#### **NSF Annual Report Summary**

# RCN: Advancing Research and Education Through a National Network of Campus Research Computing Infrastructures - The CaRC Consortium

Reporting Period: 01 Jul 2021 - 30 Jun 2022

#### Overview

CaRCC, the Campus Research Computing Consortium, is an organization of dedicated professionals developing, advocating for, and advancing campus **research computing and data** and associated professions. Current focus areas include building community among research computing and data professionals, connecting the broader research computing and data ecosystem, professionalization and workforce development, and defining stakeholders and shared value propositions for the community at a time of accelerating change.

**Vision:** CaRCC advances the frontiers of research by improving the effectiveness of research computing and data (RCD) professionals, including their career development and visibility, and their ability to deliver services and resources for researchers. CaRCC connects RCD professionals and organizations around common objectives to increase knowledge sharing and enable continuous innovation in research computing and data capabilities.

**Mission:** CaRCC communities, working groups, and our collaborating partners, advance innovation and sustainability of RCD at academic, government, and non-profit institutions. CaRCC communities connect professionals across RCD roles and organizations, including those who design and operate systems, those who work with software and data, and those who engage directly with researchers. CaRCC working groups explore and develop effective strategies, leading practices, and products that empower researchers across campuses, and at regional, national, and international scales.

The figure below provides a high-level overview of the various streams of activity in CaRCC, which are described in more detail, further below.

	Resear	rcher-Facin	g Track						
People Network		Systems	-Facing	Track					
Vetv		Da	ata-Facing	g Track					
ple I		Emerging Centers Track							
Peo				Strategy an	nd Policy-Fa	cing Tracl	k (witi	h EDUCAUSE & CASC, in a	startup)
					For Softwa	re-Facing	, plea	ase see US-RSE	
		Rese	earch Coi	mputing and	Data (RCD)	) Capabil	ities	Model WG	
Ś		RCD Pro	ofessiona	alization WG					
Working & Interest Groups								Career Arcs WG	
t G		Stakeho	older & Va	alue Proposi	tions WG	SVP IG			
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Operations	5	Chairs/L	Leadersh	ip Team (Cha	arter, Gover	mance, E	valu	ation and Assessment)	

NSF recently awarded funding for a pilot NSF Cyberinfrastructure Center of Excellence (CI CoE) pilot to build upon the work of several CaRCC working groups and advance support for RCD Professionals. The new Research Computing and Data Resource and Career Center is creating tools, practices, and professional development resources to support individuals and institutions. This **RCD Nexus** builds upon the significant foundational work of CaRCC in convening and supporting the operations of volunteer-based groups completing work of value for the RCD community; for example, several new interest groups have started up as part of RCD Nexus activities, and were able to leverage all the existing patterns and infrastructure developed as part of this grant. Additionally, the organizing body for a series of workshops addressing the CI needs in EPSCoR states asked to be a CaRCC working group to leverage this same infrastructure. The sections below describe the last year's progress and future outlook for these various activities, including those carried forward, in part, by funding for the RCD Nexus CI CoE pilot.

## Advisory Committee and Long-Term Planning

To ensure community input and evaluation as CaRCC's core community-organizing support moves forward beyond the current RCN and associated reporting, the CaRCC Leadership group (chairs of working and interest groups, and coordinators of the People Network)

assembled an Advisory Committee, which had its first annual meeting in January of 2022. The Advisory Committee consists of 12 individuals selected for their leadership and expertise within the broader CI ecosystem and institutional representation. Each was allowed to specify their desire for a 1-, 2-, or 3-year term, building in a mechanism for future rotation of membership.

Based upon input from the Advisory Committee (following presentations of CaRCC's accomplishments to the committee), the project supported a hybrid strategic planning meeting in Denver, May 10-11 2022, to review progress and set priorities for near- and long-term CaRCC priorities. The 1.5-day agenda included discussion around CaRCC's role in defining a framework for a form of CI/RCD professional society, and opportunities to collaborate further with other RCD and adjacent professional community organizers around existing and evolving priorities. A number of such collaboration opportunities are moving forward, and/or have identified opportunities for additional funding, one of which includes the voluntary participation of 9 organizations in an "RCD Community-Builders Group", which has met monthly since late March 2022, co-coordinated by co-PI Lauren Michael and logistically supported with CaRCC's working group infrastructure. Additionally, persistence within each of CaRCC's other ongoing activities is covered, below, as informed by these planning activities.

#### **People Network**

As a community of research computing and data professionals, the "People Network" aims to foster, build and grow an inclusive forum for networking and sharing experiences (termed the "People Network"). Leveraging logistical support coordinated via CaRCC, this community executes synchronous and asynchronous opportunities to leverage collective and individual expertise, with focused discussion "tracks" reflective of professional activities (following the facings model described here: https://carcc.org/rcd-professionalization/facings/), akin to an ongoing virtual conference. Each track has its own email list, monthly community calls, and coordinators, whose role is to facilitate the ability of each track and the entire community to organize itself.

Track	Email 2022 members	Email 2021 members	Email 2020 members	Slack 2022 Members	Slack 2021 Members
People Network	1297	1065	750	412	266
Researcher-Facing	1028	800	459	171	117
Systems-Facing	623	480	316	183	145
Data-Facing	733	566	390	106	68
Emerging-Centers	358	239	121	109	85

Each year we have continued to see growth in membership and participation, one example of which is demonstrated by member counts from both Google groups email list and Slack :

As in past years, we can attribute growth to reliable approaches as well as new ones that will interest members of our communities in different ways:

- The tracks have continued to explore the diversity of topics for the subjects of their monthly calls: Topics that are unique to their community (e.g. "The National Archive of Criminal Justice Data: What data is still missing?") or are of shared interest (e.g. "Discovering, Recruiting, and Developing Staff")
- In addition to one plenary (one call involving all tracks; "8/18/2021, Aligning Security with Research"), in this reporting period we had several call topic series a topic that was explored by multiple tracks or with a different lens within the same track. This included:
  - Emerging-Centers Staffing Models
  - Data- and Researcher-Facing: Sensitive Data
  - Data-Facing, Researcher-Facing, and Emerging-Centers: Revisiting the <u>Leading</u> <u>Practices of Facilitation</u>
- This year we expanded our Monthly Call Announcements to include events from our partner communities, also while continuing to distribute this Announcement to more ecosystems members.
- Our Emerging Centers Track, where possible, continues to create "<u>products</u>" for its community & participants: guides, frameworks, tools that can be leveraged as a jump-start for materials that are specific to one's institution or practice
- The Emerging-Centers track now has a steering committee, bringing to three the number of Tracks having this group. Our Data-Facing and Strategy-and-Policy-Facing Tracks are also in the process of doing so. We are incredibly supportive of these efforts, as this increases the number of network contacts and thus the likelihood that more, different community members are involved as participants for each Monthly Call.
- January, 2022 also included a "CaRCC Parade", an additional call during the month that highlighted all groups and activities that CaRCC was engaged in. This call has been a great opportunity to recap our activities for existing members and to showcase CaRCC to potential new ones.

As previously, we have continued with posting recordings of the call on our CaRCC YouTube channel and links to materials on our website. Please see Appendix A.1 - A.3 and B.1 - B.2 for membership, call attendance, and viewership information.

Finally, we have made additional engagement efforts:

- Following the close of the project (but as of the writing of this report), the Strategy- and Policy-Facing track launched in September 2022, in collaboration with CASC and the EDUCAUSE RCD group.
- CaRCC had also deferred efforts around the Software-Facing Track to the US Research Software Engineers Association (US-RSE). This spring we held two joint calls to discuss RSEs in the workforce, as an opportunity to build a better partnership with that community, an effort we had hinted at in the last report.
- As DEIA has been an important topic across all communities, the Tracks have made efforts towards increasing (ADA) accessibility, one example of which is updating

procedures for preparing speakers, conducting calls, and raising awareness on calls to ensure that all persons feel welcome on our community Track Calls.

