



EPSCoR Update

FY 2022 RII Track-2

NSF 22-633

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Program Director

December 7, 2022

EPSCoR Background

NSF Statutory Charge:

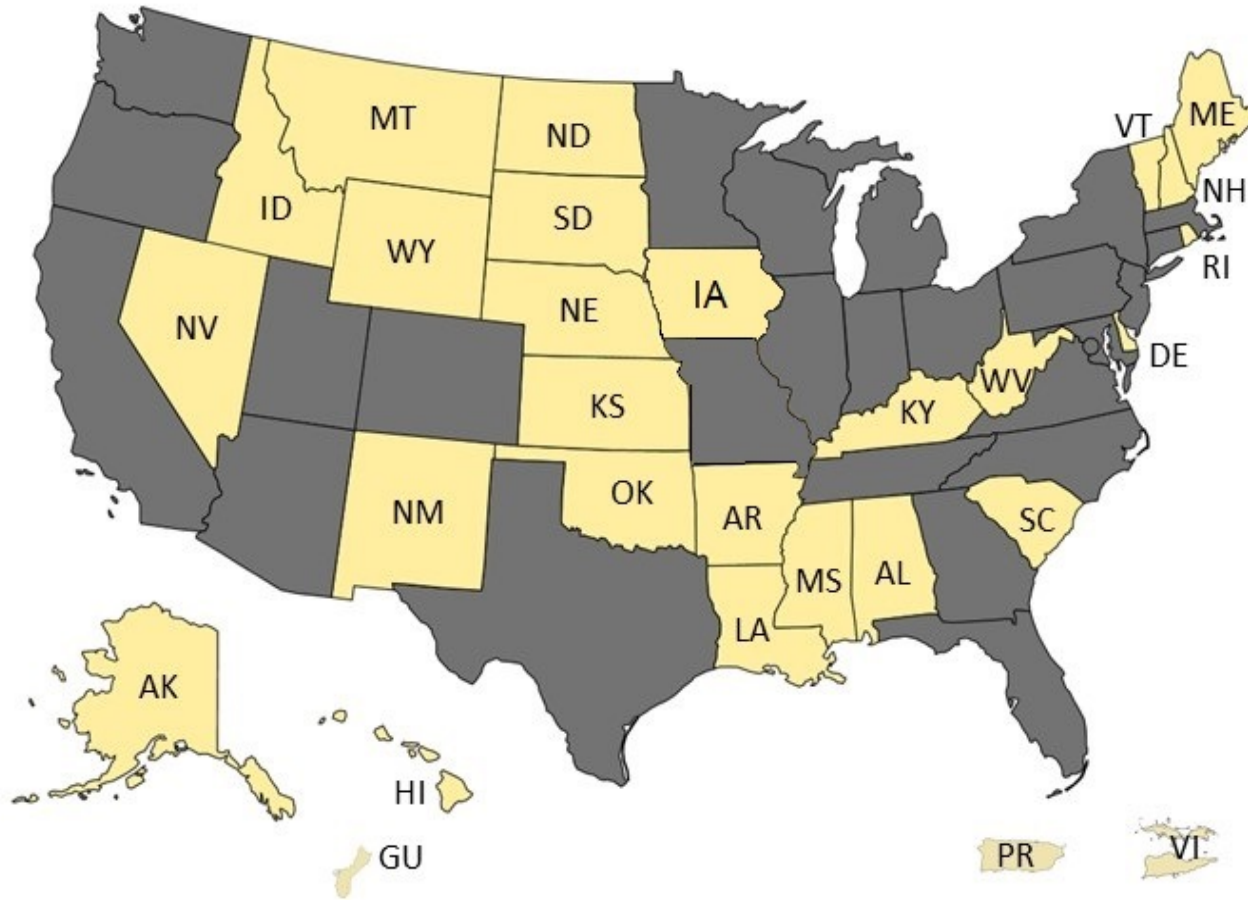
“to strengthen research and education in science and engineering throughout the United States and to avoid undue concentration of such research and education.”

