

Track 1: ACCESS Resource Allocations

Marketplace and Platform Services

Diversity, Equity, and Inclusion Plan

Annual Update

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ACCESS DEI PLAN

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Introduction

This report outlines the ACCESS Allocations program Diversity, Equity, and Inclusion (DEI) plan and the innovative changes to the allocations and resource management process putting DEI center stage around a continuous improvement paradigm. The program vision states *“the NSF-funded national Cyber Infrastructure must be accessible and equitable for all researchers no matter the size of the institution, the scale of the planned work, the discipline of the research, or the demographics of the requestor.”* The ACCESS Allocations team aims to achieve these equity goals by implementing DEI plan goals and through a holistic approach focused community engagement. This includes introducing a new tiered system that opens opportunities for graduate students from U.S. institutions with a faculty advisor letter of collaboration to lead allocation projects, new innovative pilots that will expand accessibility, intentional outreach and collaboration with minority serving institutions (HBCUs, TCUs, HSI), tapping the diversity of these communities to serve as reviewers, and actively responding to community feedback through a continuous improvement program.

The ACCESS Allocations program goals are guided by DEI plan that permeate through the project and extended community:

- Create an ***open, inviting, and democratized allocations marketplace*** to empower a diverse research community and provide equitable access across disciplines, computing modalities, institutions, and demographics.
- Implement an ***efficient, scalable, and simplified request and review framework*** to reduce real and perceived barriers in connecting researchers to resources.

- Develop a **robust, decentralized, and flexible software platform** to extend the allocations environment into new user communities and encompass novel resources and diverse usage modes.

The role of the **DEI Facilitator**, as senior personnel in the project, is to work with ACCESS PIs to move the dial towards achieving the vision that allocations in the NSF-funded national Cyber Infrastructure (CI) be accessible and equitable for all researchers. The DEI Facilitator's role is to work with the management team to ensure an **efficient, scalable, and simplified request and review framework** by reducing barriers and supporting a more inclusive review process. The DEI Facilitator and management team will expand outreach and community engagement to reach communities not normally touched by RCD programs. Our initial list of events and focus groups that reflects this goal.

ACCESS Allocations Goals and Targets Overview

Continuous Improvement led by Co-PI Laura Herriott (NCSA) include Diversity, Equity, and Improvement (DEI) planning and activities; communication with and tracking feedback and recommendations from stakeholder groups; and transition to operations efforts that ensure process and platform changes are completed smoothly and with minimum disruption to all stakeholders. The continuous improvement area will lead the ongoing effort to improve products, services, or processes whereby feedback from the process and customer are evaluated against organizational goals and encompasses many elements across ACCESS operations, metrics, communications, and DEI. The DEI Facilitator and Continuous Improvement leadership roles will play a key part in the execution of the DEI Plan. Our initial goal is to define, codify, and integrate DEI and CI into the operations while connecting these efforts across ACCESS tracks including with the ACCESS Coordination Office.

We have outlined five key areas of our DEI plan, corresponding to the work breakdown structure, where we define and execute our long and short term plans. As shown in the figure below, these areas include Outreach and Engagement, ACCESS Review Committee (AARC), DEI content and Metrics, Policy, and Continuous Improvement/Feedback. We have outlined the strategic goals for each of these areas with an initial first year focus on defining goals, establishing norms, and developing key tools and policies. These goals are then turned into targets and actions for the upcoming year.

