Americans have sorted themselves into local communities that are increasingly homogenous in their partisan and ideological make-up (Bishop 2008). Local governments from these communities face immense pressures to engage in regional planning; however, we hypothesize that differences in the political composition of local constituencies will render such intergovernmental cooperation difficult. Using data from a recent survey of California planners and government officials, we map regional planning networks in five California regions in real geographic space and test hypotheses about the factors that lead local governments to engage in regional planning activities. We find that, after controlling for physical distance and similarity of planning preferences, local governments whose constituents are similar politically are more likely to cooperate with one another in regional planning efforts than those whose constituents hold disparate political views.

Paper prepared for presentation at the 2010 Duke Networks Conference. Note: Citations are incomplete.

Introduction

This paper tests the hypothesis that politically-similar local governments are more likely to collaborate in the context of regional land-use and transportation planning in California. We expect the political logic of collective action to influence the structure of local planning networks, even controlling for other factors expected to affect the costs and benefits of collaboration, such as geographical proximity and similarity in planning preferences and contexts (Feiock 2007, 2009). To better understand the political logic of local collaboration, our analysis links the "institutional collective action"(ICA) approach to ideas about ideological sorting and polarization into different types of communities.

ICA focuses on how regional institutions influence the benefits and transaction costs of solving interjurisdicational collective action problems. ICA provides a theoretical basis for understanding why researchers and observers from across the political spectrum have increased their calls for regional approaches to land use planning and policy-making (Friedmann, 1980; Benjamin, 2001; Norris, 2001). Regional collective-action problems occur when local governments with land-use authority ignore the positive or negative consequences of their decisions that spill over jurisdictional boundaries. The spatial mismatch between the costs and benefits of land-use decisions and the boundaries of political jurisdictions creates planning inefficiencies (at best) and serious externalities caused by uncoordinated land use practices (at worst), and has led to increasing calls for *regional planning* – voluntary efforts by individual local governments to coordinate with others in the region to achieve improved planning outcomes.

Coordinated planning at a regional level can allow regions to make more efficient and effective decisions about: where to locate new development; what kinds of development to allow and/or encourage; how to invest in regional public infrastructure such as transportation networks, public facilities, parks and open space; and how to share the costs and benefits of development across the region. Academic researchers purport to demonstrate the economic and environmental benefits of coordinated regional planning. And numerous national, state and local planning associations offer regional planning guidelines and resources to professional planners and local officials.

ICA argues regional cooperation will evolve when the benefits of collective action outweigh the transaction costs of searching for mutually beneficial solutions, bargaining over different policies, and monitoring and enforcing any resulting agreements (Maser 1998; Feiock 2009). This benefit/cost ratio is affected by important variables considered in the planning literature. For example, the benefits of collaboration are higher for geographically nearby jurisdictions because they have more interdependence and have opportunities for repeated interaction. Collaboration may also be higher among jurisdictions with similar economic and social circumstances, because similar preferences reduce the costs of bargaining over collective goods, and increase the benefits of learning. Regional planning efforts are generally hypothesized to decrease the overall transaction costs cooperation by providing financial, technical, and personnel resources.

But the existing literature has placed less emphasis on the political calculus of regional planning, which creates an interesting set of problems. Regional planning requires political actors – mayors, city councils, county boards, and administrative staff – to cede some of their local authority over land use decisions to neighboring jurisdictions and organizations. These political actors may then be held accountable by their local constituents for land use decisions over which they have little control. Local political actors also pay attention to the broader political context by making decisions that are consistent with the policy preferences of governors and state legislators—political actors that operate on partisan considerations. Political science research has demonstrated that variations in *political costs and benefits within individual jurisdictions* help explain the extent to which political actors are willing to engage in regional policy and planning activities (Feiock and Kim 2000; Gerber and Gibson 2009; Lubell, Feiock and Ramirez 2005, 2009). However, little research to date seeks to describe or understand how these types of political costs and benefits influence interjurisdicational relationships.

We integrate the political logic of regional collaboration into the ICA framework by examining how the ideological polarization of a region's residents into politically distinct communities affects how political decision-makers perceive the benefits and costs of regional collaboration. Over the last 30 years, increasingly mobile Americans have been sorting themselves into communities with more and more like-minded neighbors (Bishop 2008). A consequence of this ideological sorting has been an increase in ideological polarization across many metro areas, with liberal people living in liberal communities (typically within the central city), conservative people living in conservative communities (typically around the suburban periphery), and reduced ideological diversity within communities. From a political perspective, this ideological polarization can make cooperation more difficult. Liberals and conservatives may have very different ideas about what is best for their region, reducing the perceived benefits of cooperation. And constituents may oppose cooperation with others "not like them," increasing the perceived political costs to cooperation for local government officials. Partisan politics at higher levels of government that are tied to regional decisions further increase the transaction costs of cooperation.

