

Winning Stats: Visualizing Influence in the Southeast with Social Network Analysis Cohesive Strategy Success Story

State: Georgia

Goal 2: Fire Adapted Communities

“Now, instead of working fire group to fire group, we’ve expanded our network to include groups outside traditional partners,” explained Mike Zupko, lead of the Southeast Regional Strategy Committee (SE RSC). Zupko saw that Cohesive Strategy collaboration had already transcended the conversational norm to include, “the timber industry, wildlife interests, water quality interests and so many others.”

In 2013, in a proactive move to map the regional influence of organizations collaborating under fire adapted communities and related issues, the SE RSC enlisted an experienced applied research team including the Southern Region Extension Forestry (SREF) led by the Southern Region Extension Forester Bill Hubbard, at University of Georgia. Their task: perform a Social Network Analysis (SNA) to measure innovation diffusion, strength of ties (frequency of collaboration) and direction of influence throughout a group of Cohesive Strategy collaborators in the region. The results will help identify routes for outreach and facilitation in implementing the Strategy’s goal 2, creating fire adapted communities.

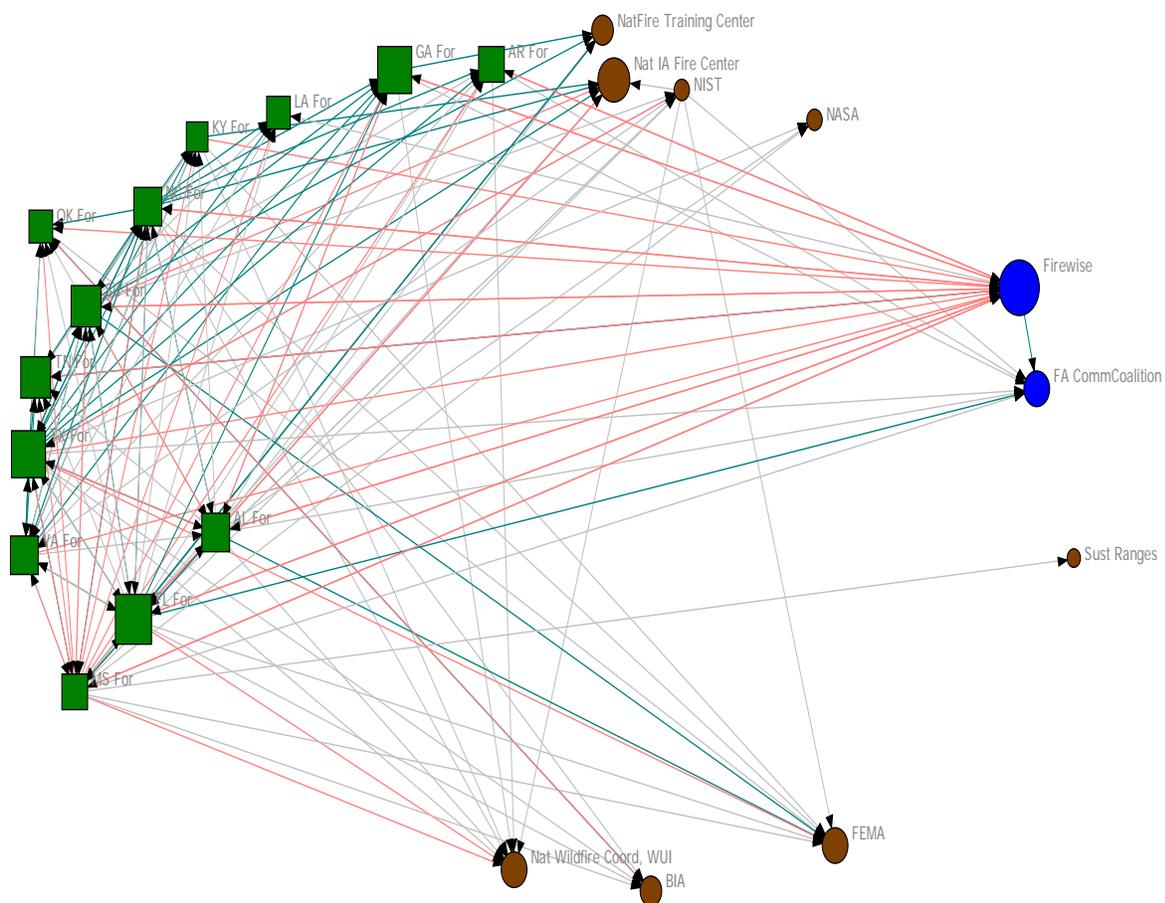


Figure 1. Layer of a network map with State forestry and other Federal and National groups. The symbols and their colors represent the type and scope of the organization while the color of the lines indicates strength of ties (the ranked number of collaborative projects they have recently undertaken together).

How has SREF applied what they found in the analysis? The team identified a core group of stakeholders – organizations with connections to wildfire management and response – on which to draw for outreach to improve the connectivity of organizations on the network periphery, new collaborators, and those with fewer ties. The RSC and RSC lead will use the network maps to help improve connections to share essential information, facilitate implementing actions and utilize existing funding resources for supporting Strategy related activities. The vision is to engage groups and their experience within the process of developing Fire adapted Communities across the Southeastern Region. The RSC created a three-pronged approach to performing SNA.

- 1) **First, the team disseminates the applied research**, or the analysis itself, to the top influencer groups they have identified.
- 2) **Then they establish regional outreach to engage stakeholders** via their website and through focused materials, with information such as a how-to guide for startup collaboratives to get qualified as Fire adapted Communities.
- 3) Finally, the RSC team plans to use the existing Fire adapted Communities hub and spoke network to **provide regional technical facilitation**. The example of one community, or hub, can be adapted to another community so information diffuses out to support new groups and activities. The team will progressively disseminate material that can be used across the 13 states of the region. This is part of the plan for improving and expanding the Southeastern network of Cohesive Strategy partners.

