

## **SUPPORTING STATEMENT PART A**

**TITLE OF INFORMATION COLLECTION:** NASA Internship Outcome Assessment (Intern Survey)

**TYPE OF INFORMATION COLLECTION:** New Data Collection

### **A. JUSTIFICATION**

**1. Explain the circumstances that make the collection of information necessary.**

The National Aeronautics and Space Administration (NASA) Office of STEM Engagement (OSTEM), requests that the Office of Management and Budget (OMB) approve, under the Paperwork Reduction Act of 1995, clearance for NASA to collect short- and intermediate-outcome data by surveying participants in the NASA Internship Program in support of the Internship Outcome Assessment. The clearance for universal registration portion of the system is sought for the period of three years.

NASA internships and fellowships leverage NASA's unique missions and programs to enhance and increase the capability, diversity and size of the nation's future science, technology, engineering and mathematics (STEM) workforce. Research has demonstrated that internships and work-based learning experiences are positively associated with student outcomes such as STEM concept knowledge and STEM persistence (National Academies of Sciences, Engineering, and Medicine, 2017). Thus, participation in such experiences has been viewed as an important evidence-based practice to addressing current STEM workforce needs. Although there is an extant literature documenting the outcomes of such experiences on students, there is much less research documenting the contributions of such experiences to the STEM field. This study will generate evidence that can be used to assess whether NASA internships are associated with positive student experiences and outcomes and ultimately inform programmatic improvement. Additionally, this study will assess the extent to which NASA internships are associated with benefits to NASA.

The purpose of the Internship Outcome Assessment is to measure students' immediate outcomes of participating in a NASA internship and assess how and to what extent interns are contributing to NASA's missions. Additionally, this evaluation will identify sources of group differences and address how NASA can continue to broaden participation of students from historically underrepresented groups in STEM fields. The findings of this evaluation are intended to be used for programmatic improvement and to assess the feasibility of instituting a yearly evaluation cycle. By comparing and analyzing survey responses and contributions by NASA interns, the Agency will be better able to determine differences based on underrepresented group status and isolate avenues for growth amongst this population.

**2. Indicate how, by whom, and for what purpose the information is to be used.**

The purpose of this data collection is to support the NASA Internship Outcome Assessment for the NASA Internship Program.

## **Evaluation Data**

Data from the NASA Intern Survey information collection will be used by the NASA Office of STEM Engagement (OSTEM) to establish better defined goals, outcomes, and standards for measuring progress and to evaluate the outcomes of NASA's Internship Program. A primary use of the data will be to monitor project activities and make evidence-based decisions about programs and activities. The data will allow NASA to describe and understand the internship program implementation, characterize participation and describe program outputs and outcomes. Results from the surveys will be used to establish better defined goals, outcomes, and standards for measuring progress. This process of improvement will enhance NASA's strategic planning, performance planning, and performance reporting efforts as required by the GPRA Modernization Act of 2010 and Evidence-Based Policymaking Act of 2018.

- 3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting electronic submission of responses, and the basis for the decision for adopting this means of collection.**

The NASA STEM Gateway (Universal Registration and Data Management System) and SurveyMonkey are web-based tools that enable the NASA OSTEM to manage 1-1 applicant and participant journeys through the entire lifecycle of evaluation survey development, data collection, analysis and reporting.

- 4. Describe efforts to identify duplication.**

There is no duplication as there are no other sources available to collect this information.

- 5. If the collection of information impacts small businesses or other small entities (Item 5 of the OMB Form 83-I), describe the methods used to minimize burden.**

The collection of information does not affect small businesses or other small entities.

- 6. Describe the consequence to federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

If this data collection is not conducted, NASA will not be able to strategically assess short- and intermediate-outcome data by surveying participants in the NASA Internship Program. The evidence collected via evaluation surveys will be utilized to build knowledge to inform NASA evidence-based decision-making.