We examine the impact of political similarity on collaboration using data from a unique survey of local government officials in five California metro areas, where we characterize the regional planning networks in each region. We then use GIS to construct measures of ideological distance in each metro area's local jurisdictions (based on Census data and voter registration records) and link those population patterns to each area's regional planning network. We hypothesize that ideological distance will decrease the probability of network links between local government jurisdictions. If political calculations are important, the negative influence of ideological distance will influence network structure, controlling for other prominent explanations, especially the increased interdependence due to physical proximity and "homophily" where cities of similar size and socio-economic composition share common planning preferences. In terms of the overall network, we hypothesize that metropolitan areas with higher levels of polarization across their local governments will have planning networks that are less dense and more fragmented into ideologically similar clusters than regions that are more ideologically homogenous. These hypotheses are tested using logistic regression, descriptive network statistics, exponential random graph models, and Newman-Girvan clustering algorithms.[1]

Ideological Polarization in US Metro Areas

Numerous modern political scientists have contemplated the existence, causes and consequences of ideological polarization in the U.S. Something like a consensus has emerged that, at the elite level, actors within both parties have become more extreme, moderates have become more rare, and the nation's politics and policies in many ways reflect this elite polarization (McCarty et al. 200x; Brady and Nivola 200x). Less agreement exists over the

[1] We don't implement all of these techniques in this paper; some of the analysis is still underway.

causes of this elite polarization, with various studies pointing towards redistricting and reapportionment, leadership styles, and other factors.

At the mass level, the data are less clear. Some studies conclude that individuals have followed (or perhaps driven) the observed changes amongst elites and have also become more polarized , while others argue that – in the aggregate – the distribution of ideology has remained relatively stable.

Whether individuals have changed or not, it is clear that the distribution of people across the political landscape has changed. Numerous historians and demographers document the massive exodus of middle class whites, beginning in the 1960s, out of the industrial cities of the Northeast and Midwest. These migrants created rings of sprawling suburbs around central cities, established new communities in the exurban countryside, and populated whole new sections of the country in the South and Southwest. Fueled by affluence, transportation options and employment opportunities, this increasing mobility has freed people to act on their preferences for social homogeneity and move into communities with like-minded people. Bishop (2009) illustrates the striking result: more and more communities with a large majority of Republican/conservative residents or a large majority of Democratic/liberal residents, and fewer and fewer communities with genuine partisan and ideological diversity.[2]

The Effects of Polarization and Ideological "Distance" on Regional Planning

What are the effects of ideological polarization on regional planning efforts? To answer this question, we need a theory of local decision-making as it relates to coordination and

[2] Bishop's study takes counties as the unit of analysis and shows the increasing polarization of U.S. counties as measured by presidential vote returns. For some purposes, counties are probably a relevant unit of analysis, and presidential voting is probably a relevant measure of ideological polarization. For other purposes, such as the current focus on regional planning, it is important to consider polarization at other levels of aggregation, such as cities.

cooperation in the land use planning sphere. We lay out the main elements of such a theory, and the hypotheses that follow from it, below. In general, our political theory links to the ICA approach by arguing that ideological polarization increases the transaction costs of regional cooperation.

Decisions about whether and with whom to cooperate on regional planning are made by local government officials – elected and appointed – in whom planning authority is vested. States vary in terms of how this authority is organized, as do local jurisdictions within states, though the typical arrangement requires appointed planning commissions and planning staff to develop general plans and policies, and elected officials (city councils or county boards) to approve general plans and zoning ordinances for implementation. In other words, both appointed/ administrative and elected/ political officials must agree to any major changes in a community's land use policy, including whether to engage in regional planning efforts. In this sense, we can think of elected officials has wielding veto power over land use decision-making in their jurisdictions. This is the case in California, which is the state from which the data for the current study is drawn.

Elected and appointed officials are likely to have different preferences over whether and with whom to cooperate, due at least in part to their different career incentives. Appointed officials, such as planning staff and city/county managers, are policy professionals, trained in planning schools and public policy/public administration programs, whose prospects for career advancement derive largely from the validation of their peers and the standards of their professional associations. In the context of approaches to regional planning, this translates into a preference for efficiency and effectiveness in planning processes and outcomes, and sensitivity to current ideas about "good planning practices" (such as regional planning). Elected officials, by contrast, are political actors whose ability to retain their office requires them to comply – at least on some level – with the wishes of the local citizens and stakeholders who will support them in the next election. For these decision-makers, complying with local preferences may mean supporting regional cooperation if citizens believe such cooperation is beneficial to their community, or opposing regional cooperation if citizens believe their community's interests are in conflict with those of the larger region. Importantly, if local citizens oppose cooperation on land use issues, then even if there are good economic and policy reasons to cooperate, local elected officials may perceive that the political costs are too high and therefore oppose such a policy.[3] We therefore focus primarily on costs and benefits as perceived by these political actors.

Local government officials must make two distinct but interrelated decisions: whether or not to cooperate, and with who. Unlike many collaborative endeavors, the scope of regional land use planning is rarely fixed or predetermined; rather, participants voluntarily self-select into a cooperative arrangement and that selection process defines the "region" and determines the nature, size and scope of the cooperative effort.[4] Some regional land use planning efforts are small in scale and are limited to two or three local units. Others are large, encompassing entire metropolitan areas or more. A primary goal of this study is to better understand how local decision-making produces regional planning efforts of different size and scope.

---

[3] Of course, city government staff and commissions are ultimately dependent on political officials (city councils and county boards) for their jobs, and so on some level, we should not expect the preferences of appointed and elected officials from the same city to diverge substantially. However, as with any principle-agent relationship, appointed officials (the agents) may have some discretion to diverge from the wishes of elected officials (the principles) due to their informational and expertise advantages. As the salience and contentiousness of planning issues increases in a jurisdiction, we expect this divergence to become smaller.
s

[4] Some regional land use planning efforts take place within pre-existing regional institutions such as metropolitan planning organizations, regional councils, councils of governments, etc. In those instances, the set of participants and geographic scope is pre-determined.

