# LAUNCHING LIFELONG SUCCESS

Ensuring St. Louis' Kids are **Ready by Five** 



BROWN SCHOOL AT WASHINGTON UNIVERSITY

# Early investment produces the greatest returns in human capital."<sup>1</sup>

—The Heckman Equation





Dear Friends,

# The first five years of a child's life is widely recognized as a critical time

for development. The foundations of a person's social, emotional, and economic well-being are shaped during this brief phase of life. Quality care and education contributes to child well-being outcomes by improving physical and behavioral health, educational attainment, and financial security. Furthermore, participation in Early Childhood Care and Education (ECE) programs has been linked to increased rates of high school graduation and college attendance, greater workforce participation, and higher incomes throughout life.

Parents benefit as well, especially since reliable, affordable ECE supports working families, who are more likely to participate in the workforce and experience job stability and productivity. Additionally, ECE has been shown to reduce the incidence of justice system involvement, substance abuse, and teen parenthood.

This report details the benefits of quality, affordable ECE and leads to three evidencebased policy recommendations:

- **1** Increase Access via Sustainable Public and Private Investment in ECE.
- 2 Prioritize the Allocation of Any New or Existing Early Childhood Care and Education Funding to Children Most Impacted by Poverty.
- **3** Increase Quality through a Coordinated ECE System Supported by a Single Entity.

Research demonstrates that investment in high-quality early childhood care and education yields significant long-term returns. An investment in our kids is an investment in the future of the region. Children and the adults who care for them deserve every opportunity to thrive in St. Louis.

Sincerely,

Gary Parker Associate Dean for External Affairs Director, Clark-Fox Policy Institute

# High-Quality ECE Can Lead to...

# **Educational Benefits**

- » Higher high school graduation rates
- » Better four-year college attendance rates
- Earlier detection of special needs, which leads to better outcomes for kids who require additional educational supports or services
- » Narrowing of the achievement gap

## **Health Outcomes and Behaviors**

- » Lower rates of diabetes and high cholesterol
- » Lower rates of substance abuse
- » Higher likelihood of having health insurance
- » Decrease in teen pregnancy

## Economic Prosperity and Community Vitality

- » Greater maternal workforce participation (for mothers of ECE participants)
- » Increased likelihood of having skilled jobs later in life
- » Higher employment rates as adults
- » Lower crime and incarceration rates

These benefits to individual youth and families also have positive impacts on communities; lower rates of crime victimization and incarceration, better workforce participation, and other factors have led Nobel Prize-winning economist James Heckman to calculate that **"high-quality, birth-to-five programs for disadvantaged children" deliver a 13% per year return on investment.** 

One study notes that, "although long-term outcomes from [different quality ECE] programs differed in domains and degrees, they all affirmed some enduring benefits of early childhood intervention."<sup>2</sup>

ECE FUEL TANK

## **Educational Benefits**

Providing high-quality early childhood education to very young children helps them enter elementary school ready to learn and increases their educational attainment into adulthood.

Studies have shown that preschool program participants complete more schooling and have higher four-year college attendance rates.<sup>2,3</sup> Specifically, one study showed that ECE participants were seven times more likely to be enrolled in educational programs than other young adults were, and almost four times as likely to be attending a baccalaureate college.<sup>2</sup> A meta-analysis of 22 studies concluded that "ECE leads to statistically significant reductions in special education placement and grade retention, and increases high school graduation rates, leading to reduced education-related expenditures and promoting child well-being."<sup>4</sup> Additionally, researchers found that making preschool enrollment universal for three- and four- year-old children in poverty could close up to 20% of the black-white school readiness gap and up to 36% of the Hispanic-white gap.<sup>5</sup>

# **Health Outcomes and Behaviors**

Quality early childhood education can produce better health among participants as young adults and through middle age.

