

Unequal Impact: COVID-19 and Early Childhood Education

By Elise Chor
Department of Political Science, Temple University

Recognition has grown over time among researchers, policymakers, practitioners, and parents that stimulating early experiences during the first five years of life, including those in educational settings, are important for children's positive development. High-quality early childhood education (ECE) is very effective at promoting foundational skills, setting children on a positive developmental trajectory (Campbell et al., 2012; Reynolds, Ou, & Temple, 2018; Schweinhart et al., 2005), particularly for children from low-income families and racial minorities (Magnuson & Waldfogel, 2005; Cascio, 2019).

When the COVID-19 pandemic emerged in the United States in early 2020, children of all ages were suddenly removed from their usual care and school settings, including young children in ECE programs. It will take years to understand the full ramifications of this disruption for children, but COVID-19 and the loss of ECE will likely hit children from low-income and minority families the hardest. As the country reopens, these same children will likely also face the greatest risks. Investment in ECE presents a unique opportunity to buffer vulnerable children against these risks.

The Importance of Early Childhood Education

Child development is a hierarchical process whereby higher-level skills build on more basic, foundational skills, or "skills beget skills" (Knudsen et al. 2006; Cunha & Heckman, 2007). Early language, literacy, mathematics, and executive

Highlights

- Educational experiences in the first five years of life are foundational, and high-quality early childhood education is particularly beneficial to low-income children, Black children, and other children of color.
- COVID-19 created a significant disruption in children's early childhood education experiences which will likely have long-lasting ramifications for disadvantaged children.
- Policy responses have likely exacerbated the unequal impacts of COVID-19 for children.
- Policymakers should support high-quality early childhood education programs for disadvantaged children with broader programming to address the needs of their families and neighborhoods to mitigate the negative effects of COVID-19.

functioning skills are associated with later academic achievement, just as young children's socioemotional skills are predictive of later well-being (Duncan et al., 2006; Jones, Greenberg, & Crowley, 2015). Moreover, many sensitive periods in human development, when the brain is most malleable and the opportunity for growth is greatest, occur during early childhood (Knudsen et al. 2006). High-quality early education programs apply an understanding of developmental science to school programming, thereby promoting large gains in children's cognitive and socioemotional development.

In accordance with the increased recognition of the importance of early experiences, there has been a greater emphasis in recent decades on enrollment in ECE programs in the United States. Participation in formal, educational care among young children has become increasingly common over time, with more than half of preschool-aged, three- to five-year-old children (53%) attending preschool in 2017. Moreover, the intensity of children's exposure to ECE programming has become an increasing focus, with full-day preschool enrollment of three to five-year-olds rising from 21% in 1994 to 30% in 2017 (Child Trends Databank, 2019). Simply having a high dosage of exposure to early childhood education is not sufficient though; quality matters in ECE as in all schooling. ECE quality is generally measured along two domains: structural and process quality. Features of structural quality in ECE, including class size, student-teacher ratios, and meeting safety requirements, allow children to safely participate in ECE, while process features related to student-teacher relationships are most predictive of children's developmental gains (Burchinal et al., 2011; Mashburn et al., 2008; Minervino & Pianta, 2013; Pianta, Downer, & Hamre, 2016).

The Importance of Enriching Early Experiences for Low-Income and Minority Children

High-quality ECE programs are particularly effective for relatively disadvantaged children from low-income households. As a result of limited household resources and associated stress and instability, the home environment may offer fewer opportunities for

educational enrichment activities. By comparison, higher-income families have greater access to the resources needed to promote their young children's skill development (Becker, 1991; Davis-Kean, 2005; Haveman & Wolfe, 1995; Jencks & Mayer, 1990; Kalil, Ryan, & Corey, 2012; Mayer 1997). Accordingly, dramatic gaps in academic skills by family income emerge prior to kindergarten, with economically advantaged children outpacing their less advantaged peers in language, literacy, and mathematics at kindergarten entry (Reardon, 2011). When children are placed in ECE settings then, the difference between learning resources in the home and at school is greatest for children from low-income families, allowing them to make larger gains even when attending the same ECE programs as children from higher-income households (Cascio, 2019).