In general, the ICA approach expects local elected officials to perceive the benefits of cooperation to be higher, and the costs lower, when the other jurisdiction(s) are more similar on a number of dimensions. This argument is captured by the concept of ***ideological distance:*** two cities whose constituents hold very similar political views (e.g., both have a strong majority of liberal Democrats) are said to be ideologically proximate, while those whose constituents hold very different political views (e.g., one has a strong majority of liberal Democrats and one has a strong majority of conservative Republicans) are said to be ideologically distant. We expect ideological distance to reduce the benefits and increase the transaction costs of regional planning. On the benefits side, we expect local jurisdictions whose citizens are very different ideologically to have different ideas about the appropriate role of government, in planning as well as other areas. Cities with liberal populations tend to prefer a more expansive role for government while cities with conservative populations tend to prefer a more limited role. Two cities that are ideologically distant, one with a very liberal population and one with a very conservative population, may find little common ground and therefore few benefits to cooperation.

On the costs side, we expect constituents to more strongly oppose efforts to cooperate with cities whose residents are very different from their own. Residents may distrust the governments of cities with populations who want very different things, and may threaten to withhold electoral support from city officials who engage and cooperate with disparate cities, independent of any actual planning outcomes that may result from their interaction. Anticipating these potential political costs, local decision-makers may prefer to act independently, rather than risk being punished electorally by their constituents for cooperation. We therefore hypothesize that ideological distance will reduce the probability that two cities cooperate in a regional planning network.

The Effects of Socioeconomic and Physical Distance on Regional Planning

Testing the effects of ideological distance requires controlling for other characteristics of cities that may influence the benefits and transaction costs of cooperation. Two classes of attributes traditionally considered by ICA and the planning literature are socioeconomic distance and physical distance.

As with ideological distance, we expect ***socio-economic distance*** to reduce the benefits and increase the costs of regional planning as well. Two (or more) cities with very different populations may find little common ground for regional planning. Higher SES populations may prefer certain types of land use patterns and practices – limiting growth, maintaining low density requirements, preserving land for recreation and open space – that are very different from those preferred by poor populations – increasing densities, supplying affordable housing, etc. Officials from cities whose citizens have such different land use preferences may find it difficult to identify common regional approaches that satisfy both sets of constituents. By contrast, officials whose citizens have similar land use preferences may find it easier to agree to common land use policies, increasing the benefits of cooperation. Socio-economic distance also reduces the costs of cooperation. Just as citizens may oppose efforts to cooperate with cities whose residents are very different politically, they may also oppose cooperation with places that are very different from their own in terms of racial/ethnic and economic composition. We therefore hypothesize that socio-economic distance will reduce the probability that two cities will cooperate in a regional planning network.

We expect ***physical distance*** to reduce (i.e., geographic proximity to increase) the benefits and increase the costs of regional planning. Two (or more) cities that are located physically close to one another often share common geographic features that pose common challenges or opportunities for development; decision-makers can learn and model behavior from similarly-situated peers and engage in repeated interaction. Decision-makers in neighboring cities may find that shorter distances make it easier to meet, discuss common issues and interests, and generally facilitate cooperation. In addition, land use decisions in one community will often have geographic spillovers into neighboring cities, especially those that share common borders. Jointly planning for and regulating growth and development in closely located cities will allow parties on both sides to better manage and internalize these spillovers. We therefore hypothesize that physical distance will reduce (i.e., physical proximity will increase) the probability that two cities cooperate in a regional planning network.

Research Design: Regional Planning in California

To test our hypotheses, we utilize an internet/telephone survey of land-use and transportation stakeholders in five study regions in California conducted from March to November 2006.[5] Each of the regions featured a regional collaborative process of some type (see Table 1) that was designed to encourage collaboration among local governments and other stakeholders. The survey population consisted of participants in the respective collaborative process, all stakeholders in the region identified as participants in Environmental Impact Statements in the California Environmental Quality Act database, and all planning staff/elected officials from city and county governments within the region. The sample frame sought to encompass the broad range of policy actors associated with land-use and transportation planning activities throughout the region, including but not limited to the specific collaborative process.

5 The research occurred in three phases. The first phase (3/06-5/06) collected data in Merced and Tri-County. The second phase (9/06-11/06) collected data for SACOG, San Diego, and Riverside. The respondents were first contacted by email, and then non-respondents were contacted via telephone. Some of the non-respondents opted to complete the survey on the internet, while others completed a telephone interview.

There was a total of 752 respondents, with response rates of 46% (127) respondents for Merced, 41% (111 respondents) for Tri-County, 25% (116 respondents) for Riverside, 42% (291 respondents) for Sacramento, and 30% (107 respondents) for San Diego.[6]

[Table 1 about here]

This paper focuses exclusively on the survey responses from city and county respondents, including both elected and appointed officials, and administrative staff. In the next version of the paper, we will provide more details on the response rates among the local governments.

Constructing Local Government Planning Networks

To identify collaboration networks, we asked each survey respondent to "identify organizations/stakeholders that you have collaborated with in the past three years regarding regional land-use issues." The respondent was then presented with a roster of 53 possible organizations, including city and county elected/appointed officials and administrative staff. If they indicated collaborating with local government officials, they were then prompted to write in the name of that local government. Note that the survey question does not focus specifically on the regional planning process in place, but rather more generally on land-use and transportation planning issues. Hence the resulting collaboration networks span a broad range of policy activities.

