

# EARLY CHILDHOOD DEVELOPMENT AND ITS SUPPORTING STATE SYSTEMS:

## *An Introduction for Policymakers*

### THE SCIENCE OF EARLY LEARNING

With decades of research informing our understanding of brain science and the long-term impacts of targeted investment, one conclusion is increasingly clear: **the years of early childhood matter – both for children themselves and for society at large.**

A working knowledge of this research is especially critical for policymakers, who hold the power to dramatically shape their states' landscapes for young children and their families. With the benefit of science, elected leaders are discarding outdated notions regarding the adequacy of custodial “daycare” and the importance of children arriving at kindergarten “ready to learn” in favor of contemporary understandings that children are born learning, that **measurable achievement gaps are evident as early as infancy**, and that **the environments in which children spend their earliest years hold the potential to shape their long-term success** in meaningful ways.

This document is designed to introduce state policymakers to the fundamentals of brain science, the economic and societal benefits of public investment in early childhood, and key considerations for shaping their states' early childhood systems.

### THE DEVELOPING BRAIN: LEARNING FROM DAY ONE

The earliest years of life – and particularly **the period from prenatal to age three** – represent a unique **developmental window during which the fundamental architecture of the brain is wired**, largely in response to relationships and interactions with family members and early childhood teachers. What we commonly refer to as “brain development” is the process of creating connections between the nerve cells in the brain. This process is never more active than **during the first three years of life** – where scientists at the Harvard Center for the Developing Child have estimated that **new neural connections occur at the rate of one million per second.**

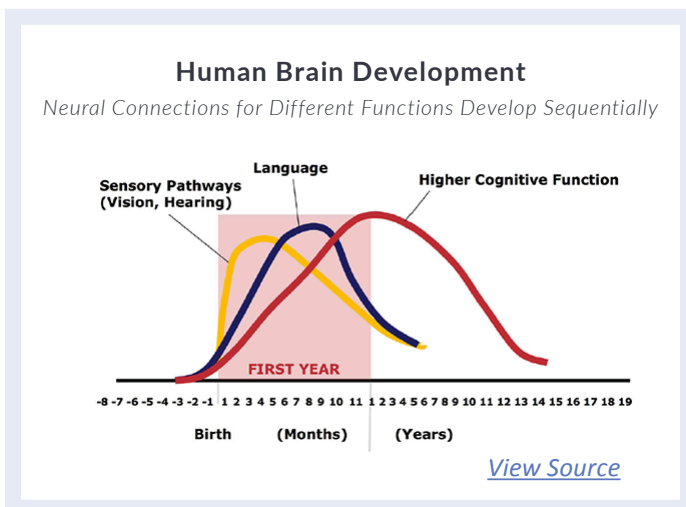
**Babies are wired to understand the world from the ways they are cared for from birth.** Every word spoken to them, every facial expression they see, and every interaction with caregivers – both in and out of the home – helps to shape the foundation of their social/emotional, cognitive, communication, adaptive and physical development.

What does this mean for policymakers considering the long-term success and prosperity of their constituents and states? Put simply, **the first three to five years are of life-changing consequence.** With consistent exposure to nurturing, language-rich environments and loving, supportive adults, young children develop robust networks of neural connectivity that will serve to undergird their academic and life success for decades to come.

### EXPOSURE TO EARLY ADVERSITIES CAN WIDEN THE EARLY ACHIEVEMENT GAP

While much attention has been paid to “the achievement gap” between our nation’s most and least prepared K-12 students, it is only in recent years that we have come to appreciate the extent to which **early learning and developmental disparities begin – and are measurable – as early as infancy**, particularly among children from challenged socio-economic backgrounds.