In one study, participants in their mid-50s showed better outcomes on a range of health measures, including lower cholesterol and arterial inflammation for males, and lower rates of diabetes, long-term stress levels, and substance use treatment for women.<sup>6</sup> Another study concluded that participants had higher health insurance coverage rates and were less likely to have reported substance abuse/drug and alcohol abuse.<sup>3</sup> Further findings suggest that children who attended ECE programs were more likely to report having an active lifestyle (e.g., exercising regularly) as young adults.<sup>2</sup> Finally, increased access to pre-K can improve health outcomes for poverty-impacted children by exposing them to greater, faster opportunities for diagnosis and treatment via

screenings and observations, particularly when it comes to vision, hearing, or asthma needs.<sup>7</sup>

## Economic Prosperity and Community Vitality

Early childhood education can provide children and families financial benefits in the short and long term.

As discussed in *Make Work Work: Strengthening Missouri through Quality Child Care for Working Families*, low-income parents who receive child care subsidies are more likely to be employed and/or to continue their education.<sup>8</sup> Trusted child care has also been linked with parents' job stability, decreases in missed work days, and increases in productivity at work.<sup>8</sup>

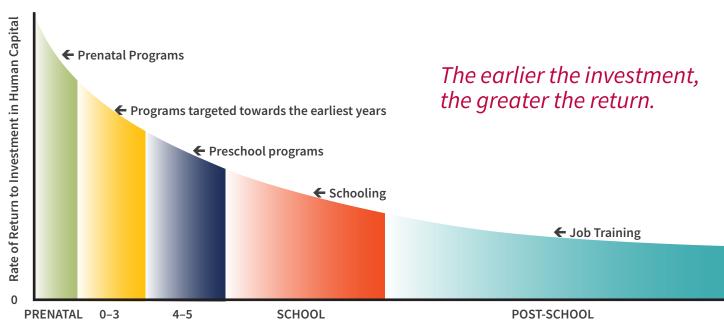
Not surprisingly, given the educational attainment differences, better health, and lower incarceration rates, children who experience ECE are also more likely to have better economic outcomes as adults. In the study of the Chicago Child-Parent Center Education Program, children who completed the preschool program had higher annual incomes and "occupational prestige" as adults.<sup>3</sup> Effects of the program on indicators of well-being, up to 25 years later for participants, were linked to "higher educational attainment, income, socioeconomic status (SES), health insurance coverage, as well as lower rates of justice-system involvement and substance abuse"; the effect was strongest for males and children of dropouts.<sup>3</sup> Similarly, another study that looked at participants from two different early childhood programs, demonstrated that program participants were almost twice as likely to have skilled jobs as young adults and were considered more "upwardly mobile" based on their greater enrollment in postsecondary educational programs.<sup>2</sup>

High-quality ECE programs that include socialemotional learning produce significant and lasting reductions in behavioral problems. One report, which offered a systematic review and metaanalysis of almost 80 unique studies with more than 18,000 participants, found that, "children exposed to a universal social and emotional learning intervention showed significant improvement in social competence, emotional competence, behavioral self-regulation, emotional and behavioral problems, and early learning outcomes compared with control participants."<sup>9</sup> Additionally, there is growing evidence of the crime-reducing impacts of a high-quality, intensive early childhood programs.<sup>3,6,10</sup>

More broadly, ECE is a sound economic priority for communities. According to Nobel Prize winning economist James Heckman, high-quality, birth-tofive programs for disadvantaged children deliver a 13% return on investment each year, even accounting for the costs of financing these programs.<sup>1</sup> According to Heckman's research, baseline estimates indicate a \$7 return for every dollar spent on ECE programs. This return on investment also accounts for lower victimization rates/costs and public health considerations. Considering that the estimated cost to society is \$266,000 per high school dropout over the course of their lifetime, high-quality ECE's correlation to the reduction in dropout rates, paired with increased productivity and tax contribution in adulthood, makes ECE a profoundly efficient and impactful investment.

