

Sustaining STEM in a Time of Uncertainty

*Challenges and Capacity Needs
Across the STEM Education
Community*

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Survey was administered during the dates:

June 18, 2025 - August 10, 2026

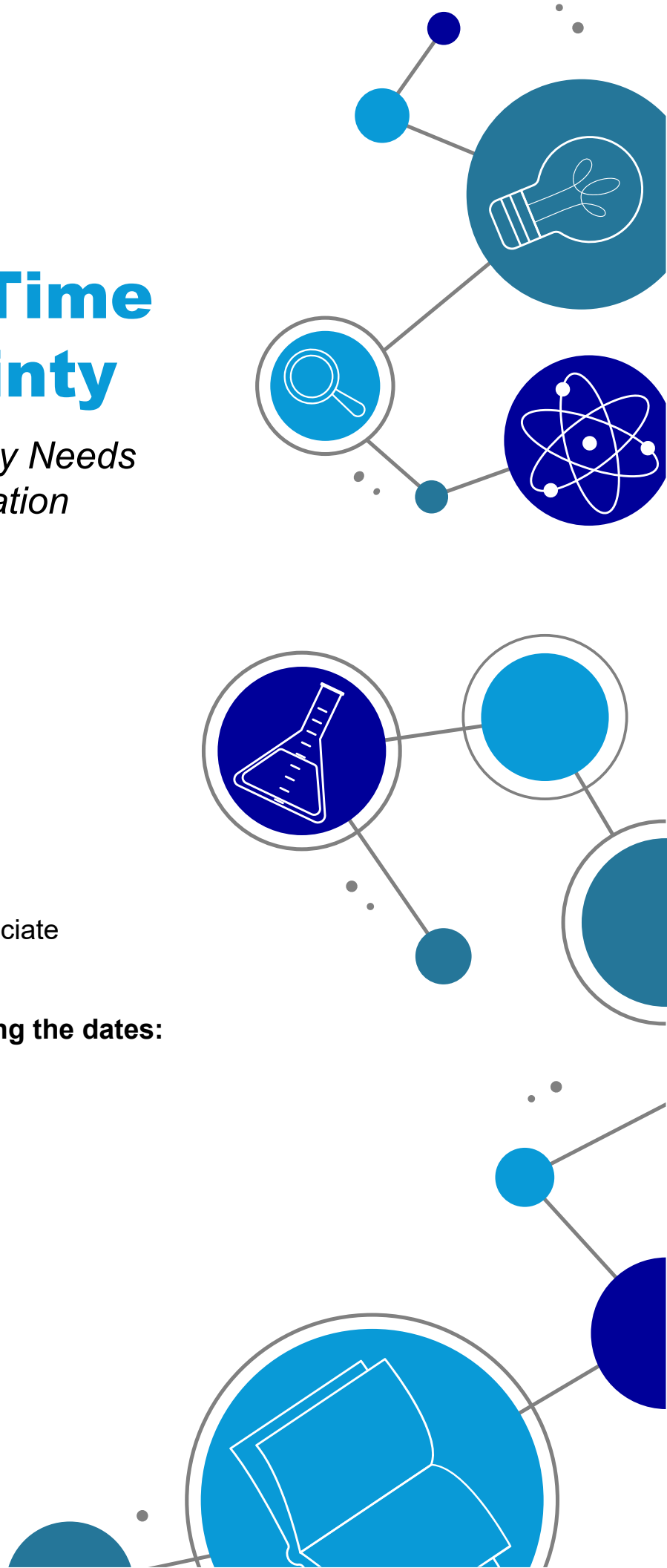


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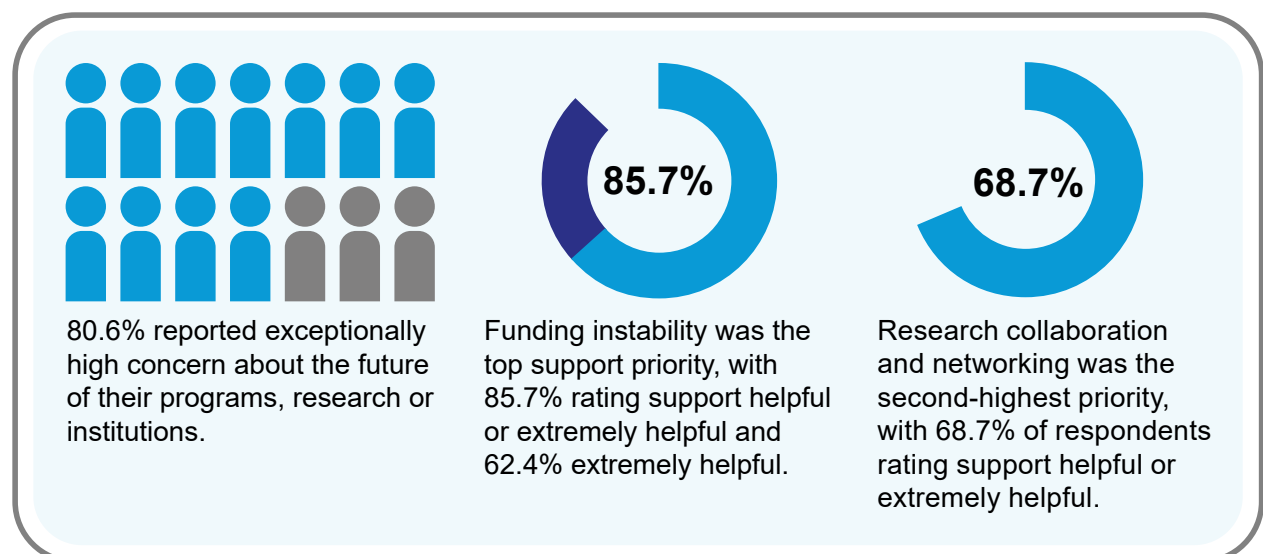
EXECUTIVE SUMMARY

AUI's Education and Public Engagement team administered a national survey to better understand the priorities, pressures, and support needs of STEM education researchers and practitioners. As of August 10, 2026, 177 stakeholders had participated. Participants included researchers, higher education faculty, informal and K–12 educators, evaluators, grant writers, and program administrators working across multiple institutional settings.

