

What are the goals of the NSF EPSCoR Research CI Workshop?

The NSF-funded [Workshop on Research Cyberinfrastructure in EPSCoR jurisdictions](#) will bring together state and jurisdiction research leaders to explore shared challenges in Research Computing and Data (RCD) support among EPSCoR peers. This will provide a venue to discuss patterns and priorities with the goals of: (1) identifying promising opportunities for regional partnership and collaboration to address key needs, and (2) providing concrete feedback on RCD gaps to EPSCoR funding programs. Participants will complete an RCD Capabilities Model assessment in advance of the workshop, and engage with workshop organizers in virtual orientation, assistance, and preliminary workshop events. The organizers will analyze the resulting data for common patterns and themes, and then participants will gather in a late 2022 workshop to discuss this analysis and identify priorities and strategies going forward for EPSCoR jurisdictions and funding programs.

How will the Research Computing and Data Capabilities Model help?

Many campus leaders describe challenges in obtaining a comprehensive view of Research Computing and Data (RCD) support, and in identifying important gaps and needs in their RCD support. The [Research Computing and Data Capabilities Model](#) (RCD CM) provides a clear assessment for these items using a shared community framework, enabling the development of strategic plans to ensure campuses are competitive in the recruitment and retention of research faculty and graduate students. The resulting [RCD CM Community Dataset](#) supports benchmarking analysis and identifies patterns of need that can inform partnerships and collaborations among institutions to improve RCD support.

Where did the RCD Capabilities Model come from?

The Model was developed by a diverse group of institutions with a range of support models, through a collaboration that includes Internet2, the Campus Research Computing Consortium ([CaRCC](#)), and EDUCAUSE. The Assessment Tool is designed to be used by people in a range of positions from front-line tech support through campus leadership, and is intended to be inclusive across small and large, and public and private institutions.

How much work will it be to complete the RCD CM assessment?

A modest investment of effort will yield good and useful data. A more extensive investment of time and resources during the assessment phase will yield additional detailed information that will be useful in subsequent stages. Some institutions report that an initial assessment can be completed by the RCD leadership in 3 to 4 hours, plus a few hours of follow-up with people who serve in roles in related areas. Institutions whose RCD support is widely federated across campus units, or those that are using the model to spur discussions for strategic planning of RCD services, may wish to assign small teams to address specific areas of the assessment (Researcher Facing, Data Facing, Systems Facing, etc.) and then review the results with an RCD advisory group. Institutions using this approach reported that the assessment required an average of about 22 person hours to complete.

What help/support can you get?

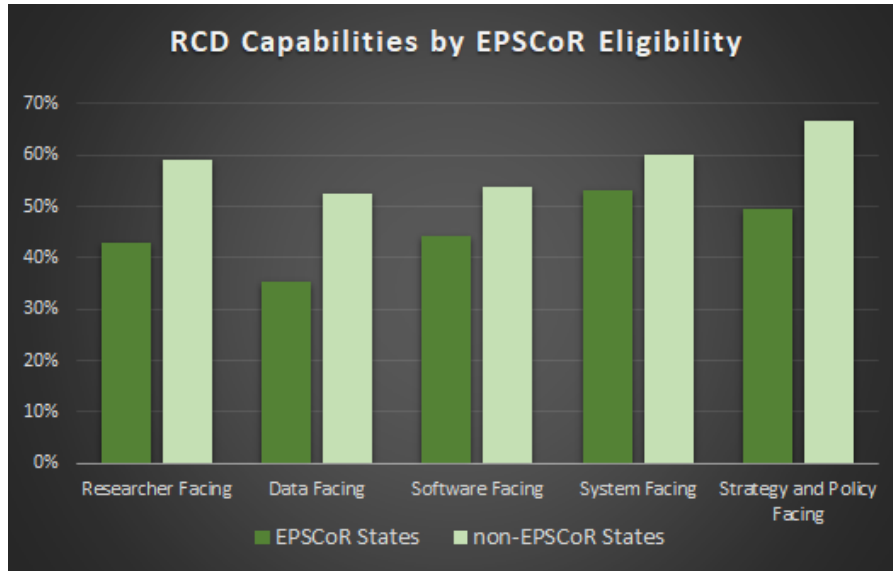
As part of this project, you have access to expert consulting and facilitation to help you organize and complete your campus assessment. Our consultant will meet with you to discuss a range of approaches for your campus and is available to join your assessment team discussions to provide guidance and answer questions, helping to ensure an efficient assessment process. Travel support for the workshop in late 2022 is also available. Find our contact info and status updates on our [CaRCC EPSCoR CI Working Group page](#), and reach out with any questions!

