Markers that Matter: Success Indicators in Early Learning and Education

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Executive Summary

The field of early learning is complex, dynamic, and critical to the individual and collective success of children in the United States. From birth to age 8, the fundamental building blocks that prepare children for a lifetime of learning and development are established. National, state, and local efforts have increased attention on the importance of early learning, but in the process, they have also created a proliferation of related indicators and standards. With an overabundance of measures, there is increasing confusion about how to define and measure positive early childhood outcomes. At the same time, this field and the country are changing. We know more about how the young brain develops, including the range of domains (cognitive, social-emotional, physical) and array of actors (families, school and care settings, communities) that are part of healthy development. The field needs indicators that reflect this evolving understanding and that also address a changing country. Despite increasing racial and cultural diversity in the United States, particularly among children, there are few indicator efforts that reflect and appreciate this diversity and that address disparities that affect a growing population. The early learning field is poised to benefit from a synthesized set of indicators that can serve as a platform for communication and collaboration among actors working on behalf of all young children.

This report is the result of a multi-phased process to identify and vet a set of early childhood indicators and emerging themes to support the early learning field. Our research focused on identifying a set of early learning indicators and emerging themes that aim to support the variety of actors in this space by:

- Emphasizing a **systems view of early childhood**, where indicators reflect the various layers that affect young children (such as families, education and care settings, and communities) and actors that influence the range of domains that are part of "whole child" development from birth to age 8
- Addressing the critical and growing importance of **issues of equity**, as the population of young children in the U.S. reflects increasingly diverse racial and cultural backgrounds
- Highlighting the role of indicators to serve as a common language and foster **communication and collaboration** in a field that has been historically fragmented

The resulting indicators and emerging themes reflect a distillation of many existing efforts to define early learning indicators. We began with interviews with 40 early childhood experts and conducted a literature review in early learning and related fields. We then reviewed over 1,100 indicators from 11 existing indicator sets, from which we synthesized and prioritized 48 indicators based on our analysis and expert input. In addition to distilling these indicators, we identified gaps where new themes are emerging and further research is needed to develop additional indicators, particularly in the area of racial and cultural equity.

The potential value of this set of indicators comes from their relevance and utility to the broad range of actors who support the healthy development of young children. Using these measures is highly context-dependent and is driven by how a given effort aims to help young children, and where indicators can
inform a common understanding of and guide coordination toward a shared goal. This report highlights two examples where indicators have helped to support collaboration on behalf of better outcomes for young children in Bremerton, Washington and Boston, Massachusetts.

Ultimately, this report is intended to spark thinking, conversation, and action about the potential role of indicators to support the healthy development of young children—not just in Bremerton and Boston, but in communities across the country. The indicators and themes identified reflect a broad understanding of a changing field—where the health of a whole system enables the healthy development of young children, where indicators can be used to understand and address inequities across racial and cultural groups, and where a common language facilitates enhanced communication and coordination on behalf of all kids. This report aims to inspire the range of early childhood actors to see the value of early learning indicators in their work and to motivate them to use existing and emerging indicators to ensure that all children are nurtured, supported, and prepared for success in school, work, and life.
The Time Is Now

Exciting changes are afoot in the early learning field. National attention on the importance of early learning—from policy makers and others—has never been greater. The population of young children in the U.S. is becoming increasingly diverse, as the country’s racial, ethnic, and socio-economic make-up shifts. At the same time, we know more about what constitutes early learning, including the importance of different domains of development and the role of early childhood in setting the stage for success later in life. The field of early learning is complex, with many actors—including parents and families, early childhood care and education and social service providers, program evaluators, funders, and policymakers, as well as researchers and academics—that affect young children. Each actor plays a part in supporting healthy child development, often pursuing different outcomes with different definitions of success. As a result, the field is often described as fragmented, with myriad actors working in disconnected ways and without alignment toward a shared goal. Given this complexity and fragmentation, early learning indicators can serve as a common language and platform for collaboration among actors seeking to achieve positive outcomes for young children.

This report is the product of an effort to assess and synthesize the current state of indicators in the early learning field and to identify gaps in what currently exists. Through our research, FSG distilled over 1,100 existing indicators to 48 indicators (also called markers) and identified gaps and emerging themes in an evolving field. The indicators, emerging themes, and resulting recommendations reflect three priorities for the early learning field:

- The need to understand early learning in the context of a **complex ecosystem**, including the system layers and actors that affect the five domains of whole child development from birth to age 8
- The critical and growing importance of issues of **racial and cultural equity**
- The role of indicators in **supporting communication and collaboration** in a historically fragmented field

In a field that is highly complex, indicators can create a common language and understanding, foster collaboration, and support data-driven change to improve outcomes for all children.
Attention on early learning from policy makers, practitioners, and others is growing. The importance of early childhood is becoming clearer as we learn more about early brain development and its implications for success later in life.

