



Center on the Developing Child  
HARVARD UNIVERSITY

# Driving Science-Based Innovation to Achieve Breakthrough Outcomes for Young Children Facing Adversity

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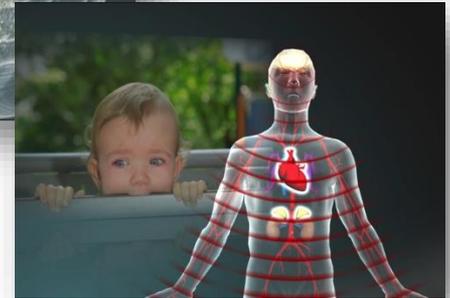
First 1000 Days Kickoff Event  
Olympia, WA | June 21, 2017



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# Three Core Scientific Concepts Underscore the Importance of the First 1000 Days

- 1** Responsive relationships and positive experiences build strong brain architecture, starting in the earliest years of life.
- 2** Coaching, modeling, and practice support the development of key capabilities that are needed to thrive in school, at work, as a parent, and as a contributing member of a community.
- 3** Significant adversity can disrupt the early development of these capabilities as well as the ability to rely on them later under conditions of duress.



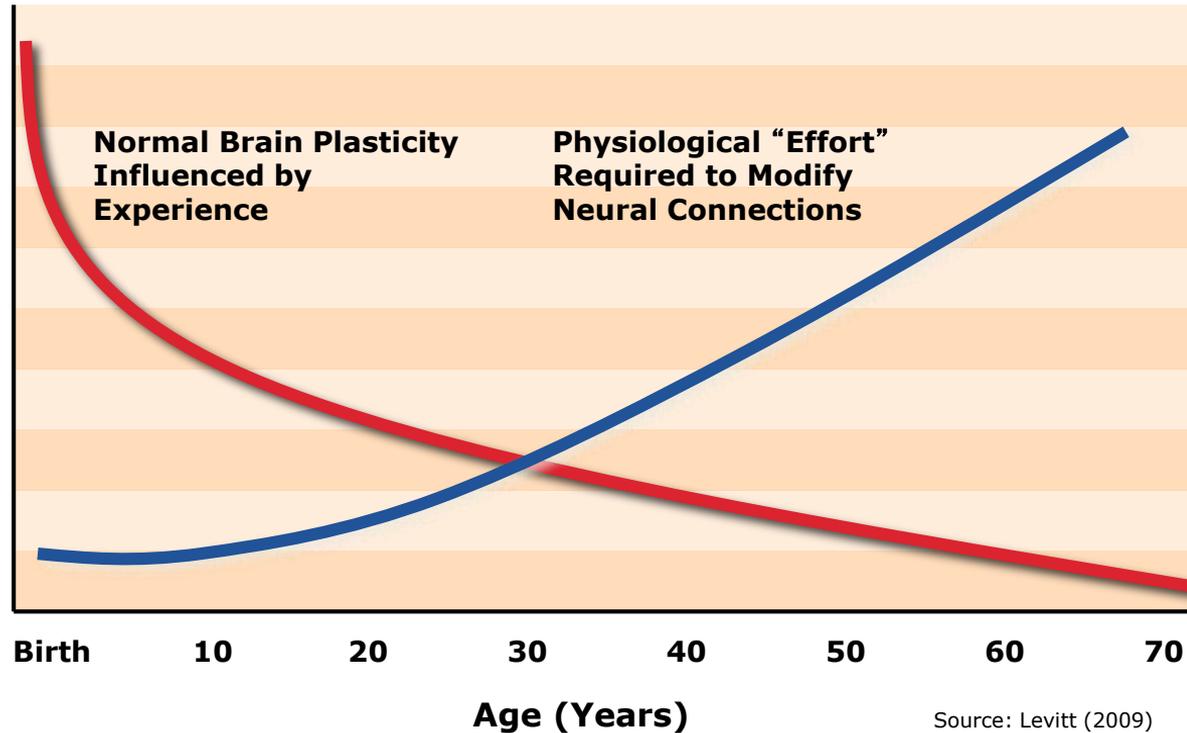
# Capabilities that Promote Healthy Development are Built on Foundational Skills in Executive Function and Self-Regulation



