UNITED STATES DEPARTMENT OF EDUCATION
WASHINGTON, D.C. 20202

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MEMORANDUM TO: Office of Science and Technology Policy

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SUBJECT: Implementation Plans for Gold Standard Science

The U.S. Department of Education (ED) submits this report in response to the June 23, 2025, memorandum from the Office of Science and Technology Policy (OSTP) providing agency guidance for implementing Gold Standard Science (GSS) in the conduct and management of scientific activities. ED, through its Institute of Education Sciences (IES), has long been a leader in supporting and conducting rigorous research that embodies many of the tenets of GSS. ED and IES welcome the opportunity to expand on and strengthen our commitment to implementing GSS. In the sections below we describe activities and structures already in place to implement GSS, as well as considerations and plans for expanding and strengthening GSS implementation, providing training for staff, grantees, and contractors, and developing metrics to monitor and evaluate our progress.

I. Describe how the Department of Education (ED) is addressing each of the tenets of Gold Standard Science, including how these tenets are reflected in the agency's culture, funding opportunities, budget and other resource allocations, award selection and reporting, and other agency actions relevant to the conduct and management of scientific activities.

Tenet 1: **Reproducible.**

- **Culture**: ED, particularly through the Institute of Education Sciences (IES), has long emphasized replicability as a hallmark of high-quality education research. All IES-funded projects are expected to follow the Standards for Excellence in Education Research (SEER) principles which include study design and reporting guidance that support reproducibility, including pre-registration of studies, making finding, methods, and data open, and identifying intervention components.
- **Funding Opportunities**: IES directly supports replication studies in its Education and Special Education Research Grant programs, as well as in its Research Grants Focused on Systematic Replication programs funded through both research Centers. In addition, IES requires detailed data management plans in grant applications, including expectations for managing project data and sharing a final research data set. IES also

expects awardees to develop materials that could support the replication and/or scaling of an intervention by others, such as manuals, toolkits, or implementation guides.

- **Resource Allocation**: Funds available to support impact studies are of sufficient size to allow the successful completion of such studies and to support the preparation of research data sets.
- **Award Selection & Reporting**: Reviewers assess the degree to which the research design and methods, sample and setting, and data analysis plans align with the research questions and study aims and indicate that the project will be able to answer these questions with sufficient rigor. Scientific publications are expected to contain sufficient levels of detail to allow others to replicate the study design in a new research study.
- **Other Actions**: IES has invested in SEERNet, a research network designed to facilitate the education research field's ability to leverage existing, widely used digital learning platforms (DLPs) for rigorous education research and replication.

Tenet 2: **Transparent.**

- **Culture**: Transparency is foundational to ED's evidence standards. Staff are encouraged to err on the side of openness when legally permissible. Awardees are required to make findings, methods, and data open. Data are shared in a manner consistent with the requirements of responsible institutional review board (IRB) determinations and applicable state and Federal laws and regulations.
- **Funding Opportunities**: Solicitation language requires applicants to plan for public dissemination of data and findings.
- **Budget & Resources**: Budget includes funding to modernize public-facing dissemination portals (e.g., ERIC, the IES website). Awardees are expected to budget for article publication costs and for costs associated with making scientific data publicly available.
- **Award Selection & Reporting**: Data management plans are evaluated by Department staff, adjusted as necessary, and monitored throughout the lifespan of the project. Grantees and contractors are required to place all peer-reviewed publications into ERIC (the Department of Education's digital library). In addition, projects required to share data generated by the project must do so, ensuring compliance with any privacy concerns.
- **Other Actions**: Prior to making new awards to teams who have received prior IES awards, ED ensures that those awardees are in compliance with public access requirements that were in place at the time of their award. Awardees not in compliance must be in compliance prior to receiving new ED funding.

Tenet 3: **Communicative of Error and Uncertainty.**

- **Culture**: ED emphasizes responsible reporting and interpretation of findings, limitations and uncertainty, and avoiding overstatement of scientific findings.
- **Funding Opportunities**: ED will strengthen requirements for applicants for grants and contracts to conduct scientific work to describe how limitations and uncertainty will be addressed in the reporting and dissemination of findings
- **Budget & Resources**: ED, through IES, has long-established grant programs that have supported statistical and methods training for researchers, as well as pre- and post-doctoral training programs that have focused on research methods. A number of

previously funded training programs have focused on issues related to the estimation, interpretation, use, and communication of things such as effect sizes, confidence intervals, and variation in effects. IES will consider ways to continue and strengthen training focused on such issues.

