



## Re-envisioning NIH-Supported Postdoctoral Training (ACD Postdoc WG)

Shelley Berger, PhD & Tara A. Schwetz, PhD  
NIH Advisory Committee to the Director Meeting

*June 9, 2023*

# Multifactorial and Complex Forces



Increasing expectations:  
Work/life balance  
Cost of living



Limited opportunities  
in academia



Lengthening time to  
publish



New opportunities in  
pharma/biotech



Expanding research  
expectations

# ACD Postdoc Working Group

*\*ex officio*  
*\*\* co-chair*



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*AAAS*



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**Idalia Yabe, PhD\***  
*NIH / NIAID*



**Jodi Yellin, PhD**  
*AAMC*

*Executive Secretaries: Brittany Chao, DPhil & Laura Long, PhD*

# Charge to the Working Group



- **Evaluate** evidence on the perceived shortage in PhDs seeking U.S. postdocs
- **Assess and consider** factors influencing the scope and persistence of the issue
- **Review and compare** other approaches to postdoctoral training
- **Consider** ways to support postdocs' quality of life and work-life balance, increase retention
- **Engage** key internal and external parties

# Working Group Activities

## Review Available Data

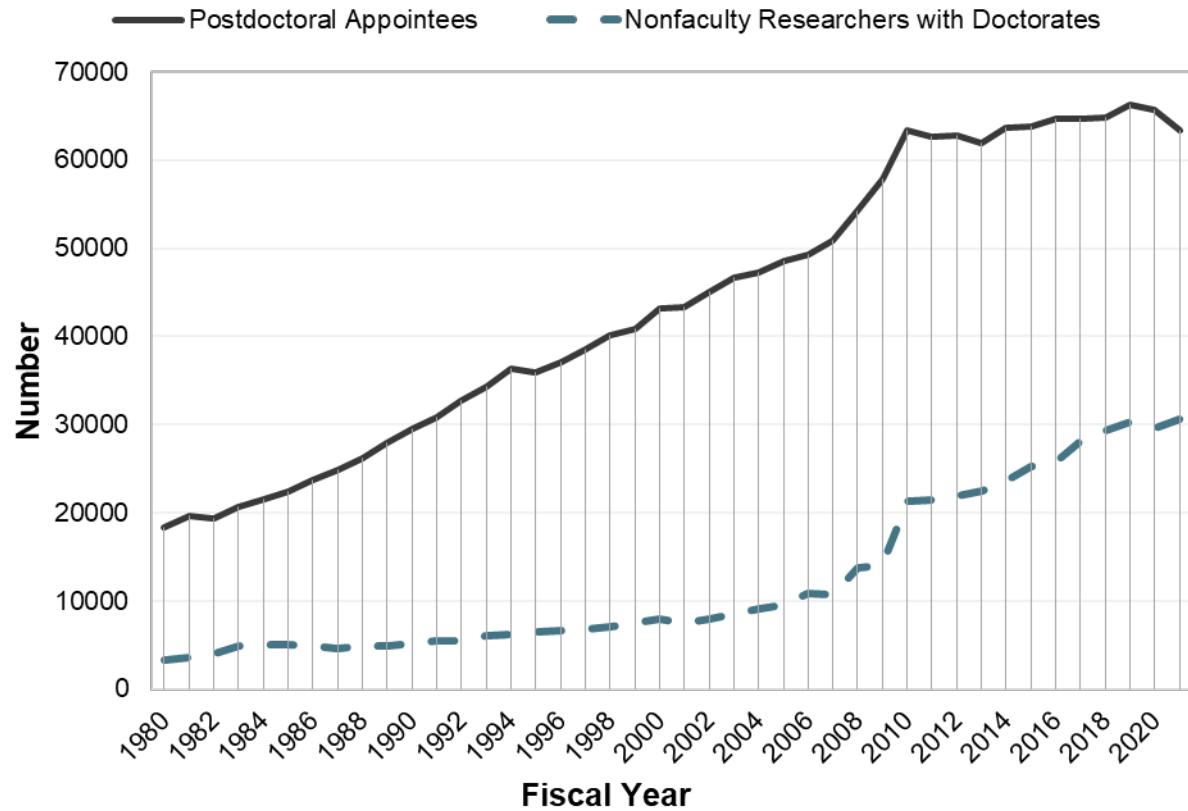
## Gather Community Feedback

- Listening Sessions
- Request for Information
- Focus on those most impacted—postdocs and grad students