Constructing the collaboration network requires a reasonable definition of network boundaries. Limiting the network boundaries to the specific cities covered by each regional process is insufficient because many local government respondents nominated governments

6 The lower response rates in Riverside and San Diego can be attributed to the 2003 completion of the planning effort in Riverside, and the fairly narrow focus on the North County area of San Diego. One of the future challenges of research using the EG framework will be to construct surveys that remain relevant to respondents, who are normally more motivated when the survey focuses on a narrow, identifiable, and ongoing policy process.

outside of their regions as collaborative partners. For example, one of our sample regions is Merced county and thus Merced county and any cities within it are automatically included in the regional network. However, respondents from the Merced regional network also named cities outside of Merced County, and local governments outside of Merced named cities within Merced as collaborative partnerships.

Hence, our network boundaries are empirically defined by allowing cities outside a particular region to "opt-in" into a regional network by nominating a city in the region as a network partner. Cities outside the region could also be "selected-in" the regional network if a respondent from a city within the region nominated a city outside the region as a network partner. Hence the network boundaries have a strong regional basis as defined endogenously by the study respondents themselves. But the network boundaries do not include every single jurisdiction in California, because that would artificially increase the size of the potential network partners considered by a particular local government.

[Figures 1 and 2 about here]

The resultant regional networks are geographically displayed in Figure 1 for the whole state and Figure 2 specifically for Sacramento. The network ties are drawn between the centroids of the geographic boundaries of each jurisdiction. The greater density of connections within region shows how the networks are regionally focused, which is to be expected given our study design. But the networks also exhibit a reasonable number of cross-regional connections, mostly to neighboring regions, but with a few long-distance connections. For example, Sacramento region jurisdictions have three collaborative ties with Riverside County. Visual inspection of the networks suggests that most of these long distance connections involve counties, although we have not yet quantified this claim. But given the importance of counties at broader statewide decision-making, it is reasonable to expect counties to have more opportunities to make long distance connections.

Constructing "Distance" Variables

Given our definition of regional communities and the incidence of collaborative relationships among them, the main task is to analyze the structure of each regional network and understand the variables that predict connections. The most important theoretical variable for this paper is ideological distance, but we also want to test for the importance of the other variables considered by the ICA framework, namely physical distance and socioeconomic distance. Table 2 below summarizes how we constructed each of our independent variables. To clarify, it should be remembered that every potential network connection in a particular region compasses a dyadic unit of analysis, which allows for the construction of distance variables.

[Table 2 about here]

To construct the *ideological distance* variable, we calculated the six-dimensional Euclidian distance between jurisdictions p and q on the basis of 2008 voter registration for six political parties: % Republican, % Democrat, % Green, % American Independent, % Libretarian, % Peace and Freedom. The formula for Euclidian distance between two points *p* and *q* on *n* dimensions is $\sqrt{\sum_{i=1}^{n}(p_i - q_i)^2}$.

The socio-demographic distance variables are calculated by taking the absolute value of the difference between the two local jurisdictions; higher values thus mean a greater difference between local governments and zero means no difference. These absolute value differences are equivalent to Euclidean distance in one dimension. *Distance population* and d*istance population change* were transformed to deal with data storage limitations in the SIENA software used in the ERGM analysis. *Physical distance* is calculated using GIS as the distance in miles between the centroids of the relevant local government jurisdictions.

Dyadic Logit Analysis of Collaborative Ties

The first cut at the analysis is a dyadic logit analysis similar to those used in many international relations studies, where all of the potential dyads in the five regional networks are the units of analysis, and the dependent variable equals one if there is a collaborative tie and zero otherwise. Although the logit analysis doesn't capture the full interdependency among the regional network, it does give some initial insights.

[Table 3 about here]

Table 3 shows the results of the analysis. The first column contains the full model, and the second column drops two variables (percent non-white, percent urban population) that are highly multi-collinear with other variables in the model. All of the variables in the model are statistically significant, with the exception of percent population change. As might be expected, the largest driver of collaborative ties is physical distance, which has a strong influence on levels of interdependence, opportunities for repeated interactions, and reduced costs of interaction (i.e.;, it just takes less time to drive next door!). Local government jurisdictions with similar income distributions and levels of urbanization are also more likely to collaborate. The only surprising finding is that cities with similar population sizes are *less* likely to collaborate. We speculate that this reflects an urban-rural phenomena that might be unique in the Central Valley of California, where in each region we study there is a fairly large urban city surrounded by smaller, more rural cities and located in mostly rural counties. The collaborative land-use institutions are designed to foster regional collaboration, which at least partly focuses on encouraging the urban areas to cooperate more with rural partners.

Most importantly for this paper, ideological distance reduces the probability of collaboration even controlling for the other variables. Taken together, the models predict collaborative ties very well, with McKelvey and Zavonia R^2 greater than .70.

Exponential Random Graph Analysis of Collaborative Ties

ERGM models relax the assumption of the logit models that each dyad is independent (Robins et al. 2007a). Instead, ERGM assumes the likelihood of a link between any two local governments is conditional on the structural properties of the network in which a particular dyad is embedded. ERGM models account for interdependency by defining a probability distribution for the set of all possible networks for a given set of nodes, which in our case are local governments. The probability of any realized network is a function of structural properties of the network, dyadic variables (e.g.; distance), and attributes of individual nodes. ERGM models then simulate thousands of networks and use maximum likelihood to find which parameters of the model create a distribution of networks that have the same average values of the observed network.

