EARLY CHILDHOOD AND LITERACY

June 3, 2022

All In For Kansas Kids

Ensuring that all Kansas children can read

This spring the Kansas Legislature passed legislation that included the "Every Child Can Read" Act. The act is designed to promote literacy initiatives in the K-12 public school system and includes the following statement of policy:

"The legislature hereby affirms that third grade marks a pivotal grade level in which students must attain proficiency in reading or risk continued learning losses throughout their academic career. To ensure that all students move toward grade-level proficiency in literacy, especially by the third grade level, the board of education of each school district shall provide opportunities for students to participate in targeted educational interventions to promote proficiency in literacy...."

As we collectively set our sights to achieve grade-level literacy in Kansas, it is critical to understand the opportunities lost by waiting to begin when children arrive in kindergarten. Research consistently demonstrates that there is no better investment in educational outcomes than starting in early childhood.

In this brief, we introduce the science demonstrating that early childhood is the most critical time in brain development, laying the foundation for all future learning. We articulate the goals of the Kansas Children's Cabinet's Blueprint for Early Childhood and how the three building blocks of Early Learning, Healthy Development, and Strong Families contribute to a child's school readiness. We summarize the research on the short-, medium-, and long-term impact of early childhood programming, including cost avoidance studies which consistently demonstrate that high-quality early childhood care and education has a return on investment of 7-13%.

Despite the strong evidence that these programs are highly effective and cost efficient, most children in Kansas do not have access to early childhood programming, and many are living in poverty and often particularly in need of high-quality early intervention. We outline the costs of inaction with regard to connecting young children to the services they need, including costs to employers, impacts on rural communities, and costs to taxpayers. We must seize on this critical moment in child development so all Kansas children are equipped for success in grade school and beyond.

Brain development in early childhood

The early childhood period (birth-5 years) is the most influential for a child's future, providing the foundation for a child to grow, learn, and thrive. With more than a million new brain connections forming each second, a child's brain grows faster in their first three years than any other stage of life. 90% of brain development occurs by the time a child is five years old. Evidenced by findings in neuroscience, the effectiveness of addressing difficulties at later stages in life pale in comparison to early preventive intervention: "A balanced approach to emotional, social, cognitive, and language development will best prepare all children for success in school and later in the workplace and community" (Harvard Center for the Developing Child). These data make the case for purposeful investment in quality and accessible services during early childhood.

When we fail to invest and support the first five years of a child's life, their most critical period of development, we miss an open window of opportunity. It is difficult and expensive to make up for lost time later. Grade school remediations are proven less effective and much more costly than investing in high quality early childhood care and education programs that help children arrive in kindergarten ready to learn. The differences are startling. When a young child enters kindergarten equipped with pre-reading and math skills along with generally school-appropriate behavior, there is an 82% chance that the child will master basic reading, math and social-emotional skills by age 11. This rate drops to 45% for children who are not school ready (Sawhill et al, 2012. Consequently, an array of catch-up services must be provided during the school years. These delays and expenses could be avoided with engagement in early childhood programs that nurture healthy development and kindergarten readiness.

Blueprint for Early Childhood

The Kansas Children's Cabinet has long recognized that the most effective approach to ensuring thriving children and families starts early and focuses on the needs of the whole child. The Blueprint for Early Childhood (Blueprint) is our state's strategic framework for ensuring that every child thrives. The three building blocks of the Blueprint—early learning, strong families, and healthy development—represent ideal early childhood programming and services for ensuring healthy and thriving children who come to school ready to learn.

Early Learning

Kansas kids are prepared for success in kindergarten and beyond when their families have equitable access to quality care and early learning environments. Higher achievement in early literacy and numeracy in PreK and kindergarten is a stable result across many follow-

up studies of quality PreK in the United States (Lipsey et al 2013, Lipsey et al 2011, Gormley et al 2005). Current research points to a "mixed delivery system" approach with both public and private options offering child care and PreK. The day should include a focus on play-based and developmentally appropriate programming, outdoor play, and less whole group instruction. For 3- to 5-year-olds phonological awareness should be included as a core component of quality early learning (Ramey 2018, Kamenetz 2022, Farran 2016).