- Established by NSB resolution in 1978
- States, Commonwealths, and Territories that receive $\leq 0.75\%$ of NSF research support
- Purpose: To build sustainable capacity of educational institutions in those states to compete more successfully in NSF and other research programs

A jurisdiction is eligible to participate in NSF EPSCoR if their most recent 5-year level of total NSF funding is equal to or less than 0.75% of the total NSF budget. Jurisdictions above 0.75% but less than 0.80% are allowed to remain EPSCoR-eligible for up to 5 years.

State	FY17 Total	FY18 Total	FY19 Total	FY20 Total	FY21 Total	2017-2021 Total	EPSCoR Total	Federal Total	Adjusted \$	% of Total \$
(Drill to Inst)	Amt \$k	Amt \$k	Amt \$k	Amt \$k	Amt \$k	Amt \$k	Amt \$k		Amt \$k	
Grand Total	\$7,016,546	\$7,457,851	\$7,734,408	\$7,799,302	\$8,169,835	\$38,177,942	\$693,376	\$785,955	\$36,698,61	100.00%
Other	\$18,894	\$23,354	\$27,131	\$21,735	\$22,869	\$113,983	-	-	-	-
US Total	\$6,997,652	\$7,434,497	\$7,707,277	\$7,777,567	\$8,146,966	\$38,063,959	\$693,376	\$785,955	\$36,698,61	100.00%
Guam	\$2,516	-	\$1,210	\$4,490	\$5,457	\$13,673	\$10,709	-	\$2,964	0.01%
Virgin Islands	\$5,109	\$6,304	\$2,922	\$8,149	\$8,842	\$31,326	\$17,935	-	\$13,391	0.04%
Vermont	\$15,665	\$19,389	\$6,118	\$17,360	\$12,103	\$70,635	\$22,881	-	\$47,754	0.13%
South Dakota	\$14,822	\$15,021	\$20,290	\$19,570	\$16,323	\$86,026	\$36,798	-	\$49,228	0.13%
North Dakota	\$13,434	\$16,051	\$8,671	\$19,927	\$25,074	\$83,157	\$23,797	-	\$59,360	0.16%
West Virginia	\$14,347	\$15,959	\$15,125	\$17,222	\$19,917	\$82,570	\$19,186	\$695	\$62,689	0.17%
Puerto Rico	\$10,285	\$19,488	\$19,355	\$23,623	\$18,977	\$91,728	\$15,301	-	\$76,427	0.21%
Wyoming	\$13,344	\$17,068	\$28,525	\$26,333	\$17,722	\$102,992	\$20,889	-	\$82,103	0.22%
Mississippi	\$20,946	\$21,791	\$24,514	\$19,826	\$31,258	\$118,335	\$20,286	\$1,159	\$96,890	0.26%
Maine	\$22,314	\$33,440	\$25,013	\$29,236	\$26,074	\$136,077	\$38,481	-	\$97,596	0.27%
Idaho	\$24,701	\$24,745	\$30,765	\$25,426	\$34,790	\$140,427	\$38,733	-	\$101,694	0.28%
Arkansas	\$15,411	\$28,979	\$19,720	\$27,031	\$33,841	\$124,982	\$22,699	-	\$102,283	0.28%
Nevada	\$18,375	\$22,091	\$25,951	\$26,783	\$29,940	\$123,140	\$7,419	-	\$115,721	0.32%
Kentucky	\$30,048	\$32,887	\$32,034	\$41,422	\$38,574	\$174,965	\$29,670	-	\$145,295	0.40%
Nebraska	\$37,926	\$34,167	\$41,761	\$25,166	\$39,216	\$178,236	\$31,976	-	\$146,260	0.40%
Montana	\$31,780	\$30,567	\$31,487	\$38,541	\$39,671	\$172,046	\$22,762	-	\$149,284	0.41%
Oklahoma	\$40,468	\$24,624	\$31,122	\$37,208	\$41,665	\$175,087	\$18,309	\$2,701	\$154,077	0.42%
New Hampshire	\$40,038	\$38,751	\$41,947	\$42,904	\$33,275	\$196,915	\$30,330	\$4,754	\$161,831	0.44%
Delaware	\$25,204	\$36,652	\$41,135	\$44,312	\$46,509	\$193,812	\$24,291	-	\$169,521	0.46%
Kansas	\$41,596	\$41,173	\$37,956	\$44,239	\$40,410	\$205,374	\$34,930	-	\$170,444	0.46%
Louisiana	\$36,916	\$42,513	\$39,207	\$46,391	\$62,140	\$227,167	\$34,770	-	\$192,397	0.52%
South Carolina	\$75,564	\$64,019	\$67,592	\$55,752	\$68,959	\$331,886	\$35,468	\$83,943	\$212,475	0.58%
Hawaii	\$45,167	\$45,314	\$54,175	\$49,016	\$57,273	\$250,945	\$19,112	-	\$231,833	0.63%
Rhode Island	\$49,387	\$43,605	\$56,491	\$51,046	\$60,554	\$261,083	\$28,684	-	\$232,399	0.63%
New Mexico	\$51,704	\$46,030	\$45,758	\$59,651	\$55,250	\$258,393	\$23,853	\$1,907	\$232,633	0.63%
Alaska	\$46,325	\$45,032	\$62,202	\$61,168	\$56,053	\$270,780	\$23,697	-	\$247,083	0.67%
Iowa	\$47,675	\$50,677	\$45,637	\$51,742	\$57,905	\$253,636	\$1,288	-	\$252,348	0.69%
Alabama	\$51,155	\$60,140	\$58,987	\$69,095	\$63,484	\$302,861	\$31,122	-	\$271,739	0.74%