Key Findings:

- Concern about the future of respondents' programs, research, or institutions is exceptionally high. Among 142 respondents, the average concern rating was 80.6 on a scale from 0 to 100, with a median of 90.
- Navigating funding instability is the clearest support priority. Of respondents who rated this area, 85.7% described such support as helpful or extremely helpful, including 62.4% who rated it extremely helpful.
- Research collaboration and networking was the second-highest-rated priority, with 68.7% of respondents rating this support as helpful or extremely helpful.
- Respondents also identified a substantial need for researcher–practitioner relationship building, dissemination and outreach, policy integration, proposal development, professional development, program adaptation, and evaluation.
- Together, the findings point to a need for support across the full lifecycle of STEM education work—from identifying funding and collaborators to developing, implementing, evaluating, disseminating, and sustaining projects.

Interpretive Note: Respondents were recruited through professional and stakeholder networks rather than probability sampling. The findings therefore describe the experiences and priorities of participating stakeholders and should not be interpreted as



statistically representative of the entire STEM education field. Respondents could select multiple professional roles and institutional affiliations. Percentages for support needs are calculated separately for each area using the number of respondents who rated that item.

INTRODUCTION: WHY THIS SURVEY, WHY NOW?

Science, technology, engineering, and mathematics (STEM) are central to the nation's economic vitality, public well-being, security, and capacity to respond to complex challenges. In 2023, approximately 36 million people—one-quarter of the U.S. workforce—were employed in STEM occupations. Employment in these occupations is projected to continue growing faster than employment outside STEM, reflecting sustained demand for scientific, technical, analytical, and computational expertise (National Science Board [NSB], 2026). This need is especially visible in fields such as artificial intelligence, cybersecurity, biotechnology, advanced manufacturing, energy, and data science. Maintaining this capacity depends not only on research and technological investment, but also on a strong educational infrastructure that prepares learners, supports educators, connects research with practice, and expands pathways into STEM careers.

At the same time, the educational pipeline supporting this workforce is under strain. National assessments indicate that average eighth-grade science performance declined between 2019 and 2024, while mathematics performance remains below pre-pandemic levels for most groups of students (National Center for Education Statistics [NCES], 2025; NSB, 2026). These trends do not indicate a simple shortage of student interest or ability. Rather, they point to a broader capacity challenge involving access to experienced educators, effective instructional resources, sustained programs, and

evidence-based approaches that help learners develop STEM knowledge and see viable pathways into related careers.



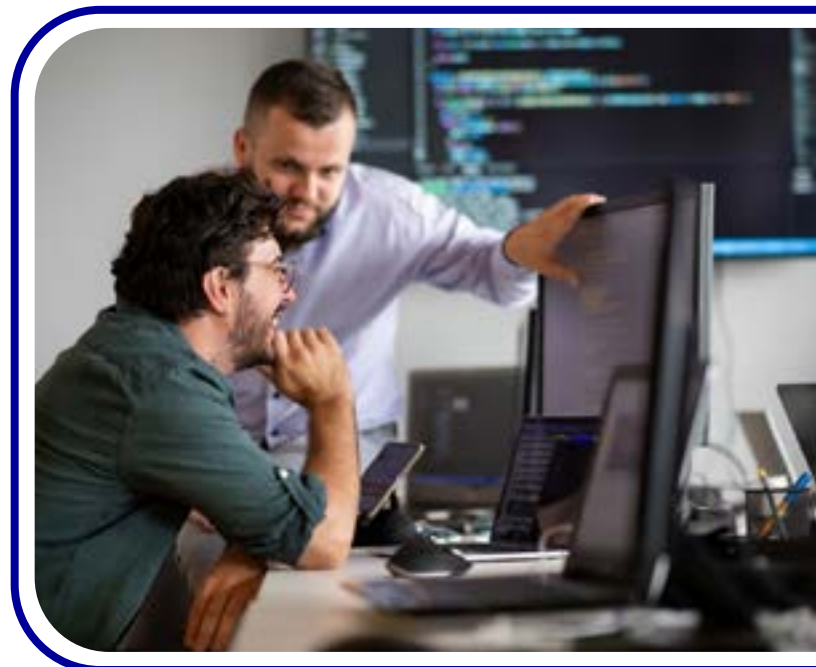
STEM education must also operate within an increasingly difficult information environment. The rapid circulation of inaccurate or misleading scientific claims can affect personal decisions, public understanding, and confidence in scientific institutions. The National Academies of Sciences, Engineering, and Medicine (NASEM, 2024) concluded that misinformation about science can produce harm at individual, community, and societal levels and requires coordinated, system-level responses. Public confidence in scientists remains comparatively high—

77% of U.S. adults report at least a fair amount of confidence in scientists to act in the public interest—but remains below its level at the beginning of the COVID-19 pandemic, and views of science have become increasingly divided across political groups (Kennedy & Kikuchi, 2026). In this context, STEM education serves two connected purposes: preparing people for a changing workforce and helping members of the public evaluate evidence, assess the credibility of information, and participate meaningfully in decisions involving science and technology.

These responsibilities are expanding while the organizations that carry them out face significant financial uncertainty. Recent federal budgets and budget proposals have constrained resources available for research and education. NSF's enacted fiscal year 2024 budget was 5% below its fiscal year 2023 base appropriation, and the fiscal year 2026 federal budget request proposed \$3.9 billion for NSF, compared with the agency's \$9.06 billion fiscal year 2024 budget (U.S. National Science Foundation [NSF], 2025, 2026). The fiscal year 2026 education request also proposed eliminating or substantially reducing multiple programs supporting educational research, institutional development, after-school learning, and other forms of educational capacity (U.S. Department of Education, 2025). Because budget requests are proposals rather than enacted appropriations, their precise effects depend on congressional action. Nevertheless, the combination of enacted reductions, proposed reductions, expiring funding, and uncertainty about future opportunities makes long-term planning difficult for STEM education organizations.

This creates a consequential tension. National priorities increasingly emphasize artificial intelligence and other critical technologies, yet progress in these areas requires a sufficiently broad, well-prepared, and adaptable STEM workforce. Technology investments alone cannot produce that workforce. They depend on educators, researchers, program developers, evaluators, community organizations, and institutional partnerships capable of preparing learners, testing effective approaches, communicating science, and sustaining pathways into STEM.