Success Factors

Selecting the Study Team

Regional focus, meaning extensive firsthand knowledge of the Southeast, was a primary criterion in selecting the research team. For the SE RSC, Bill Hubbard’s SREF team was a natural choice because of Hubbard’s work as regional liaison to 13 universities, including his home base, University of Georgia, and his connection to the United States Forest Service (USFS). Another plus was his group’s experience with technology development and knowledge transfer in the region. Bill’s group had done SNA before, so they had both the skills and experience required, along with the regional reach to encourage participation, explain the scope of the issues, and identify key players. Finally, the group did a lot of pre-work to narrow the scope of the analysis. To focus their research question they held extensive brainstorming sessions during early phases of the Strategy development.

Research Design

In their research design the RSC chose to focus on Strategy goal 2, fire adapted communities, because it was the most opportunistic to learn unknown social networks, defined by the strengths and gaps among participants. The team chose participating organizations, scoped by these survey criteria:

- 1) Groups that had regional focus plus goal 2 relevance.
- 2) Strength of relationships with other identified network members.

Researchers then asked each respondent “how often they collaborated with one another in the past 2 years.”

Success Factors

- 1) Lead researcher works at the regional level.
- 2) Experienced shop conducting the study.
- 3) Extensive Prework. Up front understanding and construction of the research question to focus the scope.

Innovation and Influence 2.0: Replicate this SNA

Why Replicate this SNA?

Granted, completion of the SNA spells progress toward better understanding the core group of partners driving implementation and ongoing revisions of the Strategy. Furthermore, it is a chance to energize the ties with those outlying groups who “might not even know who all is involved with the Strategy,” explains Zupko. “The purpose of focusing on social networks of five or ten core organizations with the broadest net is to inform ways of expanding their reach.” There may be chances for the network of collaborators to help test the regional action plan.

The graphic visualization of the network, parsed elegantly into lean layers from the more complex whole (see Figure 2) by team member Sarah Workman, PhD, shows the strength and direction of relationships. This helps the team identify organizations with which they need to strengthen ties. Just realize, when printing and hanging this type of map— you will need a 4’x8’ wall chart to see the interaction lines clearly due to density.

Be aware as well, results from this study do not identify who is not being reached, or suggest how exactly to expand contact to additional organizations. Those topics require further use of the data and discussion with stakeholders.

Who could replicate this?

“Any group looking to better understand interactions on specific issues,” answers Hubbard immediately. Canvassing for interest in this type of analysis could be done in:

- 1) **other states/regions/areas,**
- 2) **using Extension or similar Programs,** since they have designed and carried out this research already, with
- 3) **another category of organizations as participants** to map their network awareness and how they could use SNA to gain insight into their future interaction in their field and region.

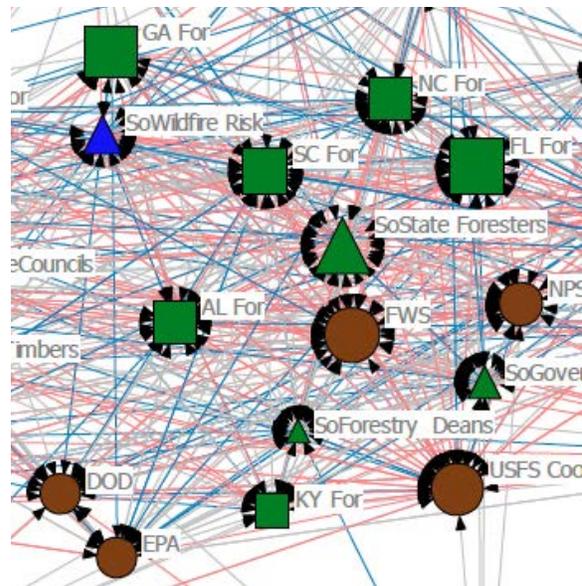


Figure2. Section of a network map showing organizations with strength and direction of their interaction ties.

Considerations for Followup Research

The survey asked respondents to define their organization’s amount of collaboration, but not the exact nature. Improving the specificity of this response was a unanimous topic of discussion with the research team. Everyone wanted to collect one more factor of the nature of participants’ collaborations to shed light on the type of interactions diagrammed in the current results. What were they collaborating on? Receiving funding? Doing outreach? Other activities? “We could be seeing results of, for example, a state or private agency interacting with a federal agency but just to transmit report, or as a counselor not a project partner or collaborator,” Workman clarifies.

Next Steps:

Says Workman, “IAFC and Ready, Set, Go! offer experience and information about fire-proofing structures and home preparedness; Firewise is also a good resource to help with these issues as well as

landscaping and defensible space topics. Our next steps are working with partners making communities more fire adapted and helping spread the word about these existing resources.”

Workman will also be looking at ego networks— specific group networks— for the most influential entities identified in the SNA, to ask them to outreach to less connected groups and to understand their contacts to enhance relationships for other organizations in the network. The Federal agencies, for example, can work with communities and landowners adjacent to Federal properties, or if a group doesn't have a program in place they can instead connect a state forestry agency program to home and landowners with opportunities to develop their wildland fire management goals. Groups on the outer reaches of the Strategy network, also, may be called upon to share more of their expertise and connections to additional networks with new information.

For more information

Please contact Mike Zupko, SE RSC chair, mike@zup-co-inc.com

Bill Hubbard, Regional Forester, SREF whubbard@sref.info