NSF Established Program to Stimulate Competitive Research

NSF EPSCoR
ADVANCING GEOGRAPHIC DIVERSITY IN STEM

Leveraging EPSCoR Funding Opportunities

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EPSCoR Quiz Q1 - A state or territory (called jurisdiction) is NSF EPSCoR-eligible if its most recent five-year level of total NSF funding is equal to or less than ___% of the total NSF budget (excluding EPSCoR funding and NSF funding to other federal agencies).

a) ~10%
b) ~5%
c) ~1%
d) ~.75%
e) ~0.50%

Per the CHIPS and Science Act of 2022, EPSCoR eligibility is frozen until 2027.

EPSCoR Quiz Q2: Which U.S state below is not an EPSCoR jurisdiction?

a) Alabama
b) Georgia
c) Nevada
d) New Hampshire
e) Vermont

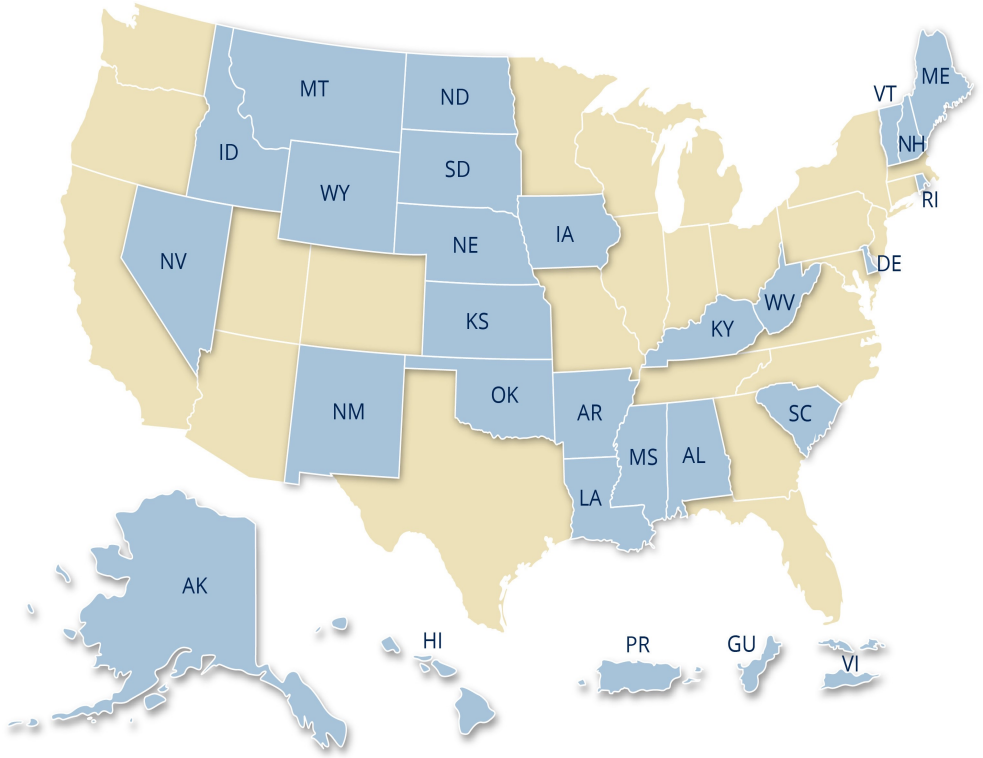
EPSCoR Quiz Q3: How many U.S. states and territories (called jurisdictions) are considered EPSCoR eligible?

