

Evaluating the feasibility of collecting detailed race and ethnicity data about students and employees from their institutions

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NATIONAL CENTER FOR SCIENCE AND ENGINEERING STATISTICS NATIONAL SCIENCE FOUNDATION

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MISSION

Produce policy relevant, policy neutral **statistical information** on the **U.S. science and engineering enterprise**:

- Research and development
- Science and engineering workforce
- U.S. competitiveness in STEM
- STEM education in the United States



GSS and FFRDC Postdoc Survey

GSS

• **Census** of all U.S. academic institutions that grant research-oriented graduate degrees in science, engineering, or health (SEH) fields

Enumerates

- Master's and doctoral students
- Postdoctoral researchers (postdocs)
- Doctorate-holding nonfaculty researchers (NFRs)

Characteristics

Demographic characteristics, including sex, race, and ethnicity Financial support, including source and mechanism

Aggregated by

Administrative unit

NATIONAL CENTER FOR SCIENCE AND ENGINEERING STATISTICS

https://ncses.nsf.gov

FFRDC Postdoc Survey

- Census of all FFRDCs that employ postdocs
- Enumerates
 - Postdoctoral researchers (postdocs)



Current GSS Race/Ethnicity Categories

Citizenship, Ethnicity, and Race of Full-time Students (report full-time students in whole numbers)		Male 1	Female 2
Foreign nationals holding temporary visas, regardless of ethnicity or race	Α	0	0
U.S. citizens and permanent residents (non-U.S. citizens holding green cards)	·		
Hispanic/Latino ethnicity (one or more races)	в	0	0
Not Hispanic/Latino (one or more races)			
One race, American Indian/Alaska Native	С	0	0
One race, Asian	D	0	0
One race, Black/African American	Е	0	0
One race, Native Hawaiian/Other Pacific Islander	F	0	0
One race, White	G	0	0
More than one race (not Hispanic/Latino)	н	0	0
Ethnicity/race unknown or not stated	Т	0	0



Methods



Recruitment

- Selected 51 of 719 GSS schools; goal to complete 25 interviews with coordinators
- Selected 10 of 19 FFRDCs; goal to complete 5 interviews with coordinators
- E-mailed invitation to data collection coordinators
- Self-scheduled by clicking a link and selecting an available timeslot
- All interviews scheduled within one week



27 Participating GSS Schools

- Size: Ranged from fewer than 100 to over 3,000 graduate students
- School type: 22 public; 5 private
- Location: 22 U.S. states and territories
- Race and ethnicity of graduate students*:
 - % White ranged from less than 10% to 90%
 - At least 1 school:
 - > 20% Asian, Black or African American, or Multiracial
 - > 5% American Indian or Alaska Native, or Native Hawaiian or Other Pacific Islander

6 Participating FFRDCs

- Size: Ranged from fewer than 50 to over 400 postdocs
- Race and ethnicity of postdocs*:
 - o % White ranged from 50% to 100%
 - At least 1 FFRDC:
 - > 20% Asian

*U.S. citizens and permanent residents



Interview Protocol

- Interagency Technical Working Group developed a pool of questions
- Selected questions most pertinent to GSS/FFRDC
 - Recordkeeping practices for graduate students and postdocs
 - How and when race/ethnicity data collected, categories used, etc.
 - Feedback on both versions of the question
 - First impressions, alignment with current categories, feasibility of reporting, preference



Interview Procedures

- Interviews conducted online, 1 hour
- Audio and video recorded*
- Transcription via videoconferencing software*

*With participants' permission



Results



Record Data Collection and Maintenance

- Collected upon entry
 - Graduate students = Application form
 - Postdocs = Onboarding forms
- Not formally re-collected after entry
 Individuals can update their race/ethnicity if they choose
- Data stored in different systems
 - Graduate students = Student records
 - Postdocs = Human Resources



Race/Ethnicity Categories Currently Collected

- Race and ethnicity categories are based on OMB's current statistical standards and other federal data collections
- Some follow additional standards
- None collect data in as much detail as the detailed version
- Few collect the Middle Eastern and North African (MENA) category
- Race is not always collected for Hispanic individuals, especially postdocs



Feedback on Minimum Categories

- Preferred version by majority of respondents
- Mixed opinions about the addition of the Middle Eastern or North African (MENA) category
- Ordering categories by prevalence caused diversity, equity, and inclusion (DEI) concerns



