

Investing in Early Childhood Innovation: Q&A with Dr. Jack P. Shonkoff on the High Impact Philanthropy Blog

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This is the first in our series of blogs on some of the latest issues in early childhood education, leading up to the release of our new and improved early childhood donor toolkit, *Invest in a Strong Start for Children*, in early April.

Why is it so important to invest in early childhood innovation, and what do donors who care about impact in this area need to know? We interviewed Dr. Jack P. Shonkoff to help donors start to answer these important questions.

Jack P. Shonkoff, M.D., is Director of the university-wide Center on the Developing Child at Harvard University, where he also holds several teaching positions. Dr. Shonkoff serves as chair of the National Scientific Council on the Developing Child, a multi-university collaboration of leading scholars in neuroscience, psychology, pediatrics, and economics, whose mission is to bring credible science to bear on public policy affecting young children. In 2011, he launched *Frontiers of Innovation*, a multi-sectoral collaboration among researchers, practitioners, policymakers, investors, and experts in systems change who are committed to achieving breakthrough outcomes for young children facing adversity. Dr. Shonkoff has received multiple professional honors, lectured or taught at more than 30 universities in the United States and around the world, and authored more than 150 publications.

Q: What does science tell us about why investment in early childhood is so important?

A: Healthy development in the early years of life provides a strong foundation for most of the things we value for ourselves and for society as a whole: educational achievement, economic productivity, responsible citizenship, lifelong health, strong communities, and successful parenting of the next generation. Humans are not born with the capacity to fully achieve all of those things, but the appropriate supports help most of us develop those capabilities over time. Whether that development goes as it should or gets thrown off track depends, in part, on our genetic predispositions, but also, importantly, on the influence of our early experiences and relationships. Extensive scientific evidence also tells us that healthy development can be derailed by the adverse impacts of excessive or prolonged activation of stress response systems—what we call toxic stress—on the developing brain and other maturing organs. That happens when there is no supportive adult buffering a child from the effects of severe stress, and, if it does happen, it can have disruptive effects on learning, behavior, and health for a lifetime.

That's why it's critical to assure the availability of stable, responsive relationships, growth-promoting experiences, and healthy environments for all young children. These essential requirements build sturdy brain architecture and promote resilience, thereby supporting the vitality, productivity, and sustainability of all society.

Q: You are a strong proponent of additional research and investment in early childhood-related interventions. Why is there a need to drive innovation in the early childhood field?

A: Decades of early childhood program evaluation research tell us that a variety of interventions can improve outcomes for young children facing adversity. That said, the quality of the implementation of those programs can be variable, the magnitude of their effects is often modest, and the long-term sustainability of gains has sometimes been difficult to achieve. We can and need to do better. As the worlds of technology and medicine, among others, show us, a field that fails to innovate cannot achieve ambitious goals. Without a continuous source of new ideas, current early childhood investments cannot be expected to produce increasingly larger impacts over time.

The good news is that advances in neuroscience, molecular biology, genomics, epigenetics, and the behavioral and social sciences now offer a remarkable opportunity to help us understand how and why some interventions work better than others, both inside the brain and throughout the body. That same science can also help identify causal mechanisms that can drive the development of new intervention strategies that produce greater impacts.

This science-driven approach is at the heart of our Center's Frontiers of Innovation (FOI) initiative. This multidimensional movement, launched in 2011, is focused on the ongoing design of enhanced theories of change that are grounded in cutting-edge science and committed to bringing together researchers and practitioners to collaborate in the co-creation and testing of innovative intervention strategies. Fundamental to FOI's current work is the belief that, in order to achieve breakthrough outcomes for disadvantaged children, we must actively build the self-regulation skills, executive functioning, and mental health of the adults who care for them. We believe that supporting the development of these capabilities will not only strengthen parenting but will also enhance employability and increase the economic and social stability of the family, further reducing the burdens of stress on its members. We also believe that these gains can strengthen the early childhood foundations of lifelong resilience by improving the capacities of caregivers to help young children build effective coping skills of their own to overcome adversity.

This vision of science-based innovation marks a significant shift in the early childhood field, where multiple barriers currently stifle the ability to achieve greater impacts. For instance, researchers encounter difficulties trying to change course based on early experimental findings before a funded study is completed, practitioners bump up against regulations and funding pressures that inhibit testing new intervention strategies, and program evaluators are incentivized to focus on whether an intervention "works," rather than explore critical questions about which children and families benefit most, which benefit least (or not at all), and why.

In order to achieve substantially larger effects for children facing adversity, we must think beyond the status quo and provide greater support for the rapid-cycle sharing, iteration, and learning from failure that drive breakthrough change in other fields.

Q: How can donors help shape the future of early childhood investment?

A: Transformational change requires entrepreneurial investments in science-based innovation, in addition to philanthropic support directed toward evidence-based practices. With this goal in mind, the FOI community is focused on creating a research and development (R&D) infrastructure for the field. While improving quality and increasing access to best practices remains critically important, some segment of the field needs support for creative experimentation, implementation, evaluation, and sharing of knowledge about what doesn't work as well as what does. Venture-driven philanthropy is uniquely positioned to support this essential R&D dimension—one that can generate and test new ideas, seize opportunities, adjust in a timely fashion to fast-cycle feedback, and engage leaders in multiple fields in a rapidly changing process of co-creation and continuous learning.

This process is exemplified in programs such as Filming Interactions to Nurture Development (FIND), a video-based caregiver coaching program developed at the University of Oregon. Drawing from the science of “serve and return interaction” shaping brain architecture, this strengths-based program uses video clips of caregivers interacting with their children to help identify and encourage the types of interactions that best promote healthy development. Researchers worked closely with a service agency in Washington State to pilot the program, making adaptations based on feedback from program staff and reflections on the implementation. Positive results on parent engagement and child self-regulation led to the development and testing of additional iterations of the program, including a version tailored for use with fathers as well as one adapted for a home-based childcare setting. With the collective learning and results from these ongoing trials, the Washington State Department of Early Learning is planning to partner with the researchers and practitioners to pilot the FIND model statewide as part of its infant and toddler consultation program, with the potential to reach thousands of children. Throughout the process, flexible funding has been instrumental in facilitating faster transitions, from concept to development of the intervention to on-the-ground testing, as well as sustained engagement among the researchers and practitioners.

This special breed of investor can help shape a new era in early childhood policy and practice that will produce significantly greater outcomes for young children and families who are facing adversity.