

Tel: 202-408-1080 Fax: 202-408-1056

center@cbpp.org www.cbpp.org



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Recovery Proposals Adopt Proven Approaches to Reducing Poverty, Increasing Social Mobility

By Arloc Sherman, Ali Safawi, Zoë Neuberger, and Will Fischer

Congress is crafting recovery legislation that has the potential to significantly reduce poverty, broaden opportunity, and increase racial equity in the United States. Based in large part on President Biden's American Families Plan unveiled earlier this year, the investments under consideration would make a substantial difference in the lives of children and youth, a large body of research shows.

Even after government assistance, 1 in 8 children live in families with incomes below the poverty line¹ — significantly more than in other countries of comparable wealth. There are wide racial and ethnic disparities in poverty among children, with fully 21 percent of Black children, 20 percent of Latino children, and 14 percent of Asian children living in families with incomes below the poverty line, compared to just 8 percent of white children. Poverty rates are also high for American Indian and Alaska Native children.² There is also less upward economic mobility in the United States than in Canada, Denmark, or the United Kingdom, research by noted economist Raj Chetty has shown, with mobility particularly low among Black individuals.³

The major planks of recovery legislation being considered would build out at national scale programs and policies with substantial track records and a strong base of evidence in the United States and abroad. Multiple studies demonstrate significant benefits for children and young people from investments in child tax credits, rental assistance, child nutrition, quality child care and preschool, higher education, and paid leave. Children of color, who are more likely to experience economic insecurity and lower-quality schooling, would especially benefit from these investments.

¹ Liana Fox, "The Supplemental Poverty Measure: 2019," U.S. Census Bureau, September 2020, https://www.census.gov/content/dam/Census/library/publications/2020/demo/p60-272.pdf.

² For additional details on data by race and ethnicity, see Appendix.

³ Raj Chetty, "Improving Opportunities for Economic Mobility: New Evidence and Policy Lessons," Federal Reserve Bank of St. Louis, 2016,

https://www.stlouisfed.org/~/media/files/pdfs/community%20development/econmobilitypapers/section1/econmobility_1-1chetty_508.pdf; Raj Chetty et al., "Race and Economic Opportunity in the United States: An Intergenerational Perspective," December 26, 2019, https://academic.oup.com/qje/article/135/2/711/5687353.

Studies' positive findings include:

- When children grew up in a household receiving additional cash benefits, their academic achievement increased on a lasting basis.
- When families with low incomes received rental assistance, they were less likely than unassisted families to experience homelessness, housing instability, or overcrowding problems linked to far-reaching harmful effects on families and children.
- When elementary and middle school students received access to free school lunches, their academic performance improved.
- When children had access to quality pre-kindergarten at age 4, they were likelier to enter college on time.
- Assistance paying for quality child care can help families make ends meet and increase parental employment rates while also improving children's behavioral and academic outcomes.
- When high school students were guaranteed grants to pay for community college, they were likelier to complete community college.
- When low-income college students received additional grants, they were likelier to persist in and complete college an effect substantially strengthened when grant aid was combined with additional supports.
- When parents had access to paid family leave, rates of early births and low birthweights declined.

The rich evidence summarized in this paper offers a valuable window into the potential impact of recovery legislation that includes robust investments in children and families. Like all research, the studies cited here have limitations. Evaluations showing an effect in one population, community, or historical period do not always generalize to others. For example, some proposals being considered offer benefits to higher-income individuals than past programs that have been evaluated. As the nation changes, the results of various interventions may change as well. And the quality of implementation matters a great deal, particularly in complex education and child care programs. Even with these limitations, the evidence suggests that key recovery proposals would substantially increase economic mobility and reduce poverty for families in the United States.

Research Can Show How Policies Change Lives

Social scientists consider some types of research more persuasive than others. The most compelling evidence of causal effects comes from evaluations that are experimental in design, so that individuals (or sometimes larger units, like schools) are randomly assigned to receive an intervention or not. Where those receiving the intervention experience different outcomes, researchers can generally be confident that the intervention was the cause.

But major policy changes often can't be studied through such a design, and effects achieved in carefully controlled evaluations may not be easy to replicate across populations. Another way to measure likely program impacts is to rely on already occurring, well-defined variations in the policy environment — for example, the new implementation of a broad policy, or cutoffs in eligibility — that cause some individuals to receive an intervention and some not to. With analysis, researchers may be able to isolate interventions' effects, though this often can't be done as neatly as in an experiment.