[Table 4 about here]

Table 4 reports the results of three different ERGM models. The full model contains all network structural effects, and also all the dyadic covariates including those with multi-collinearity problems. The model in the second column drops the percent non-white and urban population distance variables to avoid multi-collinearity problems. The last model drops the network structural characteristics, and is closest in spirit to the logit models. It gives some idea of what happens to the size of the coefficients when interdependence is not explicitly modeled. The ERGM direction and significance of the ERGM coefficients are interpreted analogously to the logit model. The ERGM models have a good fit because the average count of network structures in the simulated family of networks is not significantly different from the observed network (more here in next version of paper).

The ERGM results are generally consistent with the logit models. Once percent non-white is removed from the model, the ideological distance variable is negative and significant—politically distant cities are less likely to collaborate. The urbanization and income distance, and the physical distance variables, remain negative and significant. The surprising finding about cities with different population sizes being more likely to cooperate is also replicated.

While the network structural characteristics are mainly included to appropriately account for interdependence, they also have some interesting substantive interpretations (Robins et al 2007b). Alternating k-stars and alternating k-triangles are "higher order" network statistics that take into account the tendency for a network to cluster around hubs (alternating k-stars) and exhibit transitivity and closure (alternating k-triangles). The global properties of network with a positive alternating k-star parameter tends to have a core-periphery structure with a few very high degree nodes connected to many low degree nodes, a high variance in degree distribution, and decreasing marginal returns for higher levels of popularity. A positive alternating k-triangle parameter leads to a "clumpy" network with subgroups of transitive triads forming multiple cores.

In practice, it is very common to have negative k-star parameters and positive k-triangle parameters, which represents to countervailing processes for structuring the network. The negative k-star parameter suggests that popularity processes are moderated, and any clumping in the network is due to overlapping patterns of transitivity forming multiple cores. The structure of our research design provides one explanation for this finding—our definition of "regional" networks is centered on five different regions and naturally creates multiple cores. However, Berardo and Scholz (2010) have forwarded the hypotheses that transitivity processes such as those captured by k-triangles suggest the presence of risky cooperation games, which is also the underlying assumption of the ICA perspective.

Conclusion

This paper makes two contributions to the literature on local government collaboration and institutional collective-action. First, we provide empirical evidence for some of the core hypotheses of the ICA regarding the benefits and transaction costs of local collaboration. Local governments with similar socio-demographic characteristics in terms of urbanization, median income, and race are more likely to collaborate because they have similar policy preferences and thus face fewer transaction costs associated with bargaining over collective goods. Demographically similar local governments also have higher benefits of collaboration because they can learn from each other's policy experiments. Contrary to the standard ICA hypotheses, local governments with different population sizes are *more* likely to collaborate, which possibly reflects the urban-rural nature of local communities in the California study regions.

Physical proximity also increases the likelihood of collaboration for reasons related to benefits and transaction costs. Physically proximate jurisdictions have higher levels of interdependence and thus experience more opportunities for joint gains or avoiding joint costs. Physically proximate cities also engage in repeated interactions that make cooperation more likely, and reduce the logistical costs of interaction. As with most other types of collaboration networks (e.g.; scientific collaboration), the network models confirm the importance of physical proximity.

The second and more important contribution is that we find evidence for a political logic of collective action that reduces the likelihood of collaboration between ideologically distant cities. The increased ideological polarization of American communities makes local elected officials and administrative staff accountable to the policy preferences of local political parties. The tendency of higher levels of government to dole out political benefits along party lines exacerbates this tendency. The political benefits of collaboration are higher when reflecting these partisan preferences, and the network models suggest that ideological distance decreases the probability of forming network ties.

References Cited

Benjamin, G. and R. P. Nathan (2001). Regionalism and Realism: A Study of Governments in the New York Metropolitan Area. Washington, D.C., Brookings Institution Press.

Berube, Alan. 2007. "MetroNation: How U.S. Metropolitan Areas Fuel Prosperity." Metropolitan Policy Program Initiative. Washington: Brookings.

Bishop, Bill. 2008. *The Big Sort*. New York: Houghton Mifflin.

Downs, A. (1994). New Visions for Metropolitan America. Harrisonburg, VA, R.R. Donnelly & Sons, Co.

Feiock, Richard C. 2009. "Metropolitan Governance and Institutional Collective Action." *Urban Affairs Review* 44 (3):356-77.

Feiock, R. C. (2007). "Rational Choice and Regional Governance." Journal of Urban Affairs **29**(1): 47-63.

Feiock, Richard C. and Jaehoon Kim. 2000. "Form of Government, Administrative Organization, and Local Economic Development Policy." *Journal of Public Administration Research and Theory* 11(1): 29–49.

Friedmann, J. and C. Weaver (1980). Territory and Function: The Evolution of Regional Planning. Berkeley, University of California Press.

Gainsborough, J. (2002). "Slow Growth and Urban Sprawl: Support for a New Regional Agenda." Urban Affairs Review **37**(5): 728-744.

Gerber, E. R. and C. C. Gibson (2009). "Balancing Regionalism and Localism: How Institutions and Incentives Shape American Transportation Policy." American Journal of Political Science **53**(3): 633-648.

Jackson, K. T. (2000). Gentleman's Agreement: Discrimination in Metropolitan America. Reflections on Regionalism. B. Katz. Washington, D.C., Brookings Institution Press**:** 185-217.

Lewis, P. G. (1996). Shaping Suburbia: How Political Institutions Organize Urban Development. Pittsburgh, University of Pittsburgh Press.