#### Professional development opportunities

As is hopefully obvious, the programming within the People Network Tracks, monthly calls, and ongoing ancillary efforts are resources for new and ongoing professional development for persons in the RCD space. As CaRCC continues to mature and other RCD organizations enter the space or mature, CaRCC will partner as appropriate for expanding People-Network opportunities. As a part of this reporting period's goals, each track now has a steering committee to assist with the efforts of the Track, provide a larger network of participants, expertise, and diversify the leadership. Thus, the Track Coordinator and Steering Committee roles also provide leadership development and succession planning for the Tracks and People Network.

#### Logistics Operational Group

The Logistics Group carries out ongoing activity that sets standards for and coordinates logistical aspects in support of CaRCC activities, including coordination of CaRCC-associated meetings and workshops, maintenance/improvements to common infrastructure (e.g. working group best practices and templates, website and other outward communication mechanisms, internal documentation, logos, charter, etc.), and liaising connections across various CaRCC activities and groups.

In the last year, the Logistics group also continued to coordinate the process by which the Leadership team (of group chairs and People Network coordinators) considers the activity and progress of various working groups, and makes decisions on the status of various groups, their representation in the Leadership team, and their representation on the CaRCC website, so that these do not fall out-of-date. Additionally, this review has helped some groups to make decisions and take sooner action on remaining work.

As for prior years, the the Logistic group also coordinated the logistical coordination of CaRCC community and planning events, including the coordination of programmatic input to the Advisory Committee meeting, strategic planning meeting, annual CaRCC Parade presentation (of updates to the broader People Network and national CI community, in January), and complementary annual Town Hall (at PEARC22). Significant on-site logistical support for the hybrid strategic planning meeting was contributed via internet2, coordinated by Logistics co-Chair Dana Brunson, with virtual participation facilitated by co-Chair Lauren Michael.

## **Engagement Operational Group**

The Engagement Operations Group focuses on increasing exposure to and participation in CaRCC's community-driven activities. Continuing the efforts to establish frameworks to increase CaRCC's membership, showcase CaRCC's efforts to grow and advance RCD professionals,

and address how CaRCC presents itself to its community, partners, and collaborators in the RCD ecosystems, Engagement assists CaRCC in its support of RCD professionals and the research they champion. The efforts have resulted in a number of additional activities that will benefit the organization in the long run.

This reporting period, Engagement has put effort into three major specific areas: volunteer recruitment, a new web committee, and a metrics committee. A fourth concentration, encompassing all three, is a redefinition of the Engagement Operational Group's focus at this point in time and how it should evolve, given CaRCC's development to date, the continuing expansion of activities, and those additional funding resources that support complementary efforts that strengthen CaRCC's purpose.

Volunteer recruitment: the Engagement OG has developed a set of templates for all activity groups in CaRCC to solicit help from the community, either by "project position" or by "role position." These templates help to define the role or scope of work, the individuals involved, and the benefit to the volunteer, to the working group, and to CaRCC.

Web committee: this subset of Engagement members has been focusing on improving the usability and navigability of CaRCC's website, ensuring consistency of appearance and content across organizational activities, while providing assistance by verifying that basic information is present to be helpful to both CaRCC members and newcomers. CaRCC continues to be committed to ensuring that contributors and members feel valued and welcome, Engagement has drafted a "Wall of Thanks," page for CaRCC website, which recognizes individual participation in CaRCC's many activities. As CaRCC is a mostly volunteer organization, this acknowledgement will help build trust and confidence for the time well-spent on its activities.

Metrics committee: this group was formed to collect and present data about CaRCC's membership and numerous activities, using multiple analytical approaches, and reporting on a variety of key performance indicators. In addition to basic data (mailing list membership size, call attendance numbers), the committee is working on measures of membership participation, e.g., are activity call attendees occasional participants or are they more deeply engaged members? This exploration can be expanded to include other data points, including geographic location, organization type and size, etc.

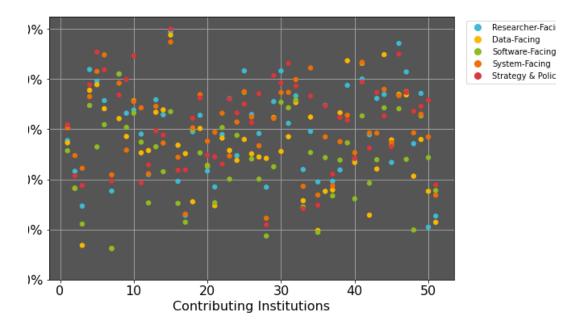
We have found that continual examination of the Engagement focus and its ongoing activities is vital for a quickly growing organization such as CaRCC, and we expect this to be a regular self-assessment as CaRCC expands to include additional, related efforts, and as CaRCC's leadership evolves.

#### **RCD Capabilities Model Working Group**

This model and an associated assessment tool allows institutions to assess their support for computationally- and data-intensive research via a series of questions across the various facings (i.e. researcher-facing, systems-facing, etc). This helps institutions identify gaps in their support and potential areas for improvement. It also can inform stakeholders (such as

leadership or the libraries) about the broad needs and requirements of research computing and data in support of research and researchers. Each year, data is aggregated across institutions, allowing us to gain insight into support levels across the community, and providing a baseline for institutions to benchmark against peers.

The RCD Capabilities Model completed the second annual Community Dataset, with 51 institutions contributing data. An analysis and report of the contributed data was published (<u>https://doi.org/10.5281/zenodo.6502961</u>), and has over 160 unique views (140 downloads) as of early June 2022 (in addition to the 540+ unique views and 400+ downloads for the 2020 report at <u>https://doi.org/10.5281/zenodo.4344056</u>). The figure below shows the distribution by facing (area of support) for the contributing institutions (the percentage values summarize the levels of support across a set of topics).



A set of EPSCoR-eligible institutions is leveraging the model and their collective data to identify shared challenges, especially in comparison to institutions in non-EPSCoR states. With NSF funding, they are preparing a Fall 2022 workshop that will explore share these gaps and challenges, working from an analysis of RCD capabilities model assessments completed by 15 institutions (Building Research Cyberinfrastructure in EPSCoR Jurisdictions: Assessment, Planning and Partnerships, NSF-2033483, Gwen Jacobs, PI).

A series of webinars, presentations, and office hours were provided by working group members to inform and support the community about the model, and how institutions are using it. Venues include PEARC as well as CaRCC and EDUCAUSE community meetings and the Coalition for Networked Information (CNI) Spring 2021 meeting. The PEARC21 events included a workshop that led to a technical report (Towards a National Best Practices Resource for Research Computing and Data Strategic Planning - see section 9, Schmitz, P. et al, 2022), a paper and presentation about the first community dataset (Assessing the Landscape of Research Computing and Data Support: The 2020 RCD Capabilities Model Community Dataset - see

section 9, Schmitz, P., 2021) which won the Best Full Paper award for the Workforce Development, Training, Diversity, & Education track, and a Birds of a Feather (BoF) session on assessing and communicating CI readiness at EPSCoR and under-resourced institutions. The model and/or the Community Dataset report will also support the PEARC21 workshop.

One lesson learned from our work with the community is that smaller institutions and emerging RCD programs often find the existing RCD Capabilities Model a bit overwhelming, and/or lack the resources to complete that level of assessment. As part of the RCD Nexus activities around the RCD Capabilities Model, the RCD CM working group is working to develop an "Essentials" version of the RCD Capabilities Model to better meet the needs of these smaller institutions and emerging RCD programs. Several focus groups were held in the Spring of 2022, leading to a workshop at the RCD Nexus day (co-located with and preceding PEARC22) that will bring together interested stakeholders to draft an initial version of an assessment tool for review with the community.