The attention that early learning is increasingly receiving from policy makers, practitioners, funders, researchers, and others highlights its role in laying the foundation for success later in life. With 700 neural connections made every second between the ages of 0 and 3, the quality of the brain architecture is determined early and provides the building blocks for a lifetime of brain development that follows (Center on the Developing Child, n.d.). In his 2013 State of the Union address, President Obama emphasized the connection between early learning and lifelong success when calling for universal high-quality preschool for all children: “In states that make it a priority to educate our youngest children… studies show students grow up more likely to read and do math at grade level, graduate high school, hold a job, and form more stable families of their own” (Obama, 2013). This focus has grown among those outside of the policy arena as well. In communities across the country—from Seattle, Washington to Broward County, Florida; Northfield, Minnesota to San Antonio, Texas—cross-sector initiatives are emerging to support “cradle-to-career” success of young people (Strive Network, n.d.). These initiatives, pioneered by Strive in Cincinnati and implemented in dozens of urban and rural communities nationwide, highlight the importance of early childhood as foundational to success in school, work, and life. In addition to better understanding brain development and a favorable policy arena, researchers, including Nobel Laureate James Heckman, have pointed to the impact of early learning on the long-term economic outcomes for individuals (Heckman, 2008) and for the country (Shankoff & Phillips, 2000).

Demographics of the United States are shifting, with greater racial and cultural diversity, more families living in poverty, and more dual-parent families where both parents work and rely on childcare from others. With increasing diversity, pervasive disparities in development and achievement affect large and growing numbers of children of color.

While interest in early learning grows, the picture of young children in the U.S. is changing dramatically. Families across the country have been hard hit by the economic downturn in recent years. As individuals and families struggle to make ends meet, more children are living in poverty. In 2010, over 16 million children accounted for 36 percent of the poor in this country (United States Department of Commerce, 2011). Increasingly, both parents in two-parent families are working outside the home, and labor force participation among mothers with young children has increased steadily, growing from 34 percent of mothers with children under the age of three in 1975 to 60 percent in 2006. With more parents working outside the home, young children are increasingly placed in the care of others—including other family members, friends or neighbors, or care and education centers. In 2006, 73 percent of two-year-olds were cared for by someone other than a parent on a weekly basis, creating a childhood development “ecosystem” that extends far beyond the home (Halle et al., 2009).
Along with the increase in poverty and growing reliance on non-parental childcare, the country’s racial and ethnic make-up is also shifting, particularly among children. In 2009, 55 percent of all children in the U.S. were non-Hispanic white. Today, a majority of babies born are children of color and by 2030, more than half of the population under 18 will be children of color. Growth in the Latino population in the U.S. is particularly dramatic. In 2010, Latinos in the U.S. numbered over 50 million, accounting for more than half of the country’s population growth since 2000. Among children, these shifts are even greater. As of 2010, Latinos accounted for 23 percent of the population under age 18; by 2035, one in three children will be Latino (National Council of La Raza, 2011).

With socioeconomic and racial/ethnic shifts in the U.S., pervasive academic achievement gaps between these groups will increasingly threaten the individual success of a large and growing population of children, and the collective success of the country. Disparities in development and achievement are established early and persist through school, with research demonstrating that half of the achievement gaps (between students of color and white students, and low-income and non-low-income students) in twelfth grade can be attributed to gaps that already exist in first grade (Jencks and Phillips, 1998). Though a majority of public school children from all socioeconomic, racial, and ethnic backgrounds are not proficient in reading or math in fourth and eighth grade, a staggering 75 percent of Black and Latino students lack these skills (Children’s Defense Fund, 2012).

Experts interviewed for this project indicated the growing emphasis on early childhood among groups working on equity issues to prevent such gaps before they begin. The National Council of La Raza, for example, now includes six early learning indicators (including families that read to children, enrollment in early care or education programs, and prenatal care and birth weight) to their Latino Child Well-being Databook to emphasize disparities between Latino children and the general population that affect the country’s youngest children. As the face of the country changes, equitable opportunities are critical to supporting the success of children from all backgrounds, which are widely and increasingly varied.

Knowledge about the process of early learning is evolving, where “whole child” development occurs across multiple domains and is affected by the environments and actors with which children interact every day.

The field’s understanding of the healthy development for a changing population of young children is also shifting. “School readiness” is no longer limited to the cognitive skills children bring with them to the kindergarten door. Rather, it includes a range of domains that contribute to a child’s ability to learn and
thrive in school, including social and behavioral skills. Knowledge of how different capacities develop and relate to one another is growing and has brought the importance of “whole child” development into focus. Whole child development requires attention to each of five developmental domains, as described below (adapted from Rhode Island KIDS COUNT, 2005).