Skill gaps in language, literacy, and mathematics assessments (e.g., Peabody Picture Vocabulary Test, Woodcock Johnson Tests of Achievement) are observed at kindergarten entry not only by household income, but also by child race, with white and Asian American children traditionally outperforming Black and Hispanic children. Income and race are highly correlated, such that a large proportion of the racial disparity in test scores can be explained by household income (Duncan and Magnuson, 2005). Moreover, systemic racism also greatly limits socioeconomic mobility. Black Americans in particular have lower rates of upward mobility and higher rates of downward mobility compared to whites (Chetty et al., Forthcoming). The K-12 schools that children of color attend are systemically under-resourced and of lower quality than those white children attend (Darling-Hammond, 1998). Consequently, high-quality early education experiences can be particularly important for Black children and other children of color, for whom ECE programs generate the largest gains (Magnuson & Waldfogel, 2005).

Existing Inequities in the Early Childhood Education System

The children of higher-income parents attend ECE programs in substantial and growing numbers. Public childcare and education programs like childcare subsidies, the federal Head Start program, and state

universal prekindergarten have increased access for low-income (as well as minority) children. However, children from higher-income families with incomes of \$75,000 or greater are still more likely to attend preschool (60% in 2017) than those from lower-income families with incomes below \$50,000 (45% in 2017). Low-income families often must devote a large proportion of household income (more than one-third) to care and education, making take-up of even public programs challenging for many families (Malik, 2019).

Race and ethnic differences in ECE attendance are less straightforward. Black children attend preschool at the same rates as white children (56% in 2017), while Hispanic children attend at lower rates (46%; Child Trends Databank, 2019).

Most families have access to *some* type of ECE programming. However, in spite of ECE's disproportionate importance for low-income and minority children, they have traditionally had limited access to *high-quality* programs. Compared to higher-income and white children, low-income and minority children, on average, attend ECE programs with similar levels of structural quality (e.g., student-teacher ratios) but lower levels of crucial process quality (e.g., student-teacher relationships), limiting program effectiveness (Magnuson & Waldfogel, 2005).

The Unequal Effects of COVID-19 State Shutdowns

Low-income and minority children entered 2020 at a disadvantage in terms of economic resources, educational opportunities, and developmental outcomes like language, literacy, and mathematics skills. This disadvantage was likely severely compounded by the emergence of COVID-19 and the associated social and economic shutdown. Low-income and minority children are particularly vulnerable to the risks associated with systemic shocks like COVID-19. For example, children take on nearly 90% of the negative effects of global climate change on disease, with a disproportionate burden borne by disadvantaged children (Golden, 2006; Philipsborn & Chan, 2018).

The negative consequences of COVID-19 itself, as well as policy responses to the pandemic, have likely fallen disproportionately on low-income and minority children, exacerbating existing inequities. Low-income and minority families experience disproportionate rates of infection, hospitalization, and death from COVID-19 (Ford, Reber, & Reeves, 2020); are more likely to suffer from pre-existing conditions which further increase the risk of severe illness and fatality from COVID-19 (Kawachi, Daniels, & Robinson, 2005); and are less likely to have comprehensive health insurance and access to quality healthcare (Young, 2020). Children from low-income families and minority children are left to bear the burden of these inequities.

Policy responses to COVID-19 are particularly problematic for low-income and minority children. Childcare and school closures have interrupted receipt of school meals, which are essential for relatively disadvantaged children, who rely on them for basic nutrition. While malnutrition is a concern on one hand for these children, so, too, is increased risk of obesity, as families are forced to substitute lower-quality food for school meals (Rundle et al., 2020). Just as low-income and minority children receive larger benefits from high-quality care and education, childcare and school shutdowns have likely had the most detrimental effects for these children. For example, children's academic skills are negatively impacted by the so-called "summer slide" when school does not meet during the summer. COVID-19 closures could create similar effects, which likely affect low-income and minority children the most (Kuhfield & Tarawasa, 2020).