AUI undertook this survey to understand how the professionals responsible for work within the STEM education field are navigating the current professional realities and how AUI might respond constructively. Rather than presuming what the field needs, the survey asked where stakeholders are experiencing the greatest pressure, what forms of assistance would be most useful, and where those needs align with AUI's strengths and



resources. The resulting findings provide a basis for considering how AUI might serve as a convener, connector, research partner, and capacity-building organization at a time when the STEM education community is being asked to accomplish more under increasingly constrained and uncertain conditions.

METHODS

AUI conducted a descriptive, mixed-format survey to examine the challenges, priorities, and support needs of professionals working in STEM education. The instrument included closed-ended questions concerning respondents' professional roles, institutional affiliations, level of concern about the future of their work, and perceived usefulness of different forms of support (Appendix A). Open-ended questions allowed respondents to explain their concerns, describe experiences within the field, and identify additional needs in their own words. Combining structured items with open-ended responses enabled the survey to document broad patterns while also capturing experiences and priorities that predetermined response categories might not fully represent.

Participants and Recruitment



The intended participant population included professionals working broadly in STEM education, including researchers, higher education faculty and instructors, K–12 and informal educators, evaluators, grant writers and fundraisers, and program developers and administrators. No formal eligibility screening was applied.

The survey was administered through SurveyMonkey software from June 18, 2025, through August 10, 2026. Invitations were distributed through email, professional networks and listservs, social media and web-based communications, and direct outreach to organizational partners. Participation was based on voluntary response rather than probability

sampling. Because the survey link was distributed through overlapping professional networks and the number of people who received or encountered the invitation is unknown, a conventional response rate cannot be calculated (American Association for Public Opinion Research [AAPOR], 2023).

A total of 177 individuals submitted survey responses. Because respondents were permitted to skip questions, the number of valid responses varies across items. Incomplete responses were retained so that all available information could contribute to the analysis. The dataset was reviewed for potentially duplicate submissions, and no duplicates were identified.

Ethics and Participant Protection

Before beginning the survey, prospective participants were informed of its purpose and the voluntary nature of participation. Consent was indicated by choosing to proceed with the survey. The instrument did not request names or other direct personal identifiers. Respondents could decline to answer individual questions or discontinue participation.

The survey was conducted as an organizational needs-assessment activity to inform AUI's planning and potential services to the STEM education community. It was not submitted for institutional review board review. Accordingly, the report does not characterize the activity as IRB-approved or IRB-exempt. Findings are reported in aggregate, and open-ended responses are presented without information intended to identify individual respondents.

Quantitative Analysis

Closed-ended responses were summarized using SurveyMonkey and Microsoft Excel. Analyses included frequencies, percentages, and, where appropriate, measures of central tendency and dispersion. For the 0–100 concern item, the mean, median, standard deviation, and range were calculated. For questions asking respondents to rate multiple support areas, percentages were calculated separately for each item using the number of respondents who provided a rating for that item. “Helpful” and “extremely helpful” responses were combined when reporting the proportion expressing a positive need for each form of support.

Respondents could select more than one professional role or institutional affiliation. Consequently, percentages for those questions are not mutually exclusive and may total more than 100%. No inferential statistical tests or population estimates were conducted because the survey used voluntary-response recruitment rather than probability sampling.



Qualitative Analysis

One researcher manually reviewed and coded the open-ended responses using Microsoft Word and Excel. The analysis followed qualitative coding principles described by Saldaña (2021). Initial codes were informed by the survey questions and the needs-assessment purpose, providing a common structure for examining responses across participants. Related codes were then grouped into broader categories representing recurring challenges, support needs, and potential areas of alignment with AUI's capacities. The researcher reviewed responses within and across categories to identify recurring patterns, illustrative examples, and responses that complicated or differed from the dominant patterns.

Open-ended findings were used to contextualize and deepen the interpretation of the closed-ended results rather than to estimate the prevalence of themes across the larger STEM education field. Quotations were selected for their ability to illustrate documented patterns or meaningful variation. They were not treated as representative of all respondents.



Integration of Findings

Quantitative and qualitative findings were interpreted together. Closed-ended data were used to identify the relative prominence of concerns and support needs, while open-ended responses helped explain how respondents experienced those conditions and why particular forms of assistance mattered. Areas of convergence strengthened the interpretation of major findings. Variation and counterexamples were retained when they revealed differences associated with respondents' roles, institutional circumstances, existing capacities, or stages of program development.

Methodological Limitations

Several limitations should guide interpretation. First, participants constituted a voluntary-response sample recruited through AUI's professional and stakeholder networks. Individuals already connected to these networks or especially concerned about current conditions may have been more likely to participate. Second, because no formal sampling frame or eligibility screening was used, the findings cannot be treated as statistically representative of all U.S. STEM education professionals. Representation from minority-serving institutions, Tribal colleges and universities, community colleges, and K–12 organizations was particularly limited.

Third, responses were collected over an extended period during which the policy, funding, and institutional environment changed. The findings provide an aggregate picture of needs expressed between June 2025 and August 2026 but cannot determine whether individual responses changed over time. Fourth, incomplete responses were retained, resulting in different denominators across questions. Finally, the open-ended analysis was completed by one coder. Although a consistent, question-informed coding structure was used, the themes reflect that researcher’s analytical judgment and were not independently verified through intercoder agreement. These limitations do not negate the patterns in the data, but they appropriately constrain the scope of the conclusions.

FINDINGS

How STEM Education Research Supports AUI’s Mission

STEM education research directly supports AUI’s mission by strengthening the people, programs, partnerships, and evidence needed to advance scientific discovery and its benefits to society. AUI’s existing strengths in network facilitation, science communication, community engagement, program development, evaluation, and collaborative research provide a strong foundation for contributing to this work. The findings that follow examine where STEM education stakeholders are experiencing the greatest challenges and where their identified needs may intersect with these organizational capacities.

Mission Alignment:

- Innovation: Supports cutting-edge learning and evaluation practices.
- Inclusion: Helps dismantle barriers to participation.
- Excellence: Elevates research practices in formal and informal education.

Why Research Capacity Matters

The survey also explored the role that research capacity can play in strengthening STEM education programs—not only by generating knowledge, but by supporting program improvement, demonstrating impact, and communicating the value of STEM education to broader audiences.