Some studies only observe correlations (for example, that people who get a benefit are better off than those who do not) but leave unclear *why* the correlations occur (for example, perhaps people who were better off were more able to access the benefit). These kinds of studies can provide suggestive evidence, but they should be considered with care.

Some of the most compelling research on long-term impacts tracks children over a decade or more. However, it is also possible to infer long-term impacts from short-term results. For example, studies comparing siblings have documented that children with lower birthweights experience poorer long-term outcomes, including for education, employment, and health.^b This means that if an intervention reduces low birthweight but was not able to track children for long periods, one can infer that the intervention is likely to have a positive impact on children's well-being over the longer run. Researchers have also found a connection between middle-grade academic achievement and subsequent earnings, again providing a good basis for supporting interventions that improve middle-grade academic achievement, even if those interventions have not been studied long enough to determine definitively the long-term impacts on children.^c

^a For more on what makes a strong public policy study, see National Research Council, "Using Science as Evidence in Public Policy," National Academies Press, 2012, https://www.nap.edu/read/13460/chapter/9#96; See also National Academies of Sciences, Engineering, and Medicine, "Consequences of Child Poverty," A Roadmap to Reducing Child Poverty, National Academies Press, 2019.

b David Figlio et al., "The Effects of Poor Neonatal Health on Children's Cognitive Development," American Economic Review, Vol. 104, No. 12, December 2014, https://www.aeaweb.org/articles?id=10.1257/aer.104.12.3921. See also Rucker C. Johnson and Robert F. Schoeni, "The Influence of Early-Life Events on Human Capital, Health Status, and Labor Market Outcomes Over the Life Course," February 2007, http://npc.umich.edu/publications/u/working_paper05-07.pdf; and Rucker C. Johnson and Robert F. Schoeni, "Early-Life Origins of Adult Disease: National Longitudinal Population-Based Study of the United States," American Journal of Public Health, Vol. 101, No. 12, December 2011, https://gsppi.berkeley.edu/~ruckerj/johnson_schoeni_finalpub_AJPH.pdf.

^c Raj Chetty, John N. Friedman, and Jonah Rockoff, "New Evidence on the Long-Term Impacts of Tax Credits," Internal Revenue Service, November 2011, https://www.irs.gov/pub/irs-soi/11rpchettyfriedmanrockoff.pdf.

Child Tax Credit

Children who experience poverty in childhood have lower levels of educational attainment, lower earnings, higher likelihood of being arrested, and poorer health in adulthood, a 2019 National Academies of Science, Engineering, and Medicine report on reducing child poverty found. The report concluded that "the weight of the causal evidence indicates that income poverty itself causes

negative child outcomes, especially when it begins in early childhood and/or persists throughout a large share of a child's life."⁴

Effective policies can reduce poverty's harm to children. The National Academies report, which examined ten policy options, found that a child allowance, similar to the expanded Child Tax Credit enacted on a temporary basis in the American Rescue Plan Act that was passed in March — and which President Biden and many members of Congress have called for extending in recovery legislation — would be the single most effective policy for reducing child poverty.⁵

The expanded Child Tax Credit both increases the *amount* of the Child Tax Credit and makes the full credit available to poor and low-income children, without imposing an income test or phasing out the credit until families reach high incomes. The provision that makes the full credit available to low- and no-income families (sometimes referred to as "full refundability") is key; without this provision, the prior credit provided a partial credit or no credit at all to 27 million children, disproportionately children of color, because their families' incomes are too low.

The temporary Child Tax Credit expansion now in place is estimated to cut child poverty by more than 40 percent.⁶ Black and Latino children, whom the prior version of the credit disproportionately left out or left behind, would particularly benefit.⁷ Child allowances implemented over the past three decades in Canada and the United Kingdom achieved reductions in child poverty on a similar scale.⁸ Ten leading anti-poverty experts have endorsed an expanded Child Tax Credit for its significant impact on child poverty and potential for positive long-term impacts.⁹

A substantial body of research finds that children perform better academically when their parents receive income supports. For example, studies of a number of 1990s random assignment anti-poverty and "welfare-to-work" experiments in the United States and Canada by economist Greg Duncan and colleagues found that each \$1,000 increase in annual family income between the ages of 2 and 5 led to a significant increase in student academic achievement. ¹⁰ (See Figure 1.)

⁴ National Academies of Sciences, Engineering, and Medicine, A Roadmap to Reducing Child Poverty, The National Academies Press, 2019.

⁵ National Academies of Sciences, Engineering, and Medicine, "Ten Policy and Program Approaches to Reducing Child Poverty," A Roadmap to Reducing Child Poverty, The National Academies Press, 2019.