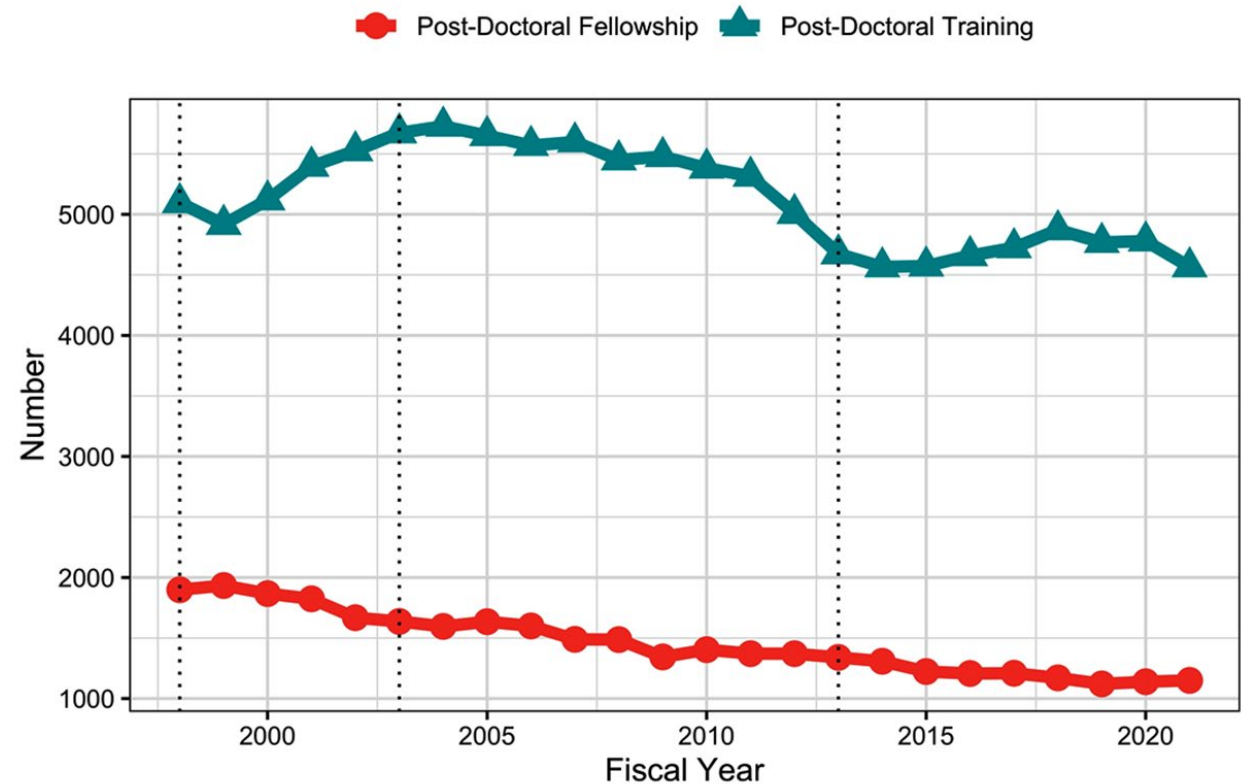
## Develop Guiding Principles

# NSF and NIH Trends in Postdoctoral Appointees

## U.S. Researchers by Position, 1980 - 2021