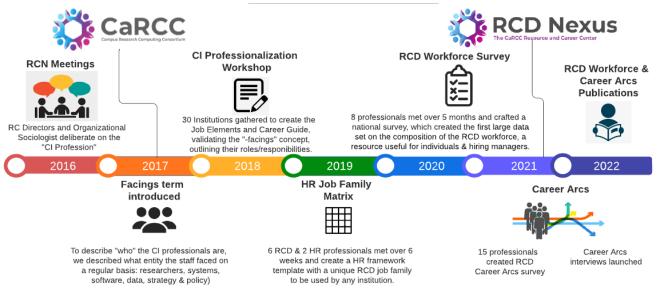
The PEARC and RCD Nexus Day workshops provide training and professional development opportunities, helping staff to learn effective tools for program assessment, for building strategic partnerships on their campus, and for developing strategic plans for RCD programs.

As part of the RCD Nexus work, we will continue to support the model (including office hours, webinars, etc.), and will manage the annual Community Dataset activity (including the production of an analysis and report). However, we are also developing a new portal that will allow users to interactively explore the data, and filter and graph subsets of the community to understand the community and their relative position (e.g., through benchmarking reports).

## **RCD** Professionalization Working Group

The WG continues to disseminate and develop new frameworks and approaches to guide conversations between Human Resources leaders and Research Computing and Data leaders around attracting, retaining, diversifying, and developing research computing and data and cyberinfrastructure talent. In the figure below, we provide an overview of the progress to date.

#### **RCD Professionalization Timeline**



This group was started under this grant, and has now transitioned to be within the new NSF CoE grant funding the RCD Nexus work. The main objectives of this part of the project include:

- Design, implement and test the RCD Positions survey tool
- Conduct a US national survey of RCD positions to capture specific information on RCD individuals, their current position, and their outlook on RCD as a profession
- Present and publish results on the survey widely with the community
- Anonymize survey data and integrate into the RCD Nexus Community Assessment Data Dashboard

The working group reviewed a number of similar surveys from industry and academia and discussed what themes of questions could provide results that would be most beneficial to individuals and hiring managers. We distilled this into two surveys – one for individuals to take that would dive deeper into their personal background, job-specific information such as title, compensation and grade, the work they perform, and career perceptions – and another survey for managers that focused on institutional data about RCD units. We decided to focus on the first survey and postpone the second until a later time. Because we were collecting personal information that included demographic and compensation information, we needed to create an IRB study. We chose Christina Maimone to be the PI in the study and worked with the Northwestern IRB office to obtain approvals to conduct the study. The survey of individuals resulted in 12 questions on background, 12 on role basics, 12 on work being performed, and 10 on job satisfaction. We beta-tested the survey with 20 people from our own RCD community, which resulted in refining questions, providing more context to some questions, and shortening the survey. The survey was launched in June 2021 and closed in September 2021. It was promoted through many community mailing lists, Slack channels, and on social media outlets.

The RCD Workforce survey resulted in nearly 600 unique responses. This was less than our target of 1000, but still the largest responses to any survey of this type that we are aware of.

The initial analysis of the survey data was written up and accepted as a full paper to the PEARC'22 conference. In the coming year, we will continue the working group to review data for future publications. We will also decide whether to launch a follow-on individual study to try to capture wider participation in government labs and industry and also decide whether to launch the second survey that targets managers.

Results from this survey focus on a number of key areas including:

- Describe the current research computing and data professionals workforce
- Compare this workforce to related academic and technical workforces in terms of demographics and educational background
- Characterize the types of positions in the field and describe work done by different job positions
- Generate data for use by individuals, hiring managers, and human resources professionals on RCD salary ranges, job families, position titles, and responsibility sets

## **RCD** Career Arcs

The Career Arcs activity began under this grant and is transitioning to the RCD Nexus for ongoing sustainability. We are working to develop a model of Career Arcs for RCD Professionals in order to explain RCD career options and help existing RCD professionals pursue professional development and advancement.

Our key objectives are to address the following set of challenges, as identified in a series of workshops and meetings:

- Managers need better resources and the ability to offer defined career paths, so their staff are not forced to seek growth opportunities outside of RCD.
- Many RCD professionals say they see no clear path for career advancement; this is especially so for data-centric and researcher-facing roles.
- There is a national shortage of RCD (CI) personnel and high employee turnover, with significant training needed to orient new employees.
- There is no real talent pipeline seeking to join the RCD field. Students who are studying in relevant programs do not have an easy way to learn about or enter the field.
- RCD personnel experience precarious employment with few opportunities for advancement.

We began work to develop a framework for describing the roles and career arcs of RCD professionals and distributed content through engagement with the community. Specific activities included:

- Gathering example career-arc narratives from existing resources, such as Women in HPC (WHPC)
- Designing and running an online survey of factors that influence career choices among RCD professionals
- Conducting a series of in-depth interviews of RCD professionals to better understand their choices, motivations, and the factors that enable success

We gathered a series of example career arc resources and analyzed their approaches and components to inform our framework designs. We also designed and conducted the online survey of factors that influence RCD career decisions. This work was supported through considerable outreach to a range of

RCD communities, and included a Birds-of-a-Feather session at the supercomputing conference (SC21) in November. The survey data was analyzed, written up, and accepted as a full paper at PEARC 22 (and won the Best Full Paper award for the Workforce Development, Training, Diversity, & Education track - see section 9, Chaudhry, S. et al). We developed the interview protocol for the next step, and are currently working with Institutional Review Board (IRB) groups at several Universities to get approval, after which we will begin interviews. We currently have eight volunteers to be interviewed, and will be soliciting more this summer.

Additionally, we formalized a plan to complete further analyses from the survey data and share the results on the RCD Nexus website. We will conduct the interviews, synthesize them into personas, and write up narratives for each persona. Each will be enriched with anonymized quotes, to make them personally relatable without identifying real individuals. We will also develop a visualization of career arcs and pathways. We will either hold a workshop or a series of community outreach sessions to get feedback on the materials we develop and gather additional use-cases and data to supplement the personas and visualization. We will then produce a companion paper to the visualization with recommended practices for hiring managers for both recruitment as well as retention of RCD professional staff. Much of this activity will be conducted in collaboration with the Staff and Student workforce development activities.

# EPSCoR CI

The EPSCoR CI WG formed in July 2021 with a focus on strategic planning and partnerships across EPSCoR jurisdictions. The group's engagement- and outreach-focused work aligns with objectives four and five. A 2022 report (see section 9, Schmitz, P. et al, 2022, RCDNexus-TR-2022.2) summarizes EPSCoR assessment results to date, showing both expected overall gaps between EPSCoR and non-EPSCoR institutions, and clarifying specific areas of more significant lag (e.g., data-facing areas generally, and security/sensitive data specifically). An online March 2022 Spring Preliminary Workshop gathered input from the community on topic areas to prioritize for further analysis leading up to the final in-person Fall 2022 workshop, to be held in Maine in conjunction with the EPSCoR National Meeting. Colocation with the national meeting will allow WG members to network and spread the message of RCD baseline data, planning, and partnerships with EPSCoR leaders.

On conclusion of the Fall 2022 workshop, WG members will prepare a final report to disseminate results back to the community and to NSF. We are considering potential avenues to maintain focus on EPSCoR CI through forming/partnering with other CaRCC groups (e.g., an EPSCoR Interest Group, or partnerships with Engagement or the Emerging Centers Track) after the grant-funded activities wind down.

