



Broadening Participation Funding Opportunities

Division of Chemistry Mathematical and Physical Sciences Directorate

NSF CHE Office Hours, Nov. 16, 2023
CHE Broadening Participation Working Group

Division of Chemistry (CHE)

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NSF Merit Review Criteria

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

Broadening Participation (BP) is one type of Broader Impacts (BI).

It is NOT required unless specified in a particular solicitation.

Some solicitations, have specific, unique BP requirements, such as Centers, LEAPS, Ascend, MRI. *Read the solicitations carefully.*

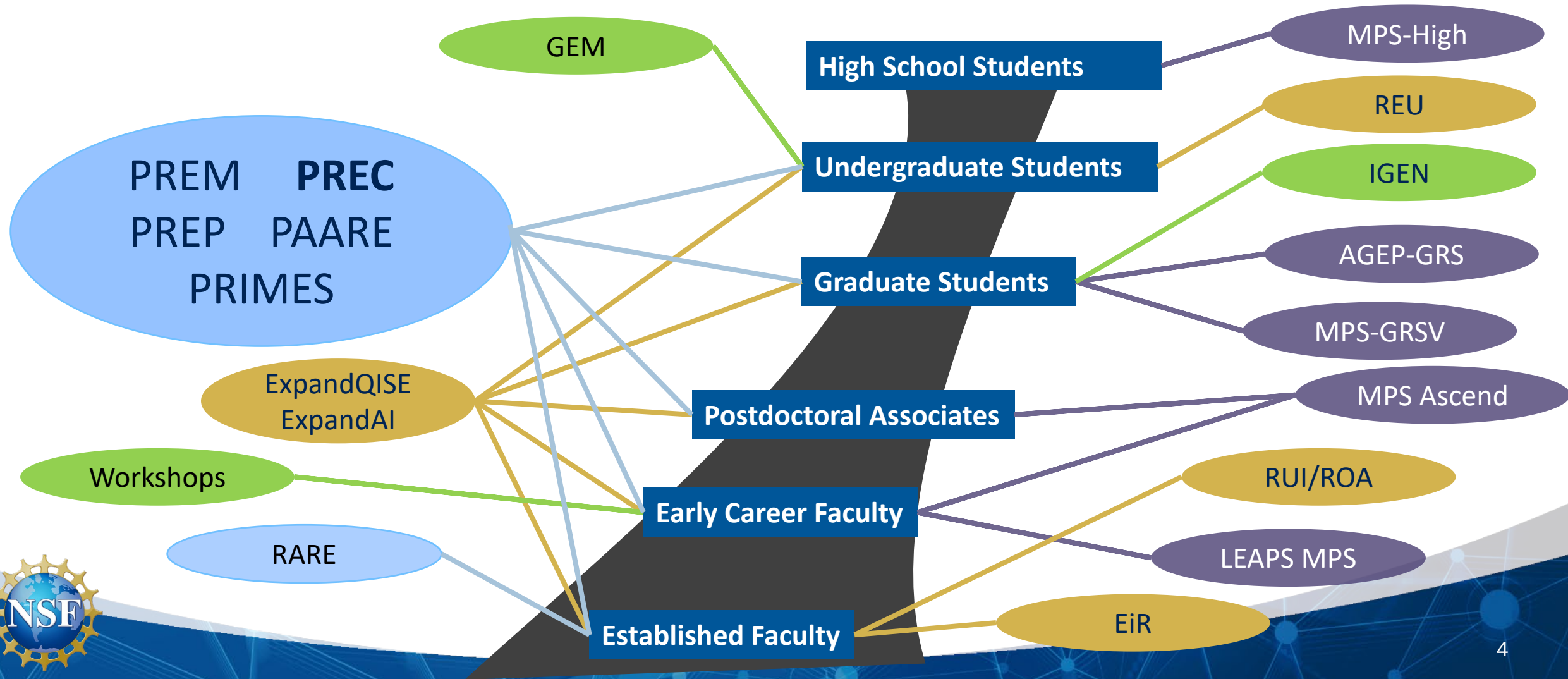
But BP is an area of high interest for NSF, CHE, Reviewers and PIs.

BP can be embedded in any proposal or program.

*The focus of this office hour on specific mechanisms and programs
for you to use to expand on BP.*



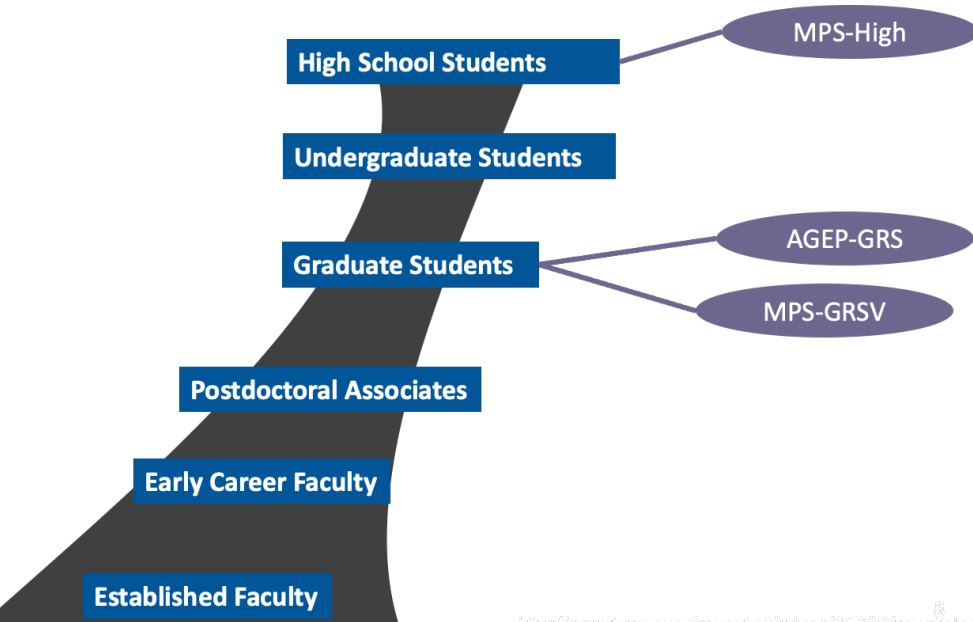
CHE invests in people throughout the STEM pathway via **DIV**-specific, **MPS**-wide, **NSF**-wide, and **partnership/funded** activities



Targeted Support through Supplements to Existing MPS Awards



Supplements for Student Support on MPS/CHE Awards



High School Student Research Assistantships (MPS-HIGH):

Support for up to **two high school students** (DCL: **NSF 22-041**) to foster interest in pursuing studies in MPS and to broaden participation with an emphasis on those traditionally underrepresented and underserved.

AGEP: Alliances for Graduate Education and the Professoriate -

Support for **one additional Ph.D. student per award** with an *emphasis* on increasing the involvement of members of underrepresented groups -- a key goal of the AGEP Program. The PI must be affiliated with an institution participating in an active AGEP project or a legacy **AGEP institution** (DCL: **NSF 20-083**).

Veterans (MPS-GRSV): Support for one additional Ph.D. student per award for students that are **United States Veterans** (DCL: **NSF 20-097**).

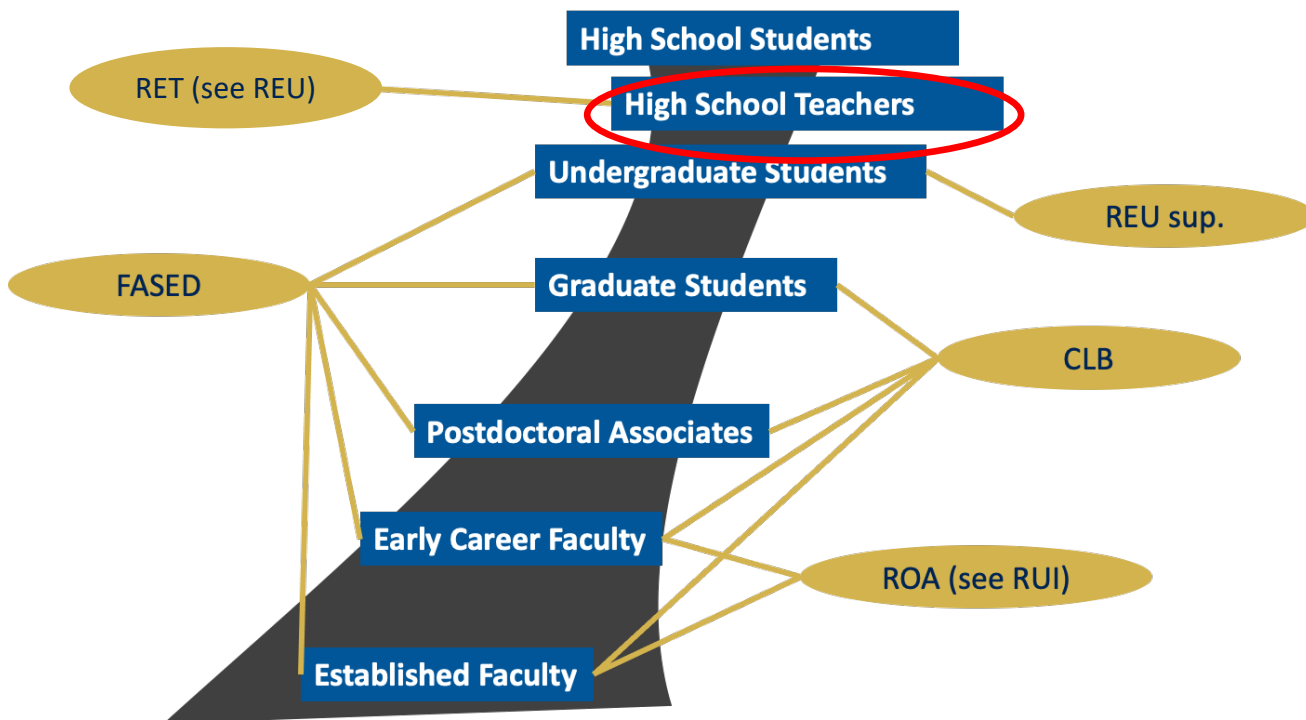
AGEP: <https://www.nsf.gov/pubs/2020/nsf20083/nsf20083.jsp>

MPS GRSV: <https://www.nsf.gov/pubs/2020/nsf20097/nsf20097.jsp>

MPS High: <https://www.nsf.gov/pubs/2022/nsf22041/nsf22041.jsp>



NSF Wide Supplements for Support on Existing Awards



RET: Research Experience for Teachers Part of REU solicitation (NSF 19-582)

FASED (PAPPG II.E.7): Facilitation Awards for Scientists and Engineers with Disabilities.

Supports **persons with physical disabilities** by providing special equipment and assistance under NSF awards.

REU Supplement (NSF 19-582): if the need for the **undergraduate student support** was not foreseen at the time of the original proposal submission.

NSF's Career-Life Balance Initiative: (PAPPG I.E.8) (CLB) policies and practices to increase the placement, advancement, and retention of **people with family obligations** in STEM disciplines.

ROA: Research Opportunity Award (NSF 14-579) -- to enable **faculty members at RUI eligible PUIs** to pursue research as visiting scientists with NSF-supported investigators at other institutions. ROA activities are usually summer experiences but sometimes provide partial support of sabbaticals.





How to Apply for Supplements

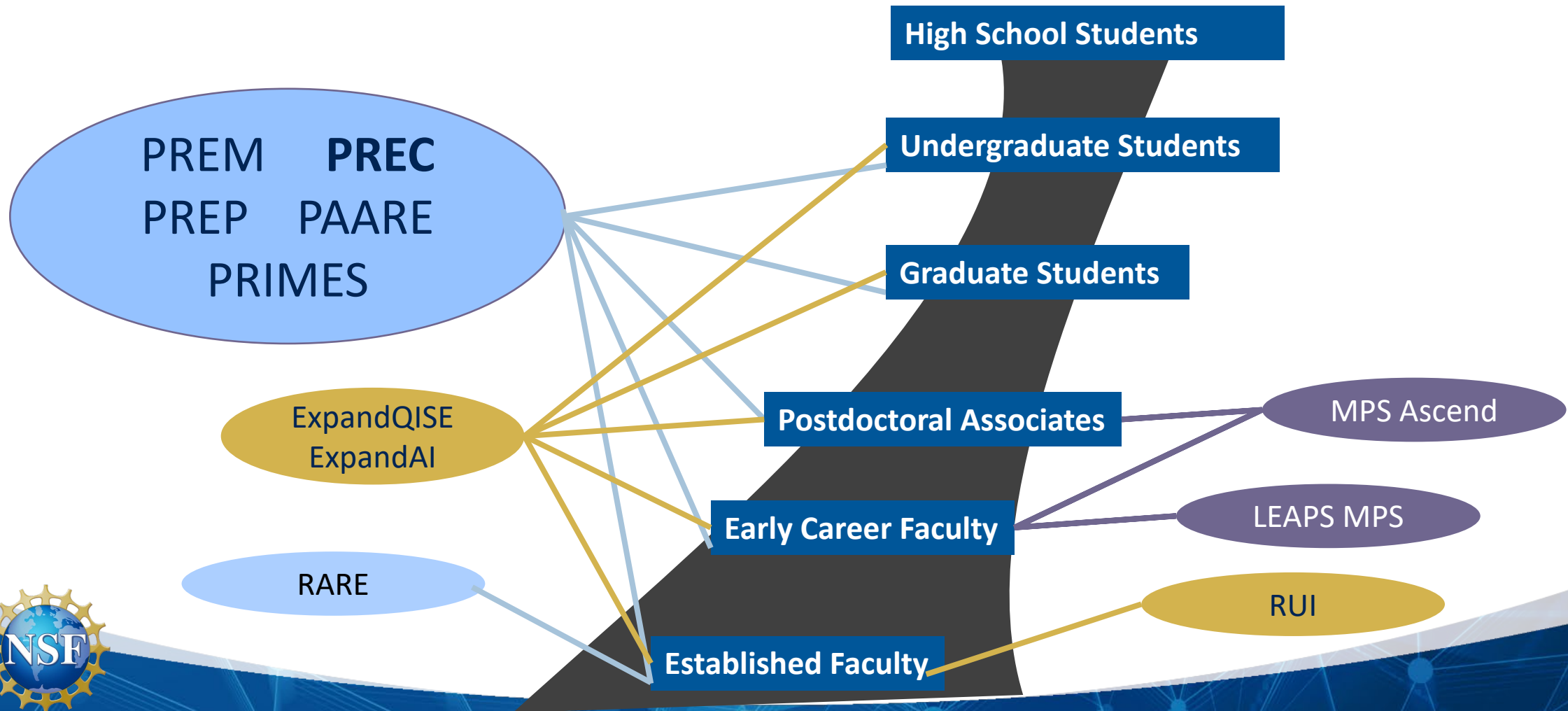
- **Contact the managing program director for the original award** to discuss (via email prior to any submission)
- Through Research.gov
- Includes a
 - summary of the proposed work
 - Justification for Supplement -describe in 3 pages or less your reason for the request and what activities the supplement would support.
 - *Follow any document guidance carefully.
 - Requires budget and budget justification.

Supplements are usually no more than 20% of the original award.





Full proposal/new opportunities centered on Broadening Participation for CHE Researchers



ASCEND and LEAPS

- **ASCEND = Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowships**
- **Supports postdoctoral fellows** who will broaden the participation of groups that are underrepresented in MPS fields in the U.S.
- **NSF 23-501**



- **ASCEND = Mathematical and Physical Sciences Ascending Faculty Catalyst Awards**
- **Supports former Ascend postdoctoral fellows** as they enter academia in tenure track positions while continuing either work in broadening the participation of groups that are underrepresented in MPS fields in the U.S.
- **NSF 23-628**

- **LEAPS-MPS = Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences**
- **Emphasis on supporting pre-tenure faculty** at minority-serving institutions (MSIs), predominantly undergraduate institutions (PUIs), and Carnegie Research 2 (R2) universities
- Focus on broadening participation
- **NSF 22-604**



ASCEND and LEAPS

- * **These solicitations (NSF 23-501 and NSF 22-604) require Broadening Participation** plans that specifically address the underrepresentation of Blacks and African Americans, Hispanics, Latinos, Native Americans, Alaska Natives, Native Hawaiians, and/or other Native Pacific Islanders.
- * The PIs are not required to be members of the groups indicated above, but they **must have substantive plans to broaden participation of *these* underrepresented groups in MPS fields.**
- * **Members of underrepresented groups are encouraged to apply but it is not an eligibility criteria.**



Partnerships for Research and Education in MPS

GOALS

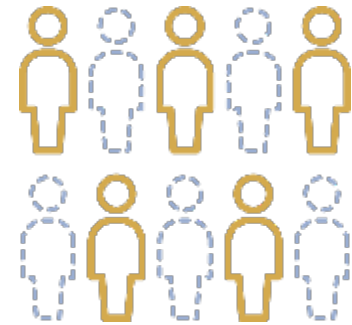
- **Increase recruitment, retention and degree attainment** by members of those groups most underrepresented in Mathematical and Physical Sciences research
- **Support excellent research and education endeavors** that strengthen such partnership



Partnerships



**Expanding Geography
of Innovation**



Missing Millions



PREM, PARRE, **PREC**, PREP, PRIMES

Partnerships for Research and Education in Chemistry

PREC: Partnerships for Research and Education in Chemistry

NSF 21-620

- **Partners:** 8 Centers for Chemical Innovation, Facilities, and Institutes

GOALS:

- Enable, build, and expand partnerships between minority-serving institutions (MSIs) and CHE-supported Centers for Chemical Innovation, NSF's ChemMatCARS, the Molecular Sciences Software Institute, or the Molecule Maker Lab Institute
- Increase recruitment, retention, and degree attainment by members of those groups most underrepresented in chemistry research
- Support excellent research and education



Partnerships for Research and Education in Chemistry

PREC: Partnerships for Research and Education in Chemistry

NSF 21-620

- **Partners:** 8 Centers for Chemical Innovation, Facilities, and Institutes
- **Awards made:** 3 awards
- **Includes:** 2 HSI, 1 AANAPSI, 1 R2 institution



Lead Institution

Univ. of New Mexico
(track 1)

Cal. State L.A. University
(track 1)

Clark. Atlanta Univ.
(track 2)

Partner

Center for Genomically Encoded Materials (C-GEM)

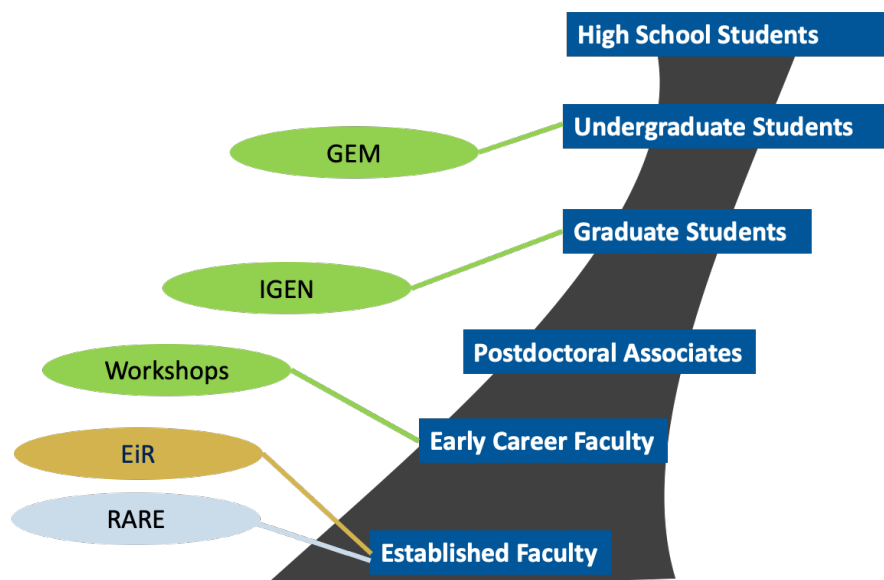
Molecular Sciences Software Institute (MolSSI)

Center for Sustainable Polymers (CSP)

Dear Colleague Letter: Planning Proposals for Partnerships for Research and Education in Chemistry (PREC) Program. NSF 23-084



More related programs



Link to subscribe to CHEM-COMM:
https://www.nsf.gov/news/news_summary.jsp?cntn_id=298705&org=CHE&from=news

- **RARE: CBET and CHE: Re-entry to Active Research (NSF 20-586)** The primary objective of the RARE program is to catalyze the advancement along the academic tenure-track of highly meritorious individuals who are returning from a hiatus from active research.
- **HBCU- Excellence in Research (HBCU-EiR NSF 20-542)** Supports such capacity building by funding research projects aligned with NSF's research programs.

Apply directly to External Groups on NSF/MPS Supported Projects:

- **IGEN** The Inclusive Graduate Education Network. Connects Black, Latinx, and indigenous students with Bridge programs.
- **GEM** National GEM Consortium. Fellowships for American Indian/Native, African American/Black, Hispanic/Latino students seeking MS or PhD degrees in STEM fields
- Early career faculty workshops, [Chemistry](#), [MPS](#)



Workshops Coordinated by the MPS Broadening Participation Working Group



Both MPS and CHE workshops are typically held in May or June



Visit our [BP website](#) and [subscribe to our email newsletter](#)



Outreach, and where to find us:

- ACS National meetings
 - Spring 17-21 Mar
 - Fall 18-22 Aug
 - NOBCChE (TBD Sept.)
 - AISES (3-5 Oct.)
 - SACNAS (31 Oct - 2 Nov)
 - OXIDE (TBD April)
 - ACS Regional meetings
- CHE Office Hours
- Chem Comms
- NSF Grants conferences –
Next one: Dec. 4-7, 2023
- Your Department meeting!
- CHE Early Career Workshop
- Outreach trips to EPSCoR states, MSIs, PUIs, ERIs.



CHE at NOBCChE and ACS



NSF Webpages of interest for Broadening Participation and MPS Researchers:

CHE Broadening Participation page: https://www.nsf.gov/mps/che/broadening_participation/index.jsp

MPS Broadening Participation page: https://www.nsf.gov/mps/broadening_participation/index.jsp

NSF Broadening Participation page: https://www.nsf.gov/od/broadeningparticipation/bp_portfolio_dynamic.jsp

NSF MPS home page: <https://www.nsf.gov/dir/index.jsp?org=MPS>

Supplements:

MPS Alliances for Grad. Ed. and the Professoriate, AGEP supplements: AGEP:

<https://www.nsf.gov/pubs/2020/nsf20083/nsf20083.jsp>

MPS Graduate Research Supplement for Veterans, MPS-GRSV: MPS GRSV:

<https://www.nsf.gov/pubs/2020/nsf20097/nsf20097.jsp>

MPS High School Student Research Assistantships, MPS-High: MPS High:

<https://www.nsf.gov/pubs/2022/nsf22041/nsf22041.jsp>

Research Experience for Undergraduates, and Research Experience for Teachers Supplements, NSF 19-582:

<https://beta.nsf.gov/funding/opportunities/research-experiences-undergraduates-reu>

Research Opportunity Awards, NSF 14-579: <https://beta.nsf.gov/funding/opportunities/facilitating-research-primarily-undergraduate-institutions>

Career-Life Balance Supplements, PAPPG I.E.8): https://www.nsf.gov/pubs/policydocs/pappg22_1/pappg_2.jsp#IIE8

Facilitation Awards for Scientists and Engineers with Disabilities, PAPPG II.E.7:

https://www.nsf.gov/pubs/policydocs/pappg20_1/pappg_2.jsp#IIE6



MPS and CHE Initiatives:

MPS-Ascending Postdoctoral Research Fellowships, NSF 23-501: <https://beta.nsf.gov/funding/opportunities/mathematical-and-physical-sciences-ascending-postdoctoral-research>

MPS-Ascend External Mentoring, NSF 22-524: <https://beta.nsf.gov/funding/opportunities/mps-ascend-external-mentoring-mps-ascend-em>

MPS-Ascending Faculty Catalyst Awards, NSF 23-628: <https://new.nsf.gov/funding/opportunities/mathematical-physical-sciences-ascending-faculty>

Launching Early Career Academic Pathways in the Mathematical and Physical Sciences, NSF 22-604:

<https://beta.nsf.gov/funding/opportunities/launching-early-career-academic-pathways-mathematical-and-physical-sciences>

Partnerships for Research and Education in Chemistry, NSF 21-620: <https://beta.nsf.gov/funding/opportunities/partnerships-research-and-education-chemistry-prec>

Partnerships with other Directorates:

Expanding Capacity in Quantum Information Science and Engineering: NSF 23-551:

<https://beta.nsf.gov/funding/opportunities/expanding-capacity-quantum-information-science-and-engineering-expandqise>

Re-entry to Active Research (CBET and CHE), NSF 20-586: <https://beta.nsf.gov/funding/opportunities/re-entry-active-research-program-rare>

HBCU—Excellence in Research, NSF 20-542: <https://beta.nsf.gov/funding/opportunities/historically-black-colleges-and-universities-excellence-research-hbcu-eir>

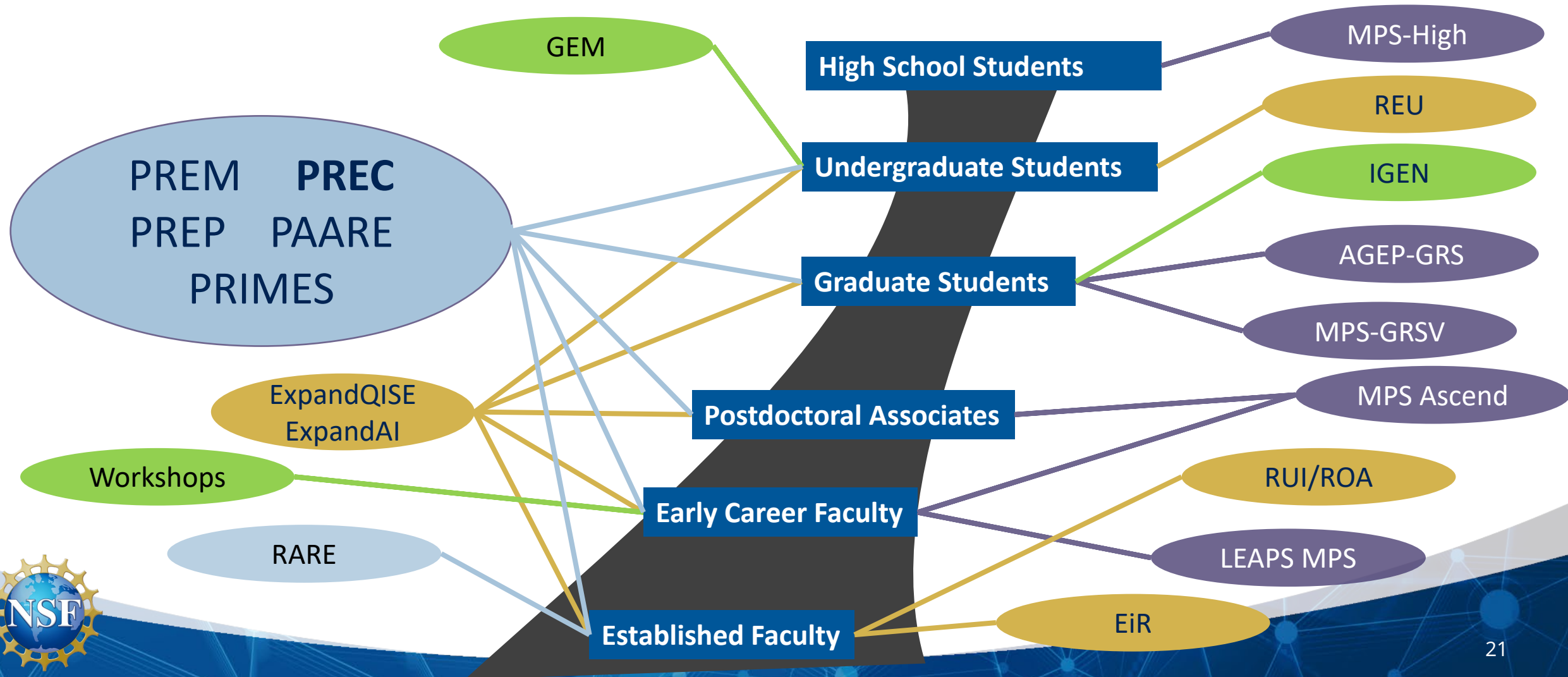
External Partners:

The Inclusive Graduate Education Network: <http://igenetwork.org/>

National GEM Consortium: <https://www.gemfellowship.org/>



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Next CHE Office Hour

Time: **January 26, 2024, 3-4 PM EST**

Topic: **Chemical Theory, Models, and Computation Methods (CTMC) Program**

<https://new.nsf.gov/funding/opportunities/chemical-theory-models-computational-methods-ctmc-0>

Submit general office hour questions to: cheminfo@nsf.gov

Send requests to be included in our Chemistry Comm Biweekly Emails to: chem-comm@listserv.nsf.gov

