Young Children in Deep Poverty: **Racial/Ethnic Disparities and Child Well-Being Compared to Other Income Groups**

Uyen Sophie Nguyen | Sheila Smith | Maribel R. Granja

October 2020



NCCP National Center for Children in Poverty Bank Street Graduate School of Education

The National Center for Children in Poverty (NCCP) is a non-partisan public policy research center at Bank Street Graduate School of Education. Founded in 1989 with endowments from the Carnegie Corporation of New York and the Ford Foundation, NCCP is dedicated to promoting the economic security, healthy development, and well-being of America's low-income children and families. Using research to inform policy and practice, the center seeks to advance family-oriented solutions and strategic use of public resources at the state and national levels to produce positive outcomes for the next generation.

Suggested Citation

Nguyen, U.S., Smith, S., Granja, M.R. (2020). Young Children in Deep Poverty: Racial/Ethnic Disparities and Child Well-Being Compared to Other Income Groups. New York: National Center for Children in Poverty, Bank Street Graduate School of Education.

Copyright © 2020 by the National Center for Children in Poverty



Introduction

Nine percent of young U.S. children live in deep poverty, with state rates ranging from 17 percent in Mississippi to 4 percent in Utah. The families of these children have incomes below 50 percent of the federal poverty line, or less than \$10,289 for a family of one parent and two children.¹ These figures, based on 2019 data, predate the COVID-19 pandemic, which likely drove more families with young children into poverty and deep poverty given the large increase in unemployment related to workplace closures, lack of child care, and other pandemic conditions.²

While families in deep poverty may qualify for various forms of assistance, many experience severe financial hardship due to the very limited support provided by public benefits. In 16 states, cash assistance in the form of TANF (Temporary Aid to Needy Families) is provided to only 10 percent or fewer of families in poverty. Monthly TANF benefits vary across states, with 18 states providing less than \$356 for a single parent family of three.³ Even SNAP (formerly known as food stamps), a benefit credited with reducing child poverty by 28 percent, leaves families with unmet needs.⁴ A recent analysis showed that the maximum SNAP benefit fell short of meeting monthly food costs by about \$46 per family member.⁵ Although housing is the largest portion of most families' expenses, federal rental assistance is available to only 22 percent of low-income families with children, and only six states supplement this support with housing assistance targeted to families.⁶

Both a lack of material resources and parental stress associated with poverty have been identified as key pathways to worse health, developmental, and school-related outcomes of poor children compared to their non-poor peers.⁷ Although research focused specifically on young children in deep poverty is limited, the conditions of deep poverty suggest that these children may be at exceptionally high risk of poor outcomes. First, research has shown that poverty experienced in early childhood is especially detrimental to children's development.⁸ Second, deep poverty may lead to especially high levels of stress among parents struggling to meet basic needs, and stress is associated with less optimal parenting behavior.⁹ Third, other factors associated with poverty and child well-being, such as poor birth outcomes and family social isolation, may be more prevalent among families with very little or no income.

Understanding more about the early health and development of young children in deep poverty and related risk factors can inform policies tailored to this group of vulnerable families. To date, most recommendations explicitly targeted to reducing the number of families in deep poverty have focused mainly on policies that increase family income. The National Academy of Sciences report, *Roadmap to Reducing Child Poverty*, examines two policy packages that meet the goal of reducing both poverty and deep poverty by 50 percent. These packages include an increased minimum wage, a child allowance, and housing assistance.¹⁰ Based on an earlier examination of young children and families in deep poverty, NCCP has recommended a mix of policies to increase family income and ensure immediate and longer-term supports for children's healthy development in the family and in early care and education settings.¹¹ This report presents new analyses with more recent data that highlight the needs of young children and families in deep poverty, along with updated recommendations.

The key sections of the report are:

- A description of methods
- Findings that show:
 - Differences in health and development indicators across income groups
 - Differences in family and community factors across income groups
 - Racial/ethnic disparities in young children's experience of deep poverty
- Summary
- Recommendations

Methods

This brief used recent data from three nationally representative data sets: the American Community Survey (ACS), the National Health and Nutrition Examination Survey (NHANES), and the National Health Interview Survey (NHIS).¹² The ACS data were used to calculate the numbers and percentages of children under age 9 at four different income levels, nationally and state by state:

- Deep poverty: Below 50 percent of the federal poverty line (FPL)
- Poverty: 50 percent to 99 percent of the FPL
- Low income: 100 percent to 199 percent of the FPL
- Non-poor: 200 percent or more of the FPL

The number and percentages of young children in different racial/ethnic groups were also calculated using ACS data. Five racial/ethnic groups included in the analysis were white, non-Hispanic/Latino; Black, non-Hispanic/Latino; Hispanic/Latino; American Indian and Alaska Native; and Asian. The NHANES and NHIS data were used to show the number and percentages of children with different child health and developmental outcomes, as well as parent and neighborhood characteristics, across income groups. In order to obtain a sufficient sample size of young children in deep poverty and ensure data reliability, we combined two of the latest waves of data from the NHANES and NHIS data sets. The final analytic samples were drawn from 2015-2018 for NHANES and 2017-2018 for NHIS. Sample weights were also adjusted for the combined datasets based on NHANES and NHIS analytic guidelines.¹³ All data were weighted to ensure their representativeness in the U.S. population.

The analyses focused on children under the age of 9. The data were based on parent reports for most measures. Only child obesity and blood lead levels were directly measured through physical examinations. All measures were reported in percentages (for categorical variables) and averages (for continuous variables). Logistic regression was used to analyze the relationship between categorical outcomes and income levels, as well as to obtain odds ratios for the likelihood of each categorical outcome of interest.¹⁴ Simple linear regression was also run on continuous outcomes to assess the association between these outcomes and income levels. Tests for differences across all pairs of income groups were conducted and significant differences in values across groups are shown in the figures.



Source: National Center for Children in Poverty. (2020, August 10). Young child risk calculator. http://nccp.org/tools/risk/. (Calculator uses ACS 1-Year Estimates - Public Use Microdata Sample 2018.)



C P National Center for Children in Poverty Bank Street Graduate School of Education

Figure 2. U.S. State Variation in Children Under Age 9 Living in Deep Poverty



Source: NCCP Analysis of ACS 1-Year Estimates - Public Use Microdata Sample 2018

Percent of young children in deep poverty



Findings

ACROSS STATE VARIATION IN RATES OF YOUNG CHILD DEEP POVERTY

As seen in Figure 2, there is large variation in rates of young child deep poverty across the states. Four states (AL, LA, MS, NM) and DC have 13 percent or more of children 0-9 living in deep poverty, 11 states (AR, KY, MI, NC, OH, OK, RI, SC, SD, TN, WV) have rates of 10 to 12 percent. See **Appendix A** for all states' percentages of young children in deep poverty.