- 7. Explain any special circumstances that would cause an information collection to be conducted in an exceptional manner:**

All data will be collected in a manner consistent with the guidelines in 5 CFR 1320.6.

- 8. Provide the date and page number of publication in the Federal Register for the 60-day and 30-day FNRS, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB.**

**60-day FRN:** Federal Register 85 FR 30742, on 05/20/2020. No comments were received.

**30-day FRN:** Federal Register 86 FR 12217, on 03/02/2021. No comments were received.

**9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

There are no payments or gift to respondents.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

Any information collected through the NASA STEM Gateway (Universal Registration and Data Management System) or SurveyMonkey will be maintained in accordance with the Privacy Act of 1974. All data collected will be available to NASA officials and staff, evaluation contractors, and the contractors hired to manage the data and data collection software. Data are processed according to Federal and State privacy statutes.

The NASA STEM Gateway (Universal Registration and Data Management system) application resides in a certified NASA data center and has met the strict requirements relating to Application Security, Network Security, and Backup/Recovery of the NASA CIO security plan. Data will be secured and removed from this server and location upon guidelines set out by the NPR Schedule 1, 1392.70 indicating that data be stored for a period of two years and then retired to the Federal Records Center and destroyed after a period of 10 years.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

None of the data collected in the NASA STEM Gateway (Universal Registration and Data Management System) or SurveyMonkey is sensitive in nature.

**12. Provide estimates of the hour burden of the collection of information.**

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RESPONDENT CATEGORY	NUMBER OF RESPONDENTS	ESTIMATED COMPLETION TIME	ANNUAL BURDEN	ESTIMATE D COST/HR	TOTAL COST BURDEN
Students	2,100	20 minutes	700 hours	\$17.43/hr	\$12,201
<b>TOTAL</b>	<b>2,100 (estimated annual average)</b>	<b>20 minutes (estimated average)</b>	<b>700 (estimated average)</b>		<b>\$12,201(estimated cost burden to respondents)</b>

**13. Provide an estimate of the total annual cost burden to respondents or record keepers resulting from the collection of information.**

Other than their time to complete the surveys and forms, which are estimated in the table in section/question 12 above, there are no direct monetary costs to respondents. That is, there are no

capital and start-up costs nor are there total operation and maintenance and purchase of services costs.

**14. Cost to the Federal Government: Provide estimates of annualized costs to the Federal government.**

The estimated cost to the government for the development, testing, analysis and finalization of the NASA Intern Survey supporting the NASA Internship Outcome Assessment is \$1120. The cost is based on an annualized effort of 20 person-hours at the evaluator's rate of \$56/hour for development and administering the survey instrument, collecting and analyzing responses, and finalizing the survey instrument.

The estimated cost to the government for the development of the evaluation surveys portion of the NASA STEM Gateway system is \$203,795 over a two and half-month period. This cost includes Information Technology (IT) contract costs and direct employee costs for the hardware, software, design, development time, testing, defect resolution and release hardening for the universal registration and application portion of the system.

The IT contract cost of \$180,555 were calculated based on development of all evaluation surveys and platform journeys task deliverable costs for the universal registration and data management system. The direct employee costs were calculated by multiplying estimated aggregate hours spent on the project (10 weeks) by the annual pay of one GS-14 Step 1 employees at .2 FTE ( $\$116,203 \times .2 \text{ FTE} = \$23,240$ ).

The total cost to the Federal Government is \$204,915.

**15. Changes in Burden: Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I, if applicable.**

Not applicable.

**16. Publication of Results: For collections of information whose results will be published, outline plans for tabulation and publication.**

Not applicable.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

Not applicable.

**18. Explain each exception to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submissions," of OMB Form 83-I.**

Not applicable.

**The NASA office conducting or sponsoring this information collection certifies compliance with all provisions listed above.**

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**Date:** 03-31-2021

*(Certifying individual must be a civil service employee)*