For children engaged in two years of high quality PreK funded by the Early Childhood Block Grant (ECBG), data shows a 34% increase in the percentage of children considered on-track in early literacy skills compared to children engaged in only one year of PreK (Schrepferman and Freund 2019). Data from ECBG classrooms for three years indicated students in high quality PreK programs increased phonological awareness by 17%. Conversely, classrooms without high quality teacher-child interactions had decreases in the percent of children on track in phonological awareness from fall to spring (Schrepferman 2022). Additional ECBG data demonstrated that children who started PreK with low phonological skills, but had a teacher who provided high quality, warm, supportive, nurturing interactions, showed double the growth in early literacy skills. Warm, responsive interactions have been at the core of many high-quality early care and education programs and support the benefit of building safe, stable, and nurturing relationships in the classroom (Stoolmiller and Schrepferman 2019).

Strong Families

Kansas children and families are stronger when their basic needs are met. Policies that help families meet their financial needs reduce stress and conflict within the household, encouraging engaged and responsive parenting. Parents in households experiencing chronic economic challenges are especially vulnerable to high levels of stress (Linver et al 2002) that negatively affects child-parent relationships, and consequently, early childhood learning and development (Meaney 2010, Blair & Raver 2012). Exposure to material hardship is associated with slower brain development in infants (Hanson et al 2013) and atypical brain development and less efficient brain network organization in children (Kim et al 2019). Consequences include reduced capacity for self-regulation and cognitive performance, both of which closely relate to school readiness and performance (McEwen and McEwen 2017). In adulthood, individuals who experienced material hardship in childhood have lower earnings, lower labor market participation, and are less likely to get married (Lesner 2018). High-quality caregiving, social support, and community support can act as protective factors to prevent, moderate, or help overcome the effects of toxic stressors on brain development, cognitive performance, and self-regulation. (McEwen and McEwen 2017).

Healthy Development

Kansas children and families thrive when they have equitable access to comprehensive health and development services. Early intervention for children and families – including home visiting, parent education, and high-quality care and education for 0- to 3-year-olds – favorably impacts brain development, emotional regulation, and the development of social skills (Lind et al 2020, Raby et al 2019, Shaw et al 2009). Frequent child development screening results in early identification, referrals, and early intervention, reducing the need for remediation (Guevara et al 2013, Limbos et al 2011). Targeted, intensive services can ameliorate the impacts of trauma and toxic stress (Zajac et al 2019, Bernanrd et al 2012). For infants and young children, home visiting and parent education programs show positive impacts and development in the areas of communication, social-emotional skills, and brain development (Chazan-Cohen et al 2013, Lind et al 2020).

Impact of early childhood programming

As indicated in the data above, early childhood experiences are predictive of success in grade school, high school, and throughout the life course. High-quality early childhood care and education offered from birth to age 5 can set children, particularly those in low-income families, on the path to higher school achievement, college completion, increased earnings, greater employment, and better health, with a high return on investment over time (Garcia et al,2017). One longitudinal study found that early childhood experiences before the age of 4 predicted with 77% accuracy which children would later drop out of high school (Tough 2013).

Longitudinal evaluations of programs funded by the Children's Initiatives Fund (CIF) confirm these findings. The Opportunity Project (TOP) of Wichita, an ECBG grantee, works with school districts to track longitudinal educational outcomes of children who participate in quality, early childhood programming. TOP students consistently demonstrate better educational outcomes than their peers. On state reading assessments, TOP graduates are 29% more likely to exceed reading standards than their control group peers. TOP graduates are 35% less likely than a demographically matched control group to be involved in special education services. On average, TOP graduates have a higher attendance rate, lower repeat discipline referrals, and a higher GPA than a demographically controlled trial (Wichita State University College of Education, 2019). Furthermore, a longitudinal evaluation of the Dolly Parton Imagination Library found that having access to age-appropriate reading materials in the home through program participation increased kindergarten readiness by 28.9%, and increased reading scale scores at the end of 3rd grade by 11% (Arkansas Dept of Education, 2021).

Return on investment

The long-term efficacy of early childhood programming shows a consistent return on investment of 7%-14%. In stock market terms, this is a desired average. Nobel Prize-winning economist James Heckman and colleagues have repeatedly demonstrated the benefits of investing in early childhood education, particularly for disadvantaged families. Heckman (2012) contends that "The highest rate of return in early childhood development comes from investing as early as possible, from birth through age five, in disadvantaged families." A recent analysis estimates high-quality early childhood program yields an internal rate of return of 13.7% over the life course (Garcia et al, 2020).