RACIAL/ETHNIC DIFFERENCES IN DEEP POVERTY AMONG YOUNG CHILDREN

Nationally, 5 percent of young white children and 3 percent of Asian American children live in deep poverty. These percentages are more than double for other racial/ ethnic groups of young children: 18 percent of Black children, 15 percent of American Indian and Native Alaskan children, and 11 percent of Hispanic/Latino children under age 9 are in families earning less than half of the federal poverty line. Large racial disparities for rates of young child deep poverty exist in almost all states. Three examples from states in different regions of the U.S. illustrate the magnitude of these disparities. In Connecticut, 3 percent of young white children, 14 percent of Hispanic/Latino children, and 35 percent of American Indian and Native Alaskan children are in deep poverty. In Alabama, 7 percent of young white children are in deep poverty, while the rate is 26 percent for Black children. Ohio's rates of deep poverty are 6 percent for young white children and 25 percent for young Black children. Rates for young Asian American children vary considerably across states. For example, while 1 percent of Asian American children in Texas live in deep poverty, the rate is 18 percent for Asian American children in Utah. See Appendix B for all state percentages by race/ethnicity.



Figure 3. Percent of U.S. Children Under Age 9 in Deep Poverty by Race/Ethnicity

Source: National Center for Children in Poverty. (2020, August 10). Young child risk calculator. http://nccp.org/tools/risk/. (Calculator uses ACS 1-Year Estimates - Public Use Microdata Sample 2018.)

Health and Development of Young Children in Deep Poverty

LOW BIRTH WEIGHT

Low birth weight, especially when severe or coupled with preterm birth, increases a child's risks for health problems, and developmental delay and disability.¹⁵

- Among young children in deep poverty, 12.9 percent were born with low birth weight, the highest rate among income groups; these children are almost twice as likely to be born at low birth weight than non-poor children.
- Low birth weight affected 9.9 percent of poor children, 8.4 percent of low-income children, and 7.9 percent of non-poor children.

PHYSICAL IMPAIRMENT

Physical impairment refers to a condition or health problem that limits the child's ability to crawl, walk, run, or play. Without effective interventions and environmental supports, physical impairments can reduce young children's opportunities to learn through exploration and interactions with others and harm their development.¹⁶

- Among young children in deep poverty, 3.3 percent have a physical impairment, making them about four times more likely to have this condition than non-poor children.
- The percentages of young children with a physical impairment are similar for the other income groups at 1.1 percent for poor children, 1.2 percent for low-income children and 0.8 percent for non-poor children.

INTELLECTUAL DISABILITY AND DEVELOPMENTAL DELAY

An intellectual disability or developmental delay can be mild to severe. Even relatively mild developmental delays can contribute to persistent or worsening problems related to learning and school success.¹⁷

 The prevalence of intellectual disabilities and developmental delays for young children in deep poverty is 9.4 percent, the highest among the income groups. Nearly three times as many children in deep poverty have an intellectually disability or developmental delay as non-poor children.



*Young children in deep poverty are significantly more likely to be born at low birth weight compared to non-poor children (odds ratio = 1.73; 95% confidence interval [CI] = 1.13, 2.65; p = 0.0114).





*Young children in deep poverty are significantly more likely to have a limiting physical impairment or health problem compared to non-poor children (odds ratio = 4.22; 95% CI = 1.42, 12.56; p = 0.0207).



Figure 6. Diagnosed Intellectual Disability or Developmental Delay by Poverty Status for Children Under Age 9

*Young children in deep poverty are significantly more likely to be diagnosed with an intellectual disability or developmental delay compared to non-poor children (odds ratio = 2.80; 95% CI = 1.59, 4.95; p = 0.0002).

Source: NCCP Analysis of Data From the National Health Interview Survey (NHIS) 2017-2018

 Percentages of intellectual disability and development delay are 5.3 percent for poor, 5.0 percent for low-income, and 3.6 for non-poor children.

PARTICIPATION IN EARLY INTERVENTION (EI) AND SPECIAL EDUCATION

Children under age 9 may be eligible for Part C Early Intervention (for children birth to 3), Part B Preschool Special Education (for children ages 3 to 4), or K-12 Special Education (for school-age children). Children's receipt of El or special education services indicates that they have a disability or developmental delay, although the eligibility criteria change across the different age groups and vary by state. While participation reflects conditions that can impede optimal development and learning, receipt of El or special education services can also be viewed in a positive light since children are expected to benefit from these programs.

- About 5.5 percent of children ages 0 to 3 in deep poverty participate in the Part C El program, a rate higher but not significantly different than the other income groups. Participation is about 4.6 percent for children in poverty, 2.5 percent for low-income children, and 2.3 percent for nonpoor children.
- For Special Education participation, the rate for children ages 3 to 9 in deep poverty is 13.4 percent, the highest percent among income groups, but not significantly higher than non-poor children. Rates are 7.7 percent for poor children, 10.2 percent for low-income children, and 8.3 percent for non-poor children.







Source: NCCP Analysis of Data From the National Health Interview Survey (NHIS) 2017-2018

Figure 7. Early Intervention Participation by Poverty Status for Children Ages 0 to 3



CHILD BEHAVIOR

The child behavior indicator reflects the degree to which a child is well-behaved and follows directions based on parent report. Young children's behavior problems and conflicts with the parent increase their risk of later behavior and school difficulties.¹⁸

- Children ages 4 to 9 across income groups are viewed by parents as generally well-behaved and compliant with their parents' requests (a score of 1 indicates parents "somewhat agree" that the child is well-behaved, and a score of 2 indicates they "certainly agree.")
- The behavior score for children in deep poverty is lowest (reflecting less positive behavior) at 1.6, while scores are 1.7 for poor and low-income children and 1.8 for non-poor children.

CHILD UNINSURED RATE

Children's lack of health insurance can lead to lower use of preventive and illness-related health care. In turn, less health care increases children's risk of having untreated health conditions and developmental delays that could limit their learning and school success.¹⁹

- Low-income children under age 9 have the highest uninsured rate at 4.9 percent.
- The uninsured rates for young children at other . income levels are 4.8 percent for poor, 4.3 percent for deeply poor, and 3.3 percent for non-poor children.



*Young children in deep poverty display fewer good behaviors than poor and non-poor children (p= 0.0326 and p = 0.0013, respectively).