EPSCoR Map



States

AL Alabama

AK Alaska

AR Arkansas

DE Delaware

HI Hawaii

IA Iowa

ID Idaho

KS Kansas

KY Kentucky

LA Louisiana

ME Maine

MS Mississippi

MT Montana

NE Nebraska

NH New Hampshire

NM New Mexico

ND North Dakota

NV Nevada

OK Oklahoma

RI Rhode Island

SC South Carolina

SD South Dakota

VT Vermont

WV West Virginia

WY Wyoming

Other

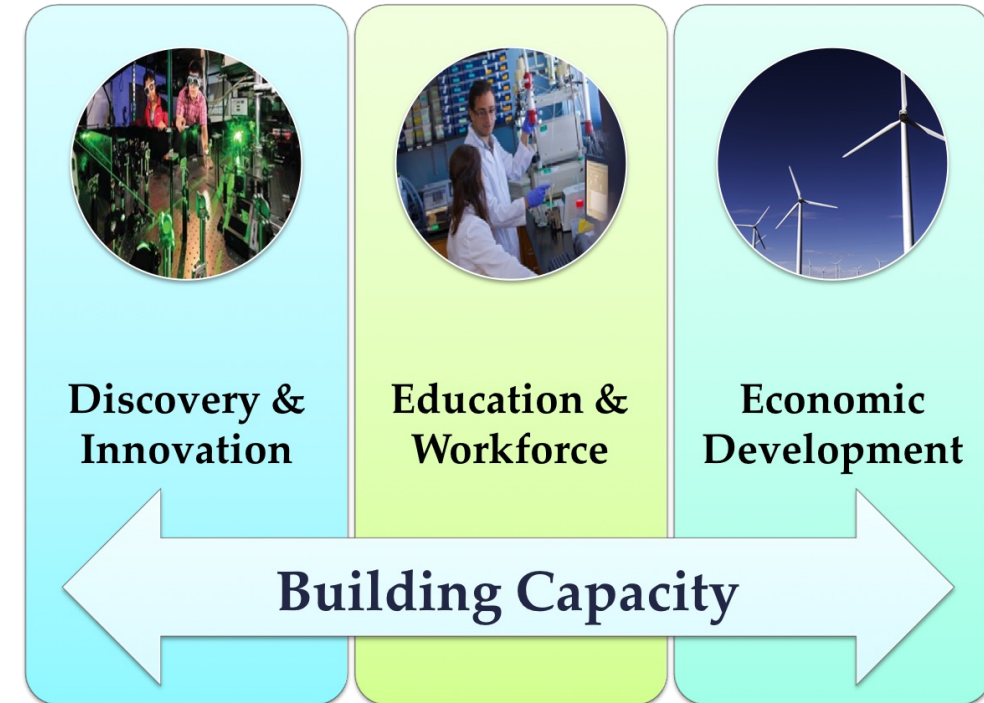
GU Guam

PR Puerto Rico

VI U.S. Virgin Islands

EPSCoR Strategic Goals

- Catalyze the development of research capabilities and the creation of new knowledge that expands jurisdictions' contributions to scientific discovery, innovation, learning, and knowledge-based prosperity
- Establish sustainable STEM education, training, and professional development pathways that advance jurisdiction-identified research areas and workforce development
- Broaden direct participation of diverse individuals, institutions, and organizations in the project's science and engineering research and education initiatives
- Effect sustainable engagement of project participants and partners, the jurisdiction, the national research community, and the general public through data-sharing, communication, outreach, and dissemination
- Impact research, education, and economic development beyond the project at academic, government, and private sector levels.





NSF EPSCoR Investment Strategies

- **Research Infrastructure Improvement (RII) (83% of budget)**
Awards to support physical, human, and cyber infrastructure within academic institutions across the state
 - RII Track-1: Statewide partnerships (jurisdictional)
 - RII Track-2: Focused EPSCoR Collaborations (institutional)
 - RII Track-4: EPSCoR Research Fellows (institutional)
- **Co-Funding with NSF Directorates and Offices (16% of budget)**
- **Outreach and Workshops (1% of budget)**



NSF EPSCoR RII Track-2

- Builds research capacity through interjurisdictional collaborative teams in focus area(s) aligned with NSF-wide priorities
- Combines expertise distributed in different EPSCoR jurisdictions into a “critical mass” capable of productive research and related activities in the focus area
- Exemplifies diversity through strategic, broad inclusion and meaningful integration of different types of individuals, institutions, and sectors
- Develops diverse early-career faculty
- Promotes productive, balanced collaborations that are capable of sustained activities beyond the award period