## NIH NSRA-Supported Postdocs, 1998 - 2021

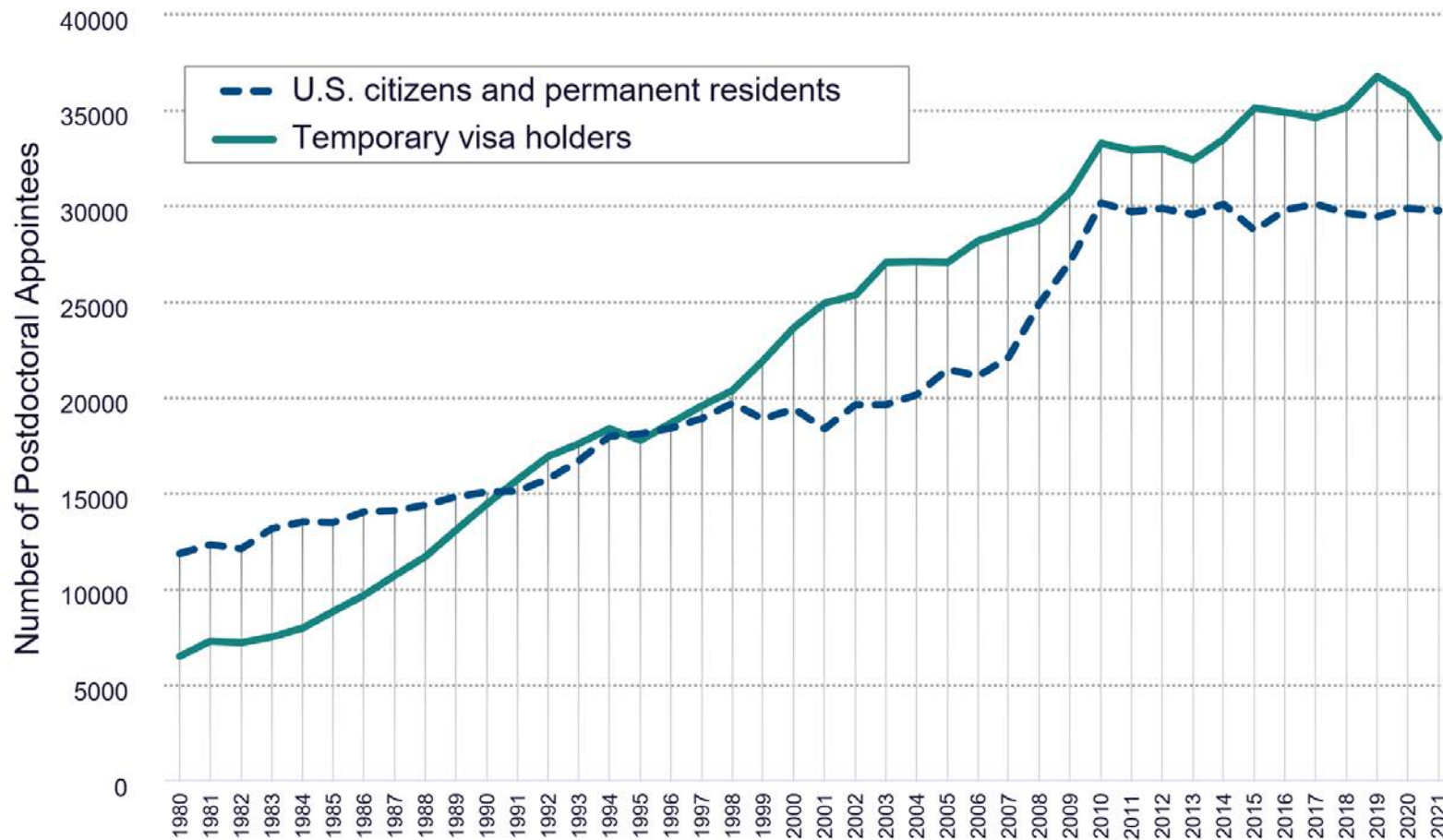


Source: NSF Survey of Graduate Student and Postdoctorates in Science and Engineering