“Our program serves first-generation college students. Research helps us validate and improve our work—we just need support doing it.”

“We need more partners like AUI that understand the value of informal STEM and can advocate for it nationally.”

—Survey respondents

Together, these perspectives position research support as a practical form of capacity building. Respondents are seeking partners that can help them produce evidence, apply it to program improvement, and communicate the value of their work to broader audiences.

What Are STEM Education Stakeholders Saying?

Who Participated:

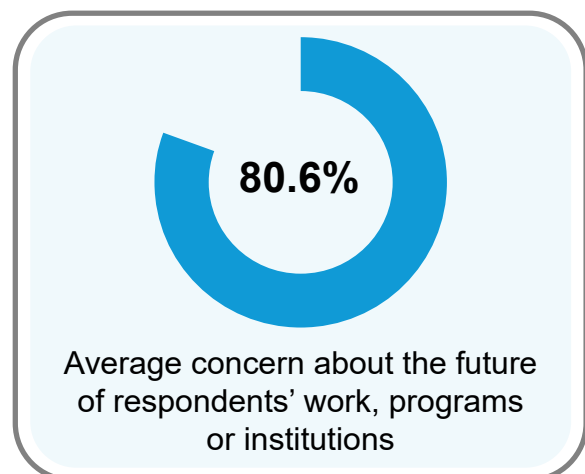
Professional roles: 54.2% of respondents identified as researchers, 36.7% as higher education faculty or instructors, 24.3% as grant writers or fundraisers, 23.2% as informal educators, 21.5% as program developers or administrators, 14.1% as evaluators, and 7.3% as K–12 educators. Respondents could select more than one role.

Institutional affiliations: 39.0% were affiliated with nonprofit organizations, 38.4% with public colleges or universities, 22.6% with private colleges or universities, 8.5% identified as independent researchers or consultants, and 5.7% each were affiliated with K–12 schools or districts and for-profit organizations. Respondents could select more than one affiliation.

The sample includes stakeholders working across research, education, program administration, evaluation, and fundraising. However, representation from minority-serving institutions, Tribal colleges and universities, community colleges, and K–12 organizations was limited. The findings may therefore understate or incompletely capture the distinctive conditions experienced in these settings.

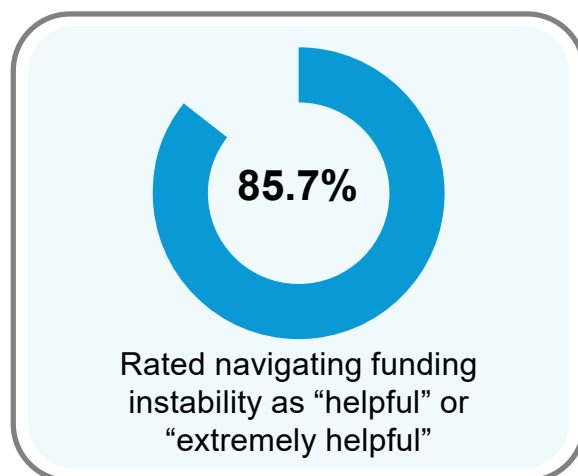
Key Concerns:

Concern about the future: Among 142 respondents, the average concern rating was 80.6 out of 100, with a median of 90 and a standard deviation of 22.05. Ratings ranged from 0 to 100, demonstrating variation across respondents; nevertheless, the median indicates that at least half rated their concern at 90 or higher.



Identified Needs:

- Navigating funding instability: 85.7% helpful or extremely helpful
- Research collaboration or networking: 68.7%
- Researcher–STEM practitioner relationship building: 60.0%
- Dissemination and outreach: 59.1%
- Policy integration or advocacy support: 57.8%
- Proposal writing and submission: 45.0%
- Professional development: 43.7%
- Program development or adaptation: 43.0%
- Evaluation design and implementation: 41.7%



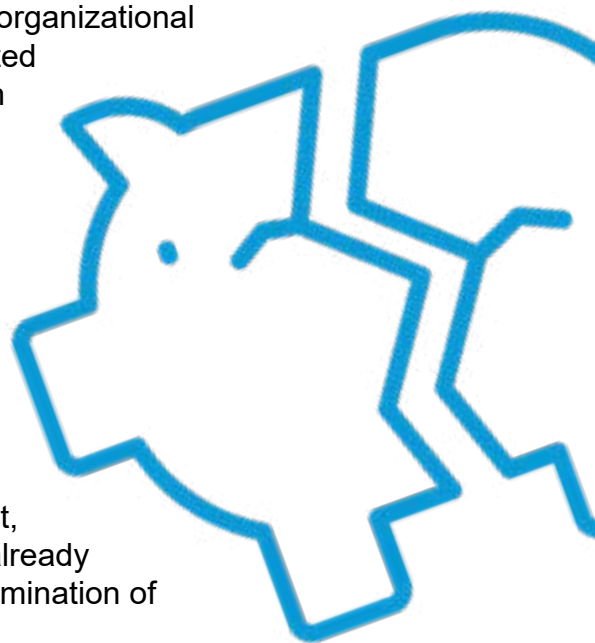
These results reveal distinct levels of need rather than equal demand for every form of support. Funding instability stands apart as the dominant priority and is the only area rated helpful or extremely helpful by more than four-fifths of respondents. Collaboration, relationship building, dissemination, and policy support form a second tier of priorities. Proposal development, professional development, program adaptation, and evaluation remain important, but their relevance appears to vary more substantially by respondent role, institutional capacity, and project stage.

Funding Instability Affects the Entire STEM Education Ecosystem

Respondents described funding instability through different organizational experiences. The following accounts illustrate three connected consequences: research may be stalled, planned innovation may be deferred, and organizations may lose multiple sources of operating revenue at once.

Research at risk of stalling

"I am a science educator in a college of education. I'm not too worried about my program (elementary education) or my institution. The biggest challenges facing both, though, are political challenges to academic freedom. My worries all revolve around research. STEM education is a strange field that is neither 'real' science (I hate calling it that, but it's the best way to describe it) nor humanities. We are already in a gray area with limited funding opportunities. With the elimination of



federal funding opportunities, which then strains private, foundation funding, I worry that research, but especially STEM education research, will stall and set the field back.”