Solicitation: *“Central to the success of the proposal is a clear demonstration that the collaboration is well-positioned to produce outcomes that cannot be obtained through the efforts of a team in a single jurisdiction working alone.”*



NSF EPSCoR RII Track-2

To ensure maximum impact of available programmatic funds, requests for RII Track-2 FEC funding must:

- Add to the research capacity of the participating jurisdictions in the designated focus area;
- Contribute to the advancement of research and innovation in the proposal's focus area;
- Illustrate how the participating jurisdictions' research capacities will be positively impacted;
- Outline clear plans for the recruitment and/or development of early-career faculty who are underrepresented in the chosen STEM field;
- Engage the full diversity of the participating jurisdictions' resources including two- and four-year colleges, MSIs, and local and state industry in STEM workforce development;
- Engage and collaborate with social and economic scientists to understand and assess the societal implications;
- Present a detailed plan to demonstrate the potential for economic impact of the endeavor and present a sustainability plan for obtaining subsequent, sustained non-EPSCoR funding from federal, jurisdictional, or private sector sources.



Track-2 Solicitation-Specific Elements – Merit Review Criteria Section

Solicitation: “Intellectual Merit: The **Intellectual Merit** criterion encompasses the potential to advance knowledge; and Broader Impacts: The **Broader Impacts** criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes:”

Solicitation: “Reviewers for the RII Track-2 FEC competition will also consider the following specific aspects of intellectual merit and broader impacts, as applicable:”

- **Research Capacity** – potential to advance STEM fields, research competitiveness and capacity of the jurisdictions (including physical, cyber, and human resources)
- **Interjurisdictional Collaboration** – balanced collaboration?
- **Workforce Development** – recruit/develop diverse early career faculty, and create a diverse workforce relevant to the jurisdiction and industry
- **Jurisdictional Impacts** – sustainable research, innovation, and workforce preparation, education capacity, economic development
- **Integration of Project Elements** – cohesive project (all aspects well integrated?), effective coordination, evaluation, sustainability



Major Changes from FY22

The NEW Solicitation
NSF 22-633

EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations (RII Track-2 FEC)