## Decadal Survey Interest Group

Formed in 2019 and reinvigorated in 2020, the Decadal survey interest group's efforts are largely concentrated on Objective 4, advancing RCD and strategic planning. Via the decadal survey process, output, and anticipated recommendations, we will demonstrate the importance and value of engaging and empowering RCD professionals as equal partners with agencies and researchers in determining CI/RCD strategies, defining and influencing technology pathways to

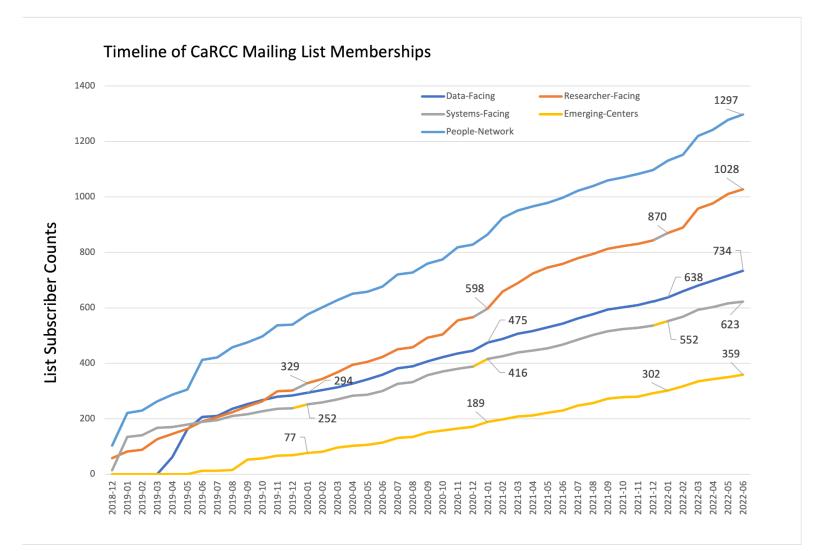
advance scientific discovery, and executing to deliver solutions. On the one hand, many outside the CI/RCD community view non-tenure track RCD professionals as "support" staff at best. However, from the RCD community members' perspective, a view that is fully supported by our track record, is that RCD professionals have essential roles to play in defining and delivering the spectrum of technologies and capabilities required to propel research broadly and across disciplines. The work of the Decadal Survey will result in community consensus about priorities for investment in CI and will shape the field and RCD profession for years to come.

Over the last two years, the Decadal Survey Interest Group added new participants for additional diversity and breadth; reviewed and discussed existing Decadal Surveys from various science domains;drafted a Charter; drafted a set of questions for and administered an "informing the decadal survey" mirosurvey; identified stakeholders and potential advocates in professional organizations, science domains, and federal agencies, and organized an ongoing set of in-depth focus group sessions with those. To help ensure that both the microsurvey and focus groups' work was consistent with best practices for gathering and assessing community feedback, we engaged the assistance of a professional evaluator, Dr. Lizanne DeStefano (with financial support contributed by NCSA), throughout the process of framing, administering, and interpreting the results of the microsurvey and focus groups. The group will then prepare a timeline and associated set of deliverables for its work. Those will include a Decadal Survey Workshop and associated summary report.

The Interest Group plans to transition to a Working Group by the end of calendar year 2022.

# Appendix

Section A.1, People Network and Track mailing list membership counts over time. This graph represents the current counts to date.



**Section A.2,** People Network Call Data Call (reverse chronological): Statistics recorded for each \*-Facing Track call (via Zoom). As attendees were added to the email lists, the new users added are also tracked.

Date	Track	Торіс	Max Cnxn Count	Sign-in Count	New Users to P-N list	New Users to Track list	Call doc link
5/26/2022	Joint Call	Research Software Engineers in the Workforce	39	32			https://docs.google.com/document/d/1u1ejisPM C9x7-6K56PogHRvDfuAyuEJBRI12FoBlcJY/edit #heading=h.7legnmo0ntr8
5/19/2022	Systems Facing	Operating a research computing environment for a large university	67	49			https://docs.google.com/document/d/1ZnaDTJeF F3XQVu-Ai7gpyFHPBit7IelqCRRvGnnFPX0/edit 2usp=sharing
5/12/2022	Joint Call	Research Software Engineers in the Workforce	47	47			https://docs.google.com/document/d/1mYE6XR bLTgweW_sz5V9Oely5mUyJNH3oL3g36KpYUs /edit#heading=h.7legnmo0ntr8
5/3/2022	Data Facing	Background and Demonstration of the Open Research Toolkit, an OER for Learning about the Open Research Ecosystem	38	28			https://docs.google.com/document/d/1VNI8gPI81 EP-KO425 Eq4opdJldji4hbSDHz tHn5Yo/edit#h eading=h.v2zh0l4e0q5l
5/18/2022	Emerging Centers	Introducing Strategy and Policy Track!	31				https://docs.google.com/document/d/1nLfAWvC Hf9tJfAhwbdBnvnNLSQakCXQbbkCt0uwduQ/ed it?usp=sharing
4/21/2022	Systems Facing	Cloud Solutions Panel Discussion	55	34			https://docs.google.com/document/d/134pjbuZR hOHScNZ4HNrurXG1ilX0GGLCvyzpaJJRbUw/e dit?usp=sharing
4/20/2022	Emerging Centers	Discovering, Recruiting, and Developing Staff	38	19			https://docs.google.com/document/d/1gM0l93V mxlclLg7iLL0aTpkHaGaKgBEOfnZh_DPs66s/ed it#
4/5/2022	Data Facing	Curating, Archiving, and Sharing Qualitative Data	48	30			https://docs.google.com/document/d/1VDE-rzqfk 9lt4vGNYtY_6HN24ui0IyPCUkbgEFpRQ24/edit #heading=h.y2zh0l4e0q5l
3/17/2022	Systems Facing	Integrating Cloud Storage into Research Workflows	91	65			https://docs.google.com/document/d/1GIrtOBwD THr89LD4ShGDnU1h1INQ8Nmx70P2DHXnWR 0/edit?usp=sharing
3/16/2022	Emerging Centers	Organizational Models for staffing	20	14			https://docs.google.com/document/d/1UbIIKOKR TLBN6cniG982boaGFUgcrROvMgvpi9s-Brc/edit #
3/10/2022	Researcher Facing	Sensitive Data in Research Computing – Through Cloud Services	103	83	10	11	https://docs.google.com/document/d/1JfDgs8M3 MbRN0ek8A0lbS4XoOHJritAv4uQml5Qet6U/edi

Date	Track	Торіс	Max Cnxn Count	Sign-in Count	New Users to P-N list	New Users to Track list	Call doc link
3/1/2022	Data Facing	eCR Now! and COVID-19 – Breaking the Public Health Surveillance Floodgates	20	14			t https://docs.google.com/document/d/1WKBIWGI pNSjhITspE-Zgz-zrYrL2fsehJbQyH9VYZvE/edit#
2/17/2022	Systems Facing	Post CentOS 8 Era: Community Discussion	77	51			https://docs.google.com/document/d/1K0RsLtW 9QzbyBTNMXeYEkxwyiR76pBTHaWHZ2so9Zc 8/edit?usp=sharing
2/10/2022	Researcher Facing	Sensitive Data in Research Computing - HIPAA support at the University of Utah	93	82	8	9	https://docs.google.com/document/d/1DaDUjp7d Qm9CAFptWeJIjOxObVZTGjToA-g_N3XuN64/e dit?usp=sharing
2/1/2022	Data Facing	Science Gateways and Their Role in Today's and Future Research Computing Ecosystem	42	30			https://docs.google.com/document/d/1fNEVIMICj cv6UrQSsA4WAoMA9HEeOIQpL3PffvvOMZg/e dit#
1/20/2022	Systems Facing	Real-world RoCE: Architecture, Implementation and Upkeep	61	42			https://docs.google.com/document/d/1k-m0peCF kKLpudJjBg-hun140WNzzk4FPn1GZVd1ea4/edi t?usp=sharing
1/13/2022	Researcher Facing	Saying No (to Researchers)! When, Why and How	63	63	6	9	https://docs.google.com/document/d/1-HzOW3N E64WRz4u0h5pxmOnCHgCnnZu869QUi6OAdp U/edit?usp=sharing
1/19/2022	Emerging Centers	Policy development and sharing	42	37			https://docs.google.com/document/d/19YdbRPq YFXIGO6B3-Z15MRcEAVtNF6OASJkKs-8Mz7M /edit#
1/4/2022	Data Facing	Round Table	14	7			https://docs.google.com/document/d/1ShI_04lzV Ad58b8z2pI1CPoA8NEoGNB0E2URAXidLjA/edi ##
11/11/2021	Researcher Facing	Supporting GPU Computing	55	50	6	2	https://docs.google.com/document/d/1is15Kh9S Ttr2GBVuQgd90Qz91bp_E3FRb4GCLO27IDc/e dit?usp=sharing
11/2/2021	Data Facing	The National Archive of Criminal Justice Data: What data is still missing?	22				https://docs.google.com/document/d/1XjBdLgg RgKfV6lbn2usiNDCD-kws0c5yMIFnmbtOFU/edit #
10/21/2021	Systems Facing	Network Troubleshooting: Techniques and Approaches	44	23			https://docs.google.com/document/d/1a4cc1kjm eclNzmBJZ6WMW4o0lt-Bb04Mzb_BhYjVsQU/e dit?usp=sharing
10/20/2021	Emerging Centers	Research Facilitation Discussion	23				