Lubell, Mark, Richard C. Feiock, and Edgar Ramirez. 2005. "Political Institutions and Conservation by Local Governments." *Urban Affairs Review* 40 (6):706-29.

Lubell, M., R. C. Feiock, and E. E. R. de la Cruz. 2009. "Local Institutions and the Politics of Urban Growth." *American Journal of Political Science* 53 (3):649-65.

Maser, Steven. M. 1998. "Constitutions as Relational Contracts: Explaining Procedural Safeguards in Municipal Charters." *Journal of Public Administration Research and Theory* 8:527-564.

Munro, Mark, Bruce Katz, Sarah Rahman, and David Warren. 2008. “MetroPolicy: Shaping a New Federal Partnership for a Metropolitan Nation.” Metropolitan Policy Program Initiative. Washington: Brookings.

Munro, Mark, Jennifer Bradley, Alan Berube, Robert Puentes, Sarah Rahman, and Andres Reamer. 2009. “Metro Potential in ARRA: An Early Assessment of the American Recovery and Reinvestment Act.” Metropolitan Policy Program Initiative. Washington: Brookings.

Norris, D. F. (2001). "Prospects for Regional Governance Under the New Regionalsm: Economic Imperatives Versus Political Impediments." Journal of Urban Affairs **23**(5): 557-571.

Orfield, M. (1997). Metropolitics: A Regional Agenda for Community and Stability. Washington, D.C., Brookings Institution and the Lincoln Land Institute.

Powell, J. A. (2000). Addressing Regional Dilemmas for Minority Communities. Refections on Regionalism. B. Katz. Washington, D.C., Brookings Institution Press**:** 218-246.

Robins, Garry, Pip Pattison, Yuval Kalish, and Dean Lusher. 2007a. "An introduction to exponential random graph (p*) models for social networks." *Social Networks* 29 (2):173-91.

Robins, Garry, Tom Snijders, Peng Wang, Mark Handcock, and Philippa Pattison. 2007. "Recent developments in exponential random graph (p*) models for social networks." *Social Networks* 29 (2):192-215.

Rusk, D. (2000). Growth Management: The Core Regional Issue. Reflections on Regionalism. B. Katz. Washington, D.C., Brookings Institution Press**:** 78-106.

Figure 1

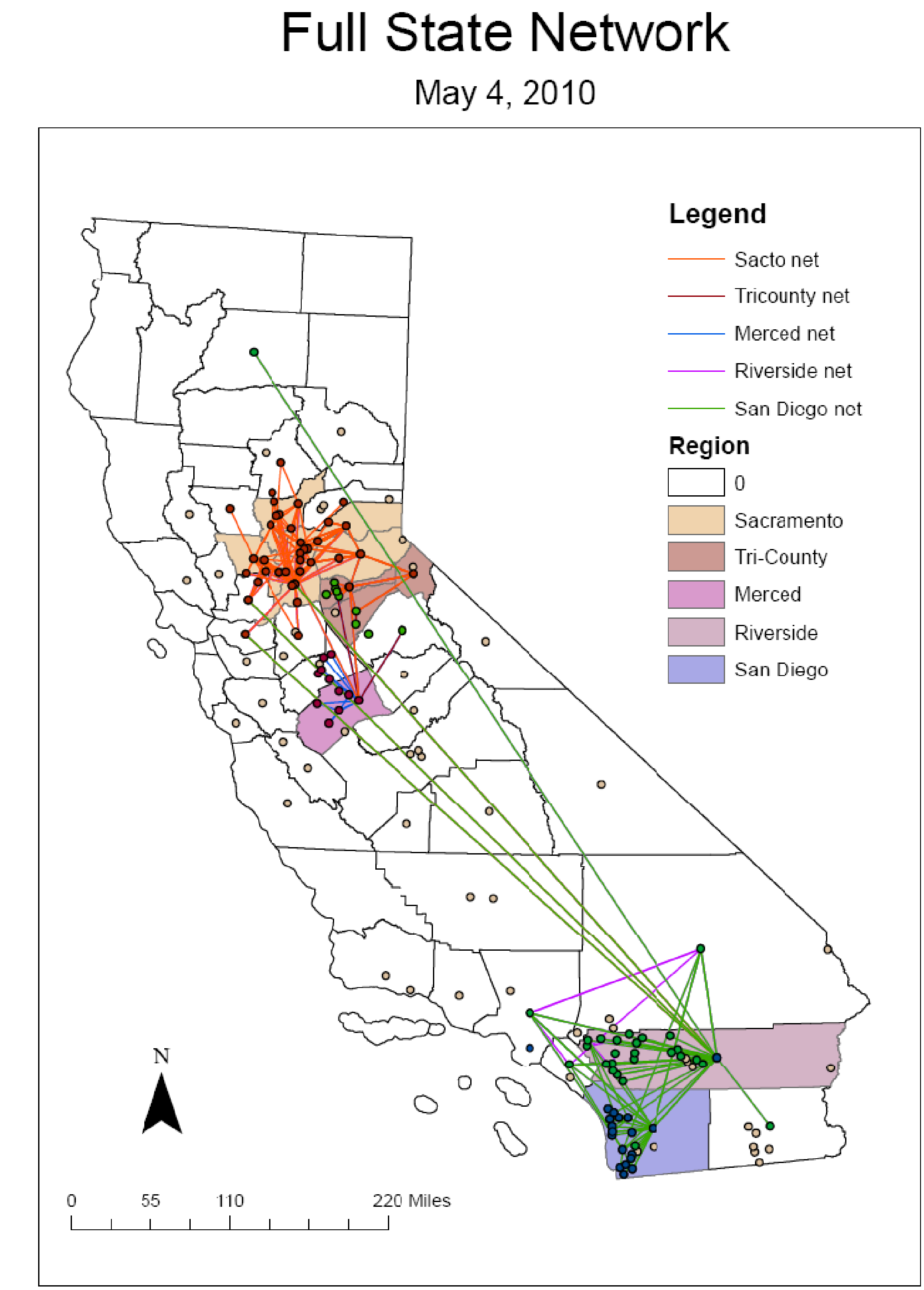
Full State Network
May 4, 2010
Legend
Sacto net
Tricounty net
Merced net
Riverside net
San Diego net
Region
0
Sacramento
Tri-County
Merced
Riverside
San Diego
N
0
55
110
220 Miles