a) 5

b) 15

c) 28

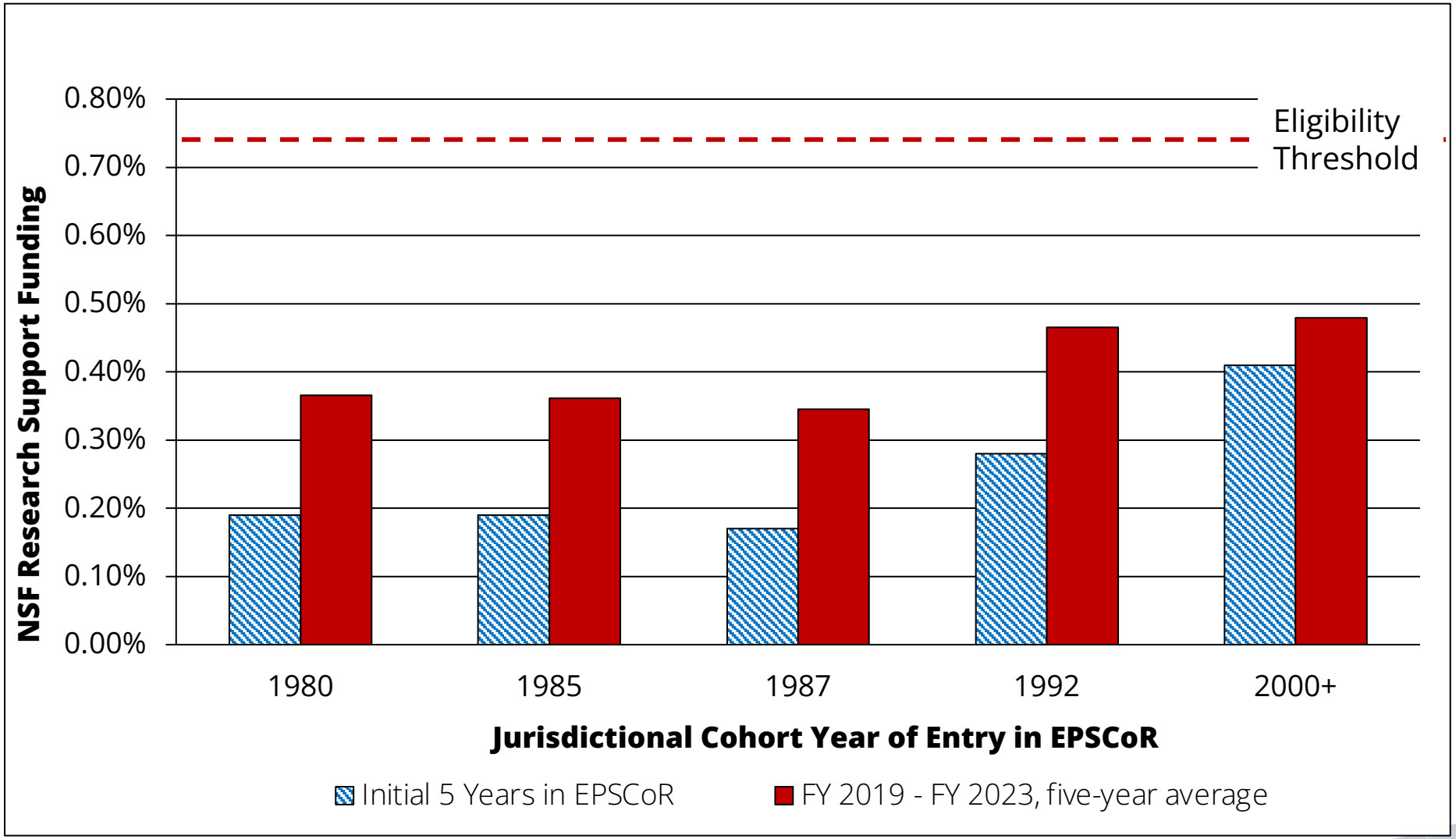
d) 36



AL Alabama
AK Alaska
AR Arkansas
DE Delaware
GU Guam
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
PR Puerto Rico
RI Rhode Island
SC South Carolina
SD South Dakota
VI U.S. Virgin Islands
VT Vermont
WV West Virginia
WY Wyoming

A jurisdiction is eligible to participate in NSF's EPSCoR program if their most recent five-year level of total NSF funding is equal to or less than 0.75% of the total NSF budget (excluding EPSCoR funding and NSF funding to other federal agencies).