⁶ Chuck Marr *et al.*, "Congress Should Adopt American Families Plan's Permanent Expansions of Child Tax Credit and EITC, Make Additional Provisions Permanent," CBPP, May 24, 2021, https://www.cbpp.org/research/federal-tax/congress-should-adopt-american-families-plans-permanent-expansions-of-child.

⁷ Ibid.

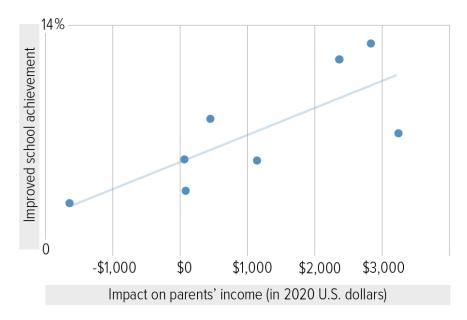
⁸ H. Luke Shaefer and Kathryn J. Edin, "A Simple Approach to Ending Extreme Poverty," *Atlantic*, June 2021, https://www.theatlantic.com/magazine/archive/2021/06/how-to-end-extreme-child-poverty/618720/.

⁹ H. Luke Shaefer *et al.*, "A Universal Child Allowance: A Plan to Reduce Poverty and Income Instability Among Children in the United States," *RSF: The Russell Sage Foundation Journal of the Social Sciences*, Vol. 4, No. 2, 2018, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6145823/.

¹⁰ Greg J. Duncan, Pamela A. Morris, and Chris Rodrigues, "Does money really matter? Estimating impacts of family income on children's achievement with data from random-assignment experiments," MDRC, April 2004; Greg J. Duncan, Pamela A. Morris, and Chris Rodrigues, "Does money really matter? Estimating impacts of family income on young children's achievement with data from random-assignment experiments," *Developmental Psychology*, Vol. 47, No. 5, 2011, https://pubmed.ncbi.nlm.nih.gov/21688900/.

The More Programs Raised Parents' Income (When Children Were Ages 2 to 5), The More They Tended to Lift Children's Later Achievement in School

Among 8 anti-poverty and welfare-to-work pilot programs



Note: The diagonal line shows the average relationship between the eight programs' impacts on family income and on young children's school achievement. For each \$1,000 added to average family income, programs tended to raise achievement by 6 percent of a standardized measure of academic achievement.

Source: Pamela Morris, Greg J. Duncan, Christopher Rodrigues, "Does Money Really Matter? Estimating Impacts of Family Income on Children's Achievement with Data from Random-Assignment Experiments," (MDRC, April 2004), as cited in Morris, Gennetian and Duncan (2005).

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Similarly, a study of province-level differences in the generosity of Canada's previous child tax benefit (which was replaced by a new child benefit in 2016) found that larger benefits led to an improvement in children's test scores that persisted for at least four years after the benefit was received. Another study, examining the effects of a casino dividend limited to members of the Eastern Band of Cherokee Indians in western North Carolina, found that an average of \$4,000 in increased income for the poorest households resulted in an additional year of schooling by the time

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¹¹ Kevin Milligan and Mark Stabile, "Do Child Tax Benefits Affect the Well-Being of Children? Evidence from Canadian Child Benefit Expansions," *American Economic Journal: Economic Policy*, Vol. 3, No. 3, August 2011, https://www.aeaweb.org/articles?id=10.1257/pol.3.3.175.

the children in the households had turned 21, as well as a 22 percent reduction in minor crimes committed in adolescence. 12

Examining linkages between test scores and subsequent outcomes, Raj Chetty and colleagues likewise find that a \$1,000 income increase through the Earned Income Tax Credit (EITC) led to higher reading and math scores that would be expected to lead to a 0.5 percent increase in expected adult earnings. The authors further state that "the dollar gains in lifetime earnings are of the same order of magnitude as the cost of the tax credit."¹³

There is also solid evidence that increased cash or near-cash supports for families improves health

outcomes, even years into adulthood. One study examined how changes in eligibility for food stamps, a flexible near-cash benefit, for legal immigrant adults in the 1990s and early 2000s may have affected their children's health. For every \$1,000 in food stamp benefits, the study found, the likelihood of less-than-very-good health declined by 15 percent. 14 Another study that examined differences across counties in the initial rollout of the food stamp program in the 1960 and 1970s found that as the program gradually expanded nationwide, disadvantaged children born in counties with access to food stamps had better health outcomes as adults including lower rates of heart disease, diabetes, and obesity — and that women who had participated in the program as children had higher levels of economic self-sufficiency.¹⁵