PROGRAM SOLICITATION
NSF 22-633

REPLACES DOCUMENT(S):
NSF 22-523



National Science Foundation
Office of Integrative Activities

Letter of Intent Due Date(s) (required) (due by 5 p.m. submitter's local time):

December 20, 2022

Third Tuesday in December, Annually Thereafter

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

January 24, 2023

Fourth Tuesday in January, Annually Thereafter

IMPORTANT INFORMATION AND REVISION NOTES

Only jurisdictions that meet the EPSCoR [eligibility](#) criteria may submit proposals to the Research Infrastructure Improvement Program Track-2 (RII Track-2 FEC) competition.

- The topical focus area for the FY 2023/2024 competition is: "advancing climate change research and resilience capacity to expand opportunities for disproportionately affected communities."
- Proposals for the FY 2023/2024 competition may be submitted either as (i) a collaborative proposal from multiple organizations or (ii) a collaborative proposal from one organization with support for non-lead collaborating organizations requested as subawards.
- Each submitting organization may serve as lead on only one proposal. However, an organization may serve as a non-lead in a collaborative submission or subawardee on any number of additional proposals.
- Each submission must have at least two collaborators (specifically as PI or co-PI) who are from an organization in a different eligible EPSCoR jurisdiction.
- An investigator may serve as Principal Investigator (PI) or Co-PI on only one RII Track-2 FEC award at any given time. However, the investigator may serve as Senior Personnel on any number of RII Track-2 FEC submissions or awards.



Key Proposal Preparation Changes or Clarifications

- New Theme!!!! This Solicitation and Theme is good for TWO Years!
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“advancing climate change research
and resilience capacity to expand
opportunities for disproportionately
affected communities.”

New Topic



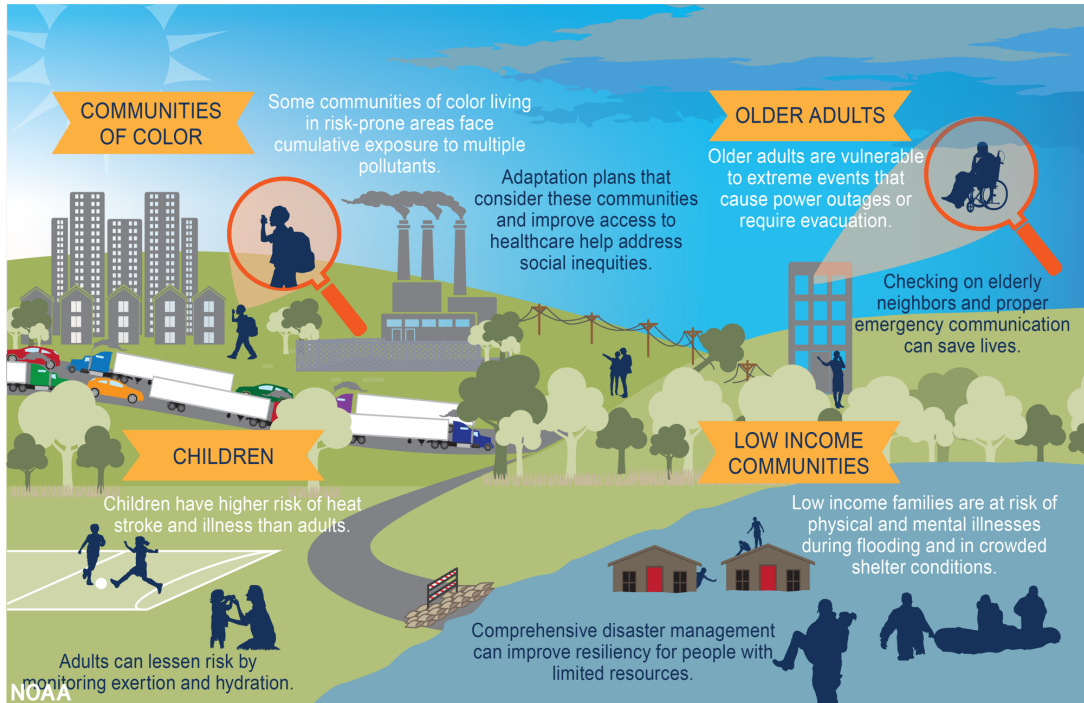
Theme

- Climate change
 - Build capacity in Climate Change Research and Resiliency
 - Must include Communities that are Disproportionately Affected by Climate Change.