Innovation delayed by uncertainty

“Aside from worries related to cuts in the education department and attacks on DEI, we have work we’d like to do with research partners that we don’t know when or if we’ll be able to get funded, handicapping our ability to innovate and progress in STEM education in our district.”

Multiple revenue sources contracting

“I run a national-scale organization that offers professional development for K–12 teachers. Our funding comes from a mix of grants and school districts. Districts have much less money to pay for programs such as ours, and grants are not available. We’re losing two key sources of revenue.”

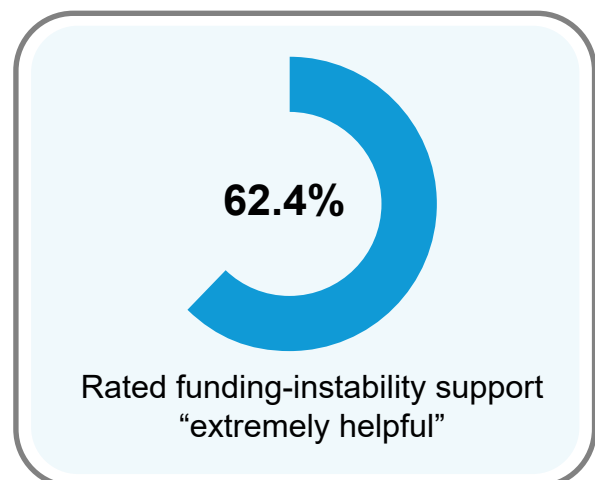
—Survey respondents

Although these respondents work in different settings, their accounts show how funding pressures can propagate across the field. Reduced or uncertain support affects research production, partnership development, district innovation, professional learning, and organizational stability—not simply the ability to win an individual grant.

The Current State of the STEM Education Research Field

Navigating funding instability was the most consistently and intensely rated need. Of the 133 respondents who rated this area, 114—or 85.7%—described funding-related support as helpful or extremely helpful. Most notably, 83 respondents, or 62.4%, rated it extremely helpful. Research collaboration and networking ranked second, with 90 of 131 respondents, or 68.7%, rating it helpful or extremely helpful. The distance between these results suggests that funding instability is not simply one concern among many; it is the dominant structural pressure affecting respondents’ ability to sustain programs, conduct research, retain capacity, and maintain partnerships.

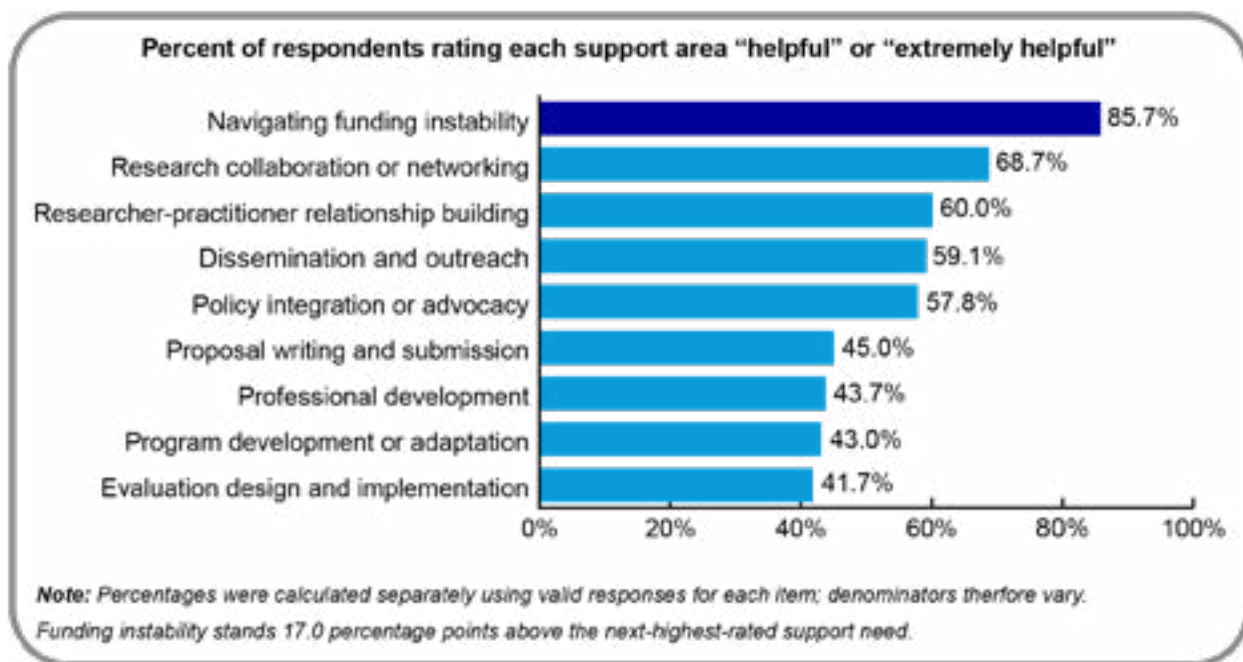
The findings also show that stakeholders need more than assistance obtaining funding. Substantial proportions identified needs related to building partnerships, developing or adapting programs, connecting research and practice, evaluating outcomes, engaging with policy,



and disseminating results. These priorities describe an interconnected project lifecycle: stakeholders must identify resources, form productive partnerships, implement strong programs, demonstrate results, communicate their work, and position successful efforts for continued support. Weakness at any point in this lifecycle can limit the long-term value of otherwise promising STEM education work.

Figure 1

Support Rated as Helpful or Extremely Helpful by STEM Education Stakeholders



As Figure 1 illustrates, funding instability is not merely the highest-ranked need; it stands nearly 17 percentage points above research collaboration and networking, the next-highest-rated area. The remaining results indicate that respondents also need an interconnected set of relational, operational, and dissemination supports.

Although concern and demand for support were high overall, respondents did not report uniform needs. This variation is particularly visible in the proportion of respondents who rated individual forms of support as "not helpful." Award administration (43.4%) and independent analysis of results (41.4%) had the highest proportions of "not helpful" ratings, followed by evaluation design and implementation (37.8%), program development or adaptation (33.6%), proposal writing and submission (29.5%), and professional development (27.8%). By contrast, only 6.0% of respondents rating support for navigating funding instability selected "not helpful." These differences likely reflect variation in professional responsibilities, institutional infrastructure, existing expertise, and project stage. The findings therefore point toward a differentiated model of support rather than a single package intended for all STEM education stakeholders.