Source: NIH OER

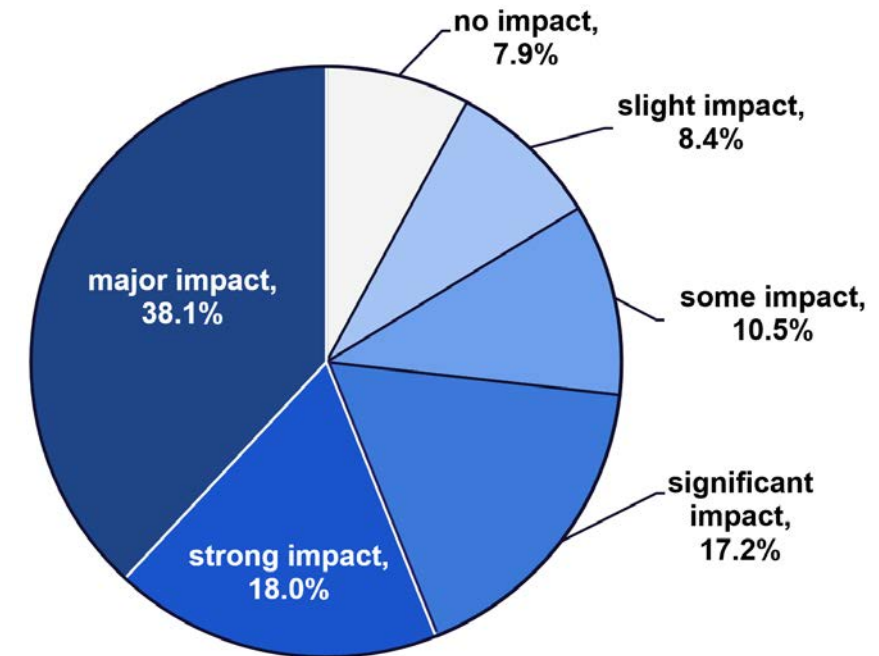
# International Postdocs Trends and Vulnerabilities

NSF Statistics: Citizenship of U.S. Postdoctoral Appointees, 1980-2021



Source: NSF Survey of Graduate Student and Postdoctorates in Science and Engineering

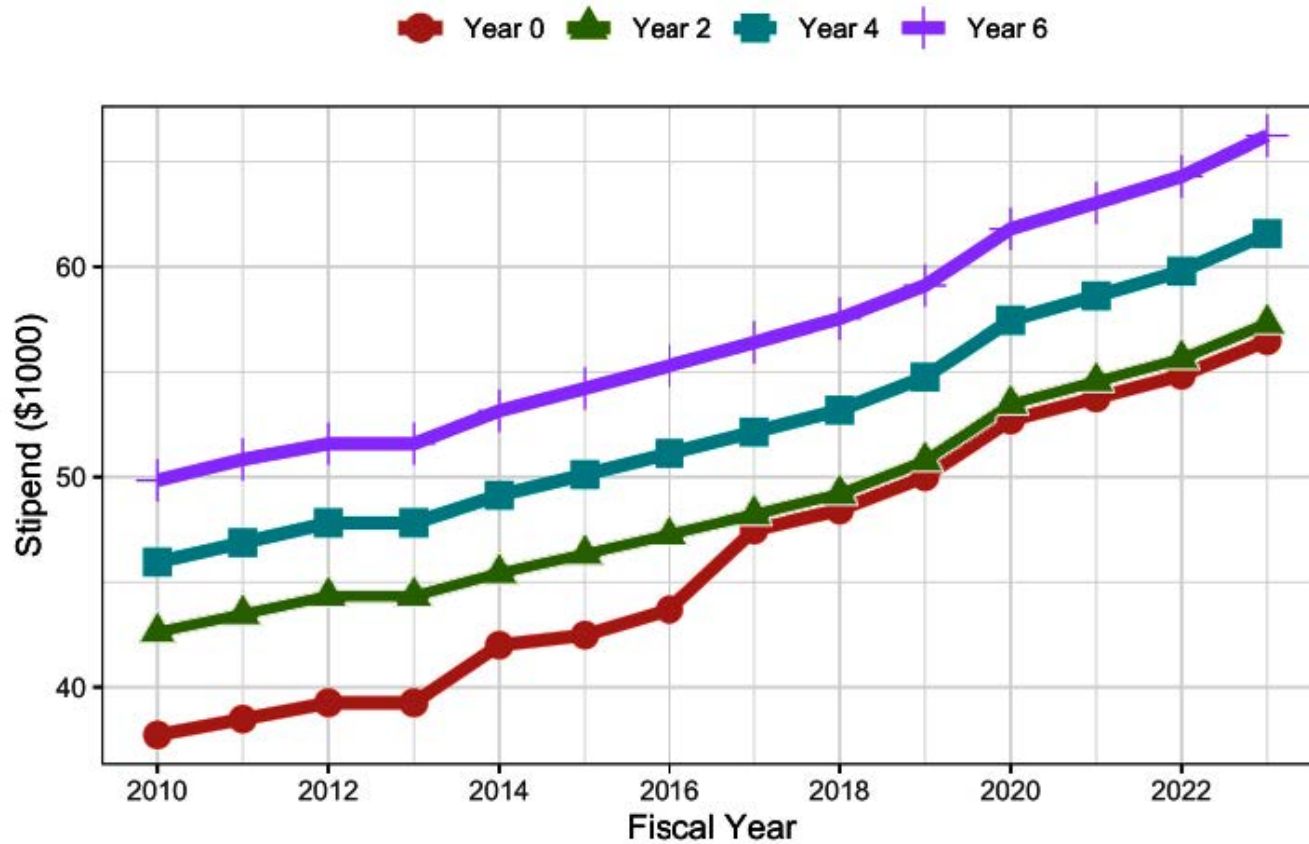
Negative Effect of Additional Vulnerabilities as an International Postdoc