### Developmental Domains

- **Social Emotional Development** includes a child’s behavioral health and development, including the ability to interact and self-regulate. Relevant capacities include self-perception, ability to understand the feelings of others, and to understand and interpret one’s own feelings.

- **Cognitive Development** reflects thinking and problem-solving and understanding of objects and the way the world works. This domain includes mathematical knowledge, abstract thought, and imagination.

- **Language Development and Literacy** includes communication and emergent literacy capacities, such as listening, speaking, vocabulary, print awareness, story sense, early writing, and connection between letters and sounds.

- **Approaches to Learning** describe a child’s disposition to use skills and knowledge and include enthusiasm, curiosity and persistence.

- **Physical Development** reflects health status, growth and disabilities, and includes physical capacities such as gross and fine motor skills and conditions before, at, and after birth.

Whole child development occurs within an early childhood ecosystem, which includes the environments and settings (“layers”) that surround young children and the multitude of actors that affect them.

### Figure 1. Layers of the Early Childhood System

Development across the five domains is affected by a wide range of actors and environments with which young children interact every day. This perspective represents a system view of early childhood, where the success of young children is considered in the context of the various environments that impact them, including the family, education and care settings, and the broader community. The child is at the center, with the surrounding layers affecting healthy development in interdependent ways (Bronfenbrenner, 1979) (See Figure 1). In this...
view, each part of the early childhood system includes programs, policies, and strategies that meet certain needs related to child development. For the system to operate well, each layer or component must operate effectively and reach all children for whom it was designed. To improve outcomes for children, the system’s components must be connected to leverage collective strengths and achieve better outcomes than would be possible through each component acting alone (Coffman, 2007).

There are actors within each layer of the early childhood system that have a role to play in supporting young children across the five domains of development. Given the breadth of domains and the system layers that affect development, it is not surprising that the number of individuals who play some sort of role in supporting young children is large and incredibly diverse. Figure 2 reflects a system map of the wide range of actors that influence the development of young children across the five domains, within and across the layers of the early childhood system.

**Figure 2. Actors in the Early Childhood System**

In a complex and fragmented field, connections matter.

The different layers and actors that support healthy development point to a recognized need to increase collaboration and alignment in a traditionally fragmented field. The field’s fragmentation reflects the number and diversity of settings and actors that affect young children and the multi-faceted nature of healthy development. Supporting young children relies on those working in formal and informal education.
settings, healthcare (including physical and mental), a range of social and human services, as well as parents, extended family, and others who may be part of a child’s home environment.

Experts interviewed for this report indicated a range of issues that have contributed to a fragmented field, including a lack of shared identity or common purpose; a sense of competition, particularly for funds; and a lack of awareness of opportunities for alignment. These challenges are compounded by the fact that the number and types of early childhood actors depend on the context and vary widely across communities and states.

Despite this historic challenge, there are promising examples of collaboration and alignment within communities and across systems. For example, as early learning is increasingly considered on a continuum of development that begins at birth (or even before) and continues to age 8, there are new efforts to align how children are supported in their youngest years (ages 0–5) with what happens when they reach school (ages 5–8). Similarly, communities across the country are bringing together a wide range of actors—including parents, families, education and care providers, social service agencies, businesses, and funders—to align efforts toward a common goal, such as school readiness. Examples of two such initiatives are highlighted later in this report.

Indicators have a role to play in an evolving field by providing a shared language and understanding among actors. Indicators provide a starting point for conversation, connections, and collaboration toward a common goal of improved outcomes for young children.

The changes in the field and the country provide an opportunity to assess and refine how early childhood development is defined and measured. With increased attention on early learning, indicators have proliferated at the national, state, and local levels. The federal Race to the Top Early Learning Challenge grant competition focused attention on the identification and use of common indicators in the earliest years. Meanwhile, states have their own standards and competencies for young children in pre-K programs and the K–12 system; a recent survey found that every state had adopted or was developing its own standards for children younger than kindergarten age (Scott-Little, Lesko, Martella, and Milburn, 2007). These efforts are in addition to those that are focused nationally or across multiple localities, which include the 11 indicator sets (and over 1,100 indicators) that were analyzed for this report. Beyond the sheer number of indicator efforts, each has its own strengths and weaknesses.

“There is no shortage of high-quality, well-developed indicators—it is more the opposite, there are a lot and there is not consensus on what’s best to use where. It’s a bit of a Tower of Babel problem. Can we help agencies in choosing indicators to use and communicate with each other?” – Expert interviewee
own approach to and treatment of the various dimensions of early learning, including developmental domains, stages of development from birth to age 8, and the various system layers and actors that support healthy development. Assessing and synthesizing the wide range of existing indicators can support this field during an exciting time of change. Understanding and distilling the breadth of indicators that are important to a wide range of actors fosters shared understanding, enables clear communication, and supports greater collaboration for an evolving field.