The City College of New York | OFFICE OF RESEARCH

Writing a Promoting Inclusive and Equitable Research (PIER) Plan

The following guide is meant to highlight some key guidelines and strategies for writing a PIER plan and to provide some context, but is not meant to be a substitute for the materials provided by the DOE. Please make sure to review all DOE materials before writing your plan, including their recorded webinar.

The DOE does not provide example PIER plans, and to some degree discourages researchers from seeking out examples. These plans are meant to be project, team, and institution specific, and hopefully innovative. That said, if you are able to obtain examples, they may be helpful when thinking about overall structure, but be careful to not wholesale replicate efforts that may not be appropriate to your project. The Office of Research can connect you with other CCNY researchers who have written successful plans to discuss the process.

What is a PIER Plan?

Starting October 1, 2022, the Department of Energy (DOE) Office of Science requires a Promoting Inclusive and Equitable Research (PIER) Plan as an appendix on all submitted research proposals, including to National Labs. These 3-page plans should *"describe the activities and strategies of the applicant to promote equity and inclusion as an **intrinsic element** to advancing scientific excellence in the research project within the context of the proposing institution and any associated research group(s)."*

What does it mean for equity and inclusion to be an *intrinsic element* of your project? It means that DOE does not want a general statement of principles or vague reference to institutional policies, but rather a well thought out commitment to equity and inclusion and a concrete plan to promote those values that is specific to the project being discussed. Think "we will…", rather than "we believe…". The more these elements can be integrated into your research program (as opposed to seeming tacked-on at the last minute), the better. This means you should begin thinking about your PIER at the beginning of the proposal-writing process, not the end.

What are effective *activities and strategies* to *promote equity and inclusion*? First off, if you are unclear about what the terms equity and inclusion mean in this context, see the glossary at the end of this document. The DOE highlights three areas to consider when you are developing your proposal. **We recommend you try to address all or some of these areas as specific sections of your plan:**

- ***The composition of the project team, including project personnel and partnering institutions**. This includes but is not limited to: recruitment and inclusion of individuals from diverse backgrounds on the research project, individuals from groups historically underrepresented in the research area, and individuals from underserved communities; partnering with individuals from institutions historically*

underrepresented in Federal research, including but not limited to minority serving institutions, non-R1 institutions of higher education; and/or institutions of higher education in EPSCoR states.

- ***The research environment.*** *This includes but is not limited to: establishing and cultivating research and work environments that promote mutual respect and professionalism, where all project personnel feel welcome, safe, and supported; development and/or adoption of laboratory-, community-, or collaboration-specific codes of professional conduct; practices and protocols for ensuring safe conduct of research and personnel safety, particularly in isolated or remote research environments; and/or providing equitable access to research tools and making reasonable accommodations for researchers with disabilities.*

- ***The implementation of the research project, and scholarly and professional growth of project personnel.*** *This includes but is not limited to: distribution of leadership responsibilities among project key personnel; mentoring and/or training opportunities for project personnel; equitable access of project personnel to professional development opportunities; inclusive and equitable plans for recognition on publications and presentations; inclusive practices for community engagement and strategic planning meetings or events; and/or communication of research goals and results to broader audiences.*

For example, you might include a section about how your team will leverage CCNY's MSI and HSI status and associated college programs to recruit a diverse team of undergraduate and graduate researchers. Or, you might discuss how your team will collaboratively develop an inclusive field guide that addresses the safety needs of diverse researchers. Or, perhaps, you might discuss how your project will impact the local Harlem community and how you will engage community stakeholders. Note that each of these are specific actions that the team will take, not simply a statement of values the team shares.

Ok, so how does one come up with a set of appropriate activities to put in a PIER Plan? You might already be farther along than you think – read over the list of areas above and see if there are any existing activities your team engages in that you could highlight in your proposal. Existing institutional diversity, equity, inclusion, and accessibility (DEIA) policies and programs can even be referenced in your plan, as long as you elaborate on the direct connection between these elements and your project and how your team will leverage them. If DEIA topics are new to you, or if you want some reading materials with specific strategies for promoting DEIA, the DOE has put together a resource list of reading material on evidence-based practices for promoting equity and inclusion that is a great place to start your journey. Many funders are currently moving towards requiring similar statements, and it will benefit you greatly to become comfortable with writing these types of plans and the current DEIA in Higher Education landscape in the US. We have included a list at the end of this handout with some ideas for activities, but we encourage you to get creative! Dr. Jackie Lee Weissman (Assistant. Director of Proposal Development; jweissman@ccny.cuny.edu) is also happy to meet with you to help brainstorm or refine strategies.