Unlike some child allowance programs, the American Rescue Plan's expansion of the Child Tax Credit would reach middle-class children, who may gain less from increased income. However, even accounting for the Child Tax Credit's broad reach, a literature review by Irwin Garfinkel and colleagues at Columbia University

FIGURE 2

Child Tax Credit Expansion Would Provide Large Gains for Children and Society



Lower neo-natal mortality



Greater health and longevity for children and parents



Higher future earnings of child beneficiaries



Lower costs of protecting children from abuse & neglect



Greater safety from reductions in crime



Increased future tax payments by child beneficiaries



Reduced expenditures on children's and parents' health care costs

Source: Irwin Garfinkel et al., "The Costs and Benefits of a Child Allowance," Center on Poverty and Social Policy at Columbia University, 2021

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¹² Randall K. Q. Akee *et al.*, "Parents' Income and Children's Outcomes: A Quasi-Experiment," *American Economic Journal: Applied Economics*, Vol. 2, No. 1, January 2010, https://pubmed.ncbi.nlm.nih.gov/20582231/.

¹³ Raj Chetty, John N. Friedman, and Jonah Rockoff, "New Evidence on the Long-Term Impacts of Tax Credits," Internal Revenue Service, November 2011, https://www.irs.gov/pub/irs-soi/11rpchettyfriedmanrockoff.pdf.

¹⁴ Chloe N. East, "The Effect of Food Stamps on Children's Health: Evidence from Immigrants' Changing Eligibility," University of Colorado Denver, September 2, 2016, http://www.chloeneast.com/uploads/8/9/9/7/8997263/east_imp.pdf.

¹⁵ Hilary Hoynes, Diana Whitmore Schanzenbach, and Douglas Almond, "Long-Run Impacts of Childhood Access to the Safety Net," *American Economic Review*, Vol. 106, No. 4, April 2016, https://www.aeaweb.org/articles?id=10.1257/aer.20130375.

and Barnard College finds that the societal benefits of the Child Tax Credit outweigh its costs by a ratio of 8 to 1 — primarily a reflection of the credit's economic and health benefits to future generations. ¹⁶ (See Figure 2.)

Some have argued that expanding the Child Tax Credit — and, in particular, making the full credit available to children in families with the lowest incomes, including those without earnings in a particular year — will reduce levels of parental work, thereby undermining the goals of the Child Tax Credit expansion. However, the work effects of the Child Tax Credit expansion will be at most modest, while the long-term gains for children from increased income will be substantial, evidence suggests. Because of a high-income eligibility cutoff in the expanded credit, a substantial majority of workers will face no reduction in the Child Tax Credit as their wages increase. A study of the recent expansion of Canada's child benefit, which phases out at a lower income, found no impacts on mothers' employment or work hours. ¹⁷ And 99.5 percent of all employed people in low- and moderate-income families with children would continue to work after the implementation of a \$3,000-per-child allowance, and more than four-fifths would not reduce their work hours at all, the National Academies estimates. ¹⁸

Rental Assistance

Nearly 8 million children in low-income families face housing affordability challenges, and more than 1.3 million schoolchildren experienced homelessness at some point during the 2018-2019 school year. Homelessness is associated with a broad range of negative outcomes for children.¹⁹

A long history of discrimination in housing, employment, and more has contributed to Black people and other people of color being likelier to rent their homes, pay more than half of their

¹⁶ Irwin Garfinkel *et al.*, "The Costs and Benefits of a Child Allowance," Center on Poverty and Social Policy (CSSP) at Columbia University, Vol. 5, No. 1, February 18, 2021, https://static1.squarespace.com/static/5743308460b5e922a25a6dc7/t/602ec9c7ddddd01cd29430e1/1613679049611/Child-Allowance-CBA-brief-CPSP-2021.pdf.

¹⁷ Michael Baker, Derek Messacar, and Mark Stabile, "The Effects of Child Tax Benefits on Poverty and Labor Supply: Evidence from the Canada Child Benefit and Universal Child Care Benefit," National Bureau of Economic Research (NBER), Working Paper 28556, March 2021, https://www.nber.org/papers/w28556.