**Low-income children display fewer good behaviors than non-poor children (p < 0.0001).



Figure 10. Child Uninsured Rate by Poverty Status for Children Under Age 9

*Low-income children are significantly more likely to be uninsured compared to non-poor children (odds ratio = 1.53; 95% CI = 1.13, 2.09; p = 0.0106).

Source: NCCP Analysis of Data From the National Health Interview Survey (NHIS) 2017-2018

CHILD OBESITY

Being obese is associated with poor health outcomes and psychological problems throughout childhood and later in life.²⁰

- The percent of young children with obesity is highest among poor and low-income children (21.2 percent and 18.8 percent, respectively) and lowest among non-poor children (11.2 percent).
- The percent of young children in deep poverty with obesity is approximately 15.6 percent.

ELEVATED BLOOD LEAD LEVELS

Early life exposure to lead is linked to low academic achievement, decreased high school graduation rates, and increased criminal activity.²¹

- The percent of young children with elevated blood lead levels is highest among low-income children (1.8 percent). Levels were not significantly different across the income groups.
- Under 1 percent (0.6 percent) of children in deep poverty and poverty have high blood lead levels, and 0.3 percent of non-poor children have elevated blood lead levels.



Figure 11. Child Obesity by Poverty Status for Children Under Age 9

*Poor children are significantly more likely than non-poor children to have obesity (odds ratio = 2.13; 95% CI = 1.68, 2.69; p = 0.0001).

**Low-income children are significantly more likely than non-poor children to have obesity (odds ratio = 1.84; 95% CI = 1.33, 2.54; p = 0.0004).





Source: NCCP Analysis of Data From the National Health and Nutrition Examination Survey (NHANES) 2015-2018

Parent Characteristics

OVERALL MENTAL HEALTH STATUS

Parental mental health conditions can have a negative impact on children's academic and social-emotional outcomes.²² Parents were asked to report their experience of a range of emotions (e.g., hopeless, nervous) they might have experienced over the past 30 days.

- Overall, the mental health scores of parents reflected their infrequent report of negative moods. A score of 0 reflect "never" having the feelings in the past 30 days and a score of 1 indicated having them "sometimes."
- Parents of young children in deep poverty had the highest mean mental health score (0.61), reflecting their report of more negative emotions.
- Scores decreased as income levels increased with a score of 0.57 for poor parents, 0.51 for lowincome parents, and 0.36 for non-poor parents.

SINGLE PARENT STATUS

Being a single parent increases the chance that the household must rely on one parent's income and increases the parent's share of home and caregiving responsibilities.

- 58.8 percent of deeply poor parents are single. They are significantly more likely to be single parents compared to each of the other income groups.
- 43.4 percent of poor parents, 25.4 percent of low-income parents, and 7.8 percent of non-poor parents are single.



Figure 13. Average Overall Mental Health Scores of Parents With Children Under Age 9 by Poverty Status

*Deeply poor parents reported worse mental health status than low-income and non-poor parents (p=0.0089 and p<0.0001, respectively).

**Poor parents reported worse mental health status than low-income and non-poor parents (p=0.0054 and p<0.0001, respectively).

***Low-income parents reported worse mental health status than non-poor parents (p<0.0001).



Figure 14. Single Parent Families by Poverty Status

*Deeply poor parents are about two times more likely to be single parents compared to poor parents (odds ratio = 1.86; 95% Cl = 1.31, 2.65; p < 0.0001), four times more likely compared to low-income parents (odds ratio = 4.20; 95% Cl = 3.00, 5.89; p = 0.0054), and 17 times more likely compared to non-poor parents (odds ratio = 16.98; 95% Cl = 12.48, 23.10; p < 0.0001).

**Poor parents are about two times more likely to be single parents compared to low-income parents (odds ratio = 2.26; 95% Cl = 1.79, 2.85; p = 0.0054), and nine times more likely compared to non-poor parents (odds ratio = 9.12; 95% Cl = 7.22, 11.53; p < 0.0001).

***Low-income parents are four times more likely to be single parents compared to non-poor parents (odds ratio = 4.04; 95% CI = 3.29, 4.96; p < 0.0001).

Source: NCCP Analysis of Data From the National Health Interview Survey (NHIS) 2017-2018

PARENT EDUCATION ATTAINMENT

Parent education is a strong predictor of children's educational outcomes and parenting behavior that influences these outcomes.²³

- 26.9 percent of parents in deep poverty lack a high school degree; they are one-and-a-half times less likely to have completed high school than poor parents, and 32 times less likely than non-poor parents.
- 19.5 percent of poor parents, 9.7 percent of low-income, and 1.1 percent of non-poor parents lack a high school diploma. Poor parents are also significantly more likely to have at least a high school diploma compared to deeply poor parents.

PARENT UNINSURED RATE

Parents' lack of health insurance may limit their ability to seek care for conditions that interfere with parenting and employment. In addition, the children of parents who lack public health insurance have been found to be less likely to receive preventive health care than insured parents.²⁴

- Poor parents and those in deep poverty are about six times more likely to be uninsured than non-poor parents. 27.8 of poor parents and 26.0 percent of parents in deep poverty lack health insurance. The percentage of low-income parents without insurance is also high, at 23.7 percent.
- 5.7 percent of non-poor parents lack insurance.

 73.2%
 80.5%
 90.3%
 98.9%

 26.9%
 19.5%
 9.7%
 1.1%

 Deep Poverty*
 Poverty**
 Low Income
 Non-Poor

*Deeply poor parents are 1.5 times less likely to have a high school diploma or above compared to poor parents (odds ratio = 1.52; 95% CI = 1.05, 2.20; p < 0.0001), and about 32 times less likely compared to non-poor parents (odds ratio = 32.14; 95% CI = 20.07, 51.48; p < 0.0001).

**Poor parents are 21 times less likely to have a high school diploma or above compared to non-poor parents (odds ratio = 21.18; 95% CI = 14.13, 31.74; p < 0.0001).





*Deeply poor parents are nearly six times more likely to be uninsured compared to non-poor parents (odds ratio = 5.80; 95% Cl = 4.11, 8.16; p < 0.0001).

**Poor parents are six times more likely to be uninsured compared to non-poor parents (odds ratio = 6.34; 95% CI = 4.85, 8.30; p < 0.0001).

***Low-income parents are five times more likely to be uninsured compared to non-poor parents (odds ratio = 5.10; 95% CI = 4.14, 6.29; p < 0.0001).