Source: National Postdoc Association 2023 Postdoctoral Barriers to Success Survey

# Existing NIH Support

## NIH NRSA Stipend Level, 2010 - 2023



Source: NIH OER

## NRSA Stipend Increases

- Steadily growing for last decade
- Up to **\$56,484** for a first-year postdoc
- Not indexed to inflation

## Childcare Allowance

- \$2,500 / year / fellow
- Children < 13 years, disabled < 18 years
- Licensed childcare provider
- Recipient responsible for documentation



# Working Group Activities

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## Develop Guiding Principles

# Listening Sessions: Reach & Engagement

**1585\***  
total registrants over **4** sessions

**525+** average viewers per session

**130+** average comments per session

**350+** Institutions represented

## Registrants by Career Stage



Registration questions were selected from a library of questions preapproved by the Office of Management and Budget (OMB). All data collected were self-reported by registrants. Accordingly, in the career stage data graphed above, postdocs are likely represented in both the "trainees/students" and "early career" categories.

*\*Of the 1585 total registrants, ninety-six declined to identify their career stage and are not included in the graph above.*

# Listening Sessions: Four Topics

## Session #1: Role, Duration, Structure, and Value of the Academic Postdoc, Including Impacts on Underrepresented Populations

March 8, 2023

### Invited Speakers:

- Dr. Esra Yalcin, *Boston Children's Hospital & Boston Postdoctoral Association*
- Dr. Bruce Mandt, *University of Colorado Anschutz*
- Dr. Antentor Hinton, *Vanderbilt University*

## Session #2: International Postdoc Concerns

March 10, 2023

### Invited Speakers:

- Dr. Andrea Pereyra, *East Carolina University & National Postdoctoral Association*
- Dr. Natalie Chernets, *Drexel University*
- André Porter, *National Academies of Sciences, Engineering, and Medicine*

## Session #3: Compensation and Benefits, Including Child and Dependent Care

March 17, 2023

### Invited Speakers:

- Dr. Krishna Mudumbi, *Yale University*
- Dr. Lola Eniola-Adefeso, *University of Michigan*
- Dr. Tori Osinski, *University of Minnesota*
- Dr. Andrew Campbell, *Brown University*

## Session #4: Job Security, Career Prospects, and Quality of Life

March 20, 2023

### Invited Speakers:

- Dr. Neal Sweeney, *University of California Santa Cruz & UAW Local 5810*
- Stevie Eberle, *Stanford University*
- Dr. Dawn Bonnell, *University of Pennsylvania*

# Listening Sessions: Three Cross-Cutting Themes

- 1 Need to **mitigate financial strain and ambiguity**
- 2 Need for increased **support for transitioning to the next career stage**, academic or not
- 3 Need to **address power imbalances** through better accountability and oversight of institutions and mentors