Table 1*Variation in Perceived Need for Selected Support Areas*

Support Area	Not Helpful
Award Administration	43.4%
Independent Analysis of Results	41.4%
Evaluation Design and Implementation	37.8%
Program Development or Adaptation	33.6%
Proposal Writing and Submission	29.5%
Professional Development	27.8%

Note: Percentages were calculated separately for each support area using respondents who provided a rating for that item.

Taken together with Figure 1, these results reinforce the particularly broad demand for funding, collaboration, relationship-building, dissemination, and policy support, while suggesting that more specialized operational services may be highly valuable to particular stakeholders but less universally needed across the field.

The Challenge Is Not Always a Lack of Ideas

“We know what needs to happen. We just need help making it sustainable and collaborative.”

—Survey respondent

This statement captures an important distinction in the findings. Some stakeholders are not primarily asking AUI to define their goals or design their work. They need infrastructure that helps existing work attract sustained resources, connect with appropriate partners, and continue beyond short-term funding cycles.

Areas of Synergy Between Stakeholder Needs and AUI’s Capacity

Based on survey responses, stakeholders in STEM education research currently turn to a mix of professional networks, institutional partners, and informal communities for support and collaboration. Many rely on **disciplinary associations** such as NARST, AERA, and ASTC, while others seek guidance from funding agencies like NSF and NASA through program officer consultations and proposal webinars. Respondents also mentioned turning to trusted colleagues, former collaborators, and social media networks (especially Twitter and LinkedIn) for real-time dialogue and sharing of resources. A few noted that their institution’s research office or center for teaching and learning offers limited but helpful support. However, several responses pointed to fragmented or difficult-to-navigate support systems. As one respondent explained:

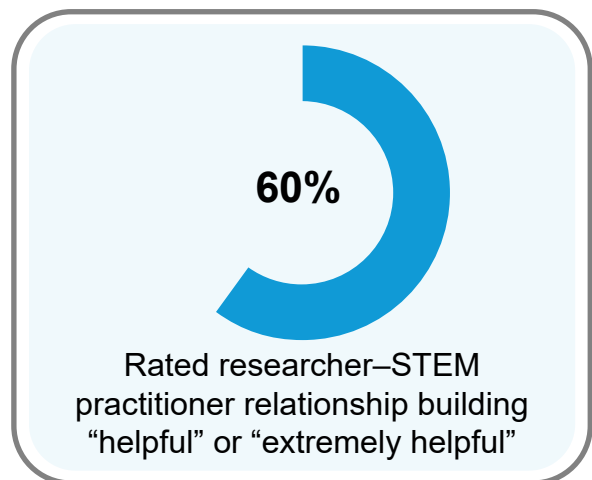
“I often spend more time searching for the right partner or tool than actually using it—there’s no one place to go for help.”

—Survey respondent

This response illustrates the transaction costs created by fragmented infrastructure: time that could be devoted to implementation is instead spent locating expertise, partners, and resources. Combined with the strong ratings for collaboration and relationship-building support, this finding suggests a potential role for AUI in making existing resources and expertise easier to find and access.

Areas where identified stakeholder needs intersect with AUI’s existing capacities include:

- Navigating funding instability: 85.7% helpful or extremely helpful
- Research collaboration and networking: 68.7%
- Researcher–STEM practitioner relationship building: 60.0%
- Dissemination and outreach: 59.1%
- Policy integration or advocacy support: 57.8%
- Proposal writing and submission: 45.0%
- Program development or adaptation: 43.0%
- Evaluation design and implementation: 41.7%



Taken together, these results suggest particularly broad demand for support related to funding, collaboration, relationship building, dissemination, and policy engagement. Other areas—including proposal development, program development, evaluation, and related operational supports—may be highly valuable to particular stakeholders but less universally needed across the field. These areas should not, however, be treated as isolated services. Effective funding support, for example, may also require partnership development, proposal assistance, evaluation planning, and a strategy for disseminating results. AUI’s strongest potential contribution may therefore be to connect these capacities through a coordinated and differentiated support infrastructure.

Stakeholders Need Both Expertise and Relationships

Respondents’ comments suggest that effective capacity building may require more than providing tools. Some seek direct technical assistance, while others want sustained networks and mentorship through which that expertise can be applied.

“We desperately need someone to help us with evaluation design—AUI’s tools could be a game changer.”

“I would join a network that provides support for writing and evaluating NSF proposals—especially if it had a mentorship structure.”

—Survey respondents

These perspectives support a connected model of assistance that combines practical resources with access to knowledgeable people. However, they should not be interpreted as establishing demand for a specific fellowship, toolkit, or network model without further consultation.

Strategic Focus Areas for AUI to Consider Based on Stakeholder Requests

Respondents shared that colleagues across the STEM education field are grappling with a growing sense of instability and fragmentation. A prominent trend is the **increasing competition for limited funding**, especially for interdisciplinary and informal education projects, with many expressing concern that short-term grants are inhibiting long-term impact. There is also a rising call for **more inclusive and community-engaged research practices**, yet few institutions provide adequate support or training to do this work effectively. Several respondents noted a **disconnect between research and practice**, with educators and researchers struggling to find common ground and sustain collaboration. Additionally, there’s concern over the **lack of evaluation capacity** among smaller organizations, which limits their ability to demonstrate impact.



Capacity Pressures Also Have Human Consequences

Financial and organizational strain may ultimately be experienced as workforce strain, particularly in smaller organizations where a limited number of people carry multiple responsibilities. One respondent observed:

“We’re seeing burnout, especially in small teams doing big work with minimal resources.”

—Survey respondent

This comment does not establish the prevalence of burnout across the sample, but it identifies an important possible consequence of the structural pressures documented elsewhere in the survey. Capacity-building strategies should therefore consider not only what organizations are expected to accomplish, but also whether their staffing and operating models can sustain that work.