Source: NCCP Analysis of Data From the National Health Interview Survey (NHIS) 2017-2018

Figure 15. Parental Educational Attainment by Poverty Status

PARENT UNEMPLOYMENT

Long-term parent unemployment not only eliminates most families' chief source of income, but also contributes to isolation and depression. It may also limit parents' social capital (i.e., networks of friends and colleagues), which helps them find work and increase their wages over time.²⁵

- Parents in deep poverty have the highest unemployment rate at 31.3 percent; this indicator reflects a parent's unemployment over the past 12 months.
- The unemployment rates decrease to 21.1 percent for poor, 16.0 percent for low-income, and 9.0 percent for non-poor parents.

NEIGHBORHOOD SUPPORT

Parents' residence in a neighborhood where they feel they can count on people for assistance reflects their available social support and potential practical assistance in times of crisis. Both experiences are likely to reduce parent stress.

- Parents in deep poverty had the lowest average score, 2.7, indicating less confidence that they can count on assistance from neighbors. (A score of "2" indicates the parent "somewhat disagrees," "3" means "somewhat agrees," and "4" means "definitely agree."). Deeply poor parents reported a significantly lower average level of agreement compared to parents at other income levels.
- Poor and low-income parents also reported significantly lower levels of agreement that they can count on neighbors than non-poor parents. Scores were 2.9 for poor, 3.0 for low-income, and 3.4 for non-poor parents.



*Deeply poor parents are significantly more likely to be unemployed compared to non-poor parents (odds ratio = 4.58; 95% CI = 3.26, 6.42; p < 0.0001).



*Parents living in deep poverty reported a lower level of agreement that there are people they can count on in the neighborhood, compared to those living in poverty (p = 0.0491), low-income families (p = 0.0011), or non-poor ones (p < 0.0001).

**Poor parents reported a lower level of agreement with the statement, compared to non-poor parents (p < 0.0001).

***Low-income parents reported a lower level of agreement with the statement compared to non-poor parents (p < 0.0001).

Source: NCCP Analysis of Data From the National Health and Nutrition Examination Survey (NHANES) 2015-2018

Figure 17. Parent Unemployment by Poverty Status



Summary

For all but a few of the indicators we compared across income groups, children in deep poverty were the most likely to experience early conditions and circumstances that make them vulnerable to future health, development, and learning problems. These indicators include low birth weight, a physical condition or health problem that limits activities, an intellectual disability or developmental delay, participation in early intervention or special education, and less positive behavior. (As mentioned earlier, participation in early intervention and special education may also reduce risks posed by conditions that make children eligible for these programs.) The parents of young children in deep poverty were the most likely to have a mental health condition, to be a single parent, to lack a high school diploma, and to be unemployed. These parents were also the least likely to report that they can count on people in their neighborhood for help when they need it.

For some indicators, families in income groups other than deep poverty showed the greatest disadvantage. Young children in poverty were the most likely to be obese. Low-income children were the most likely to lack health insurance, and they also had the highest prevalence of elevated blood lead levels, although percentages did not differ significantly across income groups. Among parents, those in poverty were the most likely to lack health insurance.

Although the results suggest less optimal outcomes and family circumstances for poor and low-income children, the recommendations that follow focus on families with young children in deep poverty since indicators for this group suggest exceptional risks to children's development and life opportunities. These recommendations incorporate income support policies targeting families in deep poverty into a two-generation approach that include investments in direct support for parents' health and mental health, child birth outcomes, and children's development. A body of theory and research suggests that policies aimed at promoting work and higher family income alongside the provision of other supports for parent well-being and children's development can offer benefits for children that are larger than policies that focus solely on adult workforce development or children's development.²⁶ In addition, the recommendations call for policies that directly promote the integration of these supports so that they provide maximum opportunities for families to thrive.

Recommendations

- 1. Increase the financial resources of families with young children in deep poverty through an expansion and reform of key public benefits. Two policy packages recommended by the National Academy of Sciences in Roadmap to Reducing Child Poverty would reduce deep poverty among children by 50 percent. These include a balance of work incentives (e.g., raising the Earned Income Tax Credit and minimum wage) with policies not tied to work (e.g., creating a Child Allowance; restoring eligibility for nonqualified legal immigrants for SNAP, TANF, Medicaid, and SSI; and increasing SNAP benefits).²⁷ Analysts at the Center on Budget and Policy have identified three policies in these packages—a child allowance, increase in SNAP benefits, and expansion of housing vouchers—that would result in the greatest reduction in deep poverty among children.²⁸
- 2. Expand and implement Medicaid in states where this has not occurred in order to reach parents in deep poverty who lack health insurance.²⁸ Health insurance for parents helps them gain critical access to health care for physical and mental health conditions that could reduce engagement in work and limit parenting capacities. Currently, 12 states have not expanded Medicaid and three have adopted but not implemented expansions of Medicaid.²⁹
- 3. Invest in scaling programs that have shown promise for improving healthy pregnancy outcomes, including reductions in low birth weight; prioritize participation of families in deep poverty. Programs with preliminary evidence of efficacy include Centering Pregnancy, which provides social support and education about health and parenting in group neonatal visits and a model of prenatal care that offers parents a highly welcoming health care setting and assistance with overcoming barriers to using prenatal care, such as a lack of child care or transportation. In some states, these models are being covered by Medicaid.³⁰



- 4. Invest in expansions and quality improvement of programs with demonstrated capacity to provide strong supports for a nurturing parent-child relationship and early learning and development; prioritize families in deep poverty for participation. These include Early Head Start and MIECHV home visiting programs which already serve families experiencing severe economic hardship.³¹ Child First, another model that targets children in families facing multiple adverse circumstances, including deep poverty, has been found to produce large improvements in child development, parenting, parent depression outcomes.³² This program coordinates evidence-based interventions (e.g., dyadic parent-child treatment to strengthen impaired parent-child relationships, home-visiting, Early Head Start) and helps parents obtain public benefits, housing assistance, and other critical supports. In addition, expansion of high-quality pre-kindergarten programs, and intentional efforts to include children in deep poverty, is important in light of research suggesting that the learning and development of children at lower income levels is greater when they participate in classrooms with children from more affluent families.³³ Locating high-quality pre-kindergarten programs in communities that can attract families at different income levels could help programs achieve economically diverse classrooms.
- 5. Establish dedicated federal and state funding to enable child development-focused programs (e.g., high-quality early care and education and home-visiting programs) to effectively incorporate adult education and work training services for families; prioritize engagement of families in deep poverty in two-generation programs tailored to their needs. Currently, there is a lack of public funding that child development and parenting programs could use to increase their capacity to become two-generation programs through partnerships with adult education and workforce development programs. Funding to support effective partnerships could be targeted to help them incorporate promising components based on available research and theory.³⁴ These include supports for ensuring quality in the child development and adult work-related programs in the partnerships (e.g., ECE teacher training and coaching, workforce training with stackable credentials), parent coaches and flexible funding to help families overcome barriers to participation in multiple program activities, and support for aligning services, including collocated or well-coordinated services. Several researchers have recently proposed public investment in the implementation and evaluation of two-generation Head Start programs with several of these features.³⁵
- 6. Address racial/ethnic disparities in young children's experience of deep poverty on multiple fronts. Achieving a large overall reduction in deep poverty among families with young children (who are disproportionately Black, Hispanic/Latino, and American Indian and Alaska Native (AI/AN)) by advancing the policies recommended here, can help reduce racial/ethnic disparities in deep poverty. In addition, quality improvement in early care and education (ECE) programs along with outreach to ensure greater participation of very poor Black, Hispanic/Latino, and AI/AN families in high-quality programs is essential in light of evidence that poor families and Black families participate less than white families in high-quality ECE programs.³⁶ In addition, research points to less positive treatment of Black, Hispanic/Latino, and AI/AN clients in human services (e.g., public assistance offices), leading to less assistance being provided or benefits being cut off.³⁷ This research highlights the need for monitoring of benefits' receipt and sanctions in TANF and other human services programs that could show racial and ethnic disparities in client treatment and prompt the testing of interventions to change the staff behavior driving these disparities.

