

INTRODUCING THE NEW NASA SCIENCE MISSION DIRECTORATE'S ROSES 2021 RESEARCH AND ANALYSIS YEARBOOK: AN ONLINE RESOURCE FOR PROGRAMMATIC AND SELF-REPORTED DEMOGRAPHIC DATA. H. B. Jensen^{1,*}, L. L. Pappas¹, N. A. Taha¹, and M. H. New². ¹Agile Decision Sciences, Washington, D.C., ²NASA Headquarters, Washington, D.C., *heidi.b.jensen@nasa.gov.

Introduction: The ROSES 2021 Research and Analysis Yearbook is a new, living, online resource to provide relevant science communities and the public with data about ROSES 2021, including programmatic information and demographic analyses of proposers and reviewers. The initial release includes analyses and discussion of the demographic characteristics of proposers to research and analysis solicitations for ROSES year 2021. These data will be presented at both Science Mission Directorate (SMD) and division levels, with comparisons of ROSES 2021 with aggregated data for the five previous ROSES years to provide context. Following the initial release, additional analyses will be added as they are completed.

ROSES 2021 Research and Analysis Yearbook: Contents of Initial Release:

1. **Introduction:** Discussion of the document purpose by SMD Deputy Associate Administrator for Research Michael New.
SMD-wide and division-level analyses.
2. **PI and science team demographics for proposed and awarded proposals:** Analysis of self-reported demographic data for proposers to ROSES solicitations, with comparisons between ROSES 2021 and ROSES 2016-2020.
3. **Institutional classifications for proposed and awarded proposals:** a) Minority Serving Institutions, Historically Black Colleges and Universities, Tribal Colleges and Universities; b) Carnegie Classification of Research Intensity (R1, R2, etc.); c) Institution Type (Commercial, Educational, Non-profit, etc.).
4. **Selection Rates:** Number of selected proposals/ Number of submitted proposals.
5. **Max-o-grams:** Selected and declined proposals by proposal score.
6. **New PI:** Submission and selection rates for new PIs. A new PI has not been selected as the PI on a proposal submitted to a given program element in the last five years.
7. **Time-to-announce:** Time from proposal submission to selection announcement.
8. **Proposed versus actual budget size for awarded proposals:** How budget size changes from proposal to award.

ROSES Demographic Data Survey: NASA began collecting voluntary demographic information

from research teams submitting proposals for research grants and proposal reviewers in 2016. This information was collected from individuals upon logging into the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) [1]. Initially, the survey included questions about the following demographic categories: gender, ethnicity, race, and disability. In 2019, the survey was updated to include an additional option for gender and questions about career information, including: year of terminal degree, highest degree earned, career classification sector and career type. Where possible, newly collected demographic responses were used to update previous demographic survey responses.

Institution Classifications: In addition to demographic information about proposing research teams, information about the institutions submitting proposals will be presented; institution type, Carnegie classification of research intensity [2], and Minority Serving Institution (MSI) classification [3,4].

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References: [1] NASA Solicitation and Proposal Integrated Review and Evaluation System, <https://nspires.nasaprs.com/external/>. [2] Carnegie Classifications public data files, <http://carnegieclassifications.iu.edu/downloads/>. [3] NASA Minority Serving Institutions (MSI) List, https://www.nasa.gov/sites/default/files/atoms/files/ed_u_nasa_msi_list_aug_2021.pdf. [4] Eligibility Designations and Applications for Waiver of Eligibility Requirements, <https://www2.ed.gov/about/offices/list/ope/idades/eligibility.html>.