Figure 2

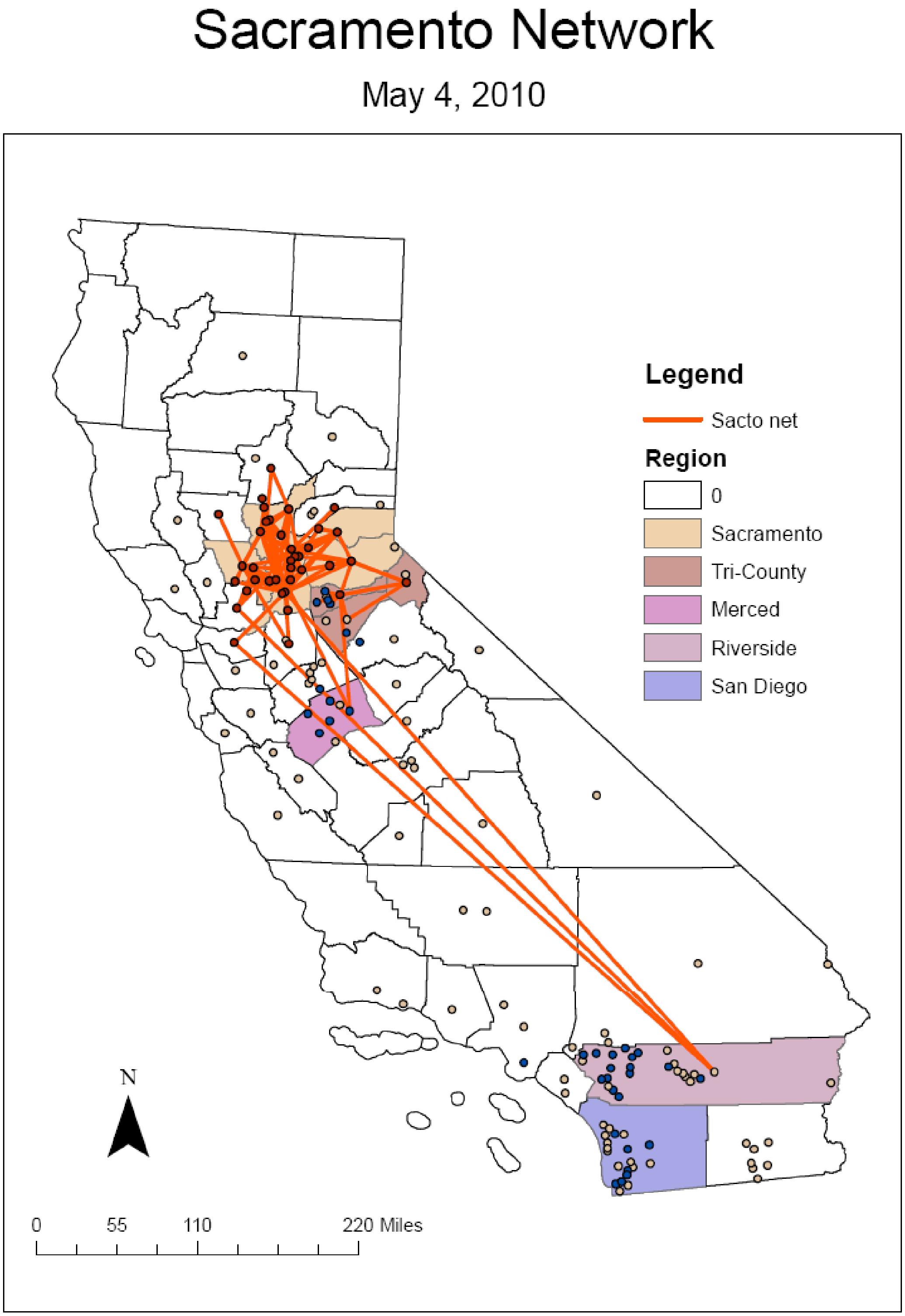
Sacramento Network
May 4, 2010
Legend
Sacto net
Region
0
Sacramento
Tri-County
Merced
Riverside
San Diego
N
0
55
110
220 Miles

Table 1: Summary of Five Regional, Collaborative Land-Use and Transportation Processes in California

