Submitted Electronically to ESRA2023@help.senate.gov

April 19, 2023

The Honorable Bernie Sanders
Chair
Senate Health, Education, Labor, and Pensions (HELP) Committee

The Honorable Bill Cassidy
Ranking Member
Senate Health, Education, Labor, and Pensions (HELP) Committee

Dear Chair Sanders and Ranking Member Cassidy,

This letter is in response to the Senate HELP Committee's bipartisan Request for Input (RFI) on a potential reauthorization of the Education Sciences Reform Act (ESRA), including the Educational Technical Assistance Act and the National Assessment of Education Progress Authorization Act. The undersigned individuals and organizations represent a broad cross-section of the education ecosystem who are all committed to helping shift education at all levels toward functioning more like a *learning system* that—as a matter of both structure and culture—makes regular use of data, research and development (R&D), and continuous improvement to significantly address opportunity gaps and improve outcomes for every student. This reauthorization provides an important opportunity to make significant progress toward that shared vision.

The U.S. Department of Education (ED), the Institute of Education Sciences (IES), and their grantees and partners have made important progress since ESRA's enactment, but our education systems still tend to function with more of a compliance mindset that limits innovation, equity, and positive change at scale. As we experienced during the COVID pandemic, our current infrastructures lack the capacity needed to fully address student learning needs and mental and emotional health, as well as basic and applied evidence of what is most likely to work for whom and in what contexts. It is also insufficiently inclusive of the students and communities intended to benefit from it, especially marginalized students and communities. Further, our R&D outputs are often too disconnected from practitioners' actual problems of practice and policy. Accordingly, making our education systems function more like learning systems will require significant increases and improvements in our infrastructures related to R&D, data, and continuous improvement.

ESRA reauthorization provides a critical opportunity to do just that, especially with respect to the federal government's investment in the R&D and data infrastructures and in building capacity at the state and local levels to generate, inform, and use evidence and data to make better decisions. It also provides an opportunity to update our policies and practices to reflect our current, more modern understanding of the science of learning and development, the availability of new R&D methodologies, the changing assets and needs of our students, educators, and families, and other important factors that have evolved in the twenty-one years since Congress enacted ESRA.

Our response to the RFI is organized around the following seven high-level goals Congress should advance through this reauthorization:

1. Generate and mobilize more usable education evidence and data.
2. Build state and local capacity to inform, generate, and use evidence and data.
3. Build a more inclusive education R&D infrastructure.
4. Foster innovation as part of a more balanced, comprehensive R&D infrastructure that builds out a robust development side to complement important basic and applied research investments.
5. Update support for the data infrastructure while maximizing the protection of student privacy.
6. Strengthen existing components of the education R&D infrastructure.
7. Grow and better coordinate the federal investment in education R&D.

These goals are interconnected and naturally overlap. For each goal, we have included a few *illustrative* examples of how to advance that goal via the reauthorization as well as a note connecting the goal to specific questions posed in the RFI. Note that some of the bulleted priorities listed under each goal are drawn directly from ESRA recommendations of leading learning systems organizations and coalitions, including among others the Data Quality Campaign, Knowledge Alliance, the Alliance for Learning Innovation, and Democratizing Evidence in Education.

We would welcome the opportunity to provide additional information about these recommendations—and others aligned to these goals—along with specific line edits to legislative text as your process progresses. We applaud the Committee for taking up this important legislation and look forward to supporting your efforts.

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1. Generate and <u>mobilize</u> more <u>usable</u> education evidence and data.

A primary goal for a reauthorized ESRA should be to increase the utility of what the education R&D infrastructure produces and the capacity of state and local actors to actually use it to improve education practice and policy. There are some changes to the former that will help in important ways, and there are changes to how ESRA supports capacity-building for the latter that will make a significant difference for state education agencies (SEAs), local education agencies (LEAs), schools, as well as out-of-school learning and development programs (see Goal #2 below). But to fully realize this goal, Congress must also shift ESRA's paradigm from *dissemination*—where the R&D infrastructure produces and, lacking effective mechanisms, practitioners either consume or not—to *engagement*—where USED, IES, researchers, developers, technical assistance providers, state and local education leaders, and other key stakeholders including students, families, and community members continuously engage with each other throughout the entire cycle.

ESRA should set the expectations, structures, and capacities to support this type of engagement—from understanding needs to identifying research questions to participating in the R&D process itself to integrating new evidence into practice to iterating and improving over time and to mobilizing knowledge for the benefit of others. Advancing this goal of more usable R&D and more effective knowledge mobilization also helps respond to some of the key themes in the recent report by the National Academies of Sciences, Engineering, and Medicine (NASEM), "Future of Education Research at IES: Advancing an Equity-Oriented Science."

Examples of policies to include in an ESRA reauthorization that would advance this goal include, but are not limited to[1]:

- Include diverse practitioners in all Boards, Advisory Boards, and committees, as well as in peer reviews, grant applications, and plans for research agendas, data collections, disseminations, and translation.
- Establish the National Center for Knowledge Utilization within IES to elevate and strengthen the functions currently in the Office of Knowledge Utilization in the National Center for Education Evaluation and Regional Assistance.
- Support doctoral-level training at IES to build the human capital to engage in partnership research with SEAs and LEAs.
- Invest in a range of approaches to bridge the gap between practice and research via authentic and inclusive collaboration, such as research-practice partnerships supported with funding to SEAs or LEAs as well as through the mission of Regional Educational Laboratories (RELs) and Comprehensive Centers (CCs). Among other things, RELs and CCs could leverage these partnerships or research alliances to conduct more rapid-cycle research to respond to practitioners' current challenges.
- Include performance metrics in performance management, objectives and indicators, and evaluations that align with the needs of practitioners and communities most impacted by the research. Examples of such metrics include practitioner use of research, consultation with practitioners and representatives of communities proximate to the research goals, feedback on communications with research partners and subjects, and effectiveness of addressing the immediate and long-term needs of states, districts, schools, practitioners and communities.
- Ensure that research and evaluation findings are in easily understandable language, multiple languages, and user-friendly formats, and, when possible, convey evidence-informed recommendations geared to specific audiences.

2. Build state and local <u>capacity</u> to inform, generate, and <u>use</u> evidence and data.

To date, the relatively minimal investment in the federal education R&D infrastructure, coupled with a lack of capacity at the state and local levels, have impeded the availability and utility of research. Given the dominant role of states and districts in our education system, it is critical that they can drive their own priorities and approaches as part of a robust education R&D infrastructure. Developing a culture of evidence and data use requires investments in capacity at all levels to develop the skills and knowledge necessary to meaningfully inform the research agenda; to generate timely, meaningful research; and then to regularly apply research findings and development output to practice. ESRA should continue to build on the existing capacity-building infrastructure (see Goal #6 below) while also improving upon it and authorizing new mechanisms that can help state and local educators and systems rise to the profound challenges they face.
Examples of policies to include in an ESRA reauthorization that would advance this goal include, but are not limited to[2]:

- Authorize and fund a matching competitive grant program or other mechanism for SEAs and/or LEAs to build capacity for and engage in education R&D. These funds would allow SEAs or LEAs, or consortiums of SEAs and LEAs, to develop their own priorities and strategies to advance education R&D, including in collaboration with educators, community-based organizations, and families.

[1] This goal and the examples listed align most directly with the following RFI questions: 1, 2, 3, 4, 6, 7, 8, and 11.
[2] This goal and the examples listed align most directly with the following RFI questions: 1, 2, 6, 7, 8, and 11.

- Include new support for staff capacity in SEAs to coordinate research and research use, support needs assessments, conduct data analysis,identify evidence-based actions, conduct evaluations, inform implementation, and lift up lessons learned.
- Direct the technical assistance provided by the RELs and CCs to better assist SEAs and LEAs in building and sustaining their own capacity to generate and use data, evidence, and research.
- Include a requirement in the Duties of the Director to collaborate with teacher and school leader preparation programs to incorporate research and data analysis, as well as data use, in their programs.

3. Build a more <u>inclusive</u> education R&D infrastructure.

Communities that are the least well served by the existing education system are often those with the most limited say in R&D efforts to improve the system. Like with Goal #1's focus on better aligning the R&D infrastructure with practitioners and their authentic needs to improve usability and increase use, a reauthorized ESRA should also emphasize engagement with those most proximate to the intended beneficiaries of R&D investments, including communities that are the focus of research and key stakeholders like students, families, educators, and community-based providers. It should also seek to engage, learn from, and support research-based actions across the full learning and development ecosystem. Along with the importance of usability and knowledge mobilization, the NASEM report also called out the critical importance of making R&D more inclusive. In addition to more participatory practices, ESRA can help build a more inclusive R&D infrastructure by (1) diversifying who IES trains, funds, and involves in peer review and boards, and (2) broadening the types of topics, methodologies, and outcomes given priority in federally-funded R&D.

Examples of policies to include in an ESRA reauthorization that would advance this goal include, but are not limited to[3]:

- Include representation from marginalized and underrepresented communities in all Boards, Advisory Boards, and committees, as well as in peer reviews, grant applications, and plans for research agendas, data collections, disseminations, and translation.
- Provide a more transparent and engaging process by which researchers, practitioners, and community members together develop new topics of research for IES that are responsive and relevant to their priorities.
- Include set-asides and competitive priorities for stakeholder engagement in IES grant programs.
- Ensure data are disaggregated and cross-tabulated in research studies.
- Require IES to collect and report data on the race and ethnicity of its grantees, contractors, etc.
- Authorize programs designed to enhance the research capabilities, strategic contracting infrastructure, and capacity to develop and manage research projects of Historically Black Colleges and Universities (HBCUs), Minority-Serving Institutions (MSIs), and Tribally Controlled Colleges and Universities (TCCUs). Models to consider includes NSF programs like the Centers of Research Excellence in Science and Technology (CREST), HBCU Research Infrastructure for Science and Engineering (HBCU-RISE), Tribal Colleges and Universities Program (TCUP), and Build and Broaden; NIH's Path to Excellence & Innovation; and ED's recent budget request related to building R&D capacity in these institutions. These programs would increase leadership by, and opportunity for, people from marginalized backgrounds and should also include opportunities for these institutions to inform others' practices to be more holistic, diverse, and community-centered.

[3] This goal and the examples listed align most directly with the following RFI questions: 1, 2, 4, 6, 7, 8, and 11.

4. **Foster innovation as part of a more balanced, comprehensive R&D infrastructure that builds out a robust development side to complement important basic and applied research investments.**

While knowledge from the science of learning and development and technology have significantly advanced, in some ways education continues to be designed and delivered much the same as it has been for hundreds of years. From persistent challenges we have yet to overcome to new ones arising from the Covid-19 pandemic, our education system needs a more nimble R&D infrastructure focused on fostering breakthrough innovations and using applied research to complement the critical foundational knowledge produced by the more traditional research infrastructure.[4] This will enable ESRA to better empower and support educators to maximize the opportunities provided by advances like science-based reading programs, artificial intelligence, virtual reality, updated assessment technologies, and staffing to maximize relationships. Strengthening the development side of R&D will also help foster a learning system culture in ED, IES, and throughout the education ecosystem in which risk-taking and learning from testing hypotheses are embraced as part of continuous learning and improvement—even in the context of an unsuccessful R&D project.

Examples of policies to include in an ESRA reauthorization that would advance this goal include, but are not limited to[5]:

- Establish in IES a National Center for Advanced Development in Education (NCADE), a DARPA-like division that would catalyze breakthroughs in teaching and learning and ensure there is a focus on developing approaches and tools designed to help all students succeed.
- Create a "rotator program" modeled on NSF's with the authority from the Intergovernmental Personnel Act to engage advanced scientific and technical expertise at both ED and IES to help ensure the agencies' programs reflect creative ideas from the field and the most advanced technical methods.
- Promote a more comprehensive, balanced approach to R&D by supporting (1) critical basic research and more applied research, including about the science of learning and development, and (2) a broader array of research methodologies, timelines, and areas of focus, including but not limited to research on research use, data analytics, implementation research, and other types of research including those recommended in the NASEM report.

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[4] The Office of Management and Budget defines three primary types of R&D as:

> 1. Basic research[]. Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts. Basic research may include activities with broad or general applications in mind, such as the study of how plant genomes change, but should exclude research directed towards a specific application or requirement, such as the optimization of the genome of a specific crop species.
>
> 2. Applied research[]. Original investigation undertaken in order to acquire new knowledge. Applied research is, however, directed primarily towards a specific practical aim or objective.
>
> 3. Experimental development[]. Creative and systematic work, drawing on knowledge gained from research and practical experience, which is directed at producing new products or processes or improving existing products or processes. Like research, experimental development will result in gaining additional knowledge.

Source: OMB Circular A-11. Available at https://www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf.

[5] This goal and the examples listed align most directly with the following RFI questions: 1, 4, 6, 7, 8, 9, and 10.

5. **Update support for the data infrastructure while maximizing the protection of student privacy.**

In a robust learning system, the data infrastructure makes it possible for every person with a stake in education to have the timely and tailored information needed to make the best decisions possible in their role and circumstance. An effective data infrastructure enables the collection, linkage, and protection of the data required to answer end users' questions while safeguarding individuals' privacy. In addition, it promotes transparency as to how the system is serving students. ESRA has made a critical investment in statewide longitudinal data systems (SLDSs), but Congress should leverage this reauthorization to meet the modern needs of education systems and stakeholders. This includes modernizing not only the technical side of data systems but also our understanding of and mindset toward data and data use—we must embrace a more multi-dimensional and longitudinal approach to evidence-collection using validated and coherent measures so that we can enable insight sharing and narrow in on context-relevant lessons about what works for whom and when. Specifically, ESRA should update and expand the SLDS grant program, support data privacy including SEA and LEA capacity to implement data privacy requirements, and (as highlighted in Goals 1 and 4 above) build capacity throughout the ecosystem to *use* data to make informed decisions with available resources.

Examples of policies to include in an ESRA reauthorization that would advance this goal include, but are not limited to[6]:

- Ensure states have the flexibility to address their greatest data needs, while also signaling priorities to states (e.g., improving data integration, updating source systems, improving credential transparency, providing access through dashboards and individualized tools, supporting staff capacity to manage and use data, cross agency data governance).
- Support data system interoperability across different aspects of the education system (including early childhood, K-12, and higher education) and across other child-serving systems.
- Establish opportunities for community engagement and other equity considerations when determining which data gets collected and how it is used.
- Expand the eligible applicant pool for SLDS grants by including "State educational agencies, Governor or other data governance bodies or organizations managing or overseeing a State's SLDS as determined and designated by the Governor."
- Formally authorize and strengthen ED's Privacy Technical Assistance Center (PTAC) to flexibly address the field's most pressing needs in protecting privacy while enabling data use.
- Charge NCES with supporting SEAs and other state agencies participating in SLDSs to obtain access to data that cannot be accessed through state-level systems, but could be accessed through federal sources, such as wage and employment records across state lines (accessible through UI records, census records, or other applicable sources), postsecondary enrollment data across state lines, and military enlistment information.
- Formalize and expand the Covid-inspired School Pulse Panel to a more robust "Learning Pulse" program that would provide actionable information in a more sophisticated and timely manner, and help school leaders more rapidly understand the relationships between various social and technological systems.

[6] This goal and the examples listed align most directly with the following RFI questions: 1, 2, 3, 11, 12, and 13.

6. **Strengthen existing components of the education R&D infrastructure.**

Improving on the foundation of the existing R&D infrastructure is addressed in several of the other goals and recommended priorities in this response. We list it here also as a distinct goal because (1) there has been important progress in establishing the current infrastructure in which ESRA should continue to invest, and (2) there are some additional areas for improvement that do not fit neatly with the other goals but merit the Committee's consideration.

Examples of policies to include in an ESRA reauthorization that would advance this goal include, but are not limited to[7]:

- Clarify the RELs' role in conducting applied research on how to improve teaching and learning and update the program's key activities to include supporting SEAs and LEAs in (and building their capacity to engage in) conducting data analysis, expanding analysis and use of data, and implementing privacy requirements.
- Ensure evaluations of RELs and CCs are timely and based on their full body of work to inform continuous improvement and drive program effectiveness.
- Modernize the National Assessment for Education Progress (NAEP) including updating the process by which the assessment is created and taking better advantage of the data generated by its administration.

7. **Grow and better coordinate the federal investment in education R&D.**

Our nation has under-invested in education R&D relative to other social sectors and particularly given the profound challenges we face, both longstanding and newly arising from the Covid-19 pandemic. Congress should therefore invest sufficient federal funds to meet the demands of the modern education system and economy. We must also make better use of existing and any new federal funds. One critical area for improvement is coordinating R&D efforts across the numerous federal agencies engaged in education R&D. This includes not just closer connections among ED, IES, and other agencies such as the National Science Foundation and the Department of Defense but also between ED and IES themselves. Federal research structures are often disconnected from one another and from regional or state research centers. This creates several problems, including inefficiencies, reduced impact, and inability to achieve scale, while preventing researchers in different agencies or at different levels of the education system from capitalizing on other regions' research methods and findings. Federal R&D structures would benefit from increased structures and capacity for partnership to enhance alignment and information sharing, improve innovation and responsiveness, and better understand the communities the research serves.

Examples of policies to include in an ESRA reauthorization that would advance this goal include, but are not limited to[8]:

- Increase authorization levels for new and existing programs to significantly grow education R&D's impact.
- Support more states with more significant SLDS projects by establishing an authorization level for the SLDS program of at least $100 million.

[7] This goal and the examples listed align most directly with the following RFI questions: 1, 2, 6, 7, and 8.
[8] This goal and the examples listed align most directly with the following RFI questions: 1, 2, 4, 5, and 11.

- Require that ED and IES co-develop and align their standards of rigor for research, with public comment, and apply them to all appropriate programs.
- Authorize cross-agency collaborations like the AI Institutes at NSF and IES and other partnerships, including via MOUs and shared research agendas, across different federal research entities.
- Direct IES to enhance connections among IES-supported research, RELs/CCs, ED, philanthropically-supported research and networks, and state and local research entities and networks to facilitate improved information and data sharing, collaborative identification of need and solutions, and intentional alignment of research.

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Congress should build off the progress we have made toward a learning system approach. This reauthorization can serve as a catalyst to accelerate that progress if it manifests these goals and includes the bulleted priorities and others like them. Doing so will make significant progress toward modernizing and strengthening the education R&D infrastructure to help our education systems—at the federal, state, and local levels—function more like learning systems that can more effectively address opportunity gaps and improve outcomes for every student.

Sincerely,

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