Date	Track	Торіс	Max Cnxn Count	Sign-in Count	New Users to P-N list	New Users to Track list	Call doc link
10/14/2021	Researcher Facing	Leading Practices: Improving People-Facing Skills	76	64	5	7	https://docs.google.com/document/d/1j_tZLRNS xXZN7Y1h22C4xTjry_B1LnhEtw5EPxebIUU/edit ?usp=sharing
10/5/2021	Data Facing	Series on Leading Practices of Facilitation: Part 1 - An introduction to the ACI-REF Leading Practices of Facilitation, and a Data-Facing perspective	58	46			https://docs.google.com/document/d/1nBhKGs9 CJiTSL0hJVsxvVOj-G2a9M8Aplv33U3VIWsk/ed it#
9/16/2021	Systems Facing	Managing an NVIDIA DGX SuperPod at UF	56	37			https://docs.google.com/document/d/1-LdYNH3g xdlqdEpPM3igCvGYIxaYzY2TMBy2BGIkCfQ/edi t?usp=sharing
9/15/2021	Emerging Centers	Refining your Research Computing Pitch	19	12			https://docs.google.com/document/d/1DGL8snS 5eYrgLN-JMa0LLKKaSmvzJvgzKMF1sVly9xY/e dit#heading=h.29hsns81kdzx
9/9/2021	Researcher Facing	Bridging the Gap: Reaching Underrepresented Research Domains for Large-Scale Computing			7	0	
9/7/2021	Data Facing	The Data Science Lifecycle Ethos - Infusing Ethics into the Research Process	34	24			https://docs.google.com/document/d/13pomSHH WgrCmMXWoSvVygwVEGK-m1z6N4alk5NY U8/edit#heading=h.6dl8p34xa89
8/19/2021	Systems Facing	PEARC21 recap and community discussion	52	42			https://docs.google.com/document/d/1DX8h36S QhbTkP_4v4-j3V1d4K-o2DuisUegTrOVNzVw/ed it?usp=sharing
7/8/2021	Researcher Facing	Building Teams with Graduate Student Facilitators	106	78	13	9	https://docs.google.com/document/d/1vTgigOHD MrUIPYpwprVmVuRsIJuoWXxLUHNzbXL80rs/e dit?usp=sharing
7/6/2021	Data Facing	Digital Preservation and Access at Scale: Managing the HathiTrust Digital Library	23	14			https://docs.google.com/document/d/1ehMSwUa lpbIAHASjPLfAlc06Dijia31-in21rx3Lu9M/edit#

Date	Track	Торіс	Max Cnxn Count	Sign-in Count	New Users to P-N list	New Users to Track list	Call doc link
5/3/2022	Data Facing	Background and Demonstration of the Open Research Toolkit, an OER for Learning about the Open Research Ecosystem	38	28			https://docs.google.com/document/d/1VNI8gPI81 EP-KO425_Eq4opdJIdiji4hbSDHz_tHn5Yo/edit#h eading=h.y2zh0I4e0q5I
4/5/2022	Data Facing	Curating, Archiving, and Sharing Qualitative Data	48	30			https://docs.google.com/document/d/1VDE-rzgfk 9lt4vGNYtY_6HN24ui0lyPCUkbgEFpRQ24/edit #heading=h.y2zh0l4e0q5l
3/1/2022	Data Facing	eCR Now! and COVID-19 – Breaking the Public Health Surveillance Floodgates	20	14			https://docs.google.com/document/d/1WKBIWGI pNSjhITspE-Zgz-zrYrL2fsehJbQyH9VYZvE/edit#
2/1/2022	Data Facing	Science Gateways and Their Role in Today's and Future Research Computing Ecosystem	42	30			https://docs.google.com/document/d/1fNEVIMICj cv6UrQSsA4WAoMA9HEeOIQpL3PffvvOMZg/e dit#
1/4/2022	Data Facing	Round Table	14	7			https://docs.google.com/document/d/1Shl_04lzV Ad58b8z2p11CPoA8NEoGNB0E2URAXidLjA/edi ##
11/2/2021	Data Facing	The National Archive of Criminal Justice Data: What data is still missing?	22				https://docs.google.com/document/d/1XjBdLqg_ RqKfV6lbn2usiNDCD-kws0c5yMIFnmbtOFU/edi #
10/5/2021	Data Facing	Series on Leading Practices of Facilitation: Part 1 - An introduction to the ACI-REF Leading Practices of Facilitation, and a Data-Facing perspective	58	46			https://docs.google.com/document/d/1nBhKGs9 CJiTSL0hJVsxvVOj-G2a9M8Aplv33U3VIWsk/ed it#
9/7/2021	Data Facing	The Data Science Lifecycle Ethos - Infusing Ethics into the Research Process	34	24			https://docs.google.com/document/d/13pomSHH WgrCmMXWoSvVygwVEGK-m1z6N4alk5NY U8/edit#heading=h.6dl8p34xa89
7/6/2021	Data Facing	Digital Preservation and Access at Scale: Managing the HathiTrust Digital Library	23	14			https://docs.google.com/document/d/1ehMSwUa lpblAHASjPLfAlc06Dijia31-in21rx3Lu9M/edit#
5/18/2022	Emerging Centers	Introducing Strategy and Policy Track!	31				https://docs.google.com/document/d/1nLfAWvC Hf9tJfAhwbdBnvnNLSQakCXQbbkCt0uwduQ/ec it?usp=sharing
4/20/2022	Emerging	Discovering, Recruiting, and Developing	38	19			https://docs.google.com/document/d/1gM0l93V mxlclLg7iLL0aTpkHaGaKgBEOfnZh_DPs66s/ed