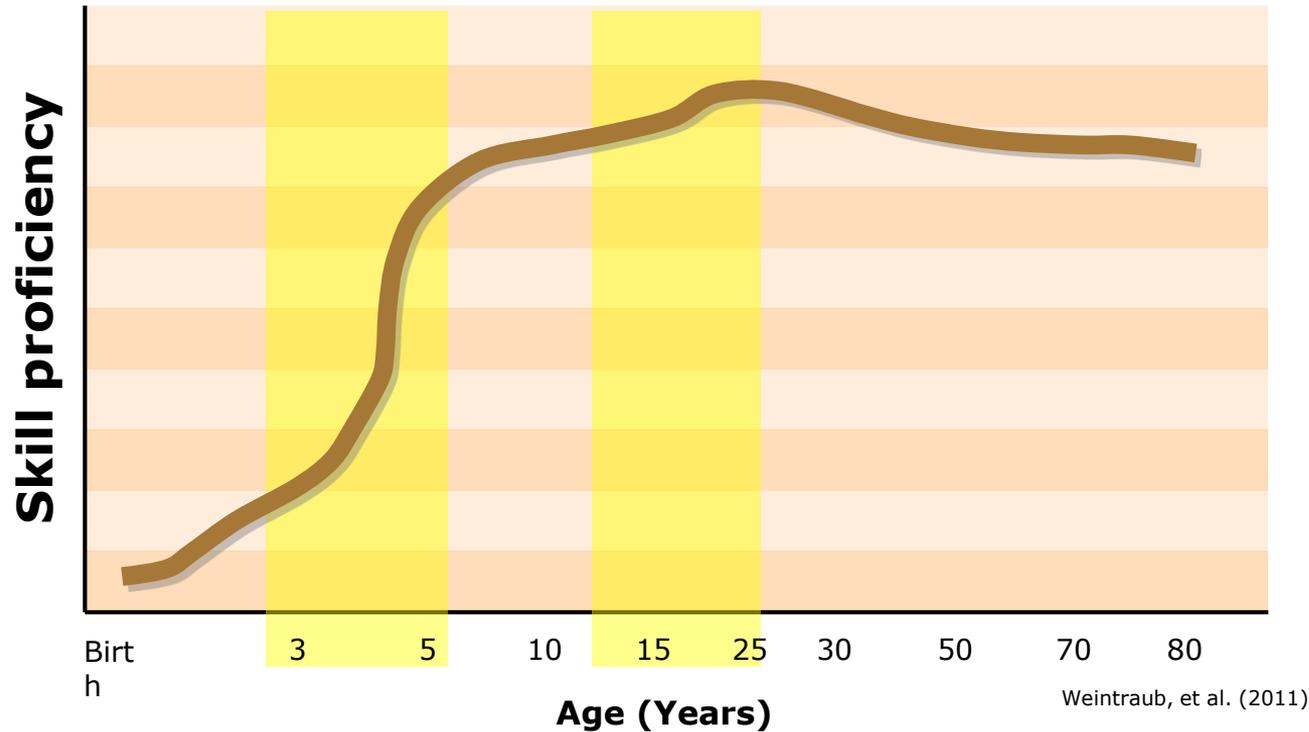
These core dimensions of development include the ability to:

- focus and sustain attention
- set goals, make plans, and monitor actions
- make decisions and solve problems
- follow rules, control impulses, and delay gratification