Inequality as States Reopen

As states move to reopen their economies, children from low-income and minority families are also likely to bear a disproportionate burden of the associated costs. While high-earners and white workers may be able to work remotely from home, lower-wage earners and minorities will be forced to risk exposure to COVID-19 on the job, with negative consequences for their children (Rho, Brown, & Fremstad, 2020). Reduced state finances may lead to austerity measures and cuts in essential public assistance programs like the Supplemental Nutrition Assistance Program

(SNAP) and Medicaid. Moreover, not all childcare programs, including ECE programs, will have the finances necessary to reopen. Those with greater access to funding may be those that serve wealthier, white families. Difficulty accessing high-quality ECE for children from low-income and minority families would further widen pre-existing inequities.

Policy Recommendations

As federal, state, and local governments look to rebuild their economies, they must recognize pre-existing economic and racial inequities which have likely widened because of the COVID-19 pandemic and policy responses. Governments should draw on the rich evidence we have about the importance of formal ECE programs for early childhood development, and:

1. **Continue funding temporarily shuttered ECE programs to ensure that they will be able to reopen when the time is appropriate.** Programs serving low-income and minority children are at increased risk of running out of resources during COVID-19 shutdowns and are particularly important for promoting the positive development of vulnerable children.
2. **Focus on the quality of ECE programs for low-income and minority children.** Program quality is key to effectiveness and is lower on average in programs serving low-income and minority children.
3. **Take advantage of ECE's special role for families to address not just child-level but family- and neighborhood-level challenges.** ECE programs can be a place of trust for low-income and minority families and can serve as a platform from which family- and community-level interventions can be offered (Chase-Lansdale & Brooks-Gunn, 2014).
4. **Invest in the social safety net beyond ECE as a form of economic stimulus.** Low-income and minority Americans have been the hardest hit by the COVID-19 pandemic and are more likely than relatively advantaged individuals to spend public stimulus dollars, creating economic growth.

References

- Becker, G. (1991). *A treatise on the family*. Cambridge, MA: Harvard University Press.
- Burchinal, M.R., Kainz, K., & Cai, Y. (2011). How well do our measures of quality predict child outcomes? A meta-analysis and coordinated analysis of data from large-scale studies of early childhood settings. In M. Zaslow (Ed.), *Quality measurement in early childhood settings*. Baltimore, MD: Brooks.
- Bureau of Labor Statistics, U.S. Department of Labor (2020). *The employment situation – May 2020*. Available at: <https://www.bls.gov/news.release/pdf/empisit.pdf>.
- Campbell, F. A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B. H., Barbarin, O., Sparling, J. J., & Ramey, C. T. (2012). Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up. *Developmental Psychology*, 48, 1033–1043.
- Cascio, E. (2019). Does universal preschool hit the target? Program access and preschool impacts.
- Chase-Lansdale, P.L., & Brooks-Gunn, J. (2014). Two-generation programs in the twenty-first century. *Future of Children*, 24, 13-39.
- Chetty, R., Hendren, N., Jones, M., and Porter, S. (Forthcoming). Race and economic opportunity in the United States: An intergenerational perspective. *Quarterly Journal of Economics*.
- Child Trends Databank (2019). *Preschool and prekindergarten*.
- Cunha, F., & Heckman, J. (2007). The technology of skill formation. *American Economic Review*, 97, 31-47.
- Darling-Hammond, L. (1998). *Unequal opportunity: Race and education*. Brookings Institute, March 1998.