How PIER Plans Are Assessed

Your PIER plan will be assessed as **part of the merit review** for your proposal, but it is ranked as having lower importance than the other elements of that review (after technical merit, appropriateness of methods, competency of personnel and adequacy of resources, and reasonableness of the proposed budget). This means that while a very good PIER cannot save a poorly-conceived scientific program, a very low-quality PIER could potentially sink an otherwise high-quality proposal. It is important to remember that these plans are being **reviewed by your peers** as part of the typical DOE proposal review process, not by DEI professionals. Note that the expectations for the complexity and detail of these plans should scale with the size of the project.

The following review criteria are provided by DOE. **We recommend you answer these questions explicitly in your plan to help guide your reviewers:**

- *Is the proposed Promoting Inclusive and Equitable Research (PIER) Plan suitable for the size and complexity of the proposed project and an integral component of the proposed project?*
- *To what extent is the PIER Plan likely to lead to participation of individuals from diverse backgrounds, including individuals historically underrepresented in the research community?*
- *What aspects of the PIER Plan are likely to contribute to the goal of creating and maintaining an equitable, inclusive, encouraging, and professional training and research environment and supporting a sense of belonging among project personnel?*
- *How does the proposed Plan include intentional mentorship and are the associated mentoring resources reasonable and appropriate?*

For example, you might begin a paragraph by writing “The proposed plan will promote the participation of individuals from historically underrepresented groups in the research community by….”, or “This plan benefits from the following mentoring resources available at CCNY…”.

The DOE notes that additional review criteria may be introduced as appropriate for each call, so make sure to read the language of your specific funding call carefully. They also suggest the following questions for research teams to consider when writing their PIER plans. In light of this, **we recommend you answer each of these questions explicitly in your plan:**

- *How do the activities proposed in the PIER Plan enhance the scientific and/or technical merit of the proposed research project?*
- *Are the proposed activities and strategies reasonable and appropriate for the project scope and project period?*

- *Does the proposed research project include a clear strategy for ensuring the safety of all participants, including those working in traditional workspaces (e.g., labs, offices), remote or isolated research environments, and/or atypical hours?*
- *Are the roles and responsibilities for implementing the PIER Plan equitable and understood by the applicant's key personnel on the project?*
- *Does the applicant and key personnel have demonstrated experience and competencies in carrying out the proposed scope of the PIER Plan that could be emphasized?*
- *How are the proposed activities and strategies leveraging institutional resources or resources available through scientific professional societies to support project personnel?*
- *Is the rationale for the proposed activities and strategies, and their potential contributions to promoting inclusion and equity within the research project, clearly described?*
- *Are timelines or milestones for proposed activities and strategies appropriate to allow for reasonable tracking of and reporting on progress?*

Examples of Activities and Strategies to Promote Equity and Inclusion

The following list is meant to spur some original ideas, not serve as a comprehensive list of all activities and strategies to promote equity and inclusion. This is a small sample of possibilities, and the DOE has noted they value innovative approaches, so we encourage you to think of your own (let us know and we will add them to the list of examples!).

The Composition of the Project Team

- Does your team interface with any university programs to increase the representation of marginalized groups in science?
- What strategies do the labs in your group use to recruit graduate researchers and postdocs?
    - Do you do any outreach to specific kinds of institutions (e.g., HBCUs, MSIs, HSIs)?
- Strategies for recruiting and training undergraduate researchers
    - For example, are there existing course-based undergraduate research experiences (CUREs) your team is associated with that can be used to recruit interested students?
    - City College Initiative to Promote Academic Success in STEM (CiPASS)
    - City College Academy for Professional Preparation
    - Louis Stokes Alliance for Minority Participation
    - Research and Innovation at City College
- Strategies for recruiting and training graduate researchers
    - GEM Fellowships
    - Graduate Research Training Initiative for Student Enhancement (G-RISE)

- Chemical Engineering GAANN program
- CREST Center for Interface Design and Engineered Assembly of Low Dimensional Systems (IDEALS)
- NOAA Center for Earth System Sciences and Remote Sensing Technologies (NOAA-CESSRST)