A 2009 study by Child Trends and the Council of Chief State School Officers (CCSSO) found that **disparities in the cognitive development, general health, and social-emotional development of low-income children are evident at 9 months and grow larger by 24 months of age.**



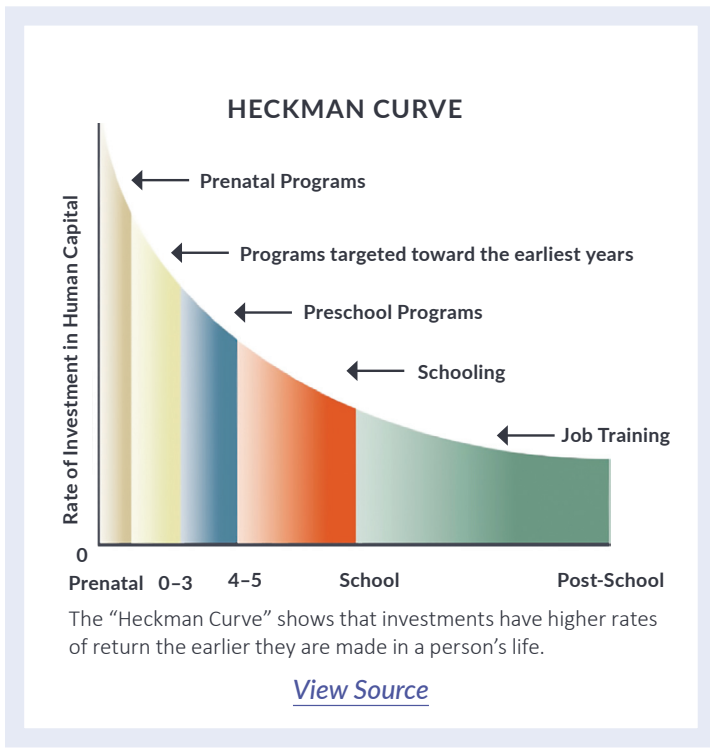
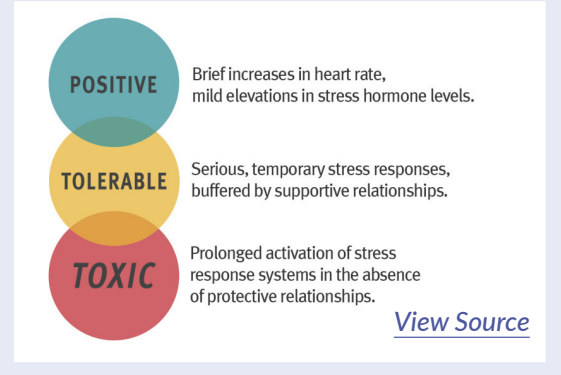
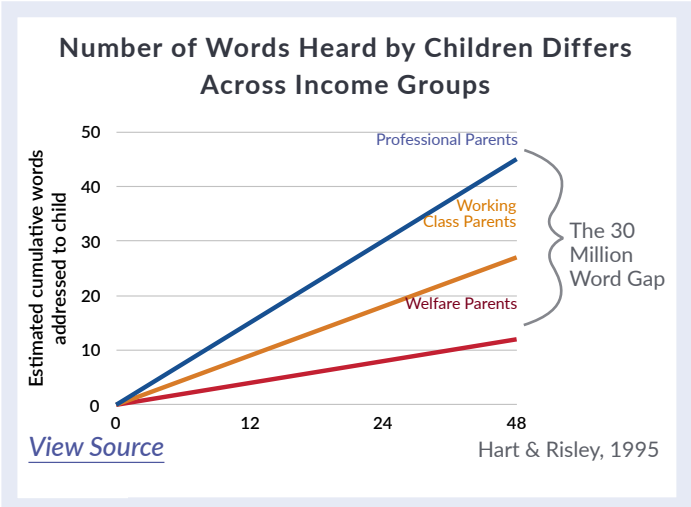
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In another well-known study, [Meaningful Differences in the Everyday Experiences of Young American Children](#) (1995), authors Betty Hart and Todd Risley found that the **children of low-income families are exposed to over 30 million fewer spoken words by the age of three than their more advantaged peers.**

While a key predictor of early developmental disparities, economic disadvantage is hardly the only factor which threatens the healthy and optimal development of the developing brain. Children exposed to frequent or prolonged stress – caused by physical or emotional abuse, neglect, caregiver mental illness or substance abuse, and domestic violence, just to name a few – may experience developmentally toxic effects. This is especially true of children who may lack the support of caring adults who are equipped with the appropriate resources, knowledge, and capacity to mitigate these stressors. According to the Harvard Center for the Developing Child, such prolonged activation of the body’s stress response systems – labeled [toxic stress](#) – can disrupt development of the brain’s architecture, and increase the risk of stress-related disease and cognitive impairment well into adulthood.