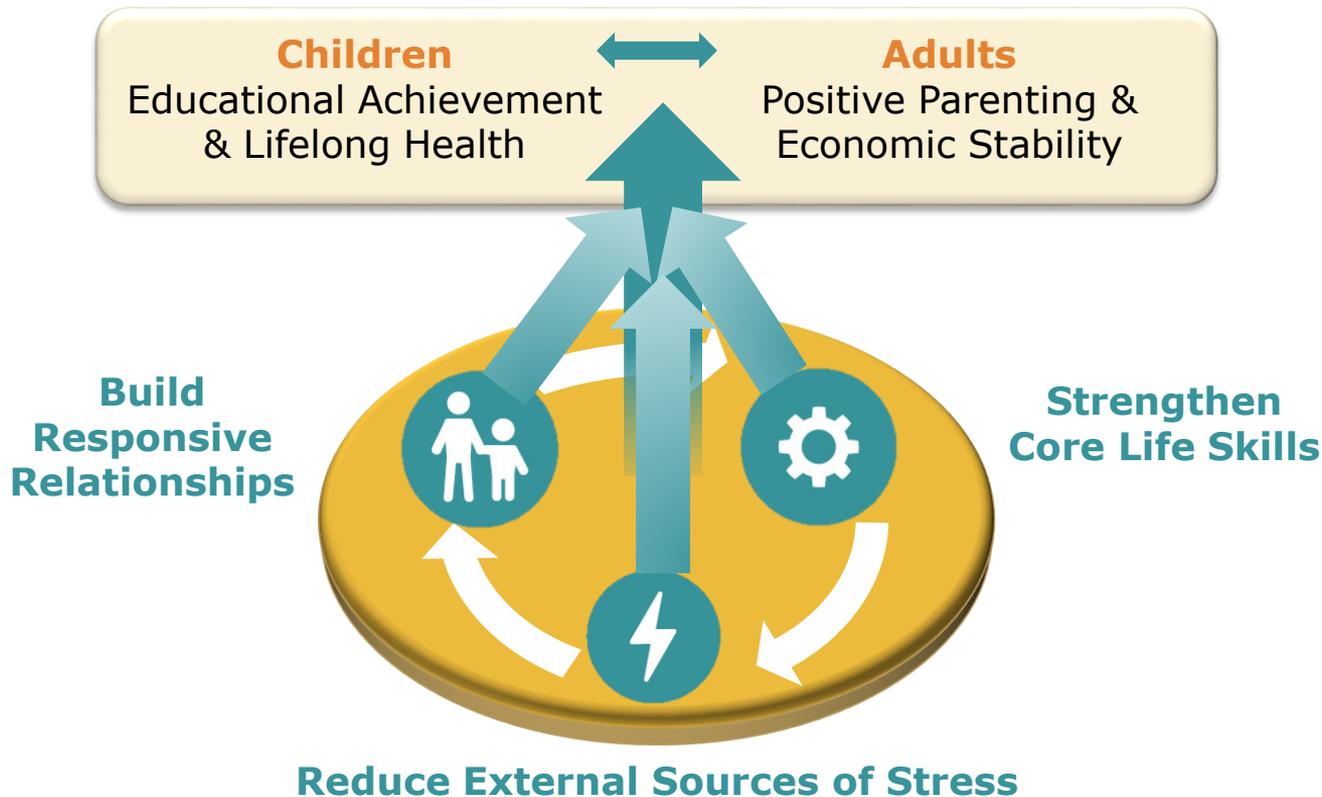
# The Challenge: The Ability to Change Brains and Behavior Decreases Over Time



# Two Windows for Intervention: The Development of Executive Function Skills Begins in Early Childhood and Extends Into the Early Adult Years



# Leveraging Science to Strengthen Current Efforts and Drive Innovation in Policies & Programs



# Why These Three Principles?



## **Build Responsive Relationships**

For children:

- promotes healthy development of brain architecture, biological stress response, attachment & social-emotional capacities
- provides buffering protection to prevent even very challenging experiences from producing a toxic stress response

For adults:

- provides practical and emotional support
- helps build hope and confidence
- models relationship skills

# Why These Three Principles?



## Strengthen Core Life Skills

For children:

- Support educational & social success
- Resist decisions that risk health

For adults:

- Needed to succeed in the workplace
- Better able to provide responsive care
- Better able to maintain stable home environment

For both:

- Promote agency, belief in self
- Better able to manage stress

# Why These Three Principles?



## Reduce External Sources of Stress

For children:

- Encounter fewer and briefer situations that trigger an extreme stress response
- Directly promotes brain development, health, and well-being

For adults:

- Open up “bandwidth” to promote the healthy development of children
- Enable more effective access and use of core capabilities
- More opportunities for responsive caregiving