Percentage of NSF Research Support Funding by EPSCoR Cohort




NSF EPSCoR in
CONTEXT

NSF EPSCoR: What We Do (nsf.gov/epscor)

Mission

To enhance research competitiveness of targeted states and territories by strengthening STEM capacity and capability

Goals

- Catalyze research capability across and among jurisdictions
- Establish STEM professional development pathways
- Broaden participation of diverse groups and institutions in STEM
- Effect engagement in STEM at national and global levels
- Impact jurisdictional economic development

EPSCoR Program Investment Strategies

Research Infrastructure Improvement (RII) Programs (78-84% of budget)

Support physical, human, and cyber infrastructure within academic institutions across each jurisdiction

Co-Funding with NSF Directorates & Offices

(16-22% of budget)

Meritorious proposals reviewed in other NSF programs that also satisfy EPSCoR programmatic criteria

Outreach and Engagement

(0.5-1% of budget)

Interaction among EPSCoR Community and NSF to build mutual awareness and develop areas of potential strength

EPSCoR Quiz Q4: The EPSCoR budget represents what % (approximately) of NSF's annual budget?

a) 90%

b) 20%

c) 12%

d) 2%

Research Infrastructure Improvement

- **Track-1** (up to $20M over 5 years; Archived in FY24)
  - Statewide research capacity in alignment with specific priorities described in Science & Technology Plan
- **Focused EPSCoR Collaborations** (up to $1.5M per year for up to 4 years)
  - Builds interjurisdictional research collaborations in focus areas consistent with NSF priority program investments and high-priority national challenges
  - New solicitation (NSF 24-573) and DCL (NSF 24-091) released in May 2024
  - Theme chosen by NSF EPSCoR to align with Foundation-wide priority areas
    - FY25-26 Theme: Building capacity towards conducting use-inspired research
- **EPSCoR Research Fellows** (new in FY17; up to $300k over 2 years)
  - Fellowships for Assistant, Associate Professors, or Research faculty to have extended research visits to premier private, governmental, or academic institutions in the U.S.
  - NSF 24-528

Research Infrastructure Improvement (NSF 24-528)

EPSCoR Research Fellows (new in FY17; up to $300k over 2 years)

- Provides opportunities for early and mid-career investigators to further develop their individual research potential through extended collaborative visits to U.S. private, governmental, or academic research centers.
- Special partnership with NASA EPSCoR

- Fellows will be able to:
  - learn new techniques
  - benefit from access to state-of-the-art equipment and facilities
  - strengthen collaborative partnership and extend their research toward transformative directions

- Experiences gained through fellowships are intended to enhance the research capacities of the Fellows' institutions and jurisdictions.

Two New EPSCoR RII Programs: E-RISE RII & E-CORE RII

EPSCoR Research Incubators for STEM Excellence (E-RISE) RII Program (NSF 23-588; up to $8M over 4 years, plus renewal opportunity)	**EPSCoR Collaborations for Optimizing Research Ecosystems (E-CORE) RII Program (NSF 23-587, up to $8M over 4 years, plus renewal opportunity)**
E-RISE builds a jurisdiction-wide network of teams of researchers that incubate research in a STEM topical area aligned with priority areas for jurisdiction. Includes network of individuals, institutions, and organizations to develop high-quality research that can be leveraged for post-EPSCoR funding Cultivates a skilled workforce for the jurisdiction and keeps STEM talent in the jurisdiction	**E-CORE** supports capacity building for development, enhancement, and/or sustainability of jurisdiction-wide research infrastructure and pathways to broaden participation in the jurisdiction's research ecosystem via: • Academic infrastructure & research facilities • Higher education pathways • STEM education (K-16) pathways • Broadening participation • Workforce development • National & global partnerships • Early career research trainee pathways • Economic development • Other core(s)