Appendix A

Number and Percent of Young Children in Deep Poverty by State, 2018

State	Number of children under age 9 in deep poverty	Percent of children under age 9 in deep poverty	State	Number of children under age 9 in deep poverty	Percen children un age 9 in de pove
Alabama	67,838	13%	Montana	6,876	(
Alaska	4,600	5%	Nebraska	10,606	
Arizona	63,921	8%	Nevada	23,128	
Arkansas	39,678	12%	New Hampshire	8,457	
California	324,652	7%	New Jersey	58,190	
Colorado	29,858	5%	New Mexico	32,678	1
Connecticut	23,646	7%	New York	176,680	
Delaware	7,903	8%	North Carolina	105,425	1
District of Columbia	10,522	14%	North Dakota	5,912	
Florida	175,265	9%	Ohio	120,377	1
Georgia	109,772	9%	Oklahoma	54,264	1
Hawaii	12,880	9%	Oregon	29.737	
Idaho	15,009	7%	Pennsylvania	102.473	
Illinois	94,066	7%	Rhode Island	10.311	1
Indiana	57,397	8%	South Carolina	55.011	1
lowa	21,205	6%	South Dakata	10.442	1
Kansas	21,837	6%		10,402	1
Kentucky	56,766	12%	Tennessee	86,145	1.
Louisiana	71,841	13%	lexas	338,956	
Maine	6,146	5%	Utah	17,696	
Maryland	35,516	5%	Vermont	2,671	
Massachusetts	36,574	6%	Virginia	65,326	
Michigan	104,773	10%	Washington	44,969	
Minnesota	32,825	5%	West Virginia	19,143	1
Mississippi	56,509	17%	Wisconsin	39,761	
Missouri	53.818	8%	Wyoming	4,531	

Source: NCCP analysis of ACS 1-Year Estimates - Public Use Microdata Sample 2018



Appendix B

Number and Percentage of Young Children in Deep Poverty by Race/Ethnicity, 2018

NUMBER OF CHILDREN UNDER AGE 9 IN DEEP POVERTY						
State/National	White, non- Hispanic/Latino	Black, non- Hispanic/Latino	Hispanic/Latino	American Indian and Alaska Native	Asian	
National	886,827	831,956	963,338	49,911	57,695	
Alabama	20,790	39,358	5,800	106	-	
Alaska	1,177	-	-	2,631	184	
Arizona	13,853	3,167	35,422	8,483	472	
Arkansas	15,593	16,416	5,487	446	-	
California	46,005	39,315	207,502	925	15,084	
Colorado	10,457	2,439	14,326	127	671	
Connecticut	5,735	3,740	12,239	134	815	
Delaware	1,940	2,916	2,146	-	148	
District of Columbia	0	9,303	1,219	-	-	
Florida	43,322	58,172	61,917	132	1,999	
Georgia	24,797	55,432	20,992	458	526	
Hawaii	1,574	-	3,567	-	166	
Idaho	7,475	-	6,980	394	-	
Illinois	27,463	32,905	27,143	-	1,645	
Indiana	26,023	17,278	10,711	118	793	
lowa	13,318	1,619	3,312	270	746	
Kansas	7,002	4,678	7,018	-	737	
Kentucky	37,841	8,991	4,221	223	-	
Louisiana	17,524	47,060	3,618	-	105	
Maine	5,320	153	207	133	-	
Maryland	7,972	15,341	7,252	-	2,108	
Massachusetts	10,716	3,914	17,676	-	944	
Michigan	45,279	41,666	10,575	328	1,518	
Minnesota	10,246	12,301	4,364	1,981	1,549	
Mississippi	15,218	35,888	1,755	622	582	
Missouri	27,616	16,316	5,288	106	0	
Montana	4,579	-	140	1,462	-	
Nebraska	3,830	2,154	3,043	951	-	
Nevada	4,797	4,503	11,701	266	543	
New Hampshire	5,235	801	1,228	-	312	
New Jersey	12,377	14,348	26,403	-	2,473	
New Mexico	4,511	437	21,165	5,851	261	
New York	52,929	42,899	61,526	788	8,747	
North Carolina	28,893	43,592	23,497	1,043	409	
North Dakota	2,171	1,466	241	1,172	170	



NUMBER OF CHILDREN UNDER AGE 9 IN DEEP POVERTY							
State/National	White, non- Hispanic/Latino	Black, non- Hispanic/Latino	Hispanic/Latino	American Indian and Alaska Native	Asian		
Ohio	51,299	42,404	12,703	-	525		
Oklahoma	21,606	11,458	9,095	5,336	145		
Oregon	17,211	280	7,700	685	540		
Pennsylvania	43,103	22,463	26,787	-	1,845		
Rhode Island	3,168	1,155	4,692	-	361		
South Carolina	13,592	29,156	7,569	656	261		
South Dakota	2,486	-	1,444	5,323	-		
Tennessee	33,544	31,611	15,044	-	506		
Texas	47,757	66,344	214,626	122	2,076		
Utah	10,170	1,057	3,680	441	951		
Vermont	2,475	-	-	-	-		
Virginia	22,343	28,544	7,621	-	867		
Washington	16,784	4,775	17,066	873	2,143		
West Virginia	16,059	1,259	325	-	-		
Wisconsin	18,747	12,882	3,697	295	-		
Wyoming	2,905	-	1,477	149	-		