## **Early Childhood Development is a Smart Investment**

Source: James Heckman, Nobel Laureate in Economics



### **ECE for Infants and Toddlers**

Although many studies focus on the benefits of preschool for child and family success, there is also research supporting the importance of ECE for younger children. For infants and toddlers particularly, parenting support and education paired with center-based care may be an essential way to realize the benefits of ECE. In a study of Early Head Start programs, infants and toddlers enrolled in the program had better cognitive, language, and social-emotional development at age three than members of a control group. Parents of Early Head Start children were more likely to read to their children daily and were more supportive of their children in other ways (e.g., were more responsive and encouraging). Researchers found that "impacts were greater for children and parents attending the mixed-approach programs, which combined home- and center-based services."<sup>11</sup>

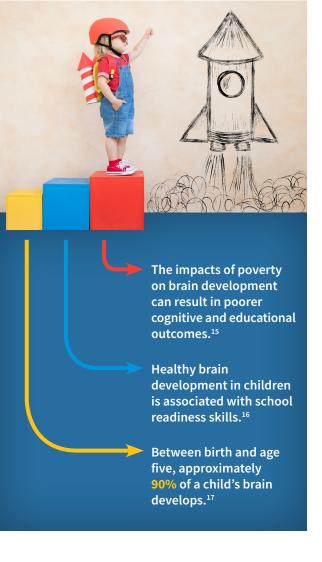
# A Solution for St. Louis

Children in St. Louis do not begin life on an even playing field – and this has profound impacts for the current generation and generations to come. Families living in poverty face greater barriers to accessing quality education and care, which undermines their financial stability and further fuels the generational wealth gap.

According to Segregation in St. Louis: Dismantling the Divide, youth who do not have access to quality educational resources will not have the same competitive advantage in the job market, and are often at risk for dropping out of the education system and disconnecting from the economic mainstream.<sup>12</sup> Equality of opportunity – often measured by the likelihood that a child born into the lowest 1/5 of the income distribution will reach the top 1/5 in adulthood – is low for the region; St. Louis ranks 38 out of the 50 largest metro areas in the country for intergenerational mobility.<sup>13</sup>

The City of St. Louis' Equity Indicators tool further demonstrates the disparity in our education system. Among the 72 indicators that measure disparities between black and white residents in St. Louis, eight examine school-level responsibilities in providing equitable quality learning environments for children. The report revealed that **white children are 38% more likely than black children to be enrolled in pre-kindergarten programs.**<sup>14</sup> Based on the Equity Indicators report, the new Regional Equity Indicators Dashboard expanded the scope to include data for St. Louis County, which earned an

#### **Child Brain Development**





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By investing in high-quality, comprehensive, and accessible ECE programs, we can take the first step towards breaking the cycle of poverty, ensuring every child has the skills he or she needs to lead a successful life, and creating stronger, more vibrant communities for future generations in St. Louis."

—The First Step to Equity: Building a Better Future Through Early Childhood Education in St. Louis

even lower equity score in pre-k enrollment than the City. The report also showed that: 1) Black children are less likely to be enrolled in higher performing K-12 schools; 2) Black children are less likely to be in school at all; and 3) Black children are less likely to be learning what they need to succeed.

The First Step to Equity: Building a Better Future Through Early Childhood Education in St. Louis<sup>18</sup> report further illuminates this gap, considering the profound unmet need for early childhood care and education in St. Louis, and the steep costs of quality services:

- » Only 45% of subsidy-eligible children have access to ECE in their neighborhood, and only 19% of subsidy-eligible children have the opportunity to attend a program in which "the provider has met requirements beyond licensing—an indicator of program quality."
- » Region-wide, the cost of early childhood care ranges from 10-15% of household income, whereas the federal guidelines suggest that affordable care should account for no more than 7% of a family's income.
- Racial inequities replicated throughout the current ECE system create greater disparities for

families of color and providers in communities of color, who often experience widely disparate treatment according to geographic location and communities served when it comes to inspections, licensure, and codes.