SHORT-TERM EPSCoR Outcome Indicators	MID-TERM EPSCoR OUTCOME INDICATORS	LONG-TERM EPSCoR OUTCOME INDICATORS
EPSCoR GOAL #1: Catalyze research capability across and among jurisdictions		
• Increased jurisdictional proposals/awards • Citation rates increase • Patents awarded/cited • Increased collaboration nationally and internationally	• Increased jurisdictional proposals/awards (NSF) • Increased federal research funding across jurisdictions • State science, technology and innovation (STI) policy for competitiveness • Increased grant/foundation funding, proposal awards • More highly cited articles • Human capital base (proportion of population with advanced degrees) • Leadership in knowledge production • Increases in magnitude	• Increased jurisdictional proposals/awards (NSF) • Location preference for major national investments • Increased federal research funding across jurisdictions • Increased grant/foundation funding, proposal awards • Broader awareness of quality S&T workforce • Jurisdiction ranking in STEM degrees granted (BS, MS, PhD) • Globally recognized research centers and degree programs • State ranking in grant/foundation funding • New/sustained National Research Council (NRC) members • New/sustained Association of American Universities (AAU) members
EPSCoR GOAL #2: Establish STEM professional development pathways		
• Increased engagement of students in research knowledge production	• Increased STEM degrees • STEM graduates hired in-state in research/technology orgs	• Increased STEM degrees • Higher quality S&T student/faculty and workforce • Institutional/faculty awards • Raised awareness of community institutions • Improved network position of faculty researchers
EPSCoR GOAL #3: Broaden participation of diverse groups/institutions in STEM		
• Higher quality new/diverse faculty, students produced/attracted	• Scholarships/fellowships awarded/attracted • Increased interest/efficacy in STEM for women and URM students • Higher quality S&T student body/faculty/workforce • Increased number of star scientists • Increased retention rates for students and faculty • Improved racial and gender equality • Increased interest/efficacy in STEM among female and URM students • Increased STEM faculty retention/satisfaction/perceived QOL	• Improved racial, gender equality in state law, business, government, universities • Improved research culture
EPSCoR GOAL #4: Effect engagement in STEM at national and global levels		
• STEM graduate school acceptance/enrollment	• STEM graduation rates • REU participation • Greater political support for higher education • Increased retention rates for students and faculty	• Improved STEM pipeline in jurisdictions • Carnegie ranking status across jurisdictions increase • STEM graduation rates • REU participation • Increased proportion of state institutions attracting new high-quality faculty and students • Higher education level of population in jurisdictions
EPSCoR GOAL #5: Impact jurisdictional economic development		
• New partnerships, including stakeholders • Increased university/college engagement with industry	• Degree-relevant job acquisition • Increased industry investment in university equipment and facilities • Active role of STI organization in facilitating university/institution (U/I) interaction and outcomes • Research dollars awarded, including center awards, multi-institutional awards and high-profile awards • Public support of universities/public understanding of science • Increases in federal and industry research funding • Clear leadership role of STI organization in facilitating (U/I) interaction and outcomes • Carnegie ranking representations • New/proposed policies supporting STEM and academic research • Expansion of broadband access	• Higher education level of population/demographics • Improved tech transfer offices/translation/transfer efficiency • Stable/increased budgets for ed., research, univ. facilities • Growth of technology clusters • New products/processes • Alignment of state S&T plan to reinforce U/I synergies • New businesses, S&T services • Long-term R&D ties with industry • Accelerated innovation and commercialization cycles • STI firm intensity • University spinoffs • Venture capital investment • Industry shift to knowledge, sci intensive, high tech • Improved economic productivity/stability

EPSCoR Provisions in CHIPS and Science Act of 2022

Key NSF EPSCoR Highlights from CHIPS & Science Act

(SEC. 10325: EXPANDING GEOGRAPHIC AND INSTITUTIONAL DIVERSITY IN RESEARCH)

- **Target 1**: Authorization of a gradual increase in funding for institutions in EPSCoR jurisdictions.