Name	*Summary*	*Authoritative Decisions*
Merced County Project for Integrated Planning	Began in 2002 as a result of an interagency agreement between the Merced County Association of Governments and several state and federal agencies.	Resulted in regional transportation impact fee assessment for new development. Funding used for regional transportation projects consistent with regional plan.
The Tri-County Memorandum of Understanding	Began in 2005 when the California State Department of Transportation proposed that a collaborative transportation planning effort including land use considerations be undertaken by the Regional Transportation Planning Authorities in Alpine, Calaveras, and Amador Counties. Built on several previous revenue sharing Memorandums of Understanding	Revenue sharing MOUs identify regional priority projects for distribution of pooled state transportation funding.
Sacramento Council of Governments (SACOG) Blueprint Process	Began in 2000 when the Sacramento County Council of Governments instructed its staff to develop a land-use plan in conjunction with the update of the Metropolitan Transportation Plan required by the Federal Government. The collaborative nature of the process was in response to local government and environmental criticisms of previous planning efforts.	Transportation plan manages spending of regional transportation funding. Awards planning grants to cities and counties undertaking studies of development consistent with the regional Blueprint plan.
Riverside County Integrated Project	Began in 1998 with the drafting of a multi-stakeholder "vision statement" accompanying the update of the Riverside County General Plan. The integrated project then evolved to encompass the county general plan, a habitat conservation plan, and a transportation plan. These plans were completed in 2003.	Transportation plan manages spending of regional transportation funds; General Plan identifies desired land-uses throughout the county; Habitat Conservation Plan identifies conservation lands acquisitions and mitigation measures for protection of endangered species.
San Diego Association of Governments North County Multiple Habitat Conservation Program	Began in 1997 when San Diego County adopted a Multiple Species Conservation Program under the auspices of the Federal and State Endangered Species Acts. The conservation planning efforts explicitly consider land-use and transportation issues associated with urban growth. Ongoing collaborative planning efforts are focused on the North County subregion.	Habitat Conservation Program identifies conservation lands acquisitions and mitigation measures for protection of endangered species. Mitigation and monitoring is coordinated with expenditures on regional transportation projects.

Table 2: Variable Construction and Sources

Variable	*Computation*	*Source*
Distance: voter registration	Euclidean Distance	California Secretary of State, Report of Registration, October 20, 2008, "Registration by Political Subdivision by County"
Distance: income ($1000)	|(median hh income in 1999 gov 1) - (median hh income in 1999 gov 2)| / 1000	US Census 2000, SF3, Table P53
Distance: percent non-white	|(% non-white gov 1) - (% non-white gov 2)|/100	US Census 2000, SF1, Table P3
Square Root distance: percent pop. Change	|(% pop. change gov 1) - (% pop. change gov 2)|^1/2	US Census 2000, SF1, Table P1 and US Census 1990, SF1, Table P1
Distance: percent urban pop.	|(% urban pop gov 1) - (% urban pop gov 2)| * 100	US Census 2000, SF1, Table P2
Distance: percent urban housing	|(% urban housing gov 1) - (% urban housing gov 2)| * 100	US Census 2000, SF1, Table H2
Log distance: total population	log(|(total pop. gov 1) - (total pop. gov 2)| + 1)	US Census 2000, SF1, Table P1
Physical distance (10 mile units)	GIS calculated miles between centroids/10	US Census Bureau, TIGER/Line Files

Note: Computations shown are for the ERGM models. For the logit model, the variables were not transformed into percentages and instead are in proportions. Next version of the paper will make all variables equivalent.

Table 3: Logit Model of Dyadic Collaboration Among Local Governments

	Full Model	Without Race and Population Change
Ideological effects		
Distance: voter registration	.07(.08)*	.02(.02)*
Socio-economic effects		
Distance: income ($1000)	.97(.01)*	.97 (.001)*
Distance: percent non-white	.08(.08)*	NA
Square root distance: percent population change	.90 (.11)	.91 (.11)
Distance: percent urban population.	.0004(.002)*	NA
Distance: percent urban housing	861.34 (3030.74)*	.46 (.16)*
Log Distance: total population	1.41(.07)*	1.40 (.07)*
Physical distance effects		
Physical distance (10 Mile units)	.73 (.03)*	.73(.03)*
Model Details		
N	1294	1294
Count R^2	.87	.87
McKelvey and Zavonia R^2	.77	.76

Note: Cell entries are odds ratio estimates from a logit model with standard errors in paratheses. *Reject null hypothesis of odds ratio=1, p<.05. Correlation between distance percent urban population and urban housing equals .99, so the parameter estimates for percent urban housing and percent urban population are incorrect in the full model due to near perfect collinearity.

Table 4: Exponential Random Graph Models of Local Government Collaboration Networks

	Full Model	Without Race and Urban Population	Without Network Effects
Network effects			
Alternating k-stars	-.61(.18)*	-.59 (.18)*	NA
Alternating k-triangles	1.19 (.17)*	1.20 (.17)*	NA
Alternating independent 2-paths	.05 (.01)*	.05(.01)*	NA
Ideological effects			
Distance: voter registration	-.01 (.01)	-.02(.009)*	-.03(.01)*
Socio-economic effects			
Distance: income ($1000)	-.01 (.008)	-.02(.009)*	-.03 (.01)*
Distance: percent non-white	-.02 (.009)*	NA	NA
Square root distance: percent population change	-.003(.01)	-.003(.01)	-.008(.01)
Distance: percent urban population.	-.002(.03)	NA	NA
Distance: percent urban housing	-.004(.03)	-.006(.003)*	-.008(.004)*
Log distance: total population	.14 (.04)*	.13(.04)*	.23(.04)*
Physical distance effects			
Physical distance (10 mile units)	-.14(.04)*	-.13(.03)*	-.22(.03)*