¹⁸ The NAS report estimates that 25.49 million people in families below 200 percent of the Supplemental Poverty Measure would be employed after the enactment of a \$3,000-per-child allowance. That compares to 25.61 million people employed in such families under existing policy. The NAS report estimates that 4.55 million people in families below 200 percent of the Supplemental Poverty Measure would opt to work fewer hours, thereby decreasing their earnings. For these figures, see "CA Main Sheet" tab in Appendix E: TRIM3 Summary Tables found here: https://www.nap.edu/catalog/25246/a-roadmap-to-reducing-child-poverty#resources. Below 200 percent of the Supplemental Poverty Measure is roughly equivalent to the lower half of the disposable income distribution. See Danilo Trisi and Ife Floyd, "Benefits of Expanding Child Tax Credit Outweigh Small Employment Effects," CBPP, March 1, 2021, https://www.cbpp.org/research/federal-tax/benefits-of-expanding-child-tax-credit-outweigh-small-employment-effects# ftn16.

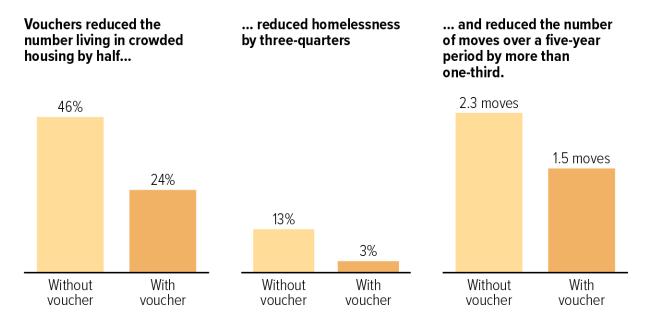
¹⁹ Will Fischer, "Research Shows Housing Vouchers Reduce Hardship and Provide Platform for Long-Term Gains Among Children," CBPP, updated October 7, 2015, https://www.cbpp.org/research/housing/research-shows-housing-vouchers-reduce-hardship-and-provide-platform-for-long-term.

incomes on rent, and experience homelessness.²⁰ More than half (53 percent) of all families with children experiencing homelessness on a single night in January 2020 were Black.

Rental assistance markedly reduces homelessness, housing instability, or overcrowding, a number of rigorous studies have found. One six-city study, which compared families randomly selected to receive vouchers with similar families in a control group that did not use vouchers, found that vouchers reduced the share of families living in shelters or on the street by three-fourths, reduced the share of families without a home of their own — a broader group that includes those doubled up with friends and family in addition to those in shelters or on the street — by 80 percent, reduced the share of families living in overcrowded conditions by more than half, and reduced the average number of times that families moved over five years by close to 40 percent. ²¹ (See Figure 3.)

FIGURE 3

Housing Choice Vouchers Sharply Reduced Crowded Housing, Homelessness, and Frequent Moves, Study Shows



Note: The chart compares the housing status of low-income families in six U.S. cities who were randomly selected to receive a voucher and used it for at least part of the previous year to families in a control group who did not use vouchers. Families experiencing "crowded housing" were living in housing that has less than one room per household member. Number of moves reflects the average moves over a 4.5- to 5-year period since random assignment.

Source: Michelle Wood, Jennifer Turnham, and Gregory Mills, "Housing Affordability and Family Well-Being: Results from the Housing Voucher Evaluation," Housing Policy Debate, 2008.

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²⁰ Danilo Trisi *et al.*, "Recovery Legislation Provides Historic Opportunity to Advance Racial Equity," CBPP, June 2, 2021, https://www.cbpp.org/research/poverty-and-inequality/recovery-legislation-provides-historic-opportunity-to-advance.

²¹ Michelle Wood, Jennifer Turnham, and Gregory Mills, "Housing Affordability and Family Well-Being: Results from the Housing Voucher Evaluation," *Housing Policy Debate*, Vol. 19, No. 2, 2009, https://www.tandfonline.com/doi/abs/10.1080/10511482.2008.9521639.

A second multi-site evaluation, which compared homeless families with children that were given rental assistance to enable them to rent housing to families randomly assigned to other anti-homelessness interventions (such as transitional housing or short-term rapid rehousing assistance) and families not receiving housing assistance, found that rental assistance reduced homelessness, overcrowding, and instability far more effectively than the other interventions.²²

This evaluation also found that the benefits of rental assistance extended well beyond providing stable, adequate housing. Children in homeless families given rental assistance experienced fewer behavioral problems. Homeless families given rental assistance were also less than half as likely as unassisted families to have a child placed in foster care (which often occurs when parents cannot afford suitable housing) in the period shortly after receiving rental assistance. In addition, rental assistance reduced the frequency with which children changed schools, and lowered rates of domestic violence and psychological distress among the adults with whom children lived.²³

Rigorous, longer-term research on vouchers has been limited. One study found that vouchers issued to families in Chicago had no significant effect on several measures of child well-being over a 14-year period. However, there were particular conditions in Chicago that may not make that finding applicable elsewhere. Follow-up research has not yet been conducted to assess long-term effects in the multi-site controlled evaluations described above that found rental assistance caused very large reductions in homelessness, crowding, and housing instability among families with children and positively affected other child outcomes. These short- and medium-term effects would be expected to yield improvements in long-term outcomes for children.