FY23	FY24	FY25	FY26	FY27	FY28	FY29
15.5%	16%	16.5%	17%	18%	19%	20%

- **Target 2**: Authorization of a gradual increase in funding of scholarships, graduate fellowships and traineeships, and postdoctoral awards to support EPSCoR institutions.

FY23	FY24	FY25	FY26	FY27	FY28	FY29
16%	18%	20%	20%	20%	20%	20%

Key NSF EPSCoR Highlights from CHIPS & Science Act

(SEC. 10325: EXPANDING GEOGRAPHIC AND INSTITUTIONAL DIVERSITY IN RESEARCH)

Consideration: Prioritize funding and activities that enable sustainable growth in the competitiveness of EPSCoR jurisdictions, including—

(i) infrastructure investments to build research capacity in EPSCoR jurisdictions;

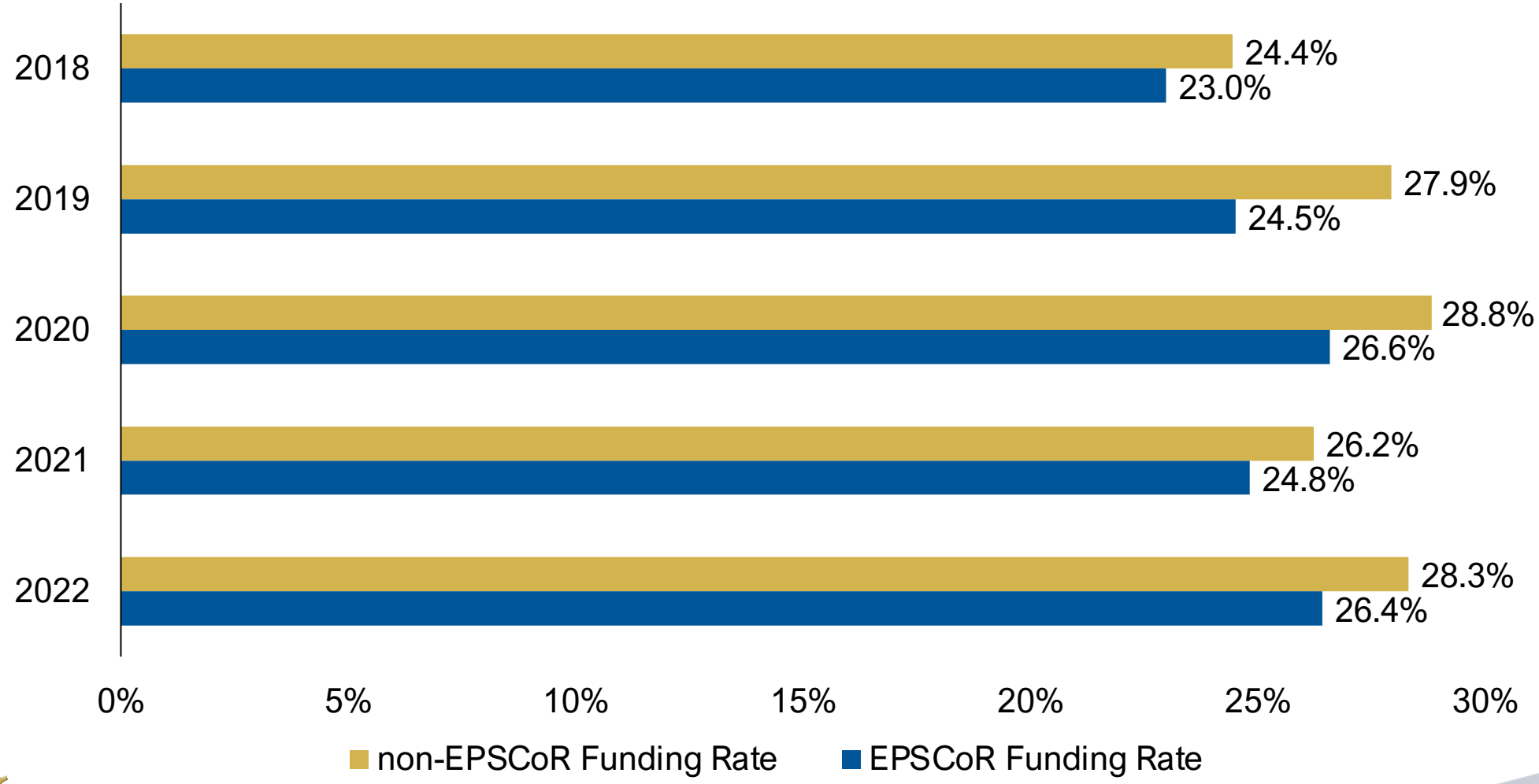
(ii) scholarships, fellowships, and traineeships within new and existing programs, to promote the development of sustainable research and academic personnel;