Whether overcoming demographic risk, toxic stress, or both, many factors hold the power to subvert the optimal development of young children. **This is not only a personal tragedy for those involved but a public policy issue of significant consequence.**



### THE ECONOMIC CASE FOR EARLY CHILDHOOD INVESTMENT: THE EARLIER THE BETTER

Just as it is possible – but extraordinarily costly – to repair a home with a weak foundation, so too do some remedial programs show promise in closing the achievement gap. There is little question, however, that both children and taxpayers would be better served by preventing these gaps in the first place through the delivery of high-quality early childhood supports.

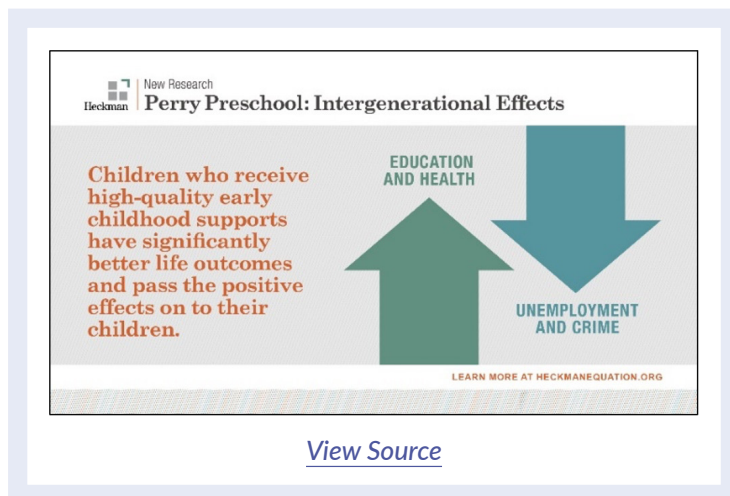
Dr. James Heckman, a Nobel Prize winning economist at the University of Chicago, has dedicated much of his career to analyzing the economic effects of high-quality investments during the years of early childhood. Across multiple analyses, [Heckman’s conclusion](#) should be eye-opening to policymakers: **for every dollar spent on high-quality birth-to-five programs for disadvantaged children, taxpayers can expect a 13 percent per annum return on investment – with, perhaps not surprisingly – the greatest returns associated with programs at the earliest stages of life.**

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These returns come in the form of both immediate and long-term savings across the education and social service landscapes (reductions in retention, special education, welfare supports, and incarceration) and increases in employment and tax-paying ability, just to name a few.

Recently, Heckman partnered with HighScope for a first-ever [inter-generational analysis](#) of the outcomes stemming from HighScope’s Perry Preschool Project, a high-quality 1960s preschool intervention offered in Ypsilanti, Michigan. After comparing the outcomes of both the participants and control group for more than 50 years, Heckman’s analysis found not only that the preschool intervention increased the participants’ employment, health, cognitive and social-emotional skills, and reduced male participants’ criminal activity (especially violent crime), but **similar effects were now being seen decades later by the participants’ own children.**

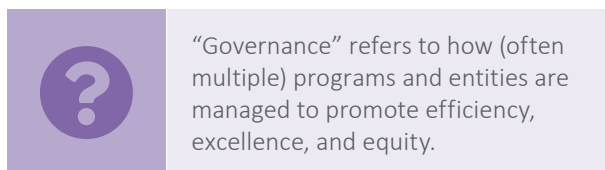


This new analysis further highlights how high-quality early childhood programs can increase economic mobility for two generations by allowing parents to enter the workforce and increase wages while their children improve skills for school readiness and to become part of the future workforce.

## **BUILDING AN EFFECTIVE STATE EARLY CHILDHOOD SYSTEM: WHAT DO YOUNG CHILDREN AND THEIR FAMILIES NEED?**

### ***Governing Early Childhood Services***

States are actively strengthening their early childhood systems and programs. However, these systems and programs are often poorly coordinated due to a multitude of state and federal funding streams, and a diversity of settings, professional roles, and services - creating disconnected experiences for children. The state-level governance of these programs also varies significantly by state, with programs often spread across multiple state agencies. Many states lack a formal governance structure capable of addressing conflicting eligibility criteria, regulations, processes, and accountability across the birth-to-third-grade continuum and among state departments. Multiple planning and governing entities are often simultaneously contributing to an early learning vision, goals, and objectives for specific programs creating the potential for duplication.