Given the compounded benefits of early childhood education and care, investment in a coordinated, equitable ECE system would produce a rate of return this region cannot afford to ignore. For St. Louis, that investment is an estimated \$8,318 per child per year.<sup>19</sup> Over time, this investment has the potential to yield greater workforce participation and economic prosperity, improved health outcomes, reduced crime, and a more equitable region. The prioritization and sustained support of **a comprehensive, highquality ECE system would provide low-income families a greater opportunity for social mobility** and a real chance for our region to disrupt intergenerational poverty and racial disparities.

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Forward Through Ferguson: A Path Toward Racial Equity, Youth at Center Recommendation: Ensure sufficient early childhood development and education programs to meet the demand and align all efforts around a high-quality model that produces measurable child outcomes.<sup>20</sup>



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[Cost] was a factor. ...One of the first questions we asked places was about tuition and what their options were. We're lucky in that we don't need full-time care...if we needed full-time care, I'm not really sure how we would make that work. As a teacher, I'm not sure if it would make sense for me to work or if it would make sense to stay home with her."

# **Recommendations**

# Recommendation 1

#### Increase Access via Sustainable Public and Private Investment in Early Childhood Education

Communities that support ECE can expect to reap significant returns on their investments, financially and in the form of health and well-being. Working families cannot bear the burden of high-quality education and care on their own, nor can providers operate at highquality standards without greater support. Public education must adjust to the growing needs of a diverse, productive workforce, and sustained public and private investment in high-quality childhood education to cover these fundamental early years is essential.

## Recommendation 2

#### Prioritize the Allocation of Any New or Existing Early Childhood Care and Education Funding to Children Most Impacted by Poverty

Families in low-income and poverty-impacted neighborhoods have less access to quality, affordable childcare. Providers in high need areas are often underresourced and face systemic barriers to accessing the supports necessary to establishing high-quality programs. Given the negative impacts poverty has on child brain development and educational readiness, families and neighborhoods with the highest need should be a priority for investment.

## Recommendation 3

#### Increase Quality through a Coordinated ECE System Supported by a Single Entity

Regional coordination and administration of ECE will ensure effective collaboration and efficiency, standards of quality, supports for providers, and the equitable allocation of resources. The establishment of a single entity that would be responsible for the coordination, governance, and oversight of ECE in St. Louis provides a sustaining structural framework and stewardship over our public and private investments.

#### **Endnotes**

- Heckman. (n.d.) The Heckman Equation: A solution for better education and health outcomes, less crime and poverty and greater economic prosperity. Retrieved from: https://heckmanequation.org/www/ assets/2017/01/050609\_HeckmanOneSheet\_hires.pdf
- 2 Campbell, F.A., Wasik, B.H., Pungello, E., Burchinal, M., Barbarin, O., Kainz, K., Sparking, J.J., & Ramey, C.T. (2008). Young adult outcomes of the Abecedarian and CARE early childhood educational interventions. *Early Childhood Research Quarterly*, 23, 452–466.
- Reynolds, A.J., Temple, J.A., Ou, S.R., Arteaga, I.A., &
  White, B.A.B. (2011). School-Based Early Childhood
  Education and Age-28 Well-Being: Effects by Timing,
  Dosage, and Subgroups. *Science*, 333(6040), 360-364. doi: 10.1126/science.1203618
- 4 McCoy, D.C., Yoshikawa, H., Ziol-Guest, K.M., Duncan, G.J., Schindler, H.S., Magnuson, K., Yang, R., Koepp, A., & Shonkoff, J.P. (2017). Impacts of Early Childhood Education on Medium- and Long-Term Educational Outcomes. *Educational Researcher*, 46(8), 474–487. https://doi.org/10.3102/0013189X17737739
- Magnuson, K.A. & Waldfogel, J. (2005). Early Childhood
  Care and Education: Effects on Ethnic and Racial Gaps in
  School Readiness. *The Future of Children*, 15(1), 169-196.
  doi: 10.1353/foc.2005.0005
- 6 Heckman, J. & Karapakula, G. (2019). The Perry Preschoolers at Late Midlife: A Study In Design-Specific Inference. NBER Working Papers 25888, *National Bureau of Economic Research, Inc.* Retrieved from: https://www. nber.org/papers/w25888.pdf
- 7 Hong, K., Dragan, K., & Glied, S. (2019). Seeing and hearing: The impacts of New York City's universal prekindergarten program on the health of low-income children. Journal of Health Economics, 64, 93-107. doi: 10.1016/j.jhealeco.2019.01.004
- Markovitz, L., Ward, E., Thurman, A., Pilnik, L., Maffucci, J., & Parker, G. (2018). *Make Work Work: Strengthening Missouri through Quality Child Care for Working Families.* St. Louis, MO: The Clark-Fox Policy Institute, Brown School at Washington University in St. Louis.
- Blewitt, C., Fuller-Tyszkiewicz, M., Nolan, A., Bergmeier, H., Vicary, D., Huang, T., McCabe, P., McKay, T., Skouteris, H. (2018). Social and Emotional Learning Associated with Universal Curriculum-Based Interventions in Early Childhood Education and Care Centers: A Systematic Review and Meta-analysis. *JAMA Network Open*, 1(8):e185727. doi:10.1001/jamanetworkopen.2018.5727