(iii) partnerships between eligible organizations in EPSCoR and non-EPSCoR jurisdictions, to develop administrative, grant management, and proposal writing capabilities in EPSCoR jurisdictions;

(iv) capacity building activities for ERIs, HBCUs, TCUs, and MSIs; and

(v) building sustainable innovation ecosystems in EPSCoR jurisdictions

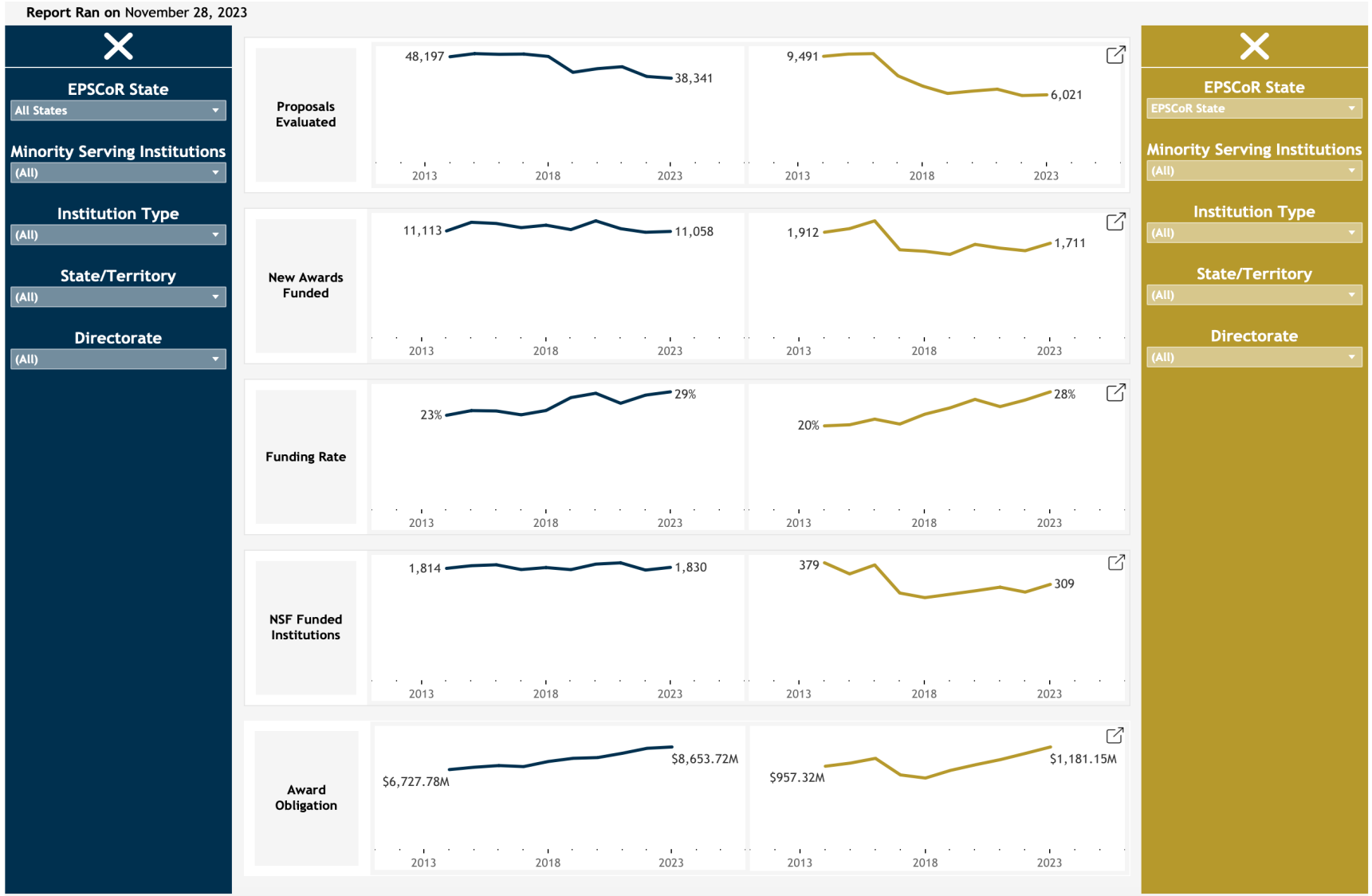
Funding Rates in EPSCoR jurisdictions lag only slightly compared to those in non-EPSCoR jurisdictions.