“Governance” refers to how (often multiple) programs and entities are managed to promote efficiency, excellence, and equity.

State leaders and policymakers can help align each agency’s mandates and goals and facilitate effective intergovernmental cooperation increasing and streamlining quality, access, capacity, and local delivery of early childhood services. A [brief](#) by the Education Commission of the States outlines five goals for governing early childhood education:

- Coordinating and connecting programs within the early childhood education system, to better reflect its comprehensive nature.
- Aligning systemwide tasks such as data collection, quality standards and outcome measurement, breaking down silos associated with the administration of funding and the oversight of individual programs.
- Sustainability safeguards designed to withstand political and administrative changes and accounting for the full range of programs and services that are part of the state’s early childhood system.
- Allocating resources wisely, reducing duplication of efforts and providing a significant return on investment.
- Holding programs and services accountable for quality, equality, and outcomes.

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Early childhood governance refers to a state's organizational structure and its placement of authority and accountability for making program, policy, financing, and implementation decisions for publicly funded early care and education for children from birth to age five. There are two major models of governance that exist in states:

01. Coordinated Governance, which spreads authority and accountability across multiple public agencies, and
02. Consolidated Governance, which places authority and accountability in one executive branch agency – sometimes newly created for this purpose (e.g New Mexico, 2020) - for development, implementation, and oversight of multiple early childhood programs and services.

Within each of these structures, there may be room for greater or lesser decentralization (whereby the state empowers local communities or regions to initiate, implement, and monitor efforts). There also is room within each governance structure for public-private partnerships, with the state utilizing actors outside of the public sector to support its oversight in appropriate ways.

### ***Financing Early Childhood Services***

Early education and care services for young children are provided by a wide range of programs with different designs and purposes, including the federal Head Start program; state child care programs that represent a mix of federal and state funds and requirements (and parent co-pays); and state-funded preschool programs. These essential funding streams are part of a larger array of programs that include special education, health and mental health services, home visiting, nutrition, and more. Building comprehensive early childhood systems focuses on these early care and education services and all the other programs and services necessary for healthy child development and learning, including family support, early intervention, and child health and mental health.

**Financing** early childhood services at the state level is a complex proposition, typically entailing the braiding of federal and state funding. A number of significant federal funding streams exist to help states meet this critical responsibility, including:

**The Child Care and Development Fund (CCDF): \$5.83 billion, 2020:** CCDF is a federal and state partnership program authorized under the Child Care and Development Block Grant Act (CCDBG) and administered by states, territories, and tribes with funding and support from the Administration for Children and Families' Office of Child Care. States use CCDF funds to enhance the quality of child care and better support the workforce, protect the health and safety of children in child care, ensure parental choice, and provide financial assistance to low-income families to access child care so they can work or attend a job training or educational program.

**Head Start | \$10.61 billion, 2020:** Administered by the Office of Head Start in the Administration for Children and Families, Head Start (and Early Head Start) programs promote school readiness of children ages birth to five from low-income families by supporting the development of the whole child through comprehensive services that support early learning, health, and family well-being utilizing a two-generation approach. Head Start funds are not administered directly by states, but rather grants are given directly from the federal government to local Head Start grantees, such as Community Action Agencies, local school districts, and private non-profits, who offer a range of comprehensive services to support school readiness and strengthen families.

**The Individuals with Disabilities Education Act (IDEA) Part C and B | \$871 million, 2020:** The Individuals with Disabilities Education Act (IDEA) provides funding and oversight related to special education programming. In early childhood this entails both the Part C early intervention program for children from birth to age three (\$477 million) and IDEA Part B preschool grants for children ages three to five (\$394 million).

**Maternal, Infant, and Early Childhood Home Visiting (MIECHV) | \$351 million, 2019:** The Maternal, Infant, and Early Childhood Home Visiting Program is designed to support pregnant women and families, particularly those considered at-risk, through the delivery of evidence-based home visiting models designed to develop children who are physically, socially, and emotionally healthy and ready for success.