#### Section A.3, People Network Call Data (by Track, reverse chronological)

Date	Track	Торіс	Max Cnxn Count	Sign-in Count	New Users to P-N list	New Users to Track list	Call doc link
	Centers	Staff					<u>it#</u>
3/16/2022	Emerging Centers	Organizational Models for staffing	20	14			https://docs.google.com/document/d/1UbIIKOKR TLBN6cniG982boaGFUgcrROvMgvpi9s-Brc/edit #
1/19/2022	Emerging Centers	Policy development and sharing	42	37			https://docs.google.com/document/d/19YdbRPg YFXIGO6B3-Z15MRcEAVtNF6OASJkKs-8Mz7M /edit#
10/20/2021	Emerging Centers	Research Facilitation Discussion	23				
9/15/2021	Emerging Centers	Refining your Research Computing Pitch	19	12			https://docs.google.com/document/d/1DGL8snS 5eYrgLN-JMa0LLKKaSmvzJvqzKMF1sVIy9xY/e dit#heading=h.29hsns81kdzx
5/26/2022	Joint Call	Research Software Engineers in the Workforce	39	32			https://docs.google.com/document/d/1u1ejisPM C9x7-6K56PogHRvDfuAyuEJBRI12FoBlcJY/edit #heading=h.7legnmo0ntr8
5/12/2022	Joint Call	Research Software Engineers in the Workforce	47	47			https://docs.google.com/document/d/1mYE6XR_ bLTgweW_sz5V9Oely5mUyJNH3oL3g36KpYUs /edit#heading=h.7legnmo0ntr8
3/10/2022	Researcher Facing	Sensitive Data in Research Computing – Through Cloud Services	103	83	10	11	https://docs.google.com/document/d/1JfDqs8M3 MbRN0ek8A0IbS4XoOHJritAv4uQmI5Qet6U/ed t
2/10/2022	Researcher Facing	Sensitive Data in Research Computing - HIPAA support at the University of Utah	93	82	8	9	https://docs.google.com/document/d/1DaDUjp7c Qm9CAFptWeJIjOxObVZTGjToA-q N3XuN64/e dit?usp=sharing
1/13/2022	Researcher Facing	Saying No (to Researchers)! When, Why and How	63	63	6	9	https://docs.google.com/document/d/1-HzOW3N E64WRz4u0h5pxmOnCHgCnnZu869QUi6OAdp U/edit?usp=sharing
11/11/2021	Researcher Facing	Supporting GPU Computing	55	50	6	2	https://docs.google.com/document/d/1is15Kh9S Ttr2GBVuQqd90Qz91bp E3FRb4GCLO27IDc/e dit?usp=sharing
10/14/2021	Researcher Facing	Leading Practices: Improving People-Facing Skills	76	64	5	7	https://docs.google.com/document/d/1j_tZLRNS xXZN7Y1h22C4xTjry_B1LnhEtw5EPxebIUU/edi 2usp=sharing
9/9/2021	Researcher Facing	Bridging the Gap: Reaching Underrepresented Research Domains for Large-Scale Computing			7	0	

Date	Track	Торіс	Max Cnxn Count	Sign-in Count	New Users to P-N list	New Users to Track list	Call doc link
7/8/2021	Researcher Facing	Building Teams with Graduate Student Facilitators	106	78	13	9	https://docs.google.com/document/d/1vTgigOHD MrUIPYpwprVmVuRsIJuoWXxLUHNzbXL80rs/e dit?usp=sharing
5/19/2022	Systems Facing	Operating a research computing environment for a large university	67	49			https://docs.google.com/document/d/1ZnaDTJeF F3XQVu-Ai7gpyFHPBit7lelgCRRvGnnFPX0/edit ?usp=sharing
4/21/2022	Systems Facing	Cloud Solutions Panel Discussion	55	34			https://docs.google.com/document/d/134pjbuZR hOHScNZ4HNrurXG1ilX0GGLCvyzpaJJRbUw/e dit?usp=sharing
3/17/2022	Systems Facing	Integrating Cloud Storage into Research Workflows	91	65			https://docs.google.com/document/d/1GIrtOBwD THr89LD4ShGDnU1h1INQ8Nmx70P2DHXnWR 0/edit?usp=sharing
2/17/2022	Systems Facing	Post CentOS 8 Era: Community Discussion	77	51			https://docs.google.com/document/d/1K0RsLtW 9QzbyBTNMXeYEkxwyjR76pBTHaWHZ2so9Zc 8/edit?usp=sharing
1/20/2022	Systems Facing	Real-world RoCE: Architecture, Implementation and Upkeep	61	42			https://docs.google.com/document/d/1k-m0peCF kKL.pud.JjBg-hun140WNzzk4FPn1GZVd1ea4/edi t?usp=sharing
10/21/2021	Systems Facing	Network Troubleshooting: Techniques and Approaches	44	23			https://docs.google.com/document/d/1a4cc1kjm eclNzmBJZ6WMW4o0lt-Bb04Mzb_BhYjVsQU/e dit?usp=sharing
9/16/2021	Systems Facing	Managing an NVIDIA DGX SuperPod at UF	56	37			https://docs.google.com/document/d/1-LdYNH3g xdlqdEpPM3igCvGYIxaYzY2TMBy2BGIkCfO/edi t?usp=sharing
8/19/2021	Systems Facing	PEARC21 recap and community discussion	52	42			https://docs.google.com/document/d/1DX8h36S QhbTkP_4v4-j3V1d4K-o2DuisUeqTrOVNzVw/ed it?usp=sharing

Section B.1, People-Network YouTube Track Call recording statistics, current reporting period.

Video title	Video publish time	Views	Watch time (hrs)	Sub- scribers	Impressions	Impressions click-through rate (%)
TOTAL		1592	174.4166	13	17812	89.12
2022-01-11 Annual CaRCC Parade - Progress from 2021	1/26/2022	214	23.2902	2	643	2.33
2021-08-18 CaRCC People Network Plenary: Aligning Security with Research (Panel)	8/18/2021	189	34.0382	3	1497	1.54
2021-09-16 - Systems-Facing - Managing an NVIDIA DGX SuperPod at UF	9/16/2021	77	11.4107	1	1006	2.09
2022-05-19 - Systems-Facing - Operating a research computing environment for a large university	5/19/2022	69	7.5888	0	562	3.56
2021-10-14 Researcher-Facing Call: Revisiting the Leading Practices of #Facilitation	10/17/2021	65	7.1157	0	514	2.53
2021-11-11 Research-Facing Call: Supporting #GPU Computing	11/22/2021	65	4.226	0	735	2.59
2022-03-17 - Systems-Facing - Integrating Cloud Storage into Research Workflows	3/17/2022	62	10.9758	1	1020	2.06
2022-02-17 - Systems-Facing - Post CentOS 8 Era: Community Discussion	2/18/2022	61	8.4643	1	462	3.03
2022-03-10 Researcher-Facing Call: Sensitive Data in Research Computing - Through Cloud Computing	3/14/2022	60	3.4321	2	413	3.15
2022-04-14 Researcher-Facing Call, Supporting Research Data Management	4/26/2022	53	4.6381	0	323	4.33
2022-04-05 Data-facing Call: Curating, Archiving, and Sharing Qualitative Data	4/19/2022	48	3.137	1	429	2.1
2022-04-20 Emerging Centers Call: Discovering, Recruiting, and Developing Staff	4/26/2022	48	4.3803	0	410	6.1
PEARC21: "Assessing the Landscape of Research Computing and Data Support" by Patrick Schmitz.	7/18/2021	48	2.4485	0	479	2.3
2022-02-10 Researcher-Facing Call: Sensitive Data in Research Computing	2/16/2022	44	4.2961	0	433	4.85
2021-10-21-Network_Troubleshooting-Techniques_and_Approaches	10/22/2021	43	2.6585	0	608	2.8
2021-01-20 - Systems-Facing - Real-world RoCE: Architecture, Implementation and Upkeep	1/20/2022	41	8.6767	0	479	3.55