- **10** García, J.L., Heckman, J.J., Ziff, A.L. (2019). Early childhood education and crime. *Infant Mental Health Journal*, 40, 141–151.doi: 10.1002/imhj.21759
- Love, E.E.K., Ross, C., et. al. (2005). The Effectiveness of Early Head Start for 3-Year-Old Children and Their Parents: Lessons for Policy and Programs. *Developmental Psychology*, 41(6), 885-901. doi: 10.1037/0012-1649.41.6.88
- **12** Cambria N., Fehler P., & Purnell J.Q., Schmidt B. (2018). Segregation in St. Louis: Dismantling the Divide. St. Louis, MO: Washington University in St. Louis.
- **13** Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States. *The Quarterly Journal of Economics*, 129(4), 1553–623. doi: 10.3386/w19843
- **14** City of St. Louis. (2018). *Equity Indicators: Toward a St. Louis Region that works for us all.* Retrieved from: https:// www.stlouis-mo.gov/equity/
- **15** Chaudry, A. & Wimer, C. (2016). Poverty is not just an indicator: the relationship between income, poverty, and child well-being. *Academic Pediatrics*, 16(3), S23-S29. https://doi.org/10.1016/j.acap.2015.12.010
- **16** Hair, N.L., Hanson, J.L., Wolfe, B.L., & Pollak, S.D. (2015). Association of child poverty, brain development, and academic achievement. *JAMA Pediatrics*, 169(9), 822-829. doi: 10.1001/jamapediatrics.2015.1475
- **17** Knudsen, E.I. (2004). Sensitive periods in the development of the brain and behavior. *Journal of. Cognitive Neuroscience*, 16(8), 1412–1425. doi: 10.1162/0898929042304796
- **18** IFF. (2019). *The First Step to Equity: Building a Better Future Through Early Childhood Education in St. Louis.* Retrieved from: https://iff.org/wp-content/uploads/2019/06/IFF\_ ResearchBooklet\_Final\_01.pdf
- **19** This is the "average annual market-rate cost of ECE services in St. Louis," according to IFF's *The First Step to Equity: Building a Better Future Through Early Childhood Education in St. Louis.*
- 20 Ferguson Commission (2015). Forward Through Ferguson: *A Path Toward Racial Equity*. Retrieved from: https://3680or2khmk3bzkp33juiea1-wpengine.netdna-ssl. com/wp-content/uploads/2015/09/101415\_ FergusonCommissionReport.pdf

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