Additional resources:

- [CaRCC EPSCoR CI Working Group](#)
- [Research Computing and Data Capabilities Model working group](#)
- [A Research Computing and Data Capabilities Model for Strategic Decision-Making](#) (conference paper)

What will we learn from this work?

41 institutions contributed assessments to the 2020 Community Dataset, including 10 in EPSCoR-eligible states. The dataset provides insights into the state of support for RCD, and clearly shows the difference in support levels between EPSCoR institutions and the rest of the community. The figures below are examples from the [2020 RCD CM Community Dataset report](#).

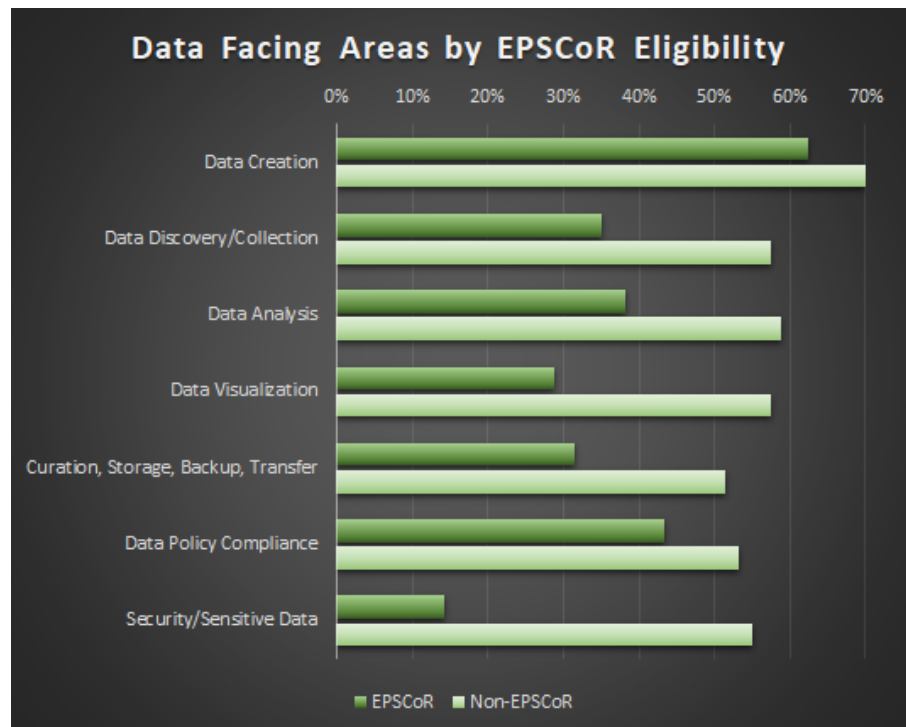


Median Capabilities coverage across the five facings (i.e., areas of RCD support) showing the disparity between EPSCoR and non-EPSCoR institutions. The broad patterns may be unsurprising, but the quantitative data provide a useful baseline.

The percentages summarize the levels of support across a set of topics in each of the five areas (a total of about 150 topics overall). See the referenced papers or the report linked above, for details.

In several cases, gaps in support are even more extreme than originally expected. For instance, this figure of median **Data Facing** Capabilities coverage by EPSCoR eligibility shows disparities in all areas of Data Facing capability.

Note especially the values for **Data Security/Sensitive Data Support** where EPSCoR-eligible institutions have a median value roughly **one-fourth** that of other institutions.



This project will generate additional EPSCoR institutional data, and improve the baseline for analysis. The insights provided allow campus RCD leadership and EPSCoR program officers alike to refine their understanding of the particular areas of RCD support that merit attention. We expect these data to inspire EPSCoR institutions and related national funding programs to find shared approaches and/or collaborative initiatives to improve RCD support at institutional and regional scales.