Programs funded by the CIF have been found to yield a similar return on investment. A cost analysis of TOP data found that avoidance of special education services alone provided an 11% annual return on investment to the state (Sprague-Jones and Counts, 2016). More recently, an analysis from the Kansas Early Childhood Data Trust found that participating in ECBG and Community Based Child Abuse Prevention (CBCAP) services significantly reduced the likelihood of removals into foster care in Kansas by 23%, yielding an 8% ROI on avoidance of foster care alone (Garstka and Sprague-Jones, 2022).

Access to early childhood services in Kansas

Unfortunately, we know from a recent comprehensive needs assessment (Kansas Early Childhood Systems Building Needs Assessment, 2019) that far too many Kansas kids do not have access to the kind of high-quality early childhood care and education programs and services proven to set them up for success in grade school. Many children live in low-income households: nearly 20% of Kansas children ages birth to 5 are in families living at or below the federal poverty level ($25,750 annually for a family of four in 2019), and 23% of Kansas households with infants and toddlers have low, or very low, food security. Many Kansas families live in a child care desert; 44% of Kansans have little or no access to child care. For single parents of infants and toddlers in Kansas, child care costs 48.7% of their total income. And Kansas ranks 50th in the U.S. for per capita spending on child care assistance at $19, compared to the national average of $37 per capita. Finally, 49% of Kansas families with children younger than 6 meet the targeted criteria of at least one home visiting model in the state, but in 2017, only 9% received these services. This high level of need combined with lack of access to quality early childhood programming puts our school districts in the position of having to remediate and provide wrap-around services to overcome deficiencies created by missed opportunities early on that could be avoided through targeted investment and expanded access.

The cost of inaction

Inadequate investment in early childhood programming carries significant costs to businesses, taxpayers, and our state's economy.

Cost to employers

America's child care system is in crisis. Child care costs have more than doubled since 1990, well beyond increases in family income during that time (Joughin, 2021). Despite the cost to families, child care centers struggle to stay in business, and child care providers are among the lowest-paid workers in the US (Gould, 2015). Prior to the COVID-19 pandemic, the child care crisis was estimated to cost the United States $57 billion a year in lost earnings, productivity, and revenue (Bishop-Josef et al 2019). Today, it's estimated that businesses alone experience a total of $13 billion in economic burden related to child care (Gibbs and Malik 2022). In part, this is because of reduced ability to attract and retain qualified staff. Every year, nearly two million people quit a job, decline a position, or change positions due to child care challenges (Haspel 2019; U.S. Chamber of Commerce 2021). Long-term, lack of investment in early childhood services predictably leads to a shortage of qualified workers. We know this because children who have experienced household economic hardship or adverse childhood experiences and have not received quality early childhood care and education are less likely to complete high school and attend post-secondary education, leading to lower labor force participation (Hardcastle et al 2018; Lesner 2018). In addition to turnover and lack of qualified staff, lack of child care also contributes to lost productivity and absenteeism. The U.S. Chamber of Commerce (2021) estimates that employers lose a combined average of $2 billion annually from absences and employee turnover due to child care.

Cost to taxpayers

The U.S. Chamber of Commerce reports that "Child care gaps result in massive economic losses for states. Annually, across the states examined, child care issues result in estimated losses ranging from hundreds of millions to almost $10 billion." Costs to states include an average annual total of $528 million in lost tax revenue (U.S. Chamber of Commerce 2021). Significant categories of taxpayer costs include special education, maltreatment and foster care.

Special education

While special education is a vitally necessary service for many children, there is substantial evidence that many children end up in special education as a result of not getting early childhood services. A large proportion of children are placed in special education for difficulties that could have been addressed in preschool (Dubno et al 2013); estimates range from 10% to 49% (Dugger et al 2012). Research also shows that in rural

communities, where there are fewer early childhood resources and child care can be difficult to access, children are 60% more likely to be placed in special education than their urban peers (Iruka et al 2019). An analysis of TOP's outcome data found that 33 fewer TOP graduates were placed in K-12 special education services compared to the control group, resulting in the savings of $4,475,458 in special education costs avoided and associated with a $6,755,353 increase in lifetime earnings (Sprague-Jones and Counts 2016).