# Request for Information: Reach & Engagement

**3252**

Responses

**96%**

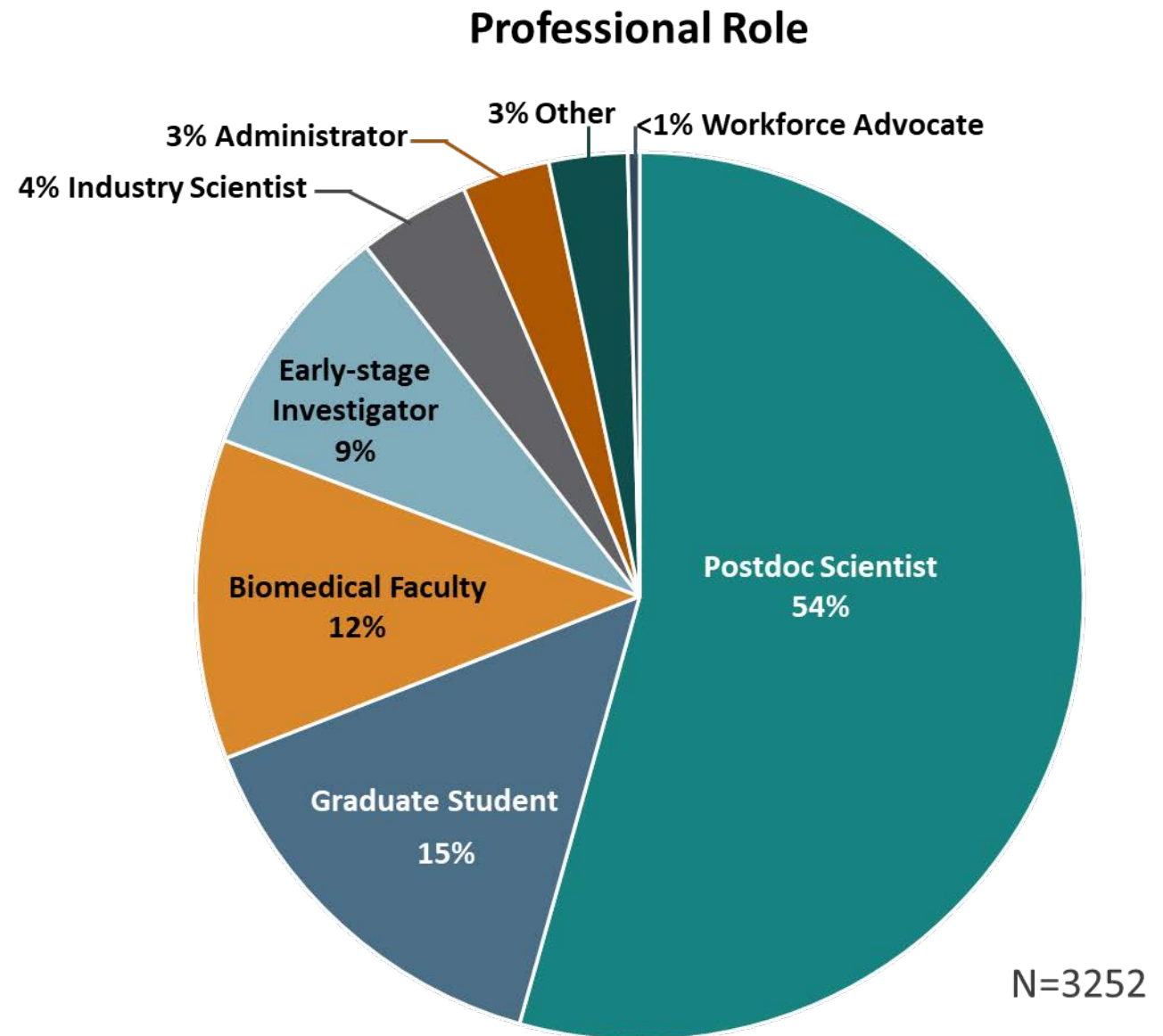
Individual

**87%**

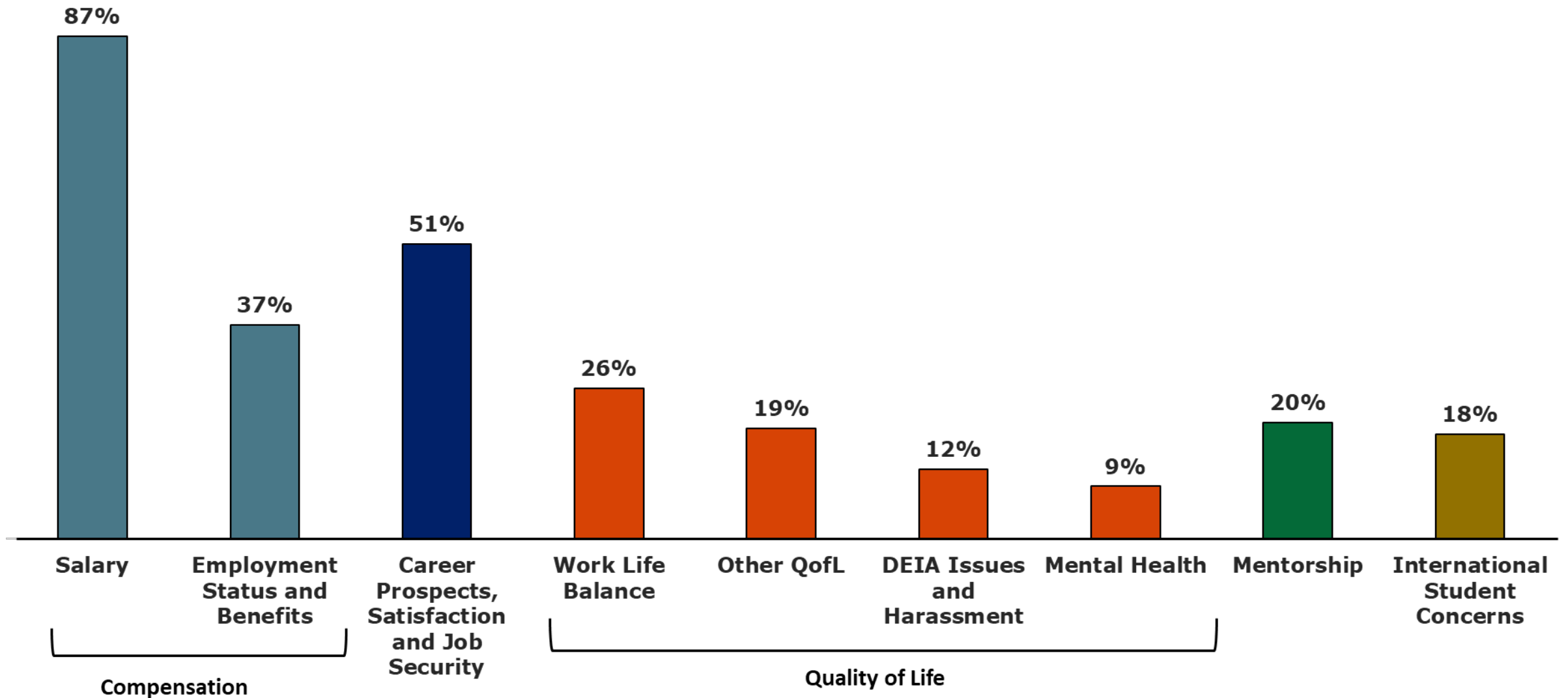
Academic

**23%**

International



# Request for Information: Challenges and Issues



N=3216, 99% responsive

# Request for Information: Potential Solutions

43%

## Policies

- Standardize title, salary, and benefits regardless of funding source
- Remove K99 time limit restrictions, NRSA pay back agreement

39%

## Funding Programs

- Fellowship and training grant eligibility for international postdocs
- Cohort models to create community

44%

## Resources

- Training resources for non-academic careers
- Mentorship training for fellows and PIs

15%

## Other Approaches

- Partnerships with industry, government, non-profit organizations
- Track postdoc satisfaction, career outcomes, impact of policy changes, etc.

N=3216, 99% responsive

# What We're Hearing

- **Change is needed** to serve the needs of most postdocs
- Calls for improved **compensation and benefits**, especially to alleviate **inequitable treatment** within and across institutions
- Need to support **international postdocs** with unique vulnerabilities
- Recommendations for **expanded academic research paths**
- Interest in **robust professional development training**
- Requests for culture change such as **increased recognition and community building**
- Support for increased **accountability and oversight of postdoc mentors and institutions**



# Working Group Activities

## Review Available Data

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## Develop Guiding Principles

## Working Group Goal

The working group aims to re-envision the postdoctoral experience so that it is **more sustainable and inclusive** and to **better recognize and reward the value** of postdoctoral scholars to the U.S. scientific enterprise.

## Working Group Definition of a Postdoctoral Scholar

An individual who has received a doctoral degree or equivalent working in a term-limited position of mentored research and professional development to prepare for an independent career usually in research and teaching.

