

2021 Northern New Mexico Community Data Sprint

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What is a Data Sprint?

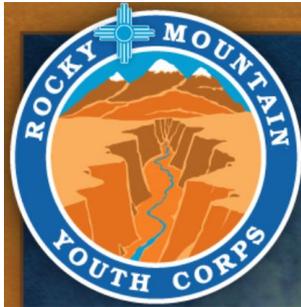
- Following structure of hackathons and design sprints
 - At end of week, deliverable is insights from data rather than software or a prototype
- *Community* data sprints focus on data from nonprofit organizations
- Community data sprints are a known model used in larger cities, but this is a first for Northern New Mexico

Why a Community Data Sprint?

- **Give** back to the Northern New Mexico Community using LANL's skill sets
- **Connect** LANL researchers in data science-related fields across siloes
- **Empower** students, postdocs, and early career staff with leadership opportunities
- **Enhance** LANL's agile capabilities to deliver actionable results on short timelines

Community Partner Selection

- Received 11 applications over short 2-week application period
- Applications reviewed by PI, co-PI, LANL CPO staff for merit and feasibility
- Selected:
 - Rocky Mountain Youth Corps, seeking insight into diversity and impact
 - Northern New Mexico College + Santa Fe Community College, to investigate retention



NORTHERN
New Mexico College



LANL Team Selection

- Received 20 applications over short 2-week application period
- All selected participants were early career, postdocs, or students
- Team College
 - Katy Martinez, lead (postdoc, A-1)
 - Bulbul Ahmmed (postdoc, EES-16)
 - Lauren Castro (early career, A-1)
 - Dax Gerts (early career, A-1)
 - Julia Nakhleh (student, CCS-7)
- Team Rocky Mountain
 - Sayera Dhaubhadel, lead (early career, T-6)
 - Maksim Eren (student, A-4)
 - Kelly Moran (early career, CCS-6)
 - Adam Rupe (postdoc, EES-16)



Pre-Sprint Organizing Activities

- Multiple meetings with community partners regarding data collection and transfer
- Lab Counsel and Ethics offices approval, data sharing agreements
 - Many thanks to Patrick Duran and Kathy Keith at LANL CPO for assistance
- LANL team leads met with community partners
 - understand stakeholder interests and brainstorm
- LANL team leads given ~1 day of pre-sprint funding to plan their approach

Sprint Week Structure

- All LANL participants funded for 1 full week
- First day introductions, community partner presentations, logistics
- Daily morning and end-of-day check-ins with the full group
- Rest was unstructured time with high-level daily goals
 - data wrangled, exploratory analysis completed, specific model tested, etc.
- Final afternoon presentation of results
 - Post-sprint meetings with community partners after delivering executive summaries
- Virtual format required extra energy from everyone to stay engaged

Highlighted Findings

- Colleges Team:
 - Gender may not be as large of an influence on retention as previously believed
 - Financial factors, followed by ethnicity and race, seem to be more important
 - Provided advice on additional data to collect to answer remaining questions
- RMYC Team:
 - Overall, success rate seems to be 80%+
 - Recent efforts at increasing gender diversity seem successful
 - Despite being in the minority, females seem to be exceptionally successful
 - Provided advice on additional data to collect and data organization

LANL Outcomes

- Broadened professional network of early career staff, postdocs, and students
- Significantly improved LANL participants' knowledge of and comfort with remotely using data and compute
- Strengthened participants' leadership and project management skills
 - condensed timeline and significant time pressure
- Enhanced participants' scientific communication and presentation skills
 - interactions with non-technical community partners

Community Partners

- **Northern New Mexico College**

- Ivan Lopez, Vice President for Academic Affairs
- Carmella Sanchez, Director of Institutional Research
- Rishi Poudyal, Institutional Research Analyst

- **Santa Fe Community College**

- Yash Morimoto, Associate Vice President for Planning and Institutional Effectiveness
- Barbara Griego, Director of Institutional Research
- Sabrina Calija, Institutional Research Analyst

- **Rocky Mountain Youth Corps**

- Herbert Foster, Development Director
- Ben Thomas, Executive Director
- Matt Spriggs, Associate Director
- Rosanna Ragon, Finance Director
- Darien Fernandez, Conservation Programs Director
- Jessie Hook, Community Engagement
- Mikayla Hodgement, Conservation Program Coordinator

Many thanks to all involved!!

2021 Northern New Mexico Community Data Sprint



The Northern New Mexico Community Data Sprint pairs local nonprofit, state, and tribal organizations with teams of LANL data scientists to produce actionable insights from data provided by the nonprofits. LANL scientists grow their data analysis and leadership capabilities, and community partners receive valuable results.

Project Description

We organized a week-long community data sprint, with the goals of enhancing LANL's data science capabilities, particularly among new staff, and giving back to the local community in ways related to LANL's skill sets.

Project Outcomes

The data sprint, which occurred in late July, included three local nonprofits and nine LANL data scientists. LANL participants, all students or early career staff, significantly improved their knowledge of agile data science and working with both data and compute remotely. All nonprofit partners received valuable, actionable insights resulting from LANL's work.

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Total Project Budget: \$35k

ISTI Focus Area: Program Development, Data Science & Artificial Intelligence