# Innovation is About Co-Creation and Risk-Taking



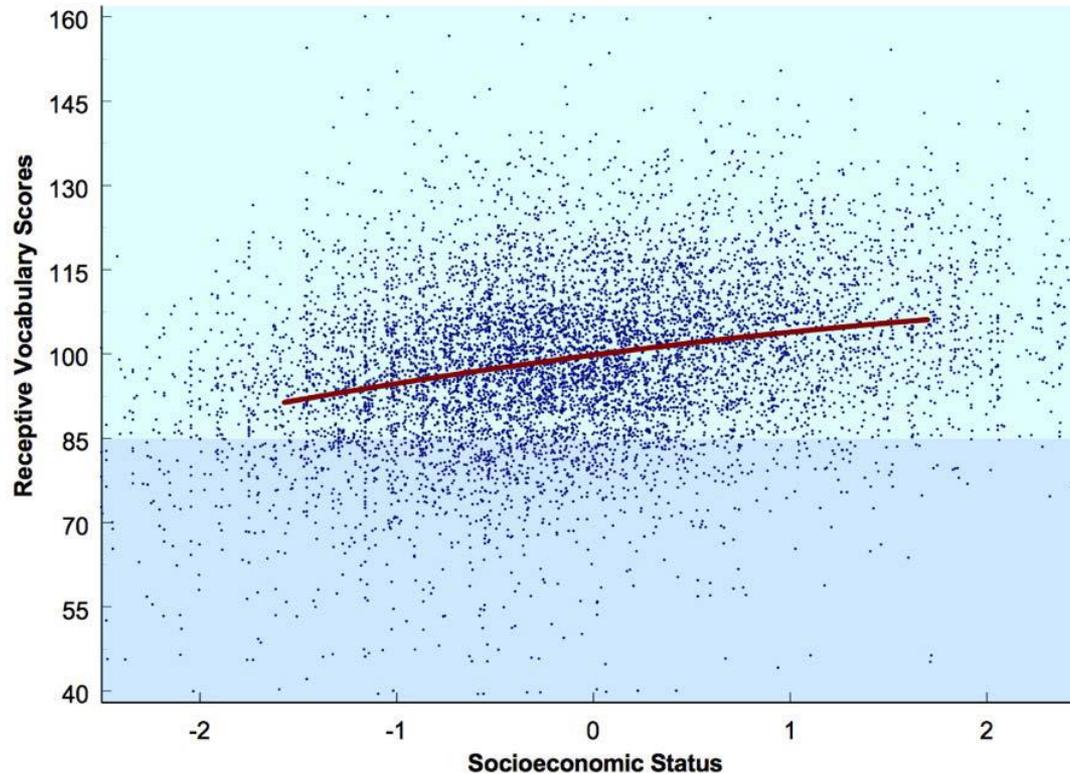
# The Time Has Come to Really Find Out What Works – and How, for Whom, and in What Contexts

We rarely know precisely what an “evidence-based” intervention actually does and why or how it changes developmental trajectories.

We know even less about for whom it produces a large effect and for whom it has very little or no impact.

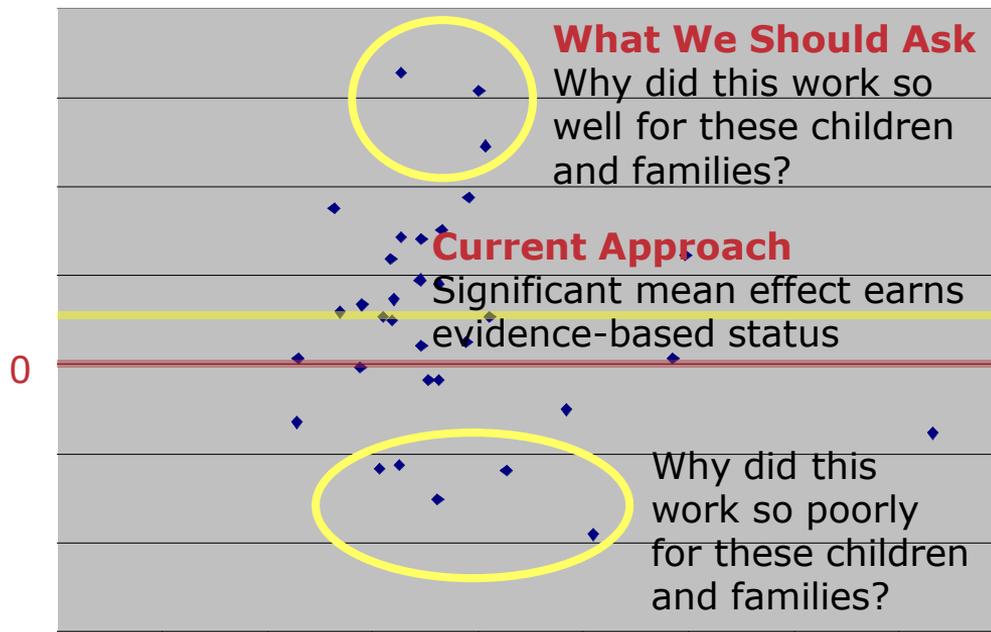
It’s time to shift from a 20<sup>th</sup> century agenda focused on proof of concept and returns on investment to a 21<sup>st</sup> century quest for larger impacts at scale.