- **Award Selection & Reporting**: IES will consider ways to include in peer review criteria for research grants any strengthened expectations for applicants around ways they plan to address uncertainty and limitations. In addition, IES has long-standing expectations for reports supported or produced by IES with regard to quality of the science and appropriateness of the conclusions and reporting, including considerations of uncertainty and limitations, and the conduct and reporting of sensitivity analyses. Such reports must undergo peer review and reviewers are asked to consider the quality of the analyses and appropriateness of the conclusions. IES will consider ways to strengthen requirements for authors of such reports and in guidance for peer reviewers, as appropriate to the type of research.
- **Other Actions**: ED will consider improvements in ways that uncertainty and limitations in scientific findings could be communicated to non-expert audiences.

Tenet 4: **Collaborative and Interdisciplinary.**

- **Culture**: Cross-disciplinary collaboration is encouraged through joint interagency research initiatives (e.g., IES-NSF AI Institutes, IES-NSF Research and Development Center on Elementary Science), cross-disciplinary training programs, and development of shared terminology.
- **Funding Opportunities**: The education sciences are inherently interdisciplinary and IES invests in research that integrates education with economics, psychology, data science, or public health. The flagship IES research training investment is the Predoctoral Interdisciplinary Research Training Program in the Education Sciences. In addition, IES supports multiple Methods Training Programs, available to scholars coming from multiple disciplinary backgrounds. IES's recent investments in the Accelerate, Transform, and Scale Initiative are intended to support bold, innovative ideas that come from interdisciplinary, diverse teams that have the potential to make dramatic advances towards solving seemingly intractable problems and challenges in the education field. This portfolio of investment funds partnerships with industry and supports interdisciplinary research and development centers at the intersection of generative artificial intelligence and the education sciences.
- **Budget & Resources**: Funds allocated to support interdisciplinary investments are adjusted to meet the costs of bridging disciplines and sectors. Programs fund collaborative centers and multi-university consortia that bridge disciplines.
- **Award Selection & Reporting**: Review criteria vary to meet the expectations of different research and research training programs. For programs with specific interdisciplinary requirements, applicants are expected to describe how their proposed projects meet the requirements. For example, applicants to our interdisciplinary predoctoral training program are expected to describe how their program's focus integrates multiple academic disciplines. In a second example, reviewers of applications submitted to our Transformative Research in the Education Sciences program are asked to assess if the partnership model between research, product development, and education agency partners are likely to lead to productive, interdisciplinary collaboration.

- **Other Actions**: ED and IES have worked collaboratively with other Federal Departments and Agencies to generate shared terminology and documents such as the *IES-NSF Common Guidelines for Education Research and Development* and the *Companion Guidelines on Replication and Reproducibility in Education Research*.

Tenet 5: **Skeptical of Findings and Assumptions.**

- **Culture**: Constructive skepticism and critique, including peer review are deeply embedded in ED's grantmaking and evaluation culture.
- **Funding Opportunities**: All discretionary grant competitions include external peer review, including experts from multiple disciplines. In addition, IES has long emphasized the importance of replication, and has supported numerous grants to conduct replication studies focused on the causal impact of education programs, practices, and policies. IES has also long supported funding opportunities for the conduct of meta-analyses in various substantive areas, the development of new statistical methods for meta-analyses, training of researchers in meta-analytic techniques and interpretation, and the use of meta-analyses and systematic reviews to consider bodies of research and evaluation findings.
- **Budget & Resources**: Historically, there has been funding to support the activities described above.
- **Award Selection & Reporting**: Grant application funding decisions are based on external peer reviewer scores and critiques; progress reports address how prior feedback has been incorporated.
- **Other Actions**: IES evaluation reports typically include sensitivity analyses to check for the robustness of the findings to varying analytic decisions. IES has long emphasized the importance of exploring and testing the generalizability of findings to various populations and sub-populations. IES will continue to explore ways to improve the ways in which constructive skepticism can be incorporated in ED scientific work.