Maltreatment and foster care

Child maltreatment comes with significant costs. In Kansas, maltreatment costs an estimated $97,039 per child, due to expenses for foster care, healthcare, special education, and court services. In contrast, ECBG programs in Kansas, which have been demonstrated to significantly reduce removals of children into foster care, have a per-child cost of $3,473 (Garstka and Sprague-Jones 2022).

As Kansas ECBG programs demonstrate, early childhood services reduce child maltreatment and children being removed from the home. Children under the age of five (42%) make up the largest age group removed into foster care nationally and 20% of those were under one year old at entry (U.S. Department of Health and Human Services, et al., 2021). Nationally, and in Kansas, the leading reason children are removed into foster care is due to neglect (Kansas Department for Children and Families, 2022). Child neglect is more likely in families experiencing stress, particularly economic stress. Kansas DCF has taken steps toward differentiating poverty-related adversity from intentional neglect. Kansas Thriving Families, Safer Children seeks to proactively support children and families by strengthening families and building resiliency rather than separating families. This is part of a national shift transforming child welfare into a child and family well-being system. Expanding supports to strengthen family financial security to meet basic needs, including access to child care, nutrition programs like WIC and SNAP, and affordable housing could dramatically reduce the number of children who are removed from their homes into foster care.

Incarceration

Just as economic hardship is a prominent contributor to families becoming involved with the child welfare system and children entering foster care, foster care maintains a stark correlation with a child becoming involved in the criminal system. This reality has been colloquially called the "foster care to prison pipeline." It is estimated that over 50% of youth in foster care experience the juvenile justice system through an arrest, conviction, or overnight stay in a correctional facility before they age out of care, and this number increases significantly for youth that have experienced multiple placements (Palcheck 2021).

Impact on rural communities

There are fewer child care slots than children under 5 in every Kansas county. The economic impact of this child care gap in rural communities is estimated to be from $41,168 to $62,693 per missing child care slot (Bipartisan Policy Center 2021). While 57% of counties have at least twice as many young children as child care slots, in 20% of counties, that ratio is three to one or higher (KU Institute for Policy & Social Research).

The lack of child care contributes to out-migration from rural communities. Kansas's population is becoming more concentrated in urban areas, while 80 mostly-rural counties have declined in population since 2010 (Steiner, 2021). Rural communities have difficulty attracting and retaining both employers and a skilled workforce. A recent article in the *Great Bend Tribune* ("Hoisington, Barton County seek workers," May 11, 2022) identified lack of child care as a major barrier to economic growth in the community. According to Barton County Commission Chairman Shawn Hutchinson, who also serves on the Great Bend Economic Development Board, "Housing and child care are top needs, but the number one need to grow our economy in Barton County is workers. Housing and child care are ways that we can get more workers." Similarly, a recent study of more than 460 rural-dwelling Kansans ages 21-39 identified early education and child care as a top need (Kansas Power Up & Go, 2022).

The lack of early childhood investment also contributes to a declining birth rate. The overall U.S. trend is a substantial decline in the birth rate, and Kansas ranks amongst the top 10 states with the largest decline (Kaberline 2021). The rate in 2020 was "the lowest birth rate for Kansas residents since the state created a centralized Vital Records system in 1911" (Oakely et al, 2020). While not unique to rural communities, the falling birth rate may be particularly harmful to them, exacerbating trends of out-migration, creating an aging population with a reduced work force to support it, and cratering local schools, which are often the center of rural communities. There is substantial survey and demographic evidence that women are having fewer children than they intend or would like to have, in part due to the expense and lack of support for childrearing (Stone, 2019).

Conclusion

Investing in what works

Early childhood is the most important time of our lives for brain development and lays the foundation for all future learning. This presents an enormous opportunity to give all kids the start they need to succeed in school, their communities, and eventually their careers. It also presents a dangerous liability. The costs of not investing in young children,

including low educational attainment, compromised physical and mental health, and low labor market participation, are significant and alarming.