	Outreach & Engagement	AARC: Training & Recruitment	Content Review & Metrics	Policy	CI/Feedback
Goals	<ul style="list-style-type: none"> •Define & attend conferences/events •Create outreach presentations •Create other outreach collateral •Define small event plan (hackathons, panels, etc) •Develop resource scheduling for outreach and engagement activities (i.e who/what track) 	<ul style="list-style-type: none"> •Develop XRAC DEI training material •Define & measure XRAC demographic and DEI metrics •Define XRAC DEI recruitment goals •Define other ACCESS committee goals 	<ul style="list-style-type: none"> •DEI focused Review of Allocations website & documentation content •Define allocations key metrics •Define cross-track standard metrics •Develop ADA compliance checklist •Define demographic data collection standards 	<ul style="list-style-type: none"> •Define Cross-track DEI metrics & Goals •Develop Allocations DEI Plan •DEI impact reviews of policy documents (i.e. charters) •Define cross-track collaborations & DEI goals/overlaps •Review Resource Provider DEI policy 	<ul style="list-style-type: none"> •Define and develop MSI questionnaire •Develop MSI Focus group & survey guidelines •Develop presentation polling questions •Define DEI tracking toolkits •Collect and provide feedback on structures •Define continuous improvement mechanisms
Year 1 Targets & To-Dos	<ul style="list-style-type: none"> •Create baseline event calendar •Create outreach materials/collateral •Create Outreach Tracker •Attend or present: 10 MSI focused conference/events •Define potential outreach channel partners 	<ul style="list-style-type: none"> •Conduct 1 XRAC DEI facilitation •Conduct 1 DEI reviewer training •Recruit XRAC members to enhance DEI •User Group Committee DEI recruitment •Summarize available Demographic metrics 	<ul style="list-style-type: none"> •DEI review of ACCESS launch content & website •ACCESS ADA website compliance screening results •Publish year 1 baseline Allocations DEI metrics & standards •Publish Year 1 cross-track metrics & standards 	<ul style="list-style-type: none"> •Publish ACCESS Allocations DEI plan •Define standard cross-track DEI metrics & questionnaires •DEI Review of allocations policy, code of conduct, policies •Input in Cross track metrics documents •Cross-track working group 	<ul style="list-style-type: none"> •release standard mentimeter questions & surveys •Conduct 4-6 focus groups & publish preliminary results •Feedback on ACCESS Support DEI enhancements

RAMPS Continuous Improvement

DEI will work closely with the continuous Improvement Co-PI to build a process of collecting and tracking feedback as well as integrating that feedback into policy and operations.

Our initial goal is to develop a RAMPS evaluation feedback and reporting process. This process will allow for underrepresented users and stakeholders to have a direct impact on the delivery of Allocations services we provide the community.

Goals	<ul style="list-style-type: none">•Define and develop MSI questionnaire•Develop MSI Focus group & survey guidelines•Develop presentation polling questions•Define DEI tracking toolkits•Collect and provide feedback on structures•Define continuous improvement mechanisms
Year 1 Targets & To-Dos	<ul style="list-style-type: none">•release standard mentimeter questions & surveys•Conduct 4-6 focus groups & publish preliminary results•Create feedback processing and implementation procedure

We will work closely with CI to convert feedback and community focus group responses into action. Through the transition period this will start with weekly Continuous improvement meetings attended by the DEI Facilitator and Allocations PIs. After the September 1 launch, we will begin to gather direct user feedback and work to continuously adjust to better serve the community. There will be multiple channels for feedback that includes focus groups, surveys, user feedback form responses, and conference discussions and polls. Instead of waiting for an extended period of time, we will continuously report the results of this feedback to the CI weekly meetings and communicate significant findings to other tracks and the ACO.

Outreach and Engagement

Outreach and engagement is a central component of our DEI plan. The goal of our outreach and engagement efforts is to broaden the participation of users, resource providers, and reviewers from a wider range of demographic backgrounds, institution size, and experience levels. The goals include defining and establishing a stable of conferences and events that most represents the diverse backgrounds we seek to expand in ACCESS. We will develop collateral and an outreach and engagement strategy for both the long term and for the year ahead to achieve our goals.

Goals	<ul style="list-style-type: none">•Define & attend conferences/events•Create outreach presentations•Create other outreach collateral•Define small event plan (hackathons, panels, etc)•Develop resource scheduling for outreach and engagement activities (i.e who/what track)
Year 1 Targets & To Dos	<ul style="list-style-type: none">•Create baseline event calendar•Create outreach materials/collateral•Create Outreach Tracker•Attend or present: 10 MSI focused conference/events•Define potential outreach channel partners

During the first year of our outreach and engagement activities we will create and implement the tools and methodologies for achieving our engagement goals. This includes creating and establishing an ACCESS Allocations annual outreach and engagement calendar. This calendar will include all of the conferences, panels, and other outreach activities that we expect to attend every year. We will also create all of the outreach communications materials and collateral such as presentation slides, focus group guidelines and tools, and outreach tracking.

Focus Groups and Studies

- MSI Focus Groups
- Analysis & Feedback
- Conclusion and CI integration

Partnerships

- HBCU, TCU, HSI, Partnerships
We plan to develop and strengthen partnerships with HBCUs, TCUs, and HSIs more broadly through engagement and collaboration with organizations such as AIHEC, UAB CIO Consortium, MS-CC, CaRCC, and internet2. During this initial quarter our outreach efforts to these organizations focused on introductory contact with further in-depth discussions and potential collaborations to come.
- Outreach: Conferences and events
As part of our outreach we will focus on broadening the type and participation in a wide range of events attended by the DEI Facilitator, other senior personnel, and ACCESS PIs when possible.

At this early stage, our outreach is focused on the transition from XSEDE and direct engagement through focus group activities and conferences. As we have learned in our initial feedback, we expect this outreach to also include roadshows to connect directly with audiences that may not otherwise connect with through these events or conferences. Additionally, we must also examine ways in which we can scale outreach to a broader audience as we learn from these underrepresented communities.

We will create a moderator guide and questionnaire for focus groups. This guide will provide the moderator with steps (before, during, and after) each virtual or live focus group. It will include a script of the questions and introductory overview as well as template follow up emails to send all participants after the session. By standardizing the process, our goal is to be able to develop a reproducible and scalable process.

- R1/R2, Community College Minority outreach

Our outreach will also include connecting with underrepresented groups from R1, R2, and community colleges. First, we have selected a range of events as outlined in the table above. Next, we will examine the need for conducting community targeted roadshows. These may include a roadshow to visit a cluster of community colleges, HBCU, HSIs, or TCUs to recruit new campus champions and establish direct relationships with new departments. By focusing on clusters of nearby prospects one trip could include a number of visits and connections. It is through these face-to-face connections that we can begin to establish lasting relationships to build a strong base for ACCESS. We expect to coordinate with the other tracks to best determine the details of these road shows which will likely begin in year two of the project.

DEI Data and Metrics

Our first year goal is to establish standard ACCESS Allocation metrics and guidelines for collection of data related to metrics such as demographics. Our initial work-wide metrics will be important for quantifying success and identifying areas in need of improvement. We will develop metrics across three key areas which include:

- Current/XSEDE
- RAMPS Launch and Ongoing datasets/DEI metrics
- Long term/Alumni impact tracking (DOI search, surveys, focus groups)

We will start with collection and analysis of current and XSEDE metrics.

RAMPS Allocations Marketplace & AARC

Our Goal for the ACCESS Allocations Review Committee (AARC) is to create an inclusive environment where reviewers serve as “grounds keepers” instead of “gatekeepers”. This shift begins with the establishment of group norms, protocols, and regular DEI training for the committee. Our goal is to impact the entire review processes by reducing biases in the application review, increase inclusivity in the caucusing process, and during the AARC meetings. Additionally, our goal is to increase the diversity of the ACCESS committee which is predominantly male, white, and composed of R1 universities with little representation from non-R1 institutions, minority serving institutions (MSIs), or traditionally underrepresented groups. We will also define and collect demographic metrics for AARC to develop baseline metrics of veteran reviewers versus new reviewers so that AARC demographic composition can be tracked over time.

It must also be noted that the ultimate goal is to broaden participation. That is to say, our goal is to shift the AARC mindset from an exclusionary one of “gatekeeping” to “grounds keeping” or a “cultivation” approach that will leverage the resources of other tracks (i.e. training, MATCH, etc) to grow a more diverse user base. Below is a summary of our DEI plan for the Committees that include training and recruitment.

Goals	<ul style="list-style-type: none">•Develop XRAC DEI training material•Define & measure XRAC demographic and DEI metrics•Define XRAC DEI recruitment goals•Define other ACCESS committee goals

Year 1: Tasks and To-Dos	<ul style="list-style-type: none"> •Conduct 1 XRAC DEI facilitation •Conduct 1 DEI reviewer training •Recruit XRAC members to enhance DEI •User Group Committee DEI recruitment •Summarize available Demographic metrics

We will work to increase the recruitment of reviewers for AARC from underrepresented minority groups, non-R1 institutions, and improve gender balance. During the first year transition period from XSEDE, The DEI Facilitator, management team and co-PIs will begin recruiting new AARC members with a focus on diversifying the committee to not only include gender and racial diversity, but also diversity of institution size and types. By broadening the participation of the AARC committee we will open more channels for a broader range of applicants as well as create a more inclusive review process.

We will develop and deliver AARC member reviewer unconscious bias and diversity and inclusion training. This will include new required material to be completed by the reviewers prior to receiving their batch of allocation applications. We will also develop and send an “welcome to AARC Survey” that will collect demographic data and other information before each AARC meeting. We will begin with short DEI focused training for the AARC committee during the bi-annual meetings with the December 2022 and March 2023 sessions being considered transitional meetings to socialize all participants involved to the new changes. The training will include topics such as group norms and bystander intervention and will focus on building awareness of the reviewers of issues that could potentially impact the review process.

As the ACCESS and AARC welcomes individuals from more diverse backgrounds, and reviews allocation requests from a broader range of applicants, it will be essential for AARC to share a common language about diversity and inclusion. Having a common training experience and vocabulary will assist the group in recognizing and responding to bias if/when it presents itself. This training will build on a training previously conducted by Dr. AJ Lauer for the SC21 committee and will be customized for AARC. We expect it to be a total of half-day introductory material to the ways in which gender and race can affect our experiences in society and the workplace, and offer practical tools for intervening in problematic situations. The training will include background readings and videos prior to the session. Sessions will include a combination of hands-on activities and discussion about the readings and their relevance to the group's experiences. These sessions and materials will be broken down into smaller segments and spread over the course of a participant's multi-year engagement with AARC.

We will also create and issue AARC surveys that will be completed before each AARC meeting. This survey will be a short survey (i.e. less than 10 minutes to complete)

Allocations Policies

We will define and develop Allocations policies to align the DEI efforts by the Allocations team with the ACO and other tracks.

Goals	<ul style="list-style-type: none">•Define Allocations DEI metrics & Goals•Develop Allocations DEI Plan•DEI impact reviews of policy documents (i.e. charters)•Define cross-track collaborations & DEI goals/overlaps•Review Resource Provider DEI policy
Year 1: Tasks & To-Dos	<ul style="list-style-type: none">•Publish ACCESS Allocations DEI plan•Define standard allocations DEI metrics & questionnaires•DEI Review of allocations policy, code of conduct, policies•Input in Cross track metrics documents

We review and play a role in the development of ACCESS wide and Allocations specific policies with a focus on DEI. The following documents will be reviewed and completed during the launch and initial year of ACCESS:

- Code of conduct (system access, other)
- User agreements (collection of demographic info)
- DEI statements
- Allocations Policy

Software Infrastructure

Software infrastructure, content, and metrics is the heart of the Allocations program. Our goal is to insure that the software infrastructure is built on top of a system that has inclusive content and is a welcoming environment for all no matter their demographic background or disability.

Goals	<ul style="list-style-type: none">•DEI focused Review of Allocations website & documentation content•Define allocations key metrics•Define cross-track standard metrics•Develop ADA compliance checklist•Define demographic data collection standards
Year 1: Goals & To-Dos	<ul style="list-style-type: none">•DEI review of ACCESS launch content & website•ACCESS ADA website compliance screening results•Publish year 1 baseline Allocations DEI metrics & standards•Publish Year 1 cross-track metrics & standards

Development and Operations

We will work with the infrastructure team to ensure that the allocations website is user friendly and accessible. This includes an ADA site review and audit as well as a comparative ADA site analysis audit of XSEDE. Some of our initial feedback from the first focus groups emphasized the need for making the site accessible to persons with disabilities or adaptive users. This includes color blindness, dyslexia, and other diverse users. By delivering the information in multiple formats and mediums we can provide an inclusive infrastructure capable of accommodating a wide range of users.

We will focus on User Interface and User Experience (UI/UX) through pre-launch testing, user feedback, and UI/UX audits. We are currently researching and developing baseline ADA

website usability testing strategies [reference ADA test review link here]. Initial tests will be conducted on the launch of the access allocations website and compared to the xsede website. Results will be presented at the CI weekly meeting and RAMPS weekly development meeting.

Innovative Pilots

Innovative pilots are new programs that will be tested and launched during the course of the ACCESS Programs. These pilots are meant to test and launch new innovative approaches that include 1) A variable marketplace model for allocations 2) Building regional and campus On-RAMPS to national allocations 3) Integrating commercial and academic cloud resources, 4) allocations for CI resource workflows, and 5) Allocations infrastructure for sensor nets and instrumentation. All of these innovative pilots will involve significant community engagement, beta testing, and feedback. Working within our continuous improvement framework, we will continue to examine and provide feedback on the impact to DEI to ensure accessibility for all, maintenance of a democratized marketplace, and openness to new users to support broadening participation.

The variable marketplace concept also has the potential to broaden access to resources while providing a platform for non-R1 universities to gain fair access. This process will help reduce idle time of resources on ACCESS and spread them in an equitable manner. We will ensure that this variable marketplace benefits smaller programs and not “price them out of the market”. We will collaborate closely with the innovative pilots and actively engage MSIs to gather their input in the beta version of this marketplace.

We are particularly interested in the innovative pilot to bring regional and campus On-RAMPS to national allocations. During our initial focus groups with professors and faculty from HBCUs great interest was expressed in having “ACCESS Ambassadors” who will visit HBCUs and MSIs to set up and teach campuses how they can more effectively connect with the ACCESS allocations process locally. Beyond the ease of apply for and receiving an allocation, this includes being able to locally manage allocations for classroom or group allocations, tutorials and other resources that make professors more productive in the sense they will save time on having to train each student individually or have resources to help students troubleshoot and get unstuck without having to speed utilize the limited resource of faculty time.

The integration of commercial and academic cloud resources will help level the playing field for universities who do not have on-site storage or large compute capacity. As discovered in our initial focus group discussions to date, many of these universities lack on-prem resources and rely on commercial cloud services that include free systems such as Google Collab or paid cloud systems such as AWS. Faculty from Universities with less resources that use paid resources often start in the free or low cost tier to later find that the resource cannot be sustained when prices go up after the initial sign-up period. This oftentimes puts faculty in the position of having to write yet more grant proposals to cover the on-going costs of these cloud resources. By integrating commercial and academic cloud resources, this will provide a

mechanism for data to be transferred onto the ACCESS cloud system thereby relieving faculty from having to raise additional funds to sustain commercial cloud systems.

Allocation for CI workflows represents a major barrier for some universities who may just be entering the RCD space. This innovative pilot presents the opportunity for all users to have equitable access to tools and systems to run code more efficiently and more effectively use the allocation resources through improved workflow management.

Allocations sensornet and instrumentation is an increasingly important factor for universities seeking to build low cost field programs and the cyberinfrastructure to support it. For example, HBCUs who focus on environmental justice and climate change seek to measure the impact of industry such as petrochemical production and oil & gas production in their areas that oftentimes have an adverse impact on their population. Research has shown that these communities often have higher pollutants, poorer air and water quality, and higher negative health impacts on the population. In order to impact policy changes the universities in these areas need sensor nets and the allocation infrastructure to analyze the data against larger data sets often only available on large scratch drives of HPC systems (i.e. Climate data like CFSR). It is this connection of sensor data, instrumentation to compute resources and allocations that hold great potential for broadening participation to universities in marginalized communities who lack the resources to take data driven action with RCD resources.

Cross Track Coordination

Allocations DEI and CI will work closely with the ACCESS Coordination Office (ACO) to share information and develop cross-track collaboration. This collaboration will be conducted through participation in working groups such as the bi-weekly Community Building and Engagement cross-ACCESS planning meetings.

Conclusions

As outlined in this report our goal is to establish Allocations and ACCESS wide group norms and procedures for the creation of a more inclusive environment to support broadening participation. This is a living document with updates and annual releases that will focus on updating the goals, targets and tasks outlined in this report to reflect feedback and collaboration from the AARC community.