Rental assistance can have powerful additional benefits for children when it enables their families to move to neighborhoods with less poverty and crime and better-performing schools. A groundbreaking 2015 paper by Raj Chetty and colleagues using data from a rigorous long-term study (the Moving to Opportunity demonstration) found that young children (those 13 and under) whose families received a voucher that could only be used to move to low-poverty neighborhoods had

Daniel Gubits *et al.*, "Family Options Study: Short-Term Impacts of Housing and Services Interventions for Homeless Families," prepared for Department of Housing and Urban Development Office of Policy Development and Research, July 2015, http://www.huduser.org/portal/sites/default/files/pdf/FamilyOptionsStudy_final.pdf.

²³ Daniel Gubits *et al.*, "Family Options Study: 3-Year Impacts of Housing and Services Interventions for Homeless Families," prepared for Department of Housing and Urban Development, October 2016, https://www.huduser.gov/portal/sites/default/files/pdf/Family-Options-Study-Full-Report.pdf.

²⁴ Brian Jacob, Max Kapustin, and Jens Ludwig, "Human Capital Effects of Anti-Poverty Programs: Evidence from a Randomized Housing Voucher Lottery," NBER Working Paper 20164, May 2014, http://www.nber.org/papers/w20164.

²⁵ The study uses an experimental design and has a large sample size, making the findings highly reliable for the population it studies, but it only assesses families issued vouchers in 1997-98 and 2000-03 in Chicago. Chicago had a far greater degree of racial segregation and a far higher share of vouchers concentrated in high-poverty areas than was (or is) typical nationally. Moreover, the city at that time was undertaking the nation's largest public housing transformation — a process that resulted in many public housing residents being displaced, issued vouchers, and placed in competition with other voucher holders for apartments, and may have made it harder for families to use their vouchers in stable, well-located housing of adequate quality that they could rent with their vouchers. These conditions may have muted vouchers' positive effects, making it unclear whether the study's findings can be generalized to voucher holders in other places and times.

substantially higher rates of college attendance and adult earnings, and lower rates of single parenthood, than similar children whose families stayed in high-poverty neighborhoods.²⁶

Young children whose families received either a Moving to Opportunity or traditional housing voucher were also more likely to attend a quality college (defined as one whose graduates tended to have higher earnings).²⁷ The increases in adult earnings and college quality were experienced by young Black, Hispanic, and white children alike. Another study of Moving to Opportunity participants, comparing those who received a traditional housing voucher to those who did not, found that having a voucher was significantly associated with reduced rates of hospitalization and inpatient health care spending among children.²⁸

Similar to Chetty's findings, another study found that low-income children whose families were randomly assigned to public housing in low-poverty neighborhoods and who attended low-poverty elementary schools made large gains in reading and math scores over seven years, compared with similar students living in public housing in higher-poverty neighborhoods. This improvement closed half of the achievement gap between those students and non-poor students in the district in math and one-third of the gap in reading — large gains in comparison to other successful educational interventions.²⁹

While the Biden Administration's recovery agenda does not include significant rental assistance, many in Congress are considering including an expansion in rental assistance in recovery legislation. ³⁰ The evidence described above indicates that they should prioritize doing so, since providing more rental assistance — and especially more vouchers — would have major, far-reaching benefits for people with low incomes and especially for children in families that struggle to afford housing.

Child Nutrition

The Biden Administration proposes bringing free meals to all students in more schools in lower-income communities through an expansion of the Community Eligibility Provision in the National

²⁶ Raj Chetty, Nathaniel Hendren, and Lawrence Katz, "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Project," *American Economic Review*, Vol. 106, No. 4, 2016, https://scholar.harvard.edu/hendren/publications/effects-exposure-better-neighborhoods-children-new-evidence-moving-opportunity.

²⁷ Ibid.

²⁸ Craig Evan Pollack *et al.*, "Association of Receipt of a Housing Voucher With Subsequent Hospital Utilization and Spending," *JAMA*, Vol. 331, No. 21, December 3, 2019, https://pubmed.ncbi.nlm.nih.gov/31794624/.