Tenet 6: **Structured for Falsifiability of Hypotheses.**

- **Culture**: ED-funded research, primarily supported through programs managed by the National Center for Education Research (NCER) and the National Center for Special Education Research (NCSER) is explicitly empirical. Research projects that propose to test the causal impact of an intervention are required to propose research designs, methods, and data analysis strategies that include precise, testable hypotheses, measurable outcomes, and employ rigorous methodologies. In addition, NCER has supported training on the planning, design, execution, and interpretation of randomized controlled trials (RCTs) in education sciences continuously since 2008.
- **Funding Opportunities**: The IES Requests for Applications include guidance for applicants that emphasizes hypothesis-driven inquiry and clear outcome measures.
- **Budget & Resources**: Budget levels are set in grant competitions so as to ensure that there are sufficient resources available to support the most rigorous designs possible.
- **Award Selection & Reporting**: Funding decisions rest on the scientific merit of an application. Reviewers are expected to assess the degree to which the research design and methods, sample and setting, and data analysis plans align with the research questions and aims posed in the Significance section and indicate that the project will be able to answer those questions with sufficient rigor. Studies that seek to answer causal

questions are expected to use randomized controlled trials and other research designs with strong methodological grounding that meet the standards of the What Works Clearinghouse.
- **Other Actions**: IES grantees are expected to pre-register their study protocols, clearly define their control groups, and publicly report findings, including null or negative results.

Tenet 7: **Subject to Unbiased Peer Review.**
- **Culture**: Discretionary grant competitions include external peer review, including experts from multiple disciplines. IES is required by law to implement scientific peer review for research grants and cooperative agreements exceeding $100,000, and for all research, evaluation, and statistics reports supported or conducted by IES. In order for IES's peer review processes to be as objective as possible, peer review is handled by their Office of Science, which is in the Office of the Director, outside of the research centers that work with applicants and grantees and contractors.
- **Funding Opportunities**: ED funding opportunity announcements include information about peer review criteria and processes. IES's peer review procedures are required by law to have been approved by the National Board for Education Sciences, and information about those Board-approved procedures are available on IES's website, as are lists of external peer reviewers. IES recruits reviewers from multiple disciplines and settings, and applications are reviewed by relevant content, methodological, and statistical experts.
- **Budget & Resources**: Historically, resources have been sufficient to support paying honoraria to external peer reviewers.
- **Award Selection & Reporting**: ED grants are awarded on the basis of external peer review.
- **Other Actions**: IES's peer review procedures for IES-supported or conducted studies are also required by law to have been approved by the National Board for Education Sciences (NBES), and those procedures are also available on IES's website.

Tenet 8: **Acceptance of Negative Results as Positive Outcomes.**
- **Culture**: ED leadership and IES have publicly reaffirmed through multiple venues the scientific value of null results as a path to better theories and methods.
- **Funding Opportunities**: Consistent with IES's Standards for Excellence in Education Research (SEER), IES requires that applicants proposing causal impact studies are pre-register their studies, and to conduct and report their studies in accordance with the pre-registered plans or to submit changes in the registry. IES requires Data Management and Sharing Plans in applications, and those plans are expected to include information about the platform(s) the applicant plans to use for preregistration. IES RFA's have explicitly noted the scientific value of studies that produce null or negative findings.
- **Budget & Resources**: Historically, grant budgets have included funds for preregistration and dissemination of findings by grantees and contractors.
- **Award Selection & Reporting**: Final reports for grants describe the cumulative outcomes and findings of the grant. Grantees describe 1) major activities; 2) specific objectives; 3) significant results or key outcomes, including major findings,

developments, or conclusions (both positive and negative); and/or 4) other achievements.

- **Other Actions**: ED's Evaluation Policy includes a requirement that all analysis plans for impact evaluations be preregistered. IES releases all evaluation reports as soon as practical, including posting them to the IES website and depositing them in ERIC. ED's Public Access Policy and IES's SEER standards also require transparency and access to scientific findings and data. ED is considering ways to strengthen guidance around publication of null and negative findings.

Tenet 9: **Without Conflicts of Interest.**

- **Culture**: ED staff, peer reviewers, grantees, and contractors must disclose potential conflicts of interest (COIs), as appropriate to a variety of activities. Ethics is embedded in training and supervision.
- **Funding Opportunities**: IES funding opportunity announcements request that applicants describe how they will maintain the objectivity of the research, and expectations vary by type of project and role of participant. Project teams are expected to describe what safeguards are in place to ensure objectivity and transparency.
- **Budget & Resources**: ED's Office of General Counsel (OGC) is responsible for providing guidance to ED staff regarding their reported COIs, and for providing legal guidance to program offices regarding COI policies and procedures for applicants, grantees, contractors, and external reviewers. Program offices, in consultation with OGC as needed and described in the ED Discretionary Grants Handbook, are responsible for working with applicants, grantees, and contractors on COI disclosure and management.
- **Award Selection & Reporting**: With regard to peer reviewers, program offices manage the disclosure and management of reported COIs. Peer reviewers are asked to report potential COIs along a number of dimensions, including (1) being an active participant on an application, (2) personal financial interest in the outcome of the review. (3) personal relationship with the applicant, (4) professional relationship with the applicant, (5) professional relationship with the applicant's institution or organization, and (6) real or apparent COIs that may arise from other factors that might affect the objectivity of a reviewer. Applicants are required to include bio sketches with their current and pending support included so as to allow assessment of any possible overlapping of funding during peer review and pre-award determinations. Prior to accepting an award, grantees are required to sign and return the "Assurances – Non-Construction Programs" agreement which includes the following assurance "I certify that the applicant … will establish safeguards to prohibit employees for using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain." Annual reports require grantees to report on participants and other collaborating organizations.
- **Other Actions**: ED is considering ways to ensure updating and consistency of COI disclosures and management, as appropriate, across program offices.

II. *Develop standardized metrics and evaluation mechanisms to assess adherence to these tenets and their impact on scientific quality, incorporating technology when practicable to facilitate data collection and analysis.*

ED, in consultation with IES, has begun the process of identifying potential metrics to describe the extent to which GSS tenets are exhibited across ED's scientific portfolio. Those metrics will form the foundation of subsequent efforts to evaluate ED's implementation of new GSS-related policies and procedures, and to identify areas where ED leadership may choose to invest additional resources to enhance transparency, reproducibility, and public trust in federally funded education research.

Development of Standardized Metrics

ED's proposed GSS metrics are aligned to the typical lifecycle of Federally funded extramural research. For our purposes, that includes the following phases: (1) solicitation, (2) peer review and pre-award, (3) award and post-award monitoring, and (4) closeout and follow-up.

Lifecycle Phase	Potential Metrics
Solicitation	**Staff Training Rate.** The percentage of staff responsible for the design and conduct of federally-funded research—extramural or intramural—that have completed GSS training within the past calendar year. **Reference Rate.** The percentage of applicable solicitations that explicitly reference each of the GSS tenets and include a link to the Department's GSS website. **Description Rate.** The percentage of applicable solicitations that explicitly require applicants to describe how they have incorporated GSS tenets into the design of their research.
Peer Review and Pre-Award	**Reviewer Training Rate.** The percentage of peer reviewers who have completed GSS training in the year preceding their service. **Scoring Rate.** The percentage of applicable solicitations that explicitly include GSS tenets as a review criterion scored by peer reviewers.
Award and Post-Award Monitoring	**Pre-Registration Rate.** The percentage of casual studies that, within six months of a project's initiation, have registered their study design with a widely recognized database (e.g., ICPSR's Registry of Efficacy and Effectiveness Studies, the American Economic Association's registry for randomized control trials, OSF registries). **Personal Digital Identifier Rate.** The percentage of key personnel conducting federally-funded research—extramural or intramural—that have an established individual digital identifier no later than six months following a project's initiation.

Closeout and Follow-Up	**Publication Access Rate.** The percentage of applicable grantee publications that are (1) uploaded to ERIC, the Department's full-text repository of education research, or (2) otherwise made Open Access immediately upon publication. **Open Data Access Rate.** The percentage of applicable grantee datasets that are made available via a widely known and publicly accessible data repository (1) immediately upon the publication of an associated manuscript, or (2) within 5 years following the end of the grant period if no findings have yet been published. **Follow-through Rate.** The percentage of pre-registered studies that publish findings that address each listed confirmatory research question.

In the months ahead, ED will continue to refine the preliminary metrics framework outlined above. As part of that refinement, ED will identify (1) when data collection for each metric can begin, (2) the cadence by which each metric should be updated, and (3) how metrics will be reported to the public.

III. Training and Resources

ED is taking a deliberate and phased approach to training and resource development to ensure that agency personnel understand and apply the tenets of Gold Standard Science across all scientific and evidence-generating functions. These efforts will be guided by a collaboration between the Immediate Office of the Office of Planning, Evaluation, and Policy Development (OPEPD), OPEPD's Office of the Chief Data Officer (OCDO) and IES.

- Foundational Training for Staff. In early FY26, the Department will begin the development of an initial training module for all staff involved in research activities. The module will include an overview of core GSS tenets and key compliance expectations from the Executive Order and subsequent guidance provided by OSTP. To the extent possible, the module will include examples of ED-funded efforts to advance GSS. We expect that this module will be hosted by the Department's existing Learning Management System (FedTalent) and, pending necessary internal conversations, integrated into annual role-based training requirements.
- Targeted Skill-Building and Role-Specific Workshops. Following the development of general GSS training resources, ED will evaluate the potential for developing additional follow-on trainings that provide further details on GSS tenets. ED anticipates that, as other agencies undertake similar work in FY26, some training content may be developed that could be shared across federal agencies that conduct similar kinds of scientific activities. To the extent possible, ED will leverage shared or government-wide content to reduce the likelihood that researchers who work

with cognate agencies (e.g., the Department of Labor) are receiving similar training to that offered here.

- Although researchers are likely the primary constituency toward which GSS training will be developed, others—particularly offices that frequently become involved in funded research activities, such as those who work in ED's Office of Contracts and Acquisition Management (CAM) and ED's Office of the General Counsel (OGC)—may also benefit from GSS training. As ED clarifies its internal expectations for how funded researchers will implement the tenets of GSS, it will begin to develop specialized training for our CAM and OGC colleagues to ensure they can support GSS tenets through improved language in grant notices and award notices (GANs), contracts, and cooperative agreements.
- In other instances, ED will need to develop new content. This includes training modules for staff and federally-funded researchers and guides, templates, and FAQs to support GSS implementation. ED anticipates beginning that work in early FY26. The Department has already identified opportunities to being public outreach on GSS-related topics, such as IES's annual Principal Investigators Meeting and individual programs' annual project director convenings.

IV. *How Technology Will be Leveraged for Implementing Gold Standard Science*

IES has already supported the development of a study registry specific to causal impact studies in the education sciences (i.e., ICPSR's Registry of Efficacy and Effectiveness Studies) and ERIC: a platform on which funded researchers are expected to submit freely available, full-text, peer-reviewed research findings immediately upon publication. Detailed project abstracts for research funded by ED/IES's National Centers for Education Research (NCER) and Special Education Research (NCSER) are also available on IES's website at https://ies.ed.gov/funding/research/education-research-grants and https://ies.ed.gov/funding/research/special-education-research-grants, respectively. Each project abstract includes information about the grant award, the researcher, research questions, and, as the award progresses, publications and other outputs.

As part of IES's ongoing digital modernization, IES is also working to ensure that project abstracts are integrated with key data sources related to GSS tenets. To date, IES has already integrated abstracts with ERIC, which allows the public to easily search for all known research outputs associated with a grant. In the months ahead, IES will be adding integrations to sources of persistent digital identifiers (e.g., ORCID and the DOI Foundation), further enhancing transparency to the public, policymakers, and other researchers.

IES will continue to monitor publicly available data from metadata providers, including registries, to see how those data can strengthen its transparency and metrics efforts. For example, those providers increasingly "badge" studies that have adopted various open science practices, including those encouraged by GSS. In some instances, providers have developed APIs that would easily allow IES to verify GSS compliance (e.g., whether analysis code has been published to a public site that allows research to be easily reproduced).

Over time, metadata associated with GSS metrics can be used not only for ED's evaluation of how robustly GSS tenets are being adopted, but also to streamline monitoring by grant officers. For example, once verified, metadata be automatically integrated to IES's funded research abstracts and used by project officers to validate compliance with GSS tenets as part of existing annual project reviews. Grant-level data could also be aggregated, used to power a project officer-facing dashboard that allowed program staff and leadership to easily monitor and track compliance with GSS tenets at the grant program, institution, or year-of-award level. Finally, ED might consider developing systems that (1) automatically share capacity-building resources with grantees at prespecified timepoints in their grant lifecycle; (2) proactively alert principal investigators, grant staff, or program leadership about missing GSS-related metadata; and (3) provide summaries to institutions' sponsored projects offices about grantees' compliance with GSS tenets.

A component of IES's digital modernization that is currently paused includes modernizing systems for the research grants lifecycle and the IES reports lifecycle. With regard to research grants, IES receives applications through Grants.gov, and they are then pulled into the Department's grant system (G5), and from there into the IES receipt, processing, and scientific peer review system known as PRIMO. Post-award grant monitoring for IES grants is done using G5. IES had begun extensive planning for procuring and implementing a comprehensive online system that would support all phases of IES grantmaking and monitoring, scientific peer review, and reporting (by applicants to IES, and by IES to the public), to improve the efficiency and transparency of IES grant activities. IES was also engaged in a similar process for the lifecycle for reports produced by or supported by IES. Once these efforts resume, they will serve to support the implementation of GSS in multiple ways.

Finally, ED will continue to monitor how emergent technologies in AI might be used to quickly capture project-level data so that associated metrics, dashboards, and project abstracts might be regularly updated with a minimum of burden. Potential use cases include scanning grant-funded publications for key indicators of transparency (e.g., pre-registration links, null results disclosures, conflict of interest statements) and reproducibility (e.g., links to data repositories, statistical code that facilitates efforts at computational reproducibility). IES had begun initial exploration into the use of AI for a variety of peer review related activities, including matching content in research grant applications to the expertise of potential reviewers; we look forward to being able to resume those activities.

As directed by OSTP, the Department will develop a GSS microsite at https://www.ed.gov/GSS/. In addition to this memorandum, the Department will provide links to capacity-building resources (e.g., trainings, FAQs, templates) as they are developed by IES, OCDO, and other Executive Branch agencies. Site visitors will also be able to easily access abstracts of federally funded research, beginning with IES-funded research but expanding over time to include research funded by other components within ED.

V. Descriptions of any challenges encountered in the implementation of Gold Standard Science.

While ED is committed to the successful implementation of the Gold Standard Science Executive Order, several challenges have emerged during early-phase execution. These challenges are being actively addressed through cross-office coordination, resource reallocation, and policy clarification efforts.

1. ED-specific Resource Constraints and Implementation Timelines

- The 60-day implementation window between the issuance of OSTP guidance and the first reporting deadline poses logistical challenges for developing internal policies, updating grant award language, planning and launching technology pilots, and training staff.
- This compressed timeline limits ED's ability to conduct external stakeholder engagement or coordinate deeply with contractors and grantees prior to required implementation.
- Once developed, implementation throughout FY26 may be slowed due to a lack of human and financial resources that can be reprogrammed toward GSS efforts.

2. Balancing GSS Tenets with Legal Constraints on Privacy and Confidentiality

- Many of ED's research and evaluation activities rely on student-level data protected under the Family Educational Rights and Privacy Act (FERPA), the Privacy Act, the Education Sciences Reform Act of 2002 (ESRA), the Confidential Information Protection and Statistical Efficiency Act of 2013 (CIPSEA), and other state and federal statutes.
- Despite stakeholder education, some data providers are unwilling to allow researchers to retain the complete set of variables in the dataset which is eventually placed in a public repository or that become part of an IES restricted-use dataset. In some instances, the variable(s) in question are the *dependent* variables, making it impossible to computationally reproduce study findings. In FY26, ED will explore leveraging existing internal (e.g., ED's Privacy Technical Assistance Center) and external networks to share up-to-date information about the intersection between GSS tenets and applicable law and policy.

3. Slowly Evolving Cultural Norms on GSS Tenets

- Some research communities within the education field are still adapting to new expectations around open sharing of null or inconclusive results, which historically have been underreported due to publication incentives and funding pressures.
- Similarly, norms around code sharing and reproducibility documentation vary widely by discipline, leading to inconsistent adherence in the absence of strong regulatory or programmatic requirements.
- ED will address this through training, revised funding language, and guidance that positions null results, open data, and open methods as valuable scientific outputs that can lend credence to the education sciences and federally funded education research.

4. Field Readiness and Training Gaps

- Ensuring that program officers, grant reviewers, contractors, and researchers uniformly understand the Gold Standard Science framework is likely to take time, particularly in the absence of resources.

- Certain GSS tenets including elements like falsifiability, peer skepticism, and uncertainty quantification are novel for some of those not trained as education scientists or in another formal scientific discipline (e.g., economics).
- In FY26 and beyond, ED will seek to mitigate this through tiered training modules, role-specific guidance, and ongoing technical assistance.