# Understanding Human Variability is Essential for Developing and Implementing More Effective Policies and Programs

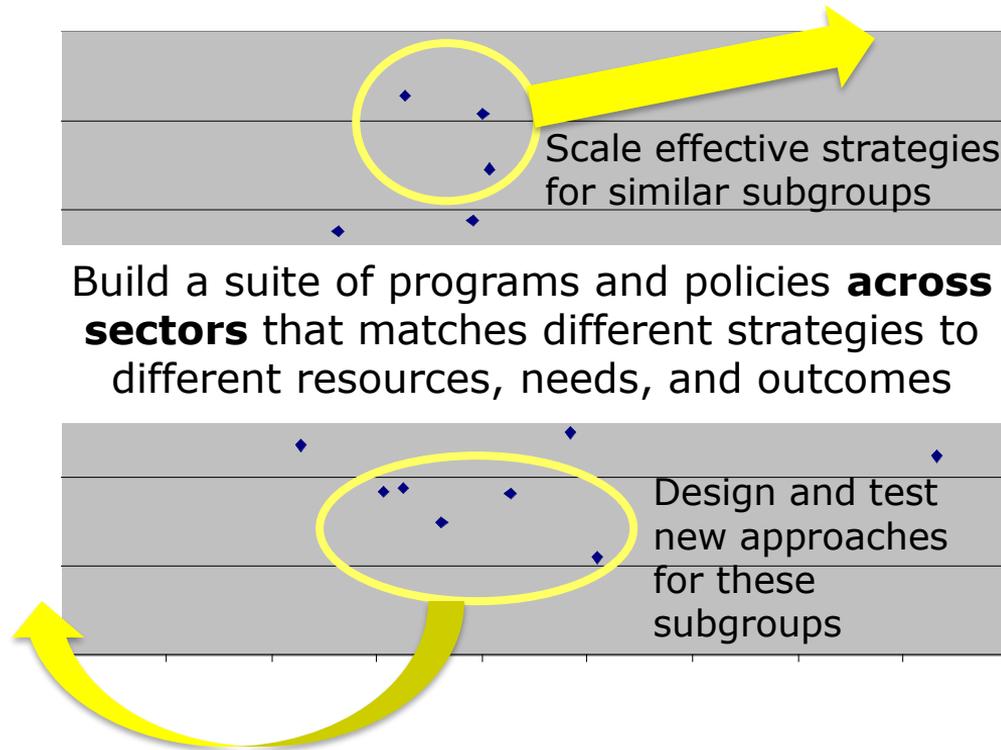


Source: NLSCY, Cycle 4 (2000-01)

# Achieving Greater Impact at Scale Requires Rethinking the Criteria for Defining Evidence-Based Investments



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# Lessons We've Learned Over the Past Five Years

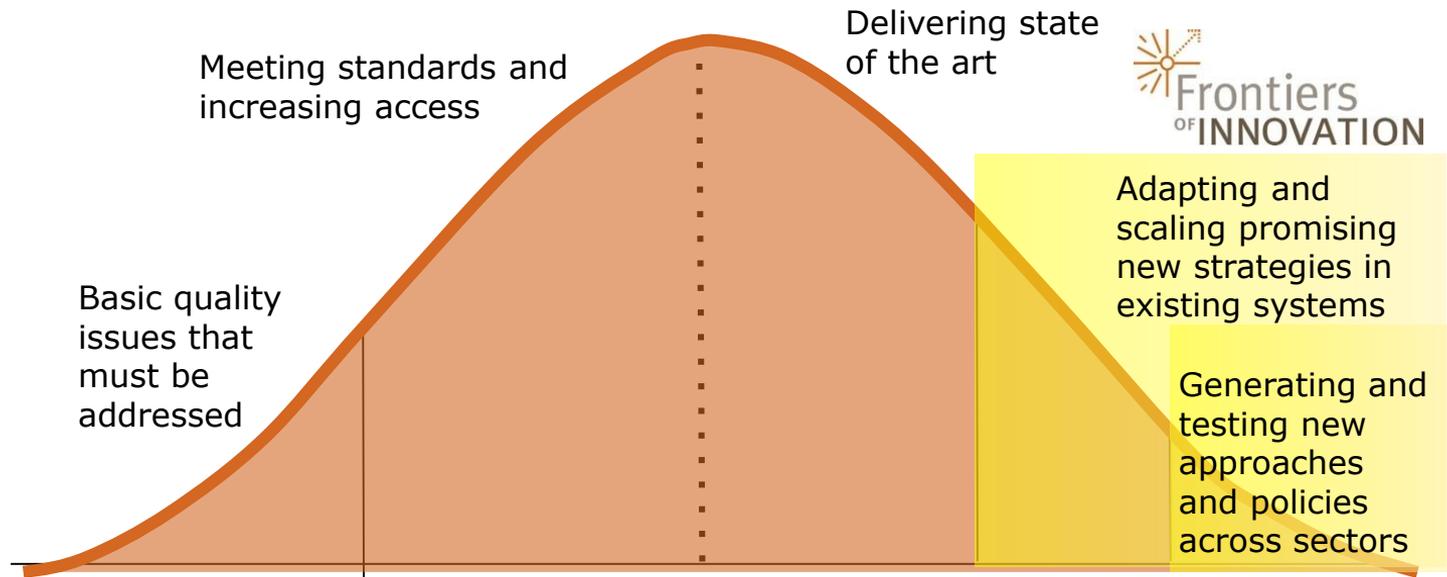
Identifying **specific challenges or unmet needs**