<https://www.nsf.gov/pubs/2022/nsf22068/nsf22068.pdf>

Ex: Health Impacts



NOAA

Research Areas for Climate Change



- [Air Quality](#)
- [Climate Change Tools to Protect Public Health and the Environment](#)
- [Community Resilience](#)
- [Ecosystems](#)
- [Energy Transformation and Climate Change Research](#)
- [Human Health](#)
- [Water Quality](#)
- [Wildland Fires](#)

EPA

Environmental and
Energy Study Institute

Topics

Adaptation and Resilience
Agriculture and Forestry
Bioenergy
Buildings and Infrastructure
Climate Change
Climate Diplomacy
Climate Finance
Conservation
Electrification
Energy Efficiency
Energy Transmission and Storage
Environmental Justice
Fossil Fuels
Hydrogen and Fuel Cells
Industry and Manufacturing
National Security and Energy Independence
Nuclear Energy
Public Health
Renewable Energy
Rural Development
Transportation
Waste Management and Recycling
Workforce



To be successful, projects must:

- **Have a clear focus on Broadening Participation**
 - seeks to create a significant and collective impact on targeted jurisdictions by advancing the quality of life of disproportionately affected populations and thus enhancing jurisdictions' awareness of the socio-economic impact of climate change.
- **Have clear focus on Social Perspectives**
 - It is expected that projects include components that address understanding and assessing any specific disruptive impacts of the research for the betterment of these populations.
 - The development of innovative educational plans to prepare a skilled technical workforce, at all levels, to adapt to and understand climate change and climate resiliency and the social and economic impacts on the jurisdiction(s).
- **Retain a focus on developing early career faculty**



Key Proposal Preparation Changes or Clarifications

- Important Thoughts....
 - Workforce Development
 - develop a workforce that can integrate, as appropriate
 - provide trainees with skills to work easily across disciplinary and other perceived boundaries and to interface with stakeholders such as academe, industry, government, and the general public
 - provide early career faculty mentoring and training
 - Evaluation and Assessment Plan
 - aid in the identification of outcomes and impacts of the project's goals and objectives as well as a tool for providing effective feedback to the management team

Solicitation: *"An independent expert evaluator must provide annual evaluation and assessment of the project. In addition, quantitative collection is required as part of the centralized project output data collection (see below) and should be used in concert with any additional quantitative or qualitative data collected by the required independent evaluator."*



Key Proposal Preparation Changes or Clarifications

- Management and Implementation
 - Management Plan includes the roles and responsibilities of key personnel, how the PI and co-PIs plan on communicating and coordinating with each other and the project team, how project output and data-collection will be integrated into evaluation mechanisms as described above, and how the project's administrative requirements will be managed across all areas.
 - If funded administrative staff are included, how are they expected to support the project on a full- or part-time basis.
 - Implementation Plan outlines how this project will bring together previous documented research outcomes and build on them through the proposal
 - Research is coordinated across jurisdictions to meet the needs of the target industry and relevant jurisdiction(s) for eventual implementation

Letters of Commitment

- Maximum of five Letters of Support of two pages or less may be included
- NO Letters of Collaboration

Solicitation: *“No Letters of Collaboration should be included for both the established and new collaborations included in this project, as the role and extent of involvement should be clearly outlined in the Project Description. However, up to a maximum of five Letters of Commitment of two pages or less from other partners or jurisdictional officials may be included to support commitment that will be relied upon beyond the collaboration among the core project investigators.”*



Key Dates

Letter of Intent

December 20, 2022

Final Proposal

January 24, 2023

Office Hours:

Dec 14, 2022 03:00 PM EST

Dec 15, 2022 03:00 PM EST

Dec 15, 2022 02:00 PM EST- MSIs

Questions and Contact Information

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