

Building Smart and Connected GNARs with the GNAR Compass App

Jordan Smith

06/02/2021



Building Smart and Connected GNARs with the GNAR Compass App

By: Jordan W. Smith, Ph.D.

Gateway and Natural Amenity Regions (GNAR) across the American West have experienced unprecedented social and economic change as a result of the pandemic. What was once a steady stream of international tourists has now completely dried up. Back in early 2020, GNAR economies that were once dependent upon visitors coming from overseas or from distant markets were facing dire questions about if, and how, local hospitality and tourism businesses such as hoteliers, outfitters, guides, retailers, and restaurants would survive in a world where there was nearly no travel and tourism happening. Many seasonal businesses in GNAR communities decided to shut down for all of 2020, saving money on labor and operating costs altogether and weathering the storm as best they could in the hopes that 2021 would bring calmer seas. Thankfully for many GNAR communities, the dire economic straits of COVID were alleviated by strong local and regional travel markets that picked up much of the slack left by the lack of an international market. Local and regional visitors flocked to parks and public lands as a respite from long hours being spent quarantined in their homes. These visitors may have also seen the lack of international visitation as a great opportunity to get out and explore the 'typical tourist hot spots' without the 'typical tourists.'

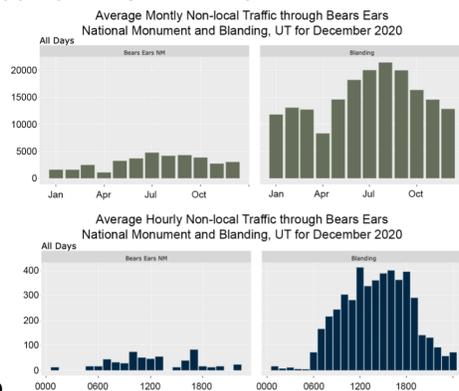
While it was less likely that you'd hear German or Chinese being spoken in downtown Park City or Jackson, you were certainly more likely to hear familiar voices from visitors coming from just a couple counties away. While we've heard many anecdotes from GNAR community leaders from across the West about how outdoor recreation and tourism have changed as a result of the pandemic, many have been left wanting more hard evidence to support their experiences and better understand what is actually going on. The GNAR Initiative team has stepped up in a big way, putting a considerable amount of time and resources into the development of tools that allow GNAR community leaders and other interested folks with the ability to track trends in traveler behavior, as well as the impact that traveler behavior has on the economies of GNARs.



Working under a grant from the National Science Foundation, we are developing the GNAR Compass App, an open-access web-based application that brings a wealth of data on traveler behavior and tourism economies into the hands of those who need it most – GNAR community leaders, business owners, land managers, and non-profit groups. The GNAR Compass App uses data on human mobility, acquired through the passive monitoring of location-enabled apps downloaded to smartphones, to provide a wealth of information that can be used to inform decisions about local outdoor recreation and tourism development. For example, the app can show you how many resident and non-local trips were made to a GNAR community for any given month. It can even show you what that average number of resident and non-local trips are being made to a GNAR community for *every hour of the day!* Unlike most marketing companies who use data collected from location-enabled mobile locations to find out ways to more effectively sell you stuff, the GNAR Initiative team is trying to tap into these data for good. By providing access to these data to GNAR communities, our intent is to provide data on tourism mobility and local tourism economies *on demand*, whenever and wherever it's needed. Most GNAR communities don't have the time or resources to dedicated to procuring, filtering, analyzing, and interpreting millions of data points from cell phones passing through their communities. The GNAR Initiative team does, and we've crafted the GNAR Compass App as a tool that can

be applied rapidly and reliably to any GNAR across the West.

So what exactly can the GNAR Compass App tell you? Well, the prototype of the App was developed with San Juan County in Southeastern Utah. Working with a group of stakeholders consisting of local business owners, county and city officials, tribal representatives, and non-profit organizations, we determined how the App could make the biggest impact; how it could help inform decisions in the most immediate and impactful way. We went back-and-forth with the stakeholders in a series of workshops in which we showed them different possibilities for what the App could do, and what they would like to see it do. One area where stakeholders saw a lot of value was that the App could provide a 'one stop shop' for data on visitation and tourism economics for not just local municipalities, but for public land units as well. It could provide a simple and intuitive interface where anyone could see how tourism behavior for a municipality compared with that for another nearby municipality as well as for nearby public land units. The image from the App below shows the result of those discussions. We went back to the drawing board, or more appropriately our computer code, and revised the



App so that the stakeholders could easily see how non-local visitation for a municipality like Blanding compared with non-local visitation for Bears Ears National Monument. The App provides a simple and intuitive way to compare and contrast visitation patterns for any set of municipalities and public land units, maximizing flexibility and utility.

Our team is currently working on integrating other types of data, in addition to mobile location data, into the App. For example, we are exploring how visitation data can be overlaid with local economic indicators like transient room tax revenues, sales tax revenues, and even credit card transaction data. Our ultimate goal with the App is to make GNAR Communities 'smarter' by connecting them to wealth of data that they can use to make more informed decisions.

GNAR communities may be small in size and limited in financial and human resources, and that's where the GNAR Initiative is stepping in to help out. Our team is currently looking for GNAR communities and regions who would be interested in seeing what the GNAR Compass App can do for them. If you'd like to take the App for a spin and see if it can help your community or region out, please reach out and we'd be happy to give you a tour and discuss the possibilities.

Contact: Jordan W. Smith, Ph.D.
jordan.smith@usu.edu



Jordan W. Smith, Ph.D., is the Director of the [Institute of Outdoor Recreation and Tourism](#) at Utah State University. He earned his Ph.D. in Parks, Recreation and Tourism Management with minors in both Geospatial Information Systems and Sociology from NC State. Jordan completed both his master's and undergraduate degrees from Utah State University. Jordan's work uses social media analytics and geospatial technologies to develop an understanding of how outdoor recreation is changing across the American West. His goal is to provide natural resource professionals, elected officials, private industry, and the general public with a scientifically grounded understanding of how to best manage outdoor recreation. Off-campus, Jordan is an active road cyclist and triathlete.