²⁹ Heather Schwartz, "Housing policy is school policy: Economically integrative housing promotes academic success in Montgomery County, Maryland," in R.D. Kahlenberg, ed., *The Future of School Integration*, Century Foundation, 2012.

³⁰ The American Jobs Plan, the other main component of the Administration's recovery agenda, includes funds for affordable housing development subsidies, but almost none for rental assistance. Development subsidies can help build more housing in markets where inadequate supply is a problem, but they generally don't make housing affordable to people with incomes around or below the poverty line unless they also have a voucher or other rental assistance. Will Fischer, Sonya Acosta, and Erik Gartland, "More Housing Vouchers: Most Important Step to Help More People Afford Stable Homes," CBPP, May 13, 2021, https://www.cbpp.org/research/housing/more-housing-vouchers-most-important-step-to-help-more-people-afford-stable-homes.

School Lunch Program.³¹ Community eligibility may contribute to a range of positive outcomes for students, a growing body of research shows.³²

For example, one study of academic performance, which leveraged interstate variation in the timing of schools' eligibility for community eligibility and intrastate variation in program participation among schools, found that community eligibility increased participation in the school meals programs and improved math test scores for Hispanic and white children, who were less likely to have received free school meals before community eligibility was adopted.³³ As noted earlier, researchers have established linkages between school achievement and positive outcomes later in life.

Community eligibility can also have important non-academic effects, studies have shown. A study that also took advantage of the staggered rollout of community eligibility across states found modest but meaningful reductions in suspension rates for elementary and middle school children, with the greatest effects in counties with higher levels of child food insecurity. Another study, comparing students in Georgia schools with community eligibility to those in schools without, found that community eligibility increased the share of elementary and middle school students with healthy body weights and reduced average student body mass index. The study of the share of elementary and middle school students with healthy body weights and reduced average student body mass index.

The Administration also addresses the challenge of summer hunger by adopting a proven approach to meeting the nutritional needs of children who are not in school.³⁶ Only 1 in 7 low-income children who rely on free or reduced-price meals during the school year typically receive

³¹ Zoë Neuberger, "American Families Plan Could Substantially Reduce Children's Food Hardship," CBPP, May 21, 2021, https://www.cbpp.org/research/food-assistance/american-families-plan-could-substantially-reduce-childrens-food-hardship.

³² Kristin Blagg, Macy Rainer, and Elaine Waxman, "How Restricting Categorical Eligibility for SNAP Affects Access to Free School Meals," Urban Institute, October 2019, https://www.urban.org/sites/default/files/publication/101280/how restricting categorical eligibility for snap affects access to free school meals 0.pdf, and Amelie A. Hecht, Keshia M. Pollack Porter, and Lindsey Turner, "Impact of The Community Eligibility Provision of the Healthy, Hunger-Free Kids Act on Student Nutrition, Behavior, and Academic Outcomes: 2011-2019," *American Journal of Public Health*, Vol. 110, No. 9, September 2020, https://aiph.aphapublications.org/doi/full/10.2105/AIPH.2020.305743.

³³ Krista Ruffini, "Universal Access to Free School Meals and Student Achievement: Evidence from the Community Eligibility Provision," University of California Berkeley, October 25, 2018, https://escholarship.org/content/qt2c79q8fc.qt2c79q8fc.pdf. We have used "Hispanic" here to reflect the data as reported in this study. For more on our usage of Hispanic and Latino in this paper, see Appendix.

³⁴ Nora E. Gordon and Krista J. Ruffini, "School Nutrition and Student Discipline: Effects of Schoolwide Free Meals," NBER Working Paper 24986, September 2018, https://www.nber.org/system/files/working_papers/w24986/w24986.pdf.

³⁵ Will Davis and Tareena Musaddiq, "Estimating the Effects of Subsidized School Meals on Child Health: Evidence from the Community Eligibility Provision in Georgia Schools," 7th Annual Conference of the American Society of Health Economists, April 22, 2018,

https://static1.squarespace.com/static/5ad910ec365f02f74f353357/t/5aec97feaa4a99fc541bc0eb/1525454848660/Davis Musaddiq 2018.pdf.

³⁶ Zoë Neuberger, "Recovery Legislation Could Help End Summer Childhood Hunger," CBPP, June 30, 2021, https://www.cbpp.org/research/food-assistance/recovery-legislation-could-help-end-summer-childhood-hunger.

such meals over the summer.³⁷ Even short periods of food insecurity pose long-term risks for children, and food insecurity is particularly acute for children of color due in significant part to harsh, long-standing inequities and structural racism in education, employment, and other areas.³⁸ Reading and math skills often decline in the summer, and this slide may be greater for children in low-income households.³⁹

Conversely, interventions that provide access to affordable food and reduce food insecurity have been linked to better health for young children as well as long-term improvements in health and longevity, greater high school completion, and higher earnings and self-sufficiency in adulthood.⁴⁰

Providing grocery benefits circumvents the barriers that prevent many eligible families from accessing meals at summer sites. In 2010, Congress directed the U.S. Department of Agriculture (USDA) to carry out demonstration projects to determine whether providing a supplementary summer grocery benefit could reduce food insecurity among low-income children and improve their nutrition. Summer EBT achieved both goals, substantially decreasing food hardship and improving nutritional outcomes.

The summer EBT demonstration also served as the model for Pandemic EBT (P-EBT), which policymakers established early in the COVID-19 pandemic. ⁴³ P-EBT, which operated in every state for the spring of 2020 and is available in states that opt in for the summers of 2021 and 2022, ⁴⁴ substantially reduced food hardship. Researchers found that the program "reduce[d] the rate of children's food hardship by 8 percentage points. . . . [D]uring the first week after P-EBT benefits [were] paid, the rate of children not getting enough to eat decline[d] by 11 percentage points — which is more than a 30 percent reduction in the usual rate in this population." ⁴⁵ The

³⁷ Food Research & Action Center, "Hunger Doesn't Take a Vacation: Summer Nutrition Status Report," August 2020, https://frac.org/wp-content/uploads/FRAC-Summer-Nutrition-Report-2020.pdf.

³⁸ Neuberger, "Recovery Legislation Could Help End Summer Childhood Hunger."

³⁹ David M. Quinn and Morgan Polikoff, "Summer learning loss: What is it, and what can we do about it?" Brookings Institution, September 14, 2017, https://www.brookings.edu/research/summer-learning-loss-what-is-it-and-what-can-we-do-about-it/.

⁴⁰ Claire Zippel and Arloc Sherman, "Bolstering Family Income Is Essential to Helping Children Emerge Successfully From the Current Crisis," CBPP, updated February 25, 2021, https://www.cbpp.org/research/poverty-and-inequality/bolstering-family-income-is-essential-to-helping-children-emerge.

⁴¹ P.L. 117-80 § 748.

⁴² Ann M. Collins *et al.*, "Summer Electronic Benefit Transfer for Children (SEBTC) Demonstration: Summary Report," Abt Associates and Mathematica Policy Research, May 2016, https://fns-prod.azureedge.net/sites/default/files/ops/sebtcfinalreport.pdf.

⁴³ CBPP, "CBPP/FRAC P-EBT Documentation Project Shows How States Implemented a New Program to Provide Food Benefits to Up to 30 Million Low-Income School Children," <u>www.cbpp.org/pebt</u>.

⁴⁴ All 50 states, the District of Columbia, and the Virgin Islands implemented P-EBT for the spring of the 2019-2020 school year. USDA has approved P-EBT plans for 49 states, the District of Columbia, Puerto Rico, the Virgin Islands, and the Commonwealth of the Northern Mariana Islands for the 2020-2021 school year; the state awaiting approval is Wyoming. See USDA, "State Guidance on Coronavirus P-EBT," July 21, 2021, https://www.fns.usda.gov/snap/state-guidance-coronavirus-pandemic-ebt-pebt.

⁴⁵ Lauren Bauer *et al.*, "The Effect of Pandemic EBT on Measures of Food Hardship," Hamilton Project, July 2020, p. 5, https://www.brookings.edu/wp-content/uploads/2020/07/P-EBT_LO_7.30.pdf.

Administration's proposal would make available every summer the approach to alleviating food hardship that proved successful with summer EBT and P-EBT.

Preschool

The Biden Administration has proposed to make pre-school education available to all 3- and 4-year-olds, based on matching grants to states that meet certain standards in their preschool programs. There is a long history of robust research on preschool education.

The best-known studies of preschool are randomized control trials of the Perry Preschool and Abecedarian programs that were launched in the 1960s and 1970s. Both programs had striking effects: At age 40, participants in Perry Preschool were 28 percent more likely to have graduated high school and 50 percent more likely to be earning more than \$20,000. 46 Abecedarian participants entered college at 2.5 times the rate of non-participants. 47 A new paper also finds that the children of children who participated in Perry Preschool were also better off, significantly boosting estimates of the program's benefit-to-cost ratio. 48

In larