

OSC (Common Fund)



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Concept Clearance: New Common Fund Program

Faculty Institutional Recruitment for Sustainable Transformation (FIRST)

Objective: To create cultures of inclusive excellence (establishing and maintaining scientific environments that can cultivate and benefit from a full range of talent) at NIH-funded institutions.

1. To establish faculty cohort model for hiring, multi-level mentoring, professional development
2. To establish integrated, institution-wide systems to address bias, faculty equity, mentoring, and work/life issues
3. Data Coordination and Evaluation Center (DCEC) to conduct independent program evaluation of impact at the faculty/institutional level and departmental/institutional culture change; establish initiative-wide metrics of faculty success, recruitment, and professional development at pre-tenure career stages.

Estimated Funds Available: \$241 M over 9 years

Program Duration: 9 years

Council Action: Vote to clear the FIRST concept

Faculty Institutional Recruitment for Sustainable Transformation (FIRST): A Common Fund Proposal

- 1 Overarching goal and objectives
- 2 Opportunities and challenges
- 3 Why NIH and why now?
- 4 Program structure, evaluation, and timeline
- 5 Budget, funding mechanism, and models
- 6 Practical considerations – implementation
- 7 Discussion and questions

Overarching Goal:

Create cultures of inclusive excellence (establishing and maintaining scientific environments that can cultivate and benefit from a full range of talent) at NIH-funded institutions.

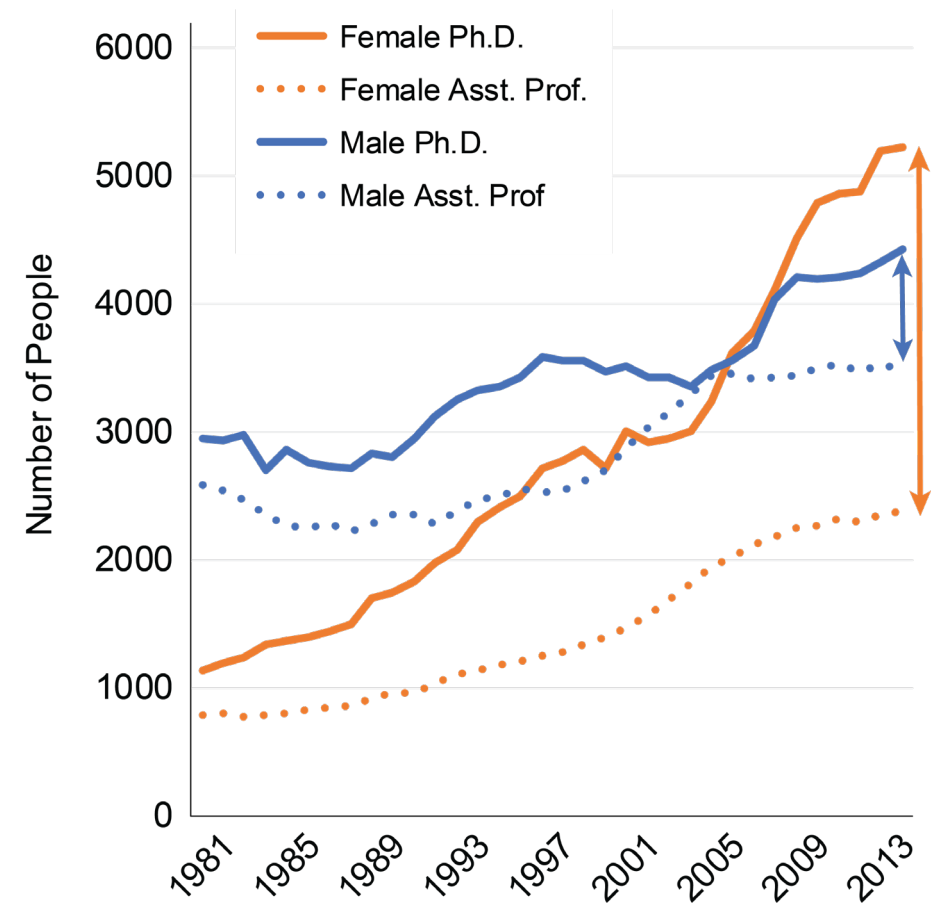
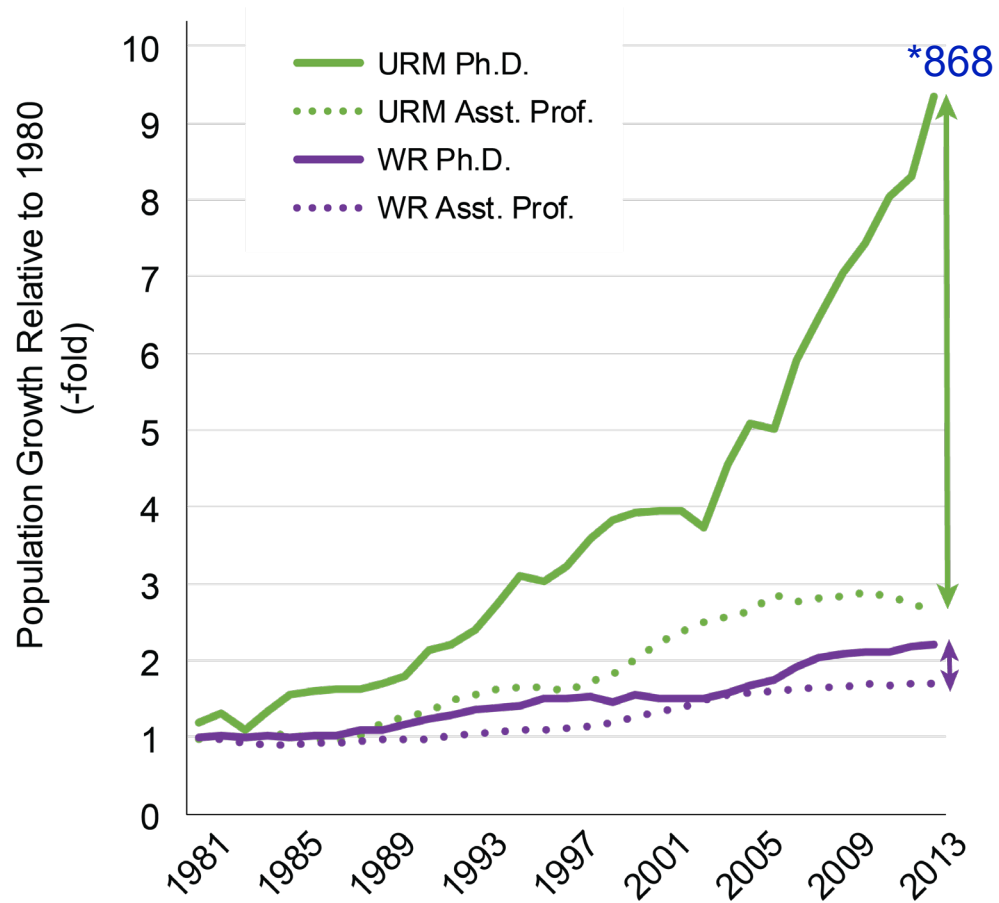
Program Objectives are to establish:

1. **Faculty cohort model** for hiring, multi-level mentoring, professional development
2. **Integrated, institution-wide systems** to address bias, faculty equity, mentoring, and work/life issues
3. **Coordination and Evaluation Center (CEC)** to conduct independent program evaluation of impact at the faculty and institutional level; departmental and institutional culture change, and; establish initiative-wide metrics of faculty success, recruitment and professional development at pre-tenure career stages.

Opportunities and Challenges: Talent Pool Exists



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* **2017: 14% (2100) of PhDs in NIH relevant fields (biological science, chemistry, and physics)**

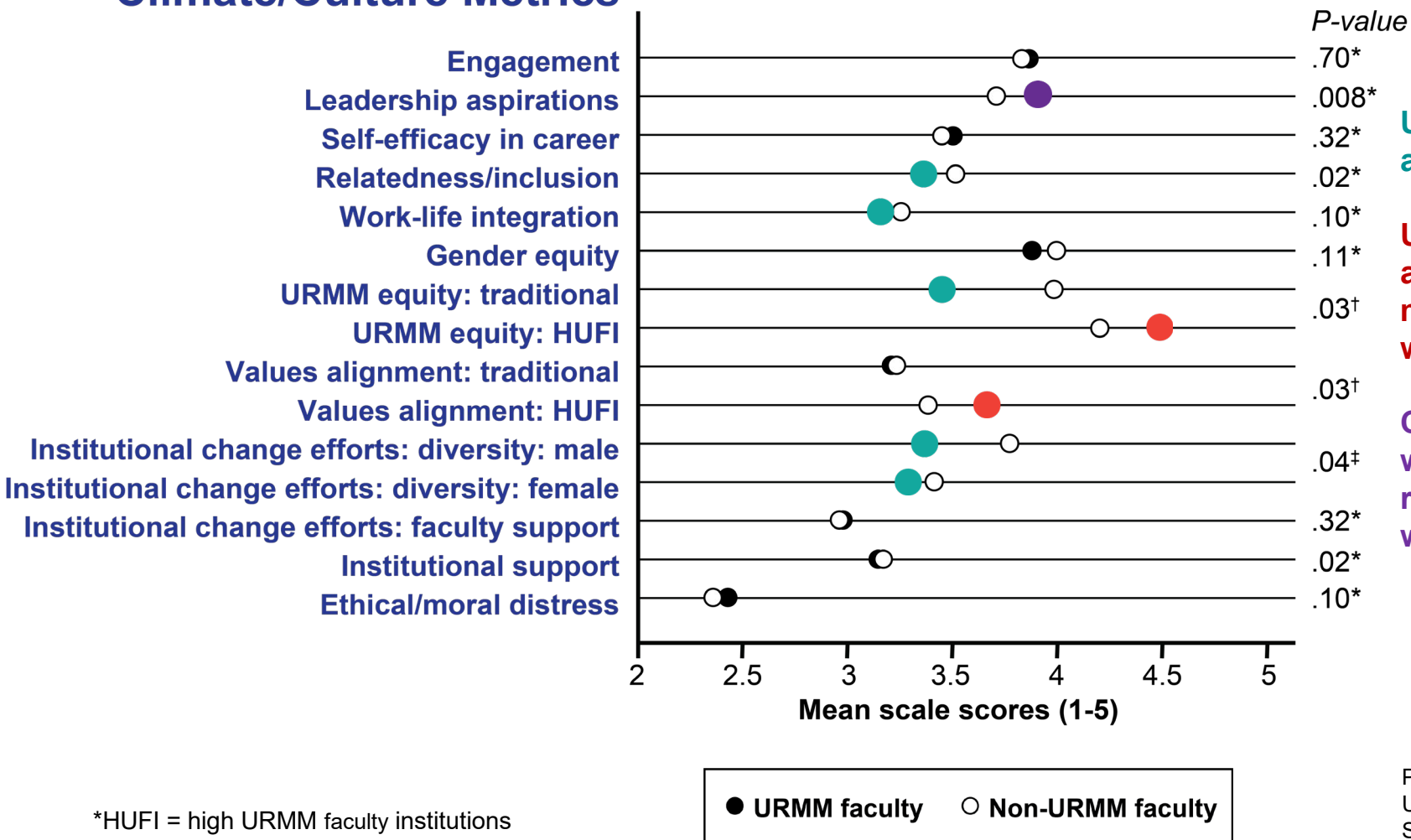
Gibbs, K. D., et al. (2016). *Decoupling the minority PhD talent pool and assistant professor hiring in the medical school basic science departments in the US.*

Challenges and Opportunities: Institutional Culture (C-Change Metrics)



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Climate/Culture Metrics



URMM faculty - lower sense of inclusion, trust, and relationships than nonminority colleagues

URMM faculty at HUFU schools- more alignment of personal and institutional values, more positive perceptions of equity compared with URMM faculty in traditional schools

Combination of higher leadership aspirations with lower feelings of inclusion and relationships might lead to discouragement with academic medicine

*HUFU = high URMM faculty institutions

Pololi L, et al., The Experience of Minority Faculty Who Are Underrepresented in Medicine, at 26 Representative U.S. Medical Schools. Academic Medicine, Vol. 88, No. 9 / September 2013

Challenges and Opportunities: Institutional Culture (C-Change Metrics)



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The representation gap for U.S. biomedical faculty persists due to institutional cultures that lack necessary elements of inclusion and equity, sending a message that certain groups don't belong in science

Why NIH and Why Now?



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Distinguished Scholars Program (Faculty cohort NIH IRP)

- PIs with demonstrated commitment to inclusive excellence
- Professional development and mentoring

NIH programs: Portfolio analysis

- NIH investment to date primarily targeted individuals (e.g., fellowships) and/or “distributed” cohorts of individuals within specific disciplines.
- NIGMS MOSAIC, NHLBI PRIDE

Non-NIH programs

- Harold Amos Scholars (Robert Wood Johnson)
- Pew Biomedical Scholars
- Hanna H. Gray Fellows (HHMI)
- NSF ADVANCE



NIH Distinguished Scholars Program: Early Results

Promoting Diversity and Inclusion, Changing the Culture



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- *“Love the cohort, I feel part of a special group of people, I appreciate the support from NIH leadership to the DSP..”*
- *“It is my family at NIH.”*
- ***“Collegial support and DSP leadership support was awesome. This group allows us to envision ourselves as great leaders through the dinner discussions with current leaders, provides brainstorming and avenues on how to improve NIH and affords us with superb mentoring.”***
- *“Expanded network of peer and senior mentors. Have a cache of potentially collaborators and consultants.”*
- *“It’s been a valuable program that provides built-in mentorship and an inside look at the machinations of NIH as well as opportunities to network with intramural leaders that we would otherwise not have easy access to.”*
- *“Mentoring with small group and individually was incredibly helpful.”*

NIH Distinguished Scholars Program: Early Results

Promoting Diversity and Inclusion, Changing the Culture



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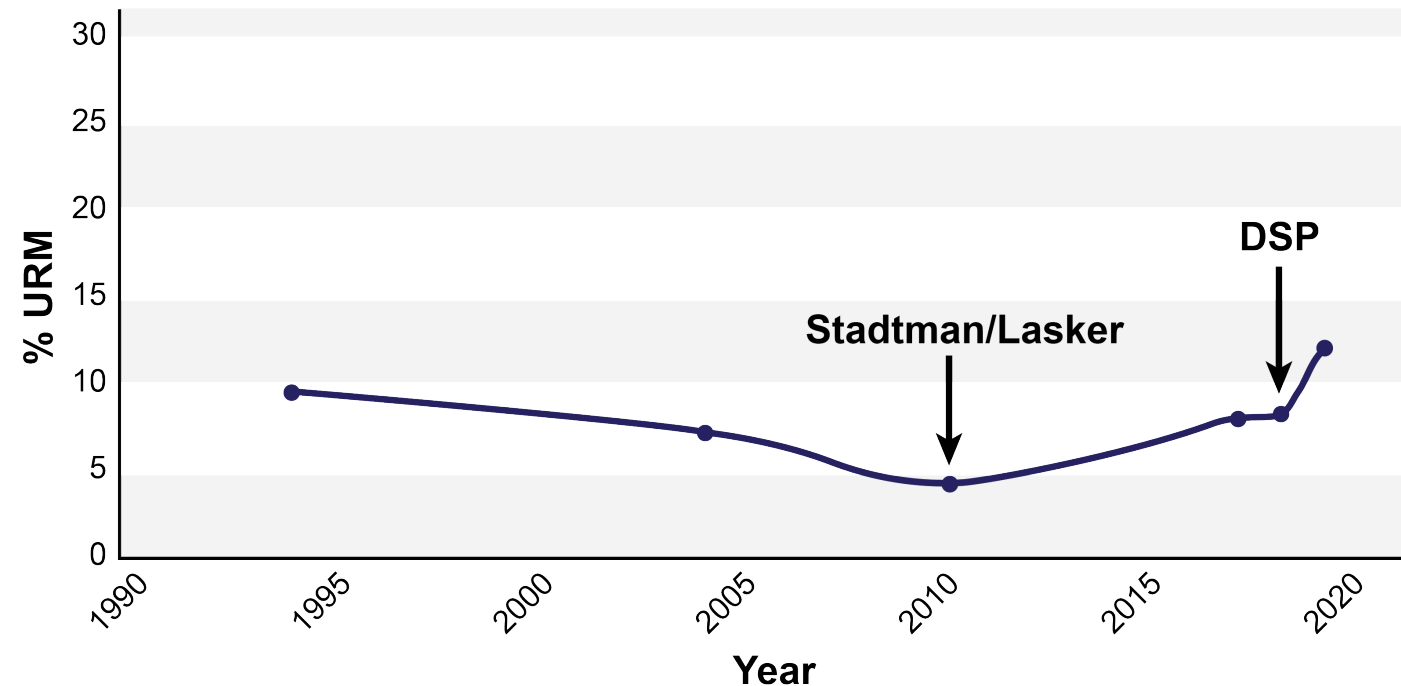
2018 cohort, 13 scholars:

- 8 female and 5 male
- 6 Hispanic
- 2 African/African-American

2019 cohort, 15 scholars:

- 11 female and 4 male
- 1 Hispanic
- 4 African/African-American

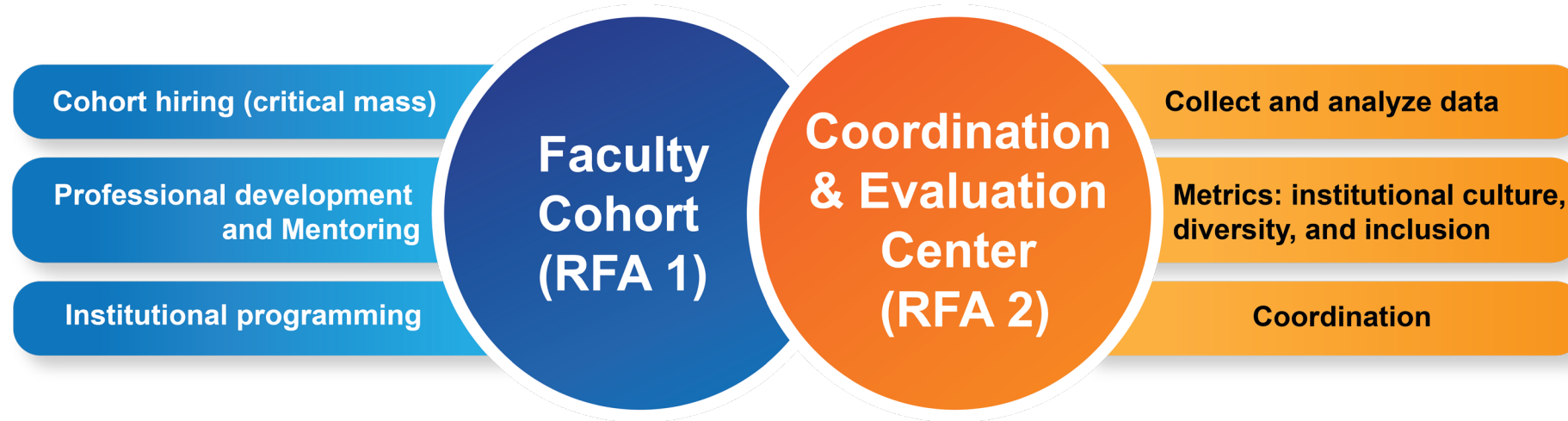
% URM IRP Tenure-Track Investigators



FIRST – Program Structure



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Cohort Features

- Institutional cohort (minimum of 10) comprised of small (3-4) clusters of scientists within several scientific areas, such as neuroscience, cardiovascular disease, cancer, or others
 - ≥ 120 new hires over 3 years (nationally)
- Mentoring, sponsorship
- Programming to reduce isolation, increase community building, and foster career advancement
- Co-localized cohort leverages departmental faculty to form extended network for the cohort to access

Example Faculty Metrics*

- Time to tenure, tenure rate
- Research productivity, bibliometrics
- Time to independent funding
- Appointments and promotion-committee reviews
- Diversity of PI group trainees, hires, and collaborators
- Interdisciplinary collaborations

Culture/Climate Metrics*

- Culture: e.g. C-Change metrics

Three Levels of Analysis*

- Cohort
- Departmental
- Institution-wide

Professional Development and Mentoring



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- 1. Designed to reduce isolation, increase community building, foster career advancement**
- 2. Year-round program of monthly meetings**
 - Mentoring, community building
 - Networking with senior institutional leaders
 - Professional development opportunities
- 3. Dedicated senior mentors embedded in the program**
- 4. Peer small-group mentoring**
- 5. Professional development activities:**
 - Workshops: Negotiation, communication styles, and hiring

Research shows that URM and women faculty face challenges that are rooted in the academic culture. A minimum set of strategies must be *integrated* for systemic institutional culture change.

Known evidence-based approaches:*

- Work/life integration
- Mentoring/sponsorship
- Institutional structures for monitoring demographic data and equity measures
- Bias mitigation

Knowledge gaps:

- What is the impact of integrated systems approaches?
- What is the impact of a cohort model embedded in institutions employing evidence-based systems on change culture, sense of inclusion, and demographics?

*DeAro, J., Bird, S. and Mitchell Ryan, S. (2019), "NSF ADVANCE and gender equity," Equality, Diversity and Inclusion, Vol. 38 No. 2, pp. 131-139.

CEC will have the responsibility of working with the FIRST institutions to devise an evaluation plan that is consistent with budgetary limits. We expect some or all of the following aspects to be included:

- **Primary assessment***: change in metrics of faculty success from baseline during 5 years of funding in:
 - Cohort faculty
 - Non-cohort faculty within departments hosting a cohort faculty member
 - Institution-wide faculty
 - In aggregate across funded institutions
- **Secondary assessments**: change in metrics of institutional culture (e.g., C-Change) from baseline during 5 years of funding
- **Comparator groups**: Historical controls, current tenure-track PIs not in the cohort

FIRST: Mechanism, Approach, and Timeline



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12 staggered awards
4 awards each year over 3 years

- Issue RFA each year for 3 years
- Length of each award: 6 years

Year 1: launch year (establish strategies to diversify the applicant pool; implicit bias education; search committees; success hallmarks – DCEC involvement)

Years 2-4*: cohort start-up with intent to achieve independent support

Years 5-6*: reduced cohort support for faculty who are not fully independent or to allow pilot funding for additional projects

Coordination and Evaluation Center



1 award

- Issue RFA twice: Year 1 and Year 4
- Duration of Funding

First Cycle: 4 years, to devise metrics, coordinate communication among institutions and faculty, initiate study

Second Cycle: 5 years, to complete data acquisition, continue communication among institutions and faculty, and complete the analysis

*Faculty may be recruited over 1-2 years; institutions will have flexibility with respect to yearly costs

Good stewardship of federal funds requires institutional diversity

- Hiring 10 new research faculty over 1-2 years may present more of a challenge for institutions with less overall research support
- Start-up packages and programming funds may need to be larger to provide sufficient allocation of resources to less research-intensive institutions to ensure adequate support for the cohort
- Institutional commitment will be essential regardless of the size of the institution
- Each awardee institution is expected to support at least 10 new faculty
- Faculty can be spread across multiple departments
- Institutions can propose collaborations with another institution but must show that interaction between cohort members will be frequent and fluid

Budget Estimate: 120 New Faculty Hired



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- Estimated funds of \$241 Million, distributed over 9 years
- 10-12 Awards expected through RFA 1; 1 award from RFA 2
- Supports recruitment of ≥ 120 new faculty committed to diversity and inclusion over a 5 year period
- Provides basal support plus sufficient allocation of resources to less research-intensive institutions to meet strategic objectives
- Supports Coordination and Evaluation Center to collect and analyze data, facilitate communication/coordination

Faculty Institutional Recruitment for Sustainable Transformation (FIRST):

- Hugh Auchincloss (NIAID)
- Albert Avila (NIDA)
- Andrea Beckel-Mitchener (NIMH)
- Josephine Boyington (NHLBI)
- Rina Das (NIMHD)
- Alison Davis (SWD/OD)
- Teraya Donaldson (ORWH/OD)
- Tina Gatlin (NHGRI)
- Melissa Ghim (ORWH/OD)
- Ray Jacobson (CSR)
- Michelle Jones-London (NINDS)
- Lynn King (NIDCR)
- Patricia Labosky (OSC/OD)
- Charlene Le Fauve (SWD/OD)
- Rebecca Lenzi (OSC/OD)
- Charlotte Pratt (NHLBI)
- Katrina Serrano (NIDDK)
- Dinah Singer (NCI)
- Sanya Springfield (NCI)

Faculty Institutional Recruitment for Sustainable Transformation (FIRST):

- **Gary H. Gibbons**, *Director, National Heart, Lung, and Blood Institute (NHLBI)*
- **Walter J. Koroshetz**, *Director, National Institute of Neurological Disorders and Stroke (NINDS)*
- **Norman E. Sharpless**, *Director, National Cancer Institute (NCI)*
- **Eliseo Pérez-Stable**, *Director, National Institute of Minority Health and Health Disparities (NIMHD)*
- **Bruce J. Tromberg**, *Director National Institute of Biomedical Imaging and Bioengineering (NIBIB)*
- **Jim M. Anderson**, *Director, Division of Program Coordination, Planning, and Strategic Initiatives*
- **Hannah A. Valantine**, *Chief Officer for Scientific Workforce Diversity*
- **Elizabeth Wilder**, *Director, Office of Strategic Coordination*