PERCENTAGE OF CHILDREN UNDER 9 IN DEEP POVERTY					
State/National	White, non- Hispanic/Latino	Black, non- Hispanic/Latino	Hispanic/Latino	American Indian and Alaska Native	Asian
National	5%	18%	11%	15%	3%
Alabama	7%	26%	14%	18%	-
Alaska	3%	-	-	12%	4%
Arizona	5%	9%	10%	22%	3%
Arkansas	7%	27%	14%	21%	-
California	4%	18%	9%	12%	3%
Colorado	3%	10%	8%	4%	4%
Connecticut	3%	11%	14%	35%	5%
Delaware	4%	12%	14%	-	4%
District of Columbia	0%	27%	10%	-	-
Florida	5%	15%	10%	10%	5%
Georgia	5%	14%	11%	30%	1%
Hawaii	7%	-	11%	-	1%
Idaho	5%	-	18%	14%	-
Illinois	4%	17%	8%	-	2%
Indiana	5%	21%	13%	26%	5%
lowa	5%	12%	9%	23%	9%
Kansas	3%	20%	11%	-	10%
Kentucky	10%	23%	13%	32%	-



PERCENTAGE OF CHILDREN UNDER 9 IN DEEP POVERTY						
State/National	White, non- Hispanic/Latino	Black, non- Hispanic/Latino	Hispanic/Latino	American Indian and Alaska Native	Asian	
Louisiana	6%	25%	8%	-	2%	
Maine	5%	5%	10%	27%	-	
Maryland	3%	8%	6%	-	6%	
Massachusetts	3%	7%	13%	-	2%	
Michigan	7%	25%	12%	7%	5%	
Minnesota	2%	17%	8%	25%	5%	
Mississippi	9%	27%	12%	47%	22%	
Missouri	6%	18%	13%	10%	0%	
Montana	5%	-	2%	14%	-	
Nebraska	2%	20%	7%	45%	-	
Nevada	4%	14%	9%	8%	4%	
New Hampshire	5%	34%	15%	-	7%	
New Jersey	3%	11%	10%	-	3%	
New Mexico	9%	15%	16%	27%	12%	
New York	6%	16%	12%	15%	6%	
North Carolina	5%	19%	13%	11%	1%	
North Dakota	3%	39%	6%	26%	10%	
Ohio	6%	25%	16%	-	2%	
Oklahoma	9%	31%	11%	12%	2%	
Oregon	7%	3%	8%	16%	3%	
Pennsylvania	5%	14%	17%	-	4%	
Rhode Island	6%	17%	16%	-	11%	
South Carolina	5%	19%	15%	43%	4%	
South Dakota	3%	-	21%	39%	-	
Tennessee	7%	24%	20%	-	5%	
Texas	4%	16%	12%	2%	1%	
Utah	3%	16%	5%	14%	18%	
Vermont	5%	-	-	-	-	
Virginia	5%	17%	6%	-	2%	
Washington	4%	13%	10%	9%	4%	
West Virginia	11%	22%	11%	-	-	
Wisconsin	4%	24%	5%	6%	-	
Wyoming	6%	-	17%	7%	-	

Source: NCCP analysis of ACS 1-Year Estimates - Public Use Microdata Sample 2018 Note: Data with small cell sizes were not displayed due to their unreliability.

Appendix C

DEFINITIONS OF OUTCOME VARIABLES

Child low birth weight (under 9 years)

A child was considered to have a low birth weight if his/ her birth weight was 5.5 lbs. or less.

Physical impairment (under 9 years)

Parents reported whether their child had an impairment or health problem that limited their child's ability to crawl, walk, run or play.

Intellectual disability and developmental delay (under 9 years)

Parents reported whether their child had been diagnosed with an intellectual disability or developmental delay by their doctor before.

Participation in early intervention and special education (under 9 years)

Parents reported whether their child received early intervention services (children 0 to 3) or special education (children 3 to 9).

Child behavior (ages 4 to 9)

Parents reported on the degree to which their child was well-behaved and did what was requested. The 3-point Likert response scale was: Not true (coded as 0), Somewhat true (coded as 1), and Certainly true (coded as 2).

Child uninsured rate (under 9 years)

Parents identified whether their child received no health insurance coverage of any type (i.e., private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (CHIP), a State-sponsored health plan, other government programs, or military health plan).

Child obesity (under 9 years)

Children were weighed and measured to determine their body mass index (BMI). Based on their BMI scores, children were placed into one of the four categories: underweight, normal weight, overweight, and obese.

Elevated blood lead levels (under 9 years)

A sample of each child's blood was taken and used to determine the child's blood lead level. The detection limit used by the CDC is 5 g/dL; lead content levels in the blood higher than the limit were coded as "elevated."

Parent overall mental health status

This outcome was a composite variable and combined parents' responses to the following questions:

During the past 30 days, how often did you feel 1) ...that everything was an effort?; 2) ...hopeless?; 3) ...nervous?; 4) ...restless/fidgety?; 5) ...so sad nothing cheers you up?; 6) ...worthless?

Parents' responses were on a 5-point Likert scale: None of the time (coded as 0), A little of the time (coded as 1), Some of the time (coded as 2), Most of the time (coded as 3), and All of the time (coded as 4).

Single parent status

Parents were asked to identify their family household structure. A parent was coded as "single" if s/he was one of the following scenarios:

- Mother and biological or non-biological child(ren) only
- Father and biological or non-biological child(ren) only
- All other single-adult and child(ren) families

Parent education attainment

Parents reported their highest level of education attainment in their families. Parental education levels included two groups:

- Less than high school
 - Less than/equal to 8th grade
 - 9-12th grade, no high school diploma
- High school and above
 - GED recipient
 - High school graduate
 - Some college, no degree
 - AA degree, technical or vocational
 - AA degree, academic program
 - Bachelor's degree (BA, BS, AB, BBA)
 - Master's, professional, or doctoral degree

Parent uninsured rate

Parents reported whether they had no health insurance coverage of any type (i.e., private health insurance, Medicare, Medicaid, a State-sponsored health plan, other government programs, or military health plan).

Parent unemployment

Parents reported their job status in the past week and past 12 months. Parents were coded as unemployed if they did not have any job last week and in the past 12 months.

Neighborhood support

Parents responded to the following question: How much do you agree that there are people you can count on in this neighborhood?

Responses were based on a 4-point Likert scale: Definitely disagree (coded as 1), Somewhat disagree (coded as 2), Somewhat agree (coded as 3), and Definitely agree (coded as 4).