- How will you leverage CCNY's MSI and HSI status to build a diverse research team?
  - Include information about CCNY's undergraduate and graduate demographics
  - Potentially highlight CCNY's affordability and ranking as a school promoting a high degree of social mobility
- Partnering with other institutions of higher ed with less robust research programs
  - For example, other schools in the CUNY system, including community colleges (e.g., CSRP scholars)
- Some university guides recommend highlighting the specific identities of the PIs if they come from underrepresented groups in science. This element can be linked to a stronger story if you can articulate why your background(s) will help you build an equitable and inclusive research program.
- *Do not* rely on college-wide mission statements or planning documents to stand in for a project-specific plan, but you can tie elements of CCNY's strategic plan (specifically SP3) into the specific activities your team is planning.

The Research Environment

- What is the leadership structure of your team? How are responsibilities distributed? Could this be done more equitably?
  - For interdisciplinary teams, consider the Team Science Toolkit and other team science resources
- Developing a team code of conduct
  - Include group norms for discussion and guidelines for how meetings should be run
  - Are there specific mechanisms included to be sure all voices are heard?
- Developing an inclusive field safety guide
  - Providing additional safety gear, e.g., university-branded vests in case researchers are approached by members of the public/questioned
  - Contingency plans for incidents of bias and harassment (harassment may from members of public rather than team members)
  - Fieldwork planning guide
  - Field Code of Conduct
- Ways in which your team's work can be structured to be accessible for all researchers
  - Universal Design
  - CCNY AccessAbility Center

Implementation and Mentorship

- Tools for good mentorship
  - Statements of mutual expectations collaboratively developed with all trainees
  - Individual development plans that are regularly revised
  - SMART goals
  - Multiple mentor models
  - Asset-based mentor models
- Community engagement
  - Are there ways your work serves the local Harlem/NYC community?
  - Are there ways your work could be better communicated to community stakeholders?
  - Are there ways in which the involvement of community stakeholders in the research and proposal development process could benefit your research (it's a two-way street)?
- Interfacing with professional development resources at CCNY (e.g., to run workshops)
  - Career and Professional Development Institute
  - Writing Center
- Workforce development programs on-campus
  - Building Performance Lab
  - NOAA Center for Earth System Sciences and Remote Sensing Technologies (NOAA-CESSRST)
  - Charles B. Rangel Infrastructure Workforce Initiative

Glossary

The following definitions are copied verbatim from the DOE website. When writing your plan, please keep in mind that the DOE uses these definitions and that they may differ slightly from your own understanding of these terms.

Diversity: *Diversity describes an environment where unique talents and differences of all employees are recognized, respected and valued for professional and mission success. Diversity includes a broad spectrum of characteristics including, but not limited to, race, color, ethnicity, national origin, age, religion, culture, language, disability, sexual orientation, gender identity, socioeconomic status, family structure, geographic location, diversity of thought, technical expertise, and life experiences. Tapping into this broad spectrum of diversity will enable DOE to deliver on its mission to address energy, environmental, and nuclear challenges on behalf of the American people.*

Equity: *Equity is an approach that ensures everyone has access to the same opportunities and distribution of resources. It is a process, or collection of processes, that acknowledges uneven starting places and continues to correct and address the imbalance.*

Inclusion: *Inclusion is an outcome of intentional engagement in which all individuals and groups are treated fairly and respectfully, are welcome and supported, and are made to feel valued as being essential to the mission and success of the institution.*

Underrepresented: *Underrepresented is a relative term and it has no meaning without knowing the baseline comparison. It is a more inclusive term that incorporates demographic factors beyond gender, race, and ethnicity, such as disability or socioeconomic status. There are several different baselines that can be used to define "underrepresented" for a particular context. Depending on the focus or goals of an SC Program Office's effort, any of these might be appropriate:*

- *The National Science Foundation National Center for Science and Engineering Statistics data from the report on, which uses the U.S. population as a baseline for determining whether women, minorities, or persons with disabilities are Women, Minorities, and Persons with Disabilities in STEM underrepresented across STEM fields at various education and career stages.*
- *Department of Education National Center for Education Statistics data on the demographics of undergraduates by STEM degree at the time of graduation.*
- *The demographics of the U.S. population based on U.S. Census Data.*