The survey points to needs that are both structural and operational. Funding instability is the dominant structural concern, while collaboration, relationship building, program development, policy engagement, evaluation, and dissemination shape whether projects can translate financial support into meaningful and sustained outcomes. Responding to funding instability may therefore require more than identifying and securing individual grants. For some organizations, greater sustainability may depend on developing a more diversified portfolio of revenue—including grants, fee-based services, philanthropic support, corporate partnerships, individual donors, or other long-term funding mechanisms. AUI could help stakeholders explore appropriate approaches, assess potential funding strategies, and connect organizations with peers and partners that have successfully developed diversified funding models.



The areas for consideration based on stakeholder requests are:

1. Funding Navigation and Sustainability

Help stakeholders identify appropriate funding opportunities, assess organizational fit and readiness, develop competitive proposals, explore diversified revenue strategies, and connect with organizations and experts that can share successful approaches to long-term financial sustainability.

2. Networked Collaboration and Researcher–Practitioner Partnerships

Create structured opportunities for researchers, educators, evaluators, program leaders, and community partners to identify complementary expertise and develop equitable, goal-oriented collaborations.

3. Program Development and Evaluation Support

Help organizations adapt programs to community contexts, articulate intended outcomes, select appropriate measures, collect useful evidence, and apply findings to program improvement.

4. Dissemination and Science Communication

Support stakeholders in translating research and program findings into accessible products for educators, communities, funders, policymakers, and other decision-makers.

5. Policy Engagement and Strategic Advocacy

Help stakeholders understand policy environments, connect evidence to policy priorities, and communicate the value of STEM education programs to relevant decision-makers.

AUI's Current Capacity and Opportunities for Growth

AUI already has expertise and organizational infrastructure that can contribute to several of the needs identified through this survey. Through its Education & Public Engagement team and broader organizational partnerships, AUI can support collaborative research and evaluation, network development and facilitation, program development, science communication and dissemination, proposal development, and connections among researchers, educators, organizations, and other STEM stakeholders. These capabilities position AUI to serve not only as a provider of specific services, but also as a convener and connector that can bring together complementary expertise when needs extend beyond AUI's internal capacity.

AUI can build on these existing strengths to respond to organizations at different stages of their work. This may include helping partners develop research and evaluation strategies, strengthen proposals and collaborative projects, connect with researchers or practitioners, communicate findings to broader audiences, and identify expertise or resources needed to advance and sustain their work. Importantly, the survey does not suggest that every organization requires the same forms of assistance. AUI's role can therefore be responsive and partnership-based, matching available expertise and resources to the specific needs of individual organizations and initiatives.

At the same time, the scale and breadth of needs documented in this survey exceed what any single organization can address alone. Additional investment and strategic partnerships could expand AUI's ability to provide these forms of support across the



STEM education community. Potential areas for growth include additional research and evaluation capacity, expanded professional learning and mentorship opportunities, digital infrastructure for connecting stakeholders with resources and expertise, and partnerships that extend specialized technical and funding expertise. These represent opportunities for funders, collaborators, and other organizations interested in strengthening the infrastructure that supports STEM education research and practice.

Areas Where AUI Can Currently Contribute

1. **Research and Evaluation** — Designing studies and evaluations, developing measures, analyzing findings, and supporting evidence-based program improvement.
2. **Collaborative Networks and Partnerships** — Convening stakeholders, facilitating networks, and connecting researchers, practitioners, organizations, and complementary expertise.
3. **Program and Proposal Development** — Supporting collaborative project development, proposal preparation, and alignment among project goals, activities, evaluation, and intended outcomes.
4. **Science Communication and Dissemination** — Translating research and program findings for educators, communities, funders, policymakers, and other audiences
5. **Capacity Building and Strategic Connections** — Helping organizations identify appropriate expertise, resources, partners, and pathways for strengthening and sustaining their work.

From Findings to Action: AUI's Next Steps

AUI is taking these findings seriously and will use them to inform its strategic planning and decisions about how it can best support the STEM education community. The results will be considered alongside AUI's existing expertise, partnerships, programs, and available resources to identify areas where the organization can contribute most effectively. This process will include examining opportunities to strengthen support related to funding navigation, collaborative networks, researcher–practitioner partnerships, program development, evaluation, dissemination, and policy engagement.

AUI will also communicate more clearly and consistently about the expertise, resources, partnership opportunities, and forms of assistance it can provide. AUI's Education & Public Engagement team currently brings expertise in STEM education research and evaluation, program and proposal development, network development and facilitation, science communication and dissemination, community engagement, and the development of collaborative research and education initiatives. AUI can work directly with organizations in these areas and can also serve as



a convener and connector, helping partners identify additional expertise, collaborators, and resources when needs extend beyond AUI's internal capacity.

Survey responses suggest that stakeholders do not always know where to find appropriate partners or support. Improving the visibility and accessibility of these existing capacities is therefore an important near-term step. As strategic priorities develop, AUI will continue to share information about available services, initiatives, partnership opportunities, and ways to engage with its work.

This report is a starting point for continued dialogue rather than the end of the consultation process. STEM education professionals, organizations, funders, and other interested partners are invited to contact AUI to learn more about the survey, discuss the needs identified in this report, or explore whether AUI's expertise and resources might contribute to a particular challenge or opportunity. Organizations, funders, researchers, educators, and other partners interested in research and evaluation, program development, collaborative networks, science communication, or other needs identified in this report are invited to contact AUI to discuss how we might work together. These conversations will also help AUI continue to identify emerging needs, opportunities for partnership, and areas where additional capacity or investment could strengthen support for the STEM education community.

To learn more or begin a conversation, contact:

AUI's Office of Education and Public Engagement

<https://aui.edu/education/>

CONCLUSION

The survey findings reveal a STEM education community working under substantial uncertainty. Among respondents, the average concern rating exceeded 80 out of 100, the median was 90, and more than six in ten respondents rating funding support described it as extremely helpful. These findings position funding instability as the dominant pressure shaping the sustainability of STEM education programs, research, organizations, and partnerships.

Financial precarity, however, is connected to a broader infrastructure challenge. Stakeholders also need collaborative relationships, program-development capacity, evaluation assistance, policy guidance, and dissemination pathways that allow promising work to progress from an initial idea or award to demonstrated and sustained impact. Supporting only the acquisition of funding would address the beginning of this process without addressing the conditions required for long-term success.

AUI is well positioned to contribute as a convener, capacity-building partner, and connector across these areas. The survey does not indicate that every stakeholder needs the same services or that AUI should provide all forms of support directly. A phased, partnership-based approach would allow AUI to coordinate expertise, offer

differentiated assistance, and direct intensive support toward organizations and practitioners with the least existing capacity. Future outreach should also intentionally engage stakeholders underrepresented in this sample, particularly minority-serving institutions, Tribal colleges and universities, community colleges, and K–12 organizations.

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APPENDIX A

Administered Survey Questions

STEM Education Research Stakeholder Needs Survey

Principal Investigator: Dr. Anica Miller Rushing, STEM Education Research Associate at Associated Universities, Inc.

Co-Investigator: Tiffany Stone-Wolbrecht, Interim Director of Education and Public Engagement at Associated Universities, Inc.

Contact Information: amillerrushing@au.edu

Survey responses would be most effective by June 30.

Purpose of the Study:

You are invited to participate in a research study conducted by AUI's Office of Education and Public Engagement. Given the current uncertainty related to federal funding of STEM programs, we are interested in understanding the current challenges, needs, and priorities of individuals and institutions involved in STEM education research, implementation, and policy. We are particularly interested in gathering insights from those at smaller or under-resourced institutions.

Procedures:

If you agree to participate, you will complete a brief online survey. It should take approximately 5 minutes. You may skip any question you prefer not to answer.

Risks and Discomforts:

There are no foreseeable risks associated with participation in this study beyond those of everyday online activities. You may stop at any time.

Benefits:

Your feedback may inform how support services, funding strategies, and collaborative programs are developed across the STEM education research community. Aggregated, anonymous/deidentified findings may be shared in public reports, white papers, or scholarly publications.

Confidentiality:

Your responses will be kept confidential. No identifying information will be shared publicly without your explicit permission. If you choose to provide your email address, it will be stored separately from your responses and used only to share findings or follow up with you (if relevant).

Voluntary Participation:

Your participation is entirely voluntary. You may decline to answer any question and can withdraw at any time before submitting the survey.

Future Use of Data:

Data collected will help AUI and the broader STEM education research and practitioner communities to best focus their time and resources. Anonymity of survey respondents will be preserved as permitted by law, and data will be shared in aggregate only.

Questions:

If you have any questions about this study, please contact Dr. Anica Miller Rushing at amillerrushing@au.edu.

By clicking “Next” below, you indicate that:

- You have read this information
- You are at least 18 years of age
- You voluntarily agree to participate in this study

1. Please indicate the type(s) of roles you currently hold in STEM education.

Researcher

Educator (K–12)

Higher Education/Post-Secondary Faculty/Instructor

Graduate or Undergraduate Student

Policy Advisor or Advocate

Program Developer or Administrator

Informal Educator (e.g., museum, planetarium, community-based org)

Evaluator

Grant Writer or Fundraiser

Other (please specify)

2. What type(s) of organization are you affiliated with?

Non-profit

For-profit

Public college/university

Private college/university

Minority-serving institution (MSI)

Tribal college or university

Community college

K–12 school or district

Government agency

Independent researcher or consultant

3. How concerned are you about the future of your program, research, or institution?

0 (not at all concerned)	A little concerned	10 (extremely concerned)
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4. What are the biggest challenges facing your program or institution right now?

5. In which of the following areas do you need the most support?

	This would be slightly helpful to me	This would be helpful to me	This would be extremely helpful to me	N/A (or not helpful at all)
Proposal writing and submission	Proposal writing and submission This would be slightly helpful to me	Proposal writing and submission This would be helpful to me	Proposal writing and submission This would be extremely helpful to me	Proposal writing and submission N/A (or not helpful at all)
Evaluation design and implementation	Evaluation design and implementation This would be slightly helpful to me	Evaluation design and implementation This would be helpful to me	Evaluation design and implementation This would be extremely helpful to me	Evaluation design and implementation N/A (or not helpful at all)
Research collaboration or networking	Research collaboration or networking This would be slightly helpful to me	Research collaboration or networking This would be helpful to me	Research collaboration or networking This would be extremely helpful to me	Research collaboration or networking N/A (or not helpful at all)

Program development or adaptation	Program development or adaptation This would be slightly helpful to me	Program development or adaptation This would be helpful to me	Program development or adaptation This would be extremely helpful to me	Program development or adaptation N/A (or not helpful at all)
Navigating funding instability	Navigating funding instability This would be slightly helpful to me	Navigating funding instability This would be helpful to me	Navigating funding instability This would be extremely helpful to me	Navigating funding instability N/A (or not helpful at all)
Policy integration or advocacy support	Policy integration or advocacy support This would be slightly helpful to me	Policy integration or advocacy support This would be helpful to me	Policy integration or advocacy support This would be extremely helpful to me	Policy integration or advocacy support N/A (or not helpful at all)
Researcher/STEM practitioner relationship building helpful to me	Researcher/STEM practitioner relationship building This would be slightly helpful to me	Researcher/STEM practitioner relationship building This would be helpful to me	Researcher/STEM practitioner relationship building This would be extremely helpful to me	Researcher/STEM practitioner relationship building N/A (or not helpful at all)
Professional development	Professional development This would be slightly helpful to me	Professional development This would be helpful to me	Professional development This would be extremely helpful to me	Professional development N/A (or not helpful at all)
Dissemination and outreach	Dissemination and outreach This would be slightly helpful to me	Dissemination and outreach This would be helpful to me	Dissemination and outreach This would be extremely helpful to me	Dissemination and outreach N/A (or not helpful at all)
Administration of awards	Administration of awards This would be slightly helpful to me	Administration of awards This would be helpful to me	Administration of awards This would be extremely helpful to me	Administration of awards N/A (or not helpful at all)

Independent analysis of results	Independent analysis of results This would be slightly helpful to me	Independent analysis of results This would be helpful to me	Independent analysis of results This would be extremely helpful to me	Independent analysis of results N/A (or not helpful at all)
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Which one is your MOST pressing need today?

6. Where do you currently go for support, collaboration, or information related to STEM education research or implementation?

7. What are you hearing from your colleagues in the field? Are there trends, pressures, or needs we should all be paying attention to?

8. Would you like to be notified about findings from this survey or other future opportunities?

Yes

No

9. Email address