Balancing **rigorous criteria and flexibility** for design, testing, and evaluation

Activating **untapped energy across sectors, agencies, and systems** – and emphasizing the importance of **risk taking and learning from failure**

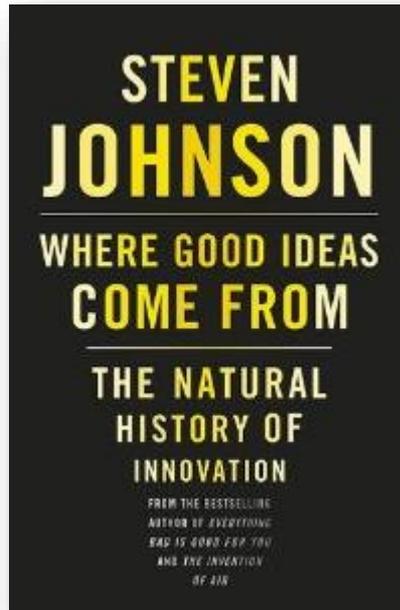
Recognizing the **challenge of building adult capabilities** in early childhood settings

# Greater Impacts in Contexts or Systems that Intersect with Early Childhood Require a Full Spectrum of Engagement



(Adapted from Everett Rogers,  
*Diffusion of Innovations*, 2003)

# The Fundamental Importance of Strategic Collaboration and the Benefits of Productive Collisions



“Encouragement does not necessarily lead to creativity. Collisions do—the collisions that happen when different fields of expertise converge in some shared physical or intellectual space. That’s where the true sparks fly.”



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About Science Innovation & Application

**NEW REPORT**  
**From Best Practices to Breakthrough**  
A Science-Based Approach to Promising Future for Young Children  
[Learn More](#)

Reaching for Breakthroughs with Science-Based Innovation

Science Innovation & Application

The science of early childhood is a source of new ideas that could be used to develop more effective policies & services.

### Science

The frontiers of 21st-century science are a relatively untapped source of new ideas that could be used to address such threats by catalyzing more effective policies and services focused on the early years of life.

Science tells us that early childhood is a time of both great promise and considerable risk. Having responsive relationships with adults, growth-promoting experiences, and healthy environments for all young children helps build sturdy **brain architecture** and the foundations of **resilience**. Meanwhile, significant disadvantages can disrupt the developmental process and lead to limited economic and social mobility that threatens the vitality, productivity, and sustainability of society.

**Key Concepts**

These **key concepts** are the building blocks of the science of child development. Each page within this section provides a concise

**Deep Dives**

**"Deep dives"** provide in-depth scientific content that is accurate, credible, understandable to policymakers, and useful

### Innovation & Application

The science of development is a powerful source of fresh thinking about how to increase opportunities early in life for all children. Using current best practices as a starting point, the Center is working with a network of researchers, practitioners, and community members to design, implement, and evaluate innovative, science-based practice models that achieve transformational change for vulnerable children and families.

**Key Concepts**

**Innovation in Action**

[www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)



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