# Guiding Principles

- 1** All postdoctoral scholars should receive a **wage with regular cost-of-living adjustments** and **employee-level benefits** commensurate with their education and training regardless of NIH support mechanism or appointment.
- 2** Postdoctoral scholars should be welcomed into **safe, diverse, equitable, inclusive, accessible, and supportive** work environments **free from abuse, discrimination, and harassment**.
- 3** The postdoctoral position should be **clearly defined, standardized, and tracked** within and across institutions, disciplines, and funding mechanisms. The duration of postdoctoral positions should be **capped at a finite number of years**.

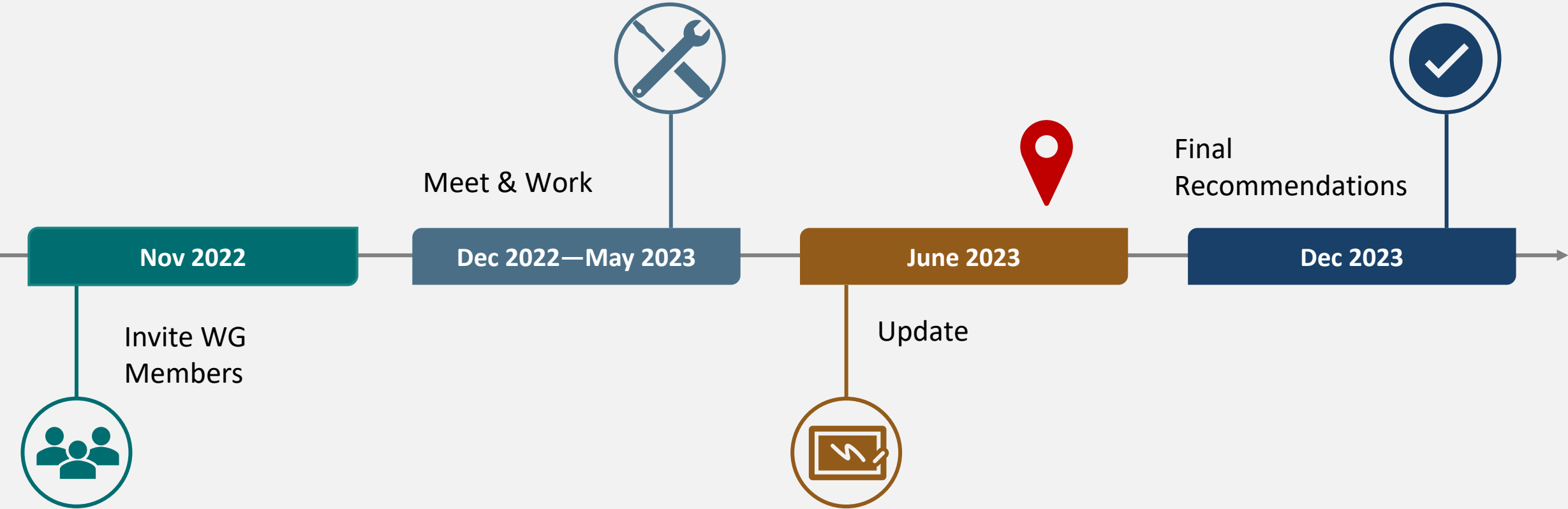
# Guiding Principles

- 4** **New or expanded funding mechanisms and resources** should be available to better support the postdoctoral experience and career paths.
- 5** **International postdoctoral scholars** play an important role in the biomedical research ecosystem should **have salary and benefits equal to that of their counterparts** who are U.S. citizens and **access to more federal grant opportunities** to support their research careers.

# Guiding Principles

- 6** **Professional and career development** should be an **integral, measured** component of the postdoctoral experience that occupies a **minimum percentage of the postdoctoral scholars' time**.
- 7** **Institutions, programs, and principal investigators should be held accountable** for ensuring that postdoctoral scholars receive **quality mentorship and professional development opportunities**. **Training in mentoring skills** should be strongly promoted for those who serve in a mentor role to postdoctoral scholars or who work as leaders in postdoc offices, and for the postdoctoral scholars themselves.

# Timeline of Activities



# Next Steps

- Further analyze **request for information**
- Discuss and develop **actions and recommendations** to achieve guiding principles
- Engage **additional experts**
- Present **full recommendations** at December ACD meeting





**Questions?**