The NASA Science Mission Directorate's ROSES 2021 Research and Analysis Yearbook: An Online Resource for Programmatic and Self-Reported Demographic Data

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What is the ROSES 2021 Research and Analysis Yearbook?

An annual report of statistics regarding the review process and awards made

An online, living resource: [https://science.nasa.gov/roses2021yearbook/](https://science.nasa.gov/roses2021yearbook/)

Concentrates on ROSES 2021, with aggregated data from the previous five ROSES years provided as context

Updates will be added as new analyses are completed

- Effects of Dual Anonymous Peer Review (DAPR)
- Future Investigators in NASA Earth and Space Science and Technology (FINESST) Student PIs
- Reviewer demographics
Initial Yearbook Contents (1)

SMD Directorate and Division level analyses

PI and science team demographics for submitted and selected proposals

- Demographic Survey Response Data
  - Gender
  - Race
  - Ethnicity
  - Disability Status
  - Career Stage from final degree year

- Selection Rates by PI demographic categories
- Intersectional Analyses (Directorate only)
- ROSES 2021 science team composition
Initial Yearbook Contents (2)

Submitting Institutional Categorization

- Carnegie Classification of Research Activity
- Minority-Serving Institutions (MSIs)
- Institution Type (educational, non-profit, NASA center, etc.)

Other

- Unique PI cohort
- New PI
- Time from proposal submission to award notification

Selection Documents
Suppression Guidelines for Self-Reported Demographic Data

Required suppression for public presentation of demographic survey data includes:

1. Percentages less than 1% (including null values) are shown as <1%, and all other percentages are rounded to the nearest full digit.

2. If there are 10 or less unique people in a cell, the result will be reported as either <11 or NR (Not Reportable).

3. Total selections and submissions by year cannot be reported. The total number of proposals submitted across all SMD Divisions for all years can be shown.

4. Selection rates (selections/submissions) are not computed when the total submissions (the denominator) for a particular group is less than 50; or number of unique people selected is 10 or less.
The number of proposals for each Division and for each ROSES year cannot be shared.

Some demographic survey response categories cannot be shared:

1. The non-binary gender response
2. Individual Disability responses are merged
   a. Hearing Impairment
   b. Visual Impairment
   c. Mobility/Orthopedic Impairment
   d. Other Impairment
3. Five race response categories are presented with suppression and separately as a merged category called Underrepresented community (URC)
   a. American Indian or Alaskan Native
   b. Black or African American
   c. Native Hawaiian or Other Pacific Islander
   d. Other
   e. Multiracial: more than one race selected (includes White)
SMD PI Race (URC): Yearbook Plots

Under-Represented Community (URC) includes American Indian & Alaska Native, Black, Native Hawaiian & Other Pacific Islander, Multiracial, and Other. | PNA: Prefer not to answer | ROSES 2016-2020 proposal data are aggregated.
SMD PI Race (URC): Yearbook Tables

**SMD Submitted PIs – Race (URC)**

<table>
<thead>
<tr>
<th>Race (URC)</th>
<th>SMD 2016 - 2020</th>
<th>SMD 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>White</td>
<td>62%</td>
<td>63%</td>
</tr>
<tr>
<td>URC</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>PNA</td>
<td>18%</td>
<td>14%</td>
</tr>
</tbody>
</table>

**SMD Selected PIs – Race (URC)**

<table>
<thead>
<tr>
<th>Race (URC)</th>
<th>SMD 2016 - 2020</th>
<th>SMD 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>White</td>
<td>67%</td>
<td>66%</td>
</tr>
<tr>
<td>URC</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>PNA</td>
<td>16%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Under-Represented Community (URC) includes American Indian & Alaska Native, Black, Native Hawaiian & Other Pacific Islander, Multiracial, and Other. | PNA: Prefer not to answer | ROSES 2016-2020 proposal data are aggregated.
SMD PI Race (URC): Yearbook Selection Rate

Selection Rate = # of selected proposals with PIs from a demographic response group/
# of submitted proposals with PIs from the same demographic response group

Under-Represented Community (URC) includes American Indian & Alaska Native, Black, Native Hawaiian & Other Pacific Islander, Multiracial, and Other. | NR: Not Reportable | PNA: Prefer not to answer | ROSES 2016-2020 proposal data are aggregated.
## SMD PI Race and Gender: Yearbook Tables

### SMD Submitted PIs: Race (URC) & Gender
**Dropped N (2016 - 2021): 21%**

<table>
<thead>
<tr>
<th>Race (URC)</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>24%</td>
<td>76%</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>White</td>
<td>26%</td>
<td>74%</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>URC</td>
<td>35%</td>
<td>65%</td>
<td>38%</td>
<td>62%</td>
</tr>
</tbody>
</table>

### SMD Selected PIs: Race (URC) & Gender
**Dropped N (2016 - 2021): 19%**

<table>
<thead>
<tr>
<th>Race (URC)</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>28%</td>
<td>72%</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>White</td>
<td>27%</td>
<td>73%</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>URC</td>
<td>36%</td>
<td>64%</td>
<td>43%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Dropped N includes Prefer Not to Answer (PNA) race and gender responses, and Non M/F gender responses. Under-Represented Community (URC) includes American Indian & Alaska Native, Black, Native Hawaiian & Other Pacific Islander, Multiracial, and Other. ROSES 2016-2020 proposal data are aggregated.
We would like your feedback on this session: Please email Malayna.Nesbitt@nasa.gov with any comments you have or follow the QR code below

Thank you!

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https://science.nasa.gov/roses2021yearbook/