- Davis-Kean, P. (2005). The influence of parent education and family income on child achievement: The indirect role of parental expectations and the home environment. *Journal of Family Psychology, 19*, 294-304.
- Duncan, G., Dowsett, C., Claessens, A., Magnuson, K., Huston, A., Klebanov, P., Pagani, L., Feinstein, L., Engel, M., Brooks-Gunn, J., Sexton, H., Duckworth, K., & Japel, C. (2007). School readiness and later achievement. *Developmental Psychology, 43*, 1428-1446.
- Duncan, G., & Magnuson, K. (2005). Can family socioeconomic resources account for racial and ethnic test score gaps? *Future of Children, 15*, 35-54.
- Ford, T., Reber, S., & Reeves, R. (2020). Race gaps in COVID-19 deaths are even bigger than they appear. Brookings Institute.
- Golden, O. (2006). After Katrina: Rebuilding opportunity and equity into the new New Orleans. Urban Institute, February 2006.
- Gould, E., & Wilson, V. (2020). Black workers fact two of the most lethal preexisting conditions for coronavirus – racism and economic inequality. Economic Policy Institute, June 2020.
- Haveman, R., & Wolfe, B. (1995). The determinants of children's attainments: A review of methods and findings. *Journal of Economic Literature, 33*, 1829-1878.
- Jencks, C., & Mayer, S. (1990). The social consequences of growing up in a poor neighborhood. In L. Lynn & M. McGreary (Eds.), *Inner-city poverty in the United States* (pp. 111-186). Washington, DC: National Academy Press.
- Jones, D., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health, 105*, 2283-2290.
- Kalil, A., Ryan, R., & Corey, M. (2012). Diverging destinies: Maternal education and the developmental gradient in time with children. *Demography, 49*, 1361-1383.
- Kawachi, I., Daniels, N., & Robinson, D. (2005). Health disparities by race and class: Why both matter. *Health Affairs, 24*.
- Knudsen, E., Heckman, J., Cameron, J., & Shonkoff, J. (2006). Economic, neurobiological, and behavioral perspectives on building America's future workforce. *Proceedings of the National Academy of Sciences, 103*, 10155-10162.
- Kuhfield, M., & Tarawasa, B. (2020). The COVID-19 slide: What summer learning loss can tell us about the potential impact of school closures on student academic achievement. Collaborative for Student Growth, NWEA, April 2020.
- Magnuson, K., & Waldfogel, J. (2005). Early childhood care and education: Effects on ethnic and racial gaps in school readiness.
- Malik, R. (2019). Working families are spending big money on child care. Center for American Progress.
- Mashburn, A., Pianta, R., Hamre, B., Downer, J., Barbarin, O., Bryant, D., Burchinal, M., Early, D., & Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*:3, 732-749.
- Mayer, S. (1997). *What money can't buy: Family income and children's life chances*. Cambridge, MA: Harvard University Press.
- Minervino, J., & Pianta, R. (2013). *Early learning: The new fact base and cost sustainability*. White Paper for the Bill and Melinda Gates Foundation.
- Parker, K., Horowitz, J., & Brown, A. (2020). About half of lower-income Americans report household job or wage loss due to COVID-19. Pew Research Center, April 2020.

Philipsborn, R., & Chan, K. (2018). Climate change and global child health. *Pediatrics*, 141.

Pianta, R., Downer, J., & Hamre, B. (2016). Quality in early childhood classrooms: Definitions, gaps, and systems. *Future of Children*, 26:2, 119-137.

Rae, M., McDermott, D., Levitt, L., & Claxton, G. (2020). Long-term trends in employer-based coverage. Peterson Center on Healthcare and Kaiser Family Foundation, April 2020.

Reardon, S. (2011). The widening academic achievement gap between the rich and the poor: New evidence and possible explanations. In R. Murnane & G. Duncan (Eds.), *Whither opportunity? Rising inequality and the uncertain life chances of low-income children* (pp. 91-116). New York, NY: Russell Sage Foundation Press.

Reynolds, A. J., Ou, S., & Temple, J. (2018). A multicomponent, preschool to third grade preventive intervention and educational attainment at 35 years of age. *Journal of the American Medical Association Pediatrics*, 172, 247-256.

Rho, H.J., Brown, H., & Fremstad, S. (2020). A basic demographic profile of workers in frontline industries. Center for Economic and Policy Research, April 2020.

Rundle, A., Park, Y., Herbstman, J., Kinsey, E., & Wang, Y. (2020). COVID-19-related school closings and risk of weight gain among children. *Obesity*, 28, 1008-1009.

Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). Lifetime effects: The High/Scope Perry Preschool Study through age 40. Monographs of the High/Scope Educational Research Foundation, No. 14. Ypsilanti, MI: High/Scope Press.

Young, C. (2020). There are clear, race-based inequalities in health insurance and health outcomes. Brookings Institute, February 2020.

Zipperer, B., & Gould, E. (2020). Unemployment filing failures. Economic Policy Institute, April 2020.