2021-07-08 Researcher-Facing Call: Building Teams with Graduate Student Research						
Facilitators	7/9/2021	39	4.3681	0	455	2.86
2022-01-19 Emerging Centers Call: Developing Policies	2/1/2022	39	3.3539	0	368	1.63
2022-01-13 Researcher-Facing Call: Saying #No (to Researchers)! When, Why and How	1/26/2022	33	2.2902	0	440	2.5
2021-08-19 - CaRCC Systems-Facing - PEARC21 recap and community discussion	8/20/2021	28	3.1138	0	791	1.26
PEARC21: CaRCC TownHall	8/14/2021	28	2.0176	1	730	0.82
2021-09-09 Researcher-Facing Call - Reaching Underrepresented Disciplines for Large-Scale Compute	9/18/2021	27	1.0535	1	560	2.5
2021-07-06 Data-facing Call: Digital Preservation and Access at Scale	7/16/2021	26	1.8825	0	385	1.56
2022-03-01 Data-facing Call: eCR Now! and COVID-19	3/11/2022	26	3.7489	0	307	1.95
PEARC21 RCDCM Strategic Planning Workshop Intro	8/13/2021	21	1.7102	0	339	2.36
2022-03-16 Emerging Centers Call: RCD Staffing	3/18/2022	21	1.5451	0	465	2.37
2022-01-04 Data-facing Call: Community Roundtable	1/14/2022	17	1.78	0	295	3.05
2022-02-01 Data-facing Call: Science Gateways	3/11/2022	17	2.413	0	239	5.86
2021-11-02 Data-facing Call: The National Archive of Criminal Justice Data	11/4/2021	17	1.0937	0	397	2.52
2022-05-03 Data-facing Call: Background and Demonstration of the Open Research Toolkit	5/23/2022	14	0.4233	0	361	2.49
PEARC21 BoF: Assessing and communicating CI readiness at EPSCoR and under-resourced institutions	8/30/2021	14	0.3129	0	454	1.32
2021-10-5 CaRCC People Network Plenary: Revisiting the Leading Practices of Facilitation Part 1	10/14/2021	14	1.7248	0	279	2.51
2021-09-07 Data-facing Call: Data Science Lifecycle Ethos	9/14/2021	13	0.5978	0	391	1.28
PEARC21: Quantifying the RCD Profs Community for Attracting, Retaining, and Diversifying RCD Profs	8/16/2021	10	0.2051	0	511	1.37
2022-06-16 Systems-Facing - JupyterHub@NCAR: A Case for a Notebook-Centric Analysis Platform	6/16/2022	1	0.0052		32	0

Section B.2, People-Network YouTube Track Call recording statistics, all reporting periods.

Video title	Video publish time	Views	Watch time (hrs)	Sub- scribers	Impressions	Impressions click-through rate (%)
TOTALS		9601	915.5683	225	93347	3.62
2019-07-18 CaRCC Systems-Facing - Racktables for graphical HPC cluster management	7/19/2019	3629	240.4599	5	18958	9.26
2019-10-17 CaRCC Systems-Facing - HTCondor's Philosophy of High-Throughput Computing	10/17/2019	321	42.2485	2	3561	4.07
2020-03-18 Emerging Centers Track Call: OpenOnDemand	3/18/2020	244	31.2056	2	1584	0.88
2021-01-21 Systems-Facing: HPC Cluster Operating Systems Options	1/21/2021	219	28.0583	7	1740	2.47
2022-01-11 Annual CaRCC Parade - Progress from 2021	1/26/2022	214	23.2902	2	643	2.33
2019-03-21 CaRCC Systems-Facing - Ceph as a campus storage solution	4/16/2020	207	30.7209	2	1936	3.05
2021-08-18 CaRCC People Network Plenary: Aligning Security with Research (Panel)	8/18/2021	189	34.0382	3	1497	1.54
2019-04-18 CaRCC Systems-Facing - CharlieCloud	4/18/2019	160	20.3984	4	1439	2.92
2019-05-16 Systems-Facing - Globus Installation and Configuration	5/16/2019	144	8.8284	2	2942	1.84
2020-09-17 Systems-Facing - Overview of HPC File Systems and One Site's Experience	9/17/2020	143	26.9793	1	1857	3.45
2021-02-18 Systems-Facing: Geddes Composable Platform - Purdue's Kubernetes-based private cloud	2/18/2021	134	18.892	3	923	2.49
2020-01-16 CaRCC Systems-Facing - HIPAA-aligned data and Public Cloud Platforms	1/16/2020	128	19.9058	2	1061	2.17
2021-05-20 - Clusters in the Sky: How Canada is Building Beyond Iaas Cloud with Magic Castle	5/20/2021	111	11.648	0	925	1.51
2020-04-16 CaRCC Systems-Facing - Direct to the chip warm water cooling HPC systems at OSC	4/16/2020	103	11.6956	1	1863	2.15
2021-02-11 Researcher-Facing Call: Supporting Researchers with Containers	2/17/2021	94	12.0671	0	663	2.41

2020-08-20 CaRCC Multi-Track: Service Models for Researcher-Purchased Computing and Data	8/20/2020	93	15.1458	0	1741	1.72
2020-02-20 CaRCC Systems-Facing - UC San Diego Health's approach to meeting HIPAA compliance in AWS	2/20/2020	92	9.1004	0	1375	2.18
2021-01-14 Researcher-Facing Call: All About CaRCC	1/20/2021	90	5.7878	2	562	2.85
2020-07-07 Data-facing Call: What Data To Keep?	7/13/2020	87	8.4176	1	725	1.93
2021-03-11 Researcher-Facing Track: Orientating Researchers to Research Computing + Data Resources	3/18/2021	87	12.5238	1	724	2.49
2020-10-15 Systems-Facing: Basic Cloud Bursting with Azure & VMWare	10/15/2020	84	9.7161	2	1075	1.4
2020-07-16 CaRCC Systems-Facing - OURRstore: Big Data on a Small Budget	7/17/2020	84	8.6685	1	1380	1.01
2021-05-04 Data-facing Track Call: Data Feminism	5/5/2021	83	7.9536	1	1088	1.84
2020-10-08 Researcher-Facing Call: Writing More Equitable Job Postings	10/14/2020	80	3.4661	1	501	3.59
2020-11-12 Researcher-Facing Call: Profiling & Optimizing R Code in Your Workloads	11/19/2020	77	9.9889	2	877	2.17
2021-09-16 - Systems-Facing - Managing an NVIDIA DGX SuperPod at UF	9/16/2021	77	11.4107	1	1006	2.09
2022-05-19 - Systems-Facing - Operating a research computing environment for a large university	5/19/2022	69	7.5888	0	562	3.56
2020-10-6 Data-facing Call: The Power of Electronic Lab Notebooks	10/13/2020	68	7.1718	0	2857	1.02
2020-01-15 Emerging Centers Track Call: Gathering Researcher Use Cases	1/22/2020	67	2.1675	1	411	2.43
2021-10-14 Researcher-Facing Call: Revisiting the Leading Practices of #Facilitation	10/17/2021	65	7.1157	0	514	2.53
2021-11-11 Research-Facing Call: Supporting #GPU Computing	11/22/2021	65	4.226	0	735	2.59
2021-04-08 Researcher Facing Call: On Measuring the Impact of Training	4/16/2021	63	7.3217	0	874	1.6
2019-09-19 CaRCC Systems-Facing - Providing a Unified Software Environment within ComputeCanada	9/19/2019	63	7.3601	0	796	1.51
2022-03-17 - Systems-Facing - Integrating Cloud Storage into Research Workflows	3/17/2022	62	10.9758	1	1020	2.06
2022-02-17 - Systems-Facing - Post CentOS 8 Era: Community Discussion	2/18/2022	61	8.4643	1	462	3.03
2020-03-19 CaRCC Systems-Facing - Visualize And Analyze Your Network Activities Using OSU INAM	3/19/2020	60	2.5392	0	837	1.67

2021-06-17 - Two unique approaches to developing CUI Compliant Systems	6/18/2021	60	8.4439	1	609	4.43
2022-03-10 Researcher-Facing Call: Sensitive Data in Research Computing - Through Cloud Computing	3/14/2022	60	3.4321	2	413	3.15
2019-11-14 Researcher-Facing Call: Open OnDemand User Experiences & Challenges	11/15/2019	56	5.4871	0	669	1.64
2019-06-20 CaRCC Systems-Facing - Open Discussion on supporting research computing on cloud	6/20/2019	55	7.8715	3	663	3.62
2021-02-02 CaRCC People Network Plenary: The RCD Capabilities Model and Community Dataset	3/12/2021	54	6.882	2	669	2.24
2019-10-10 Researcher-Facing Call: An Expansion of User Support Services at U Colorado Boulder	11/14/2019	54	4.9834	0	323	4.02
2022-04-14 Researcher-Facing Call, Supporting Research Data Management	4/26/2022	53	4.6381	0	323	4.33
2019-12-05 CaRCC Systems-Facing - Developing an Interactive Tool for Exploring Data Storage Options	12/5/2019	52	4.662	0	578	2.94
2020-06-18 Systems-Facing - Intro to metrics collection w/ Prometheus and visualization w/ Grafana	6/18/2020	49	8.9141	2	1125	1.87
2022-04-05 Data-facing Call: Curating, Archiving, and Sharing Qualitative Data	4/19/2022	48	3.137	1	429	2.1
2022-04-20 Emerging Centers Call: Discovering, Recruiting, and Developing Staff	4/26/2022	48	4.3803	0	410	6.1
PEARC21: "Assessing the Landscape of Research Computing and Data Support" by Patrick Schmitz.	7/18/2021	48	2.4485	0	479	2.3
2020-05-14 Researcher-Facing Call: Working with Your Team Remotely	5/17/2020	46	3.749	1	383	1.83
2020-05-20 CaRCC Multi-Track: Student Workers	5/21/2020	46	3.9477	0	810	1.85
2019-12-12 Researcher-Facing Call: Researcher-Facing/CI-Engineer Metrics	12/12/2019	46	5.0861	1	502	2.19
2020-02-13 Researcher-Facing Call: User support via Slack, open forums, Github repos & blogs	2/14/2020	45	6.2745	0	451	2.44
2020-12-16 Emerging Centers Track Call: NSF CC* Program and EPOC	12/17/2020	45	6.0878	0	856	2.57
2022-02-10 Researcher-Facing Call: Sensitive Data in Research Computing	2/16/2022	44	4.2961	0	433	4.85
2021-10-21-Network_Troubleshooting-Techniques_and_Approaches	10/22/2021	43	2.6585	0	608	2.8

2021-01-05 Data-Facing Track Call: Python for Big Data	1/12/2021	43	0.9247	0	866	1.39
2019-08-15 CaRCC Systems-Facing - Storage and Data Management for a Mid-Scale Research Data Set	8/15/2019	43	4.2515	0	815	1.84
2020-04-09 Researcher-Facing Call: Sharing Best Practices in Remote User Support & Training	4/14/2020	43	3.216	0	332	1.2
2021-01-20 - Systems-Facing - Real-world RoCE: Architecture, Implementation and Upkeep	1/20/2022	41	8.6767	0	479	3.55
2021-04-15 Systems-Facing: Experiences and advice for large and small data centers – cooling	4/15/2021	41	4.3579	1	1253	1.28
2021-05-13 Researcher-Facing Call: Workflow Tools for Portable, Reproducible Data Analysis	5/21/2021	40	4.4011	1	683	1.46
2021-07-08 Researcher-Facing Call: Building Teams with Graduate Student Research Facilitators	7/9/2021	39	4.3681	0	455	2.86
2022-01-19 Emerging Centers Call: Developing Policies	2/1/2022	39	3.3539	0	368	1.63
2020-07-09 Researcher-Facing Call: Big Data, Big Compute Solutions	7/13/2020	39	2.6523	0	1525	0.85
2021-03-18 Systems-Facing: Enabling Science Collaborations with Secure & Flexible Service Deployment	3/18/2021	38	3.7208	0	709	1.55
2020-03-12 Researcher-Facing Call: User support via Ask.Cl and Locales	3/12/2020	38	3.8803	1	514	1.17
2020-09-01 Data-facing Call: An Institution-wide Examination of Data Needs	9/11/2020	36	3.8973	1	717	1.67
2020-11-01 Data-facing Call: Teaching Data Skills Remotely	11/4/2020	34	1.3341	1	383	1.83
2022-01-13 Researcher-Facing Call: Saying #No (to Researchers)! When, Why and How	1/26/2022	33	2.2902	0	440	2.5
04-21-2021 Emerging Centers: New National Resources for Researchers-Anvil, Bridges-2 and Jetstream2	4/22/2021	30	3.1744	1	432	2.31
2021-08-19 - CaRCC Systems-Facing - PEARC21 recap and community discussion	8/20/2021	28	3.1138	0	791	1.26
PEARC21: CaRCC TownHall	8/14/2021	28	2.0176	1	730	0.82
2021-09-09 Researcher-Facing Call - Reaching Underrepresented Disciplines for Large-Scale Compute	9/18/2021	27	1.0535	1	560	2.5
2021-07-06 Data-facing Call: Digital Preservation and Access at Scale	7/16/2021	26	1.8825	0	385	1.56

2022-03-01 Data-facing Call: eCR Now! and COVID-19	3/11/2022	26	3.7489	0	307	1.95
2020-01-09 Researcher-Facing Call: Handling Support Requests	1/13/2020	20	0.6518	0	404	1.49
PEARC21 RCDCM Strategic Planning Workshop Intro	8/13/2021	21	1.7102	0	339	2.36
2022-03-16 Emerging Centers Call: RCD Staffing	3/18/2022	21	1.5451	0	465	2.37
Emerging Centers 10-21-2020 Call - Coalition for Academic and Scientific Computing	10/22/2020	19	1.557	0	348	2.87
2022-01-04 Data-facing Call: Community Roundtable	1/14/2022	17	1.78	0	295	3.05
2021-03-17 Emerging Centers Call: Research Computing and Data Center Experiences	3/18/2021	17	2.4136	0	413	2.18
2022-02-01 Data-facing Call: Science Gateways	3/11/2022	17	2.413	0	239	5.86
CaRCC Emerging Centers Track January 2021 Call	2/3/2021	17	1.1942	0	530	0.94
2021-11-02 Data-facing Call: The National Archive of Criminal Justice Data	11/4/2021	17	1.0937	0	397	2.52
2020 07 15 Emerging Centers Call - Policy	7/15/2020	15	0.641	1	722	1.11
2022-05-03 Data-facing Call: Background and Demonstration of the Open Research Toolkit	5/23/2022	14	0.4233	0	361	2.49
PEARC21 BoF: Assessing and communicating CI readiness at EPSCoR and under-resourced institutions	8/30/2021	14	0.3129	0	454	1.32
2021-10-5 CaRCC People Network Plenary: Revisiting the Leading Practices of Facilitation Part 1	10/14/2021	14	1.7248	0	279	2.51
2021-09-07 Data-facing Call: Data Science Lifecycle Ethos	9/14/2021	13	0.5978	0	391	1.28
2020-06-11 Researcher-Facing Call: How Are We Doing?	6/22/2020	12	0.0715	0	396	1.01
2020-0219 Emerging Centers Track Call: Research Computing Strategic and Cyberinfrastructure Plans	2/19/2020	12	1.3841	1	299	1.34
2021-04-06 Data-facing Track Call: Digital Scholarship Platforms and Workflows	4/23/2021	12	1.0004	0	612	1.8
PEARC21: Quantifying the RCD Profs Community for Attracting, Retaining, and Diversifying RCD Profs	8/16/2021	10	0.2051	0	511	1.37
2021-06-01 Data-facing Call: Open Science Framework Integrations	6/15/2021	10	1.0917	0	369	1.63
CaRCC Live Stream		9	2.369	0	0	

2020-04-15 Emerging Centers track call: COVID-19 developments	4/15/2020	8	0.0128	0	300	2.33
2022-06-16 Systems-Facing - JupyterHub@NCAR: A Case for a Notebook-Centric						
Analysis Platform	6/16/2022	1	0.0052		32	0