Feedback on Detailed Categories

- Concerns about the level of detail included:
 - Why <u>these</u> detailed categories?
 - o Utility
 - o Data quality
 - o Burden
 - Disclosure risk
 - Coding/processing write-in responses
 - Level of effort and resources needed



Limitations of Research

- Testing focused on categories in the self-report questions
- Participants were not always knowledgeable about all aspects of the data collection
- Input needed from administration with decision-making authority



Resources

Survey descriptions and methodology

GSS: <u>https://ncses.nsf.gov/surveys/graduate-students-postdoctorates-s-</u> e/2021#methodology

FFRDC Postdoc Survey:

https://ncses.nsf.gov/surveys/ffrdc-postdocs/2021#methodology

2021 data

GSS:

https://ncses.nsf.gov/surveys/graduate-students-postdoctorates-se/2021#data

FFRDC Postdoc Survey:

https://ncses.nsf.gov/surveys/ffrdc-postdocs/2021#data





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Slides for Post-Conference Version



Motivation for the Research

- January 2023: OMB released Initial Proposals for Updating OMB's Race and Ethnicity Statistical Standards
- Two versions of a self-report race/ethnicity question proposed
- OMB requested NCSES and other federal statistical agencies test the proposed questions in the context of establishment surveys
- NCSES selected two related surveys for this research
 - Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS)
 - Survey of Postdocs at Federally Funded Research and Development Centers (FFRDCs)



Current Race/Ethnicity Questions



OMB's 1997 Statistical Standard for the Collection of Race and Ethnicity

Are you Hispanic or Latino?

O Yes O No

What is your race? *Select one or more*

American Indian or Alaska Native
 Asian
 Black or African American
 Native Hawaiian or Other Pacific Islander
 White



Proposed Race/Ethnicity Questions



Combined Question with Minimum Categories

What is your race or ethnicity? *Select all that apply.*

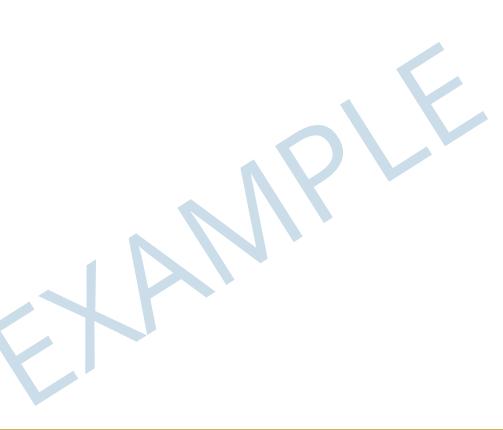
White

Hispanic or Latino

Black or African American

Asian

- American Indian or Alaska Native
- Middle Eastern or North African
- Native Hawaiian or Pacific Islander





What is your race or ethnicity?

Select all that apply **AND** enter additional details in the spaces below. Note, you may report more than one group.

□ White – *Provide details below.*

□ German □ Italian

□ Irish □ English □ Polish □ French

Enter, for example, Scottish, Norwegian, Dutch, etc.

□ Hispanic or Latino – *Provide details below*.

- Mexican or Puerto Rican Cuban Mexican American
- □ Salvadoran □ Dominican □ Columbian

Enter, for example, Guatemalan, Spaniard, Ecuadorian, etc.



What is your race or ethnicity?

Select all that apply **AND** enter additional details in the spaces below. Note, you may report more than one group.

Black or African American – *Provide details below.*

African American	🗖 Jamaican	🗖 Haitian
Nigerian	🗖 Ethiopian	🗆 Somali

Enter, for example, Ghanaian, South African, Barbadian, etc.

Asian – *Provide details below.*

□ Chinese □ Filipino □ Asian Indian

□ Vietnamese □ Korean

🗖 Japanese

Enter, for example, Pakistani, Cambodian, Hmong, etc.



What is your race or ethnicity?

Select all that apply **AND** enter additional details in the spaces below. Note, you may report more than one group.

□ American Indian or Alaska Native– Enter, for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Tribal Government, Tlingit, etc.

□ Middle Eastern or North African – *Provide details below.*

- □ Lebanese □ Iranian □ Egyptian
- □ Syrian □ Moroccan □ Israeli

Enter, for example, Algerian, Iraqi, Kurdish, etc.



What is your race or ethnicity?

Select all that apply **AND** enter additional details in the spaces below. Note, you may report more than one group.

□ Native Hawaiian or Pacific Islander – *Provide details below.*

- Native HawaiianTongan
- □ Samoan □ Fijian

Chamorro
Marshallese

Enter, for example, Palauan, Tahitian, Chuukese, etc.