**Title V Maternal Child Health Services Block Grant | \$651 million, 2018:** One of the largest federal block grant programs, Title V is a key source of support for promoting and improving the health and well-being of the nation's mothers, children, including children with special needs, and their families. The grant helps states to underwrite services including comprehensive prenatal and postnatal care, ongoing maternal/child health care, and health promotion efforts that seek to reduce infant mortality and the incidence of preventable diseases. Grant funds provide annual support to an estimated 56 million Americans. States and jurisdictions must match every \$4 of federal Title V money that they receive with at least \$3 of state and/or local money (i.e., non-federal dollars).

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**Every Student Succeeds Act (ESSA)** | Provides federal grants to state educational agencies to improve the quality of elementary and secondary education. ESSA is reauthorization of The Elementary and Secondary Education Act (ESEA) replacing the No Child Left Behind Act allowing for more flexibility at the state and local level. ESSA is composed of nine titles, which provides funding to states and districts to support their efforts in meeting specific educational goals. Early Learning is woven throughout the Act and provides an **opportunity to strengthen the birth to third grade continuum and focus on coordination and collaboration**. Funding allocated for early learning varies by states and districts based on ESSA plans.

**Preschool Development Grants-Birth-Five (PDG B-5) | \$275 million, 2020:** Authorized by the federal Every Student Succeeds Act (ESSA), PDG B-5 is a discretionary grant program jointly administered by the Office of Child Care (OCC) at the Administration for Children and Families (ACF) within the U.S. Department of Health and Human Services (HHS) and the Office of Early Learning in the U.S. Department of Education (ED). The **PDG B-5** provides states with a significant funding to develop and **coordinate** comprehensive early childhood systems so that all children and families have equitable access to high-quality programs. In December 2018, initial PDG B-5 grants were awarded to 46 states and territories to support states to conduct a comprehensive statewide birth through five **needs assessment**, develop an early childhood systems **strategic plan** as well as increase parental choice, improve **transitions**, and improve overall **quality** of programs while advancing mixed delivery services.

States routinely supplement these federal funding streams using both **general revenues** and a host of dedicated streams, ranging from **tobacco settlements** (Arizona, Connecticut, Kansas), to **sales taxes** (South Carolina), and **gambling and lottery revenues** (Georgia, Missouri).

Several states, including Utah and California, are testing the use of **social impact bonds** (often referred to as “pay for success” models), in which private capital is used to create programs believed to generate long-term savings to taxpayers. Funders are repaid by the government when the program demonstrates such outcomes.

Though often considered by policymakers in terms of classroom-based early education programs (pre-kindergarten for four-year-old children, for example), the healthy development and needs of young children are best considered holistically, beginning prenatally and extending throughout the years of childhood. The good news for policymakers is that there are programs and leaders in each state with expertise in each aspect of what children and families need to thrive. **Elected leaders have the potential to make connections across these programs, rooted in communities and state agencies, that can ultimately lead to better coordinated supports to their youngest constituents and their families.** For this reason, it is important to take a systems approach. Creating an effective and efficient early childhood system is no small task, but with committed and knowledgeable policymakers engaged in the task, the benefits to both taxpayers and families can be significant.

## THE PRENATAL TO THREE POLICY LANDSCAPE

While science has established the earliest years as life’s most critical window of development, state policies targeting prenatal to three often receive less attention and investment than those aimed at older preschoolers.

Research demonstrates that the period from prenatal development to age three lays the foundation for all future learning, behavior, and health. Limited exposure to adversity and the presence of safe, stable, loving relationships are the keys to healthy early development — yet this period is often challenging (financially and otherwise) for families, who benefit from strong systems of care to help their children thrive. Simply put, babies require responsive and caring relationships with adults in nurturing and stimulating environments. The implications for school readiness and success later in life can be profound.

To ensure children are on track for healthy development by age three, it is essential that programs and policies start early so that:

- Infants are born healthy and continue to thrive
- Parents have what they need to support their child’s healthy development
- Families have access to affordable, high-quality child care options

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The table below introduces each of these areas, along with specific state-level considerations associated with each.