Data from NSF by the Numbers, accessed 8/29/23.
Funding rate calculated as # Awards / # Proposals.

NSF and EPSCoR Funding Trends (FY13 – FY23)

NSF Totals



All EPSCoR Jurisdictions


RESOURCES
CONTEXT

EPSCoR RII Program Resources

- nsf.gov/epscor
- Dear Colleague Letter: NSF 23-147
- FAQs: NSF 23-148
- Multiple live webinars: recordings at nsf.gov/epscor
- Recurring office hours
- Planning proposals
- Supplements
- EPSCoR Workshop Mechanism
- Exploring EPSCoR Ecosystem Workshop (4 separate sessions spanning April – June)
- EPSCoR Live! Sessions
  - Designing the Administrative Core of an E-CORE submission (July 17)

NSF Resources

- NSF Webpage: **NSF.gov**
- NSF Staff Directory: **www.nsf.gov/staff/**
- Search for NSF Funding Opportunities: **beta.nsf.gov/funding/opportunities**
- NSF Toolkit: **www.nsf.gov/about/congress/toolkit.jsp**
- Customizable NSF Alerts: **service.govdelivery.com/accounts/USNSF/subscriber/new**
- More about NSF's Merit Review Process: **nsf.gov/bfa/dias/policy/merit_review/**
- NSF Advisory Committees: **www.nsf.gov/about/performance/dir_advisory.jsp**
  - **Annual Call for Nominations via the Federal Register - April**
- Send us your ideas: ProSPCT: Program Suitability & Proposal Concept Tool: **suitability.nsf.gov**

Key Opportunities for EPSCoR Engagement

- **Participate in EPSCoR Stakeholder Meetings**
  - Annual PI Meeting @NSF (annually in May)
  - NSF EPSCoR National Conference – Omaha, NE (Oct. 13-16, 2024)
  - EPSCoR Institutional Development Award (IDeA) Foundation Annual Meeting (and signup for EPSCoR IDeA newsletter here)

- **Collaborate with NSF EPSCoR**
  - Explore activities to build pathways for EPSCoR PI participation in Directorate funding opportunities (specific interest in academic research infrastructure needs and Center-scale activity participation)
  - Participate in EPSCoR distinguished lecture series (quarterly)

Opportunities for EPSCoR Engagement

Collaborate with NSF EPSCoR

- Explore EPSCoR RII and other NSF funding opportunities
- Respond to EPSCoR-specific Dear Colleague Letters
- Consider NSF rotator opportunities
- Participate in EPSCoR office hours (monthly), distinguished lecture series (quarterly), webinars (ongoing), etc.