The Kansas Children's Cabinet's Blueprint for Early Childhood is built on decades of science identifying the conditions under which children thrive. It focuses on the needs of the whole child organized by three critical building blocks: early learning, healthy development, and strong families. Investments guided by the Blueprint have a demonstrated track record of success, including improved literacy, lower placement in special education, and avoidance of foster care.

The only problem is that there's not nearly enough investment. Most Kansas kids do not have access to high quality early childhood programming, and many are facing economic insecurity and food scarcity – in other words, they need even more help to ensure lifelong success. If we continue this path of underinvestment in children at the most critical time in their lives, we can expect to pay for it later, losing billions of dollars in forgone earnings, productivity, and revenue; sinking billions into placing children in the foster care system; and losing out on the untold potential of thousands of children who were never given a chance to thrive.

No one would knowingly choose this future for our kids.

What we must choose now for Kansas kids are the right-sized investments in programs proven to work:

- Early care and education that develops the whole child, while providing parents reliable care so they can work
- Home visiting and parent education programs that help families learn how to support and nurture their children and also connect families to needed resources
- Programs that address families' basic needs, including housing and nutrition

Kansas can become the best place in the country to raise a family, while attracting and retaining young people, bringing in new employment and investment, and producing the next generation of innovators, entrepreneurs, scientists, and artists. In the process, we can reduce the money we spend on foster care and incarceration, revitalize our rural communities, and avoid needless misery and loss.

We know what it takes to get there, and the fact is, it's not even that expensive. We just need to be willing to commit to investing in the opportunities before us.

Actions to promote childhood literacy

Governor and Kansas Legislature

The Governor and Kansas Legislature can take several actions to improve access to early childhood care and education and ensure that all Kansas children can read:

1. Match the investment in the CIF Initiatives from the State General Fund to double the investment in the Early Childhood Care and Education System.
    a. Kansas is home to 188,852 children ages birth to 5 (United States Census Bureau, 2020). The current CIF funding capacity of $52,474,070 equates to $278 per child. Matching the CIF investment using state general funds would increase the investment to $107,571,842 or $556 per child.
2. Support initiatives and policies that contribute to economic security for families. Research clearly shows that children thrive when their basic needs are met, and that parents and caregivers are better able to support children when their own basic needs are met.
    a. Adopt policies that maximize Medicaid by expanding covered/billable services for children and families, the types of providers who qualify for reimbursement, and the settings where services can be provided.
    b. Reduce eligibility barriers and administrative burdens so that more Kansas families can access concrete economic supports like Temporary Assistance for Needy Families (TANF) cash assistance, Supplemental Nutrition Assistance Program (SNAP) food assistance, and child care assistance.
    c. Analyze the impact of current and future policies on funding, services, and programs specifically for underserved populations to help families improve access to basic supports.
3. Meet the statutory requirement to fund 92% of excess costs for special education, leaving more of school districts' general operating budget available to support early childhood initiatives.

Local school districts

Local school districts can take action to improve early learning and the transition into kindergarten:

1. Participate in Kansans Can Star Recognition Program.

2. Utilize the Kansas Early Childhood Advisory Council's Kindergarten Transitions Toolkit to support intentional, active community planning for transitions to kindergarten.
3. Prioritize quality preschool opportunities for children, as well as home visiting, family engagement, and educational programming for families, either through in-house programs or in partnership with local private providers.

Families

Families can promote early literacy by:

1. Signing their eligible children (any child from birth to their 5th birthday) up for Dolly Parton's Imagination Library.
2. Using 1-800-CHILDREN as a direct resource when they have questions or need specific services in their area.
3. Tracking their little one's development by getting familiar with the Center for Disease Control's Learn the Signs, Act Early milestones on their website or mobile app.
4. Visiting the new Navigate EC website (available Fall 2022) to see what services and resources are available to them.

Employers

Kansas employers should adopt family friendly workplace policies to help support families with young children. These strategies are proven to increase recruitment, retention and productivity for employers as an added benefit. Examples include, but are not limited to:

1. Flexible work schedules and/or hybrid or remote work
2. Paid parental leave and sick leave
3. Comprehensive employee wellness programs
4. Continued breastfeeding and lactation support
5. Infants at work programs, on-site or subsidized child care, and dependent care flexible spending accounts

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