REFERENCES

- 1 See the poverty thresholds for 2019 by size of family and number of related children under 18 years issued by U.S. Census Bureau.
- Trading Economics. (2020, September 21). United States 2 unemployment rate. https://tradingeconomics.com/united-states/ unemployment-rate
- 3 Floyd, I. (2020, March 4). Boost TANF to reduce deep poverty among children. Center on Budget and Policy Priorities. https://www.cbpp.org/blog/boost-tanf-to-reduce-deep-povertyamong-children.
- Wheaton, L., & Tran, V. (2018). The antipoverty effects of SNAP. 4 Urban Institute. https://www.urban.org/research/publication/ antipoverty-effects-supplemental-nutrition-assistance-program.
- Waxman, E., Gundersen, C., & Thompson, M. (2018). How far do 5 SNAP benefits fall short of covering the cost of a meal? Urban Institute. https://www.urban.org/research/publication/how-far-do-snapbenefits-fall-short-covering-cost-meal.
- Rice, D., Schmit, S., & Matthews, H. (2019). Child care and housing: 6 Big expenses with too little help available. Center on Budget and Policy Priorities. https://www.cbpp.org/research/housing/childcare-and-housing-big-expenses-with-too-little-help-available

Wheaton, L., & Tran, V. (2018). The antipoverty effects of SNAP. Urban Institute. https://www.urban.org/sites/default/ files/2018/02/14/the_antipoverty_effects_of_snap.pdf

National Center for Children in Poverty. (2020, September 15). United States Early Childhood Profile. https://www.nccp.org/ ecprofile/?state=US

- 7 National Academies of Sciences, Engineering, and Medicine. (2019). A roadmap to reducing child poverty. The National Academies Press. https://doi.org/10.17226/25246
- Duncan, G. J., Ziol-Guest, K. M., & Kalil, A. (2010). Early-childhood 8 poverty and adult attainment, behavior, and health. Child Development, 81(1), 306-325. https://doi.org/10.1111/j.1467-8624.2009.01396.x

Edmunds, C. (2020). Academic failure and the role of early life course economic deprivation. Children and Youth Services Review, 108, 104528. https://doi.org/10.1016/j.childyouth.2019.104528

- 9 Blair, C., & Raver, C. C. (2016). Poverty, stress, and brain development: New directions for prevention and intervention. Academic Pediatrics, 16(3), S30-S36. https://doi.org/10.1016/j. acap.2016.01.010
- 10 National Academies of Sciences, Engineering, and Medicine. (2019). A roadmap to reducing child poverty. The National Academies Press. https://doi.org/10.17226/25246
- Ekono, M., Yang, J., & Smith, S. (2016). Young children in deep 11 poverty. New York: National Center for Children in Poverty, Mailman School of Public Health, Columbia University. https://www.nccp. org/wp-content/uploads/2016/01/text_1133.pdf
- 12 U.S. Census Bureau. (2019). 2018 American Community Survey 1-year Public Use Microdata Samples. https://data.census.gov/ cedsci/

Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). (2020). 2015-2018 National Health and Nutrition Examination Survey (NHANES) Data. U.S. Department of Health and Human Services. https://wwwn.cdc.gov/ nchs/nhanes/default.aspx

Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). (2020). 2017-2018 National Health Interview Survey (NHIS) Data. U.S. Department of Health and Human Services. https://www.cdc.gov/nchs/nhis/about_nhis.htm

13 National Health and Nutrition Examination Survey. (2018). NHANES: Analytic guidelines, 2011-2014 and 2015-2016. https://wwwn.cdc.gov/nchs/data/nhanes/analyticguidelines/11-16analytic-guidelines.pdf

National Health Interview Survey. (n.d.). User note-Sampling weights. https://nhis.ipums.org/nhis/userNotes_weights.shtml

- Sperandei, S. (2014). Understanding logistic regression analysis. 14 Biochemia Medica, 24(1), 12-18. https://doi.org/10.11613/ BM.2014.003
- Reyes, L., & Mañalich, R. (2005). Long-term consequences of low 15 birth weight. Kidney International, (97), S107-S111. https://doi. org/10.1111/j.1523-1755.2005.09718.x

Negrato, C. A., & Gomes, M. B. (2013). Low birth weight: Causes and consequences. Diabetology & Metabolic Syndrome, 5. https://doi. org/10.1186/1758-5996-5-49

Lowe, J., Erickson, S. J., MacLean, P., Duvall, S. W., Ohls, R. K., & Duncan, A. F. (2014). Associations between maternal scaffolding and executive functioning in 3 and 4 year olds born very low birth weight and normal birth weight. Early Human Development. 90(10). 587-593. https://doi.org/10.1016/j.earlhumdev.2014.07.009

Schieve, L. A., Tian, L. H., Rankin, K., Kogan, M. D., Yeargin-Allsopp, M., Visser, S., & Rosenberg, D. (2016). Population impact of preterm birth and low birth weight on developmental disabilities in US children. Annals of Epidemiology, 26(4), 267-274. https://doi. org/10.1016/j.annepidem.2016.02.012

- Palisano, R. J., Chiarello, L. A., King, G. A., Novak, I., Stoner, T., 16 & Fiss, A. (2012). Participation-based therapy for children with physical disabilities. Disability and Rehabilitation, 34(12), 1041-1052. https://doi.org/10.3109/09638288.2011.628740
- 17 Larney, R. (2002). The relationship between early language delay and later difficulties in literacy. Early Child Development and Care, 172(2), 183-193.

Garon-Carrier, G., Boivin, M., Lemelin, J. P., Kovas, Y., Parent, S., Séguin, J. R., ... & Dionne, G. (2018). Early developmental trajectories of number knowledge and math achievement from 4 to 10 years: Low-persistent profile and early-life predictors. Journal of School Psychology, 68, 84-98. https://doi.org/10.1016/j. jsp.2018.02.004

Piek, J. P., Dawson, L., Smith, L. M., & Gasson, N. (2008). The role of early fine and gross motor development on later motor and cognitive ability. Human Movement Science, 27(5), 668-681. https://doi.org/10.1016/j.humov.2007.11.002

18 Mäntymaa, M., Puura, K., Luoma, I., Vihtonen, V., Salmelin, R. K., & Tamminen, T. (2009). Child's behaviour in mother-child interaction predicts later emotional and behavioural problems. Infant and Child Development: An International Journal of Research and Practice, 18(5), 455-467. https://doi.org/10.1002/icd.633

Bornstein, M. H., Hahn, C. S., & Haynes, O. M. (2010). Social competence, externalizing, and internalizing behavioral adjustment from early childhood through early adolescence: Developmental cascades. Development and Psychopathology, 22(4), 717. http://doi.org/10.1017/S0954579410000416

19 Cohodes, S.R., Grossman, D.S., Kleiner, S.A., & Lovenheim, M.F. (2016). The effect of child health insurance access on schooling: Evidence from public insurance expansions. *Journal* of Human Resources, 51(3), 727-759. https://www.muse.jhu.edu/ article/629236

Stella, M. Y., Bellamy, H. A., Kogan, M. D., Dunbar, J. L., Schwalberg, R. H., & Schuster, M. A. (2002). Factors that influence receipt of recommended preventive pediatric health and dental care. *Pediatrics*, 110(6), e73-e73.

Flores, G., Lin, H., Walker, C., Lee, M., Currie, J. M., Allgeyer, R., ... & Massey, K. (2017). The health and healthcare impact of providing insurance coverage to uninsured children: A prospective observational study. *BMC public health*, 17(1), 553.

20 Pulgarón, E. R. (2013). Childhood obesity: A review of increased risk for physical and psychological comorbidities. *Clinical Therapeutics*, 35(1), A18–A32. https://doi.org/10.1016/j.clinthera.2012.12.014

Cote, A. T., Harris, K. C., Panagiotopoulos, C., Sandor, G. G., & Devlin, A. M. (2013). Childhood obesity and cardiovascular dysfunction. *Journal of the American College of Cardiology*, *62*(15), 1309–1319. https://doi.org/10.1016/j.jacc.2013.07.042

 Jusko, T. A., Henderson, C. R., Lanphear, B. P., Cory-Slechta, D. A., Parsons, P. J., & Canfield, R. L. (2008). Blood lead concentrations
 10 μg/dL and child intelligence at 6 years of age. *Environmental Health Perspectives*, 116(2), 243–248. https://doi.org/10.1289/ ehp.10424

Muennig, P. (2009). The social costs of childhood lead exposure in the post-lead regulation era. *Archives of Pediatrics & Adolescent Medicine*, 163(9), 844-849. https://doi.org/10.7916/D8XG9RJX

22 Dahlen, H. M. (2016). The impact of maternal depression on child academic and socioemotional outcomes. *Economics* of *Education Review*, 52, 77-90. https://doi.org/10.1016/j. econedurev.2016.01.006

Fitzsimons, E., Goodman, A., Kelly, E., & Smith, J. P. (2017). Poverty dynamics and parental mental health: Determinants of childhood mental health in the UK. *Social Science & Medicine*, 175, 43-51. https://doi.org/10.1016/j.socscimed.2016.12.040

- 23 Davis-Kean, P. E. (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(2), 294.
- 24 Venkataramani, M., Pollack, C. E., & Roberts, E. T. (2017). Spillover effects of adult Medicaid expansions on children's use of preventive services. *Pediatrics*, 140(6). https://doi.org/10.1542/peds.2017-0953

Committee on the Consequences of Uninsurance, Institute of Medicine. (2002). *Health insurance is a family matter*. The National Academy Press. https://doi.org/10.17226/10503

- 25 Institute for Work and Health. (2009). *Unemployment and mental health*. https://www.iwh.on.ca/sites/iwh/files/iwh/reports/iwh_ issue_briefing_mental_health_2009.pdf
- 26 Sommer, T. E., Sabol, T. J., Chor, E., Schneider, W., Chase-Lansdale, P. L., Brooks-Gunn, J., ... & Yoshikawa, H. (2018). A two-generation human capital approach to anti-poverty policy. RSF: The Russell Sage Foundation Journal of the Social Sciences, 4(3), 118-143. https://doi. org/10.7758/rsf.2018.4.3.07

- 27 National Academies of Sciences, Engineering, and Medicine. (2019). *A roadmap to reducing child poverty*. The National Academies Press. https://doi.org/10.17226/25246
- 28 Trisi, D., & Saenz, M. (2020). Policy brief: Deep poverty among children rose in TANF's first decade, then fell as other programs strengthened. Center on Budget and Policy Priorities. https://www. cbpp.org/sites/default/files/atoms/files/2-27-20pov2.pdf
- 29 Kaiser Family Foundation. (2020, August 17). *Status of state Medicaid expansion decisions: Interactive map.* https://www.kff. org/medicaid/issue-brief/status-of-state-medicaid-expansiondecisions-interactive-map/

Abbott, M., & Reilly, A. (2019). *The role of social capital in supporting economic mobility*. Office of the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services. https://aspe.hhs.gov/system/files/aspe-files/261791/socialcapitalsupportingeconomicmobility.pdf

- 30 Novoa, C. (2020). Ensuring healthy births through prenatal support: Innovations from three models. Center for American Progress. https://cdn.americanprogress.org/content/ uploads/2020/01/30074701/Prenatal-Support-Models-1. pdf?_ga=2.136667191.644537461.1600374499-1524745188.1600374499
- 31 Health Resources and Services Administration. (2020). The Maternal, Infant, and Early Childhood Home Visiting Program: Partnering with parents to help children succeed. https://mchb.hrsa. gov/sites/default/files/mchb/MaternalChildHealthInitiatives/ HomeVisiting/pdf/programbrief.pdf
- 32 For information on Child First and its impacts, see https://www.childfirst.org/about-us
- 33 Reid, J. L., & Ready, D. D. (2013). High-quality preschool: The socioeconomic composition of preschool classrooms and children's learning. *Early Education & Development*, 24(8), 1082-1111. https:// doi.org/10.1080/10409289.2012.757519
- 34 Chase-Lansdale, P. L., & Brooks-Gunn, J. (2014). Two-generation programs in the twenty-first century. The Future of Children, 13-39.
- 35 Sommer, T. E., Sabol, T. J., Chor, E., Schneider, W., Chase-Lansdale, P. L., Brooks-Gunn, J., ... & Yoshikawa, H. (2018). A two-generation human capital approach to anti-poverty policy. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 4(3), 118-143. https://doi.org/10.7758/rsf.2018.4.3.07
- 36 Aguiar, A. L., & Aguiar, C. (2020). Classroom composition and quality in early childhood education: A systematic review. *Children* and Youth Services Review, 115, 105086. https://doi.org/10.1016/j. childyouth.2020.105086

Lee, K. (2019). Impact of Head Start quality on children's developmental outcomes. *Social Work in Public Health*, 34(3), 239-250. https://doi.org/10.1080/19371918.2019.1576566

37 McDaniel, M., Woods, T., Pratt, E., & Simms, M. (2017). Identifying racial and ethnic disparities in the human services: A conceptual framework and literature review. Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. https://www.acf. hhs.gov/sites/default/files/opre/identifying_racial_and_ethnic_ disparities_b508.pdf