<i>Healthy Beginnings</i>	<i>Family Supports</i>	<i>Early Care and Learning</i>
<ul style="list-style-type: none"> <li>■ Medicaid expansion</li> <li>■ Workplace accommodations for pregnant employees</li> <li>■ Preventive and physical health via family-centered medical homes</li> <li>■ Early childhood mental health services</li> <li>■ Nutrition</li> <li>■ Reduce maternal and infant deaths through interagency collaboration</li> <li>■ Targeted actions to address racial disparities</li> <li>■ Screening for (and interventions to address) toxic stress</li> <li>■ Prevention of unplanned pregnancies</li> </ul>	<ul style="list-style-type: none"> <li>■ Paid family leave</li> <li>■ Home visiting and parenting education</li> <li>■ Paid family and medical leave</li> <li>■ Housing and tax policy</li> </ul>	<ul style="list-style-type: none"> <li>■ Access to Early Head Start</li> <li>■ Access to high quality, affordable early learning opportunities from birth to school entry</li> <li>■ Child care subsidy</li> <li>■ Well-educated and well-compensated teachers</li> <li>■ Developmental screenings and early intervention</li> <li>■ Early learning standards and kindergarten entrance assessment</li> </ul>

Through the deliberate and thoughtful integration of the key system components above, states can create high-quality early childhood systems, capable of addressing the complex, holistic needs of young children and their families.

## PRENATAL-TO-3 POLICY IMPACT CENTER

The University of Texas at Austin established the national [Prenatal-to-3 Policy Impact Center](#) at the LBJ School of Public Affairs in 2019.

The Policy Impact Center has created four signature resources:

01. [A Prenatal-to-3 State Policy Clearinghouse](#) – An ongoing inventory of rigorous evidence reviews of state-level policies and strategies that impact the prenatal to age three developmental period.
02. [Prenatal-to-3 State Policy Roadmap](#) – An annual policy guide grounded in evidence that provides states actionable solutions to improve outcomes for all young children.
03. [Prenatal-to-3 Policy-Research Exchange](#) – A forum for early childhood stakeholders to exchange ideas and experiences to advance scholarship and evidence-informed policymaking.
04. [Building the Evidence-Base for Prenatal-to-3](#) – A prioritized research agenda, developed in collaboration with scholars and practitioners, to continue to build a strong and equitable prenatal-to-three system of care.

### ***The Prenatal-to-3 State Policy Roadmap***

Through comprehensive reviews of the most rigorous evidence available, the Prenatal-to-3 Policy Impact Center identified eight prenatal to three policy **goals** with 11 **effective solutions** (5 effective **policies** and 6 effective **strategies**), that foster the nurturing environments infants and toddlers need, and many of which reduce longstanding disparities in outcomes among racial and ethnic groups and socioeconomic statuses.



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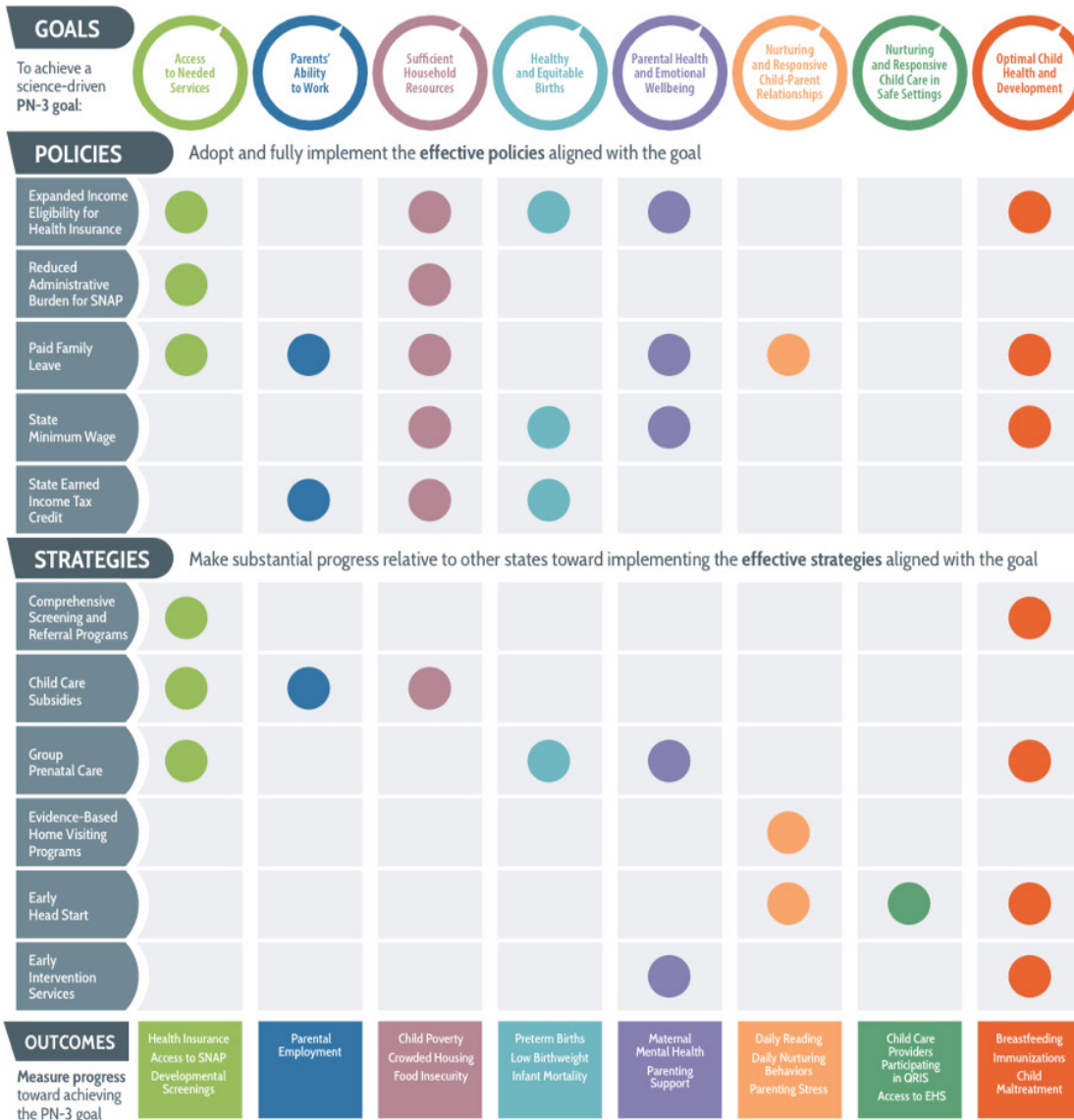
Four steps states can take to strengthen their prenatal-to-3 systems of care:

01. Prioritize science-based policy goals to promote optimal health and development of infants and toddlers.
02. Adopt and implement effective policies and strategies to improve PN-3 goals and outcomes.
03. Monitor progress toward adoption and implementation of effective solutions.
04. Track outcomes to measure impact on optimal health and development of infants and toddlers.

### PRENATAL-TO-3 STATE POLICY ROADMAP

Effective policies impact PN-3 goals and research provides clear legislative or regulatory action. Effective strategies have demonstrated impacts on PN-3 goals, but research provides no clear guidance for legislative action.

● Policy/strategy is aligned with goal in column  
 □ Policy/strategy does not align with goal in column (intentionally blank)



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Programs and services that address these areas are critical; however, they are only as strong as the infrastructure that supports them. To be effective, programs must be organized within cohesive systems that coordinate and align a broad array of services. To support the healthy development of all children, states and communities must provide comprehensive, coordinated, well-funded systems of high-quality, prenatal-to-age-eight services that foster success in school and life, strengthen systems of care, and reduce disparities.

### **POLICY RECOMMENDATIONS AND QUESTIONS FOR CONSIDERATION:**

- Undertake a comprehensive review of public expenditures on children aged prenatal to three (with an eye toward the adequacy, quality, and holistic nature of these investments). Compare these expenditures to associated costs on retention and remediation. What might be saved by adopting a more preventative approach?
- Consider the current structure and governance of your state's early childhood system. Does this structure lend itself to the efficient use of resources, interagency communication, and seamless service coordination? If not, what statutory or administrative changes might best advance your state system in these areas?
- Recognizing that optimal brain development is a product of loving and nurturing interactions with caregivers, both in and out of the home, consider formal efforts to support the learning of parents and families and promote the professional development and adequate compensation of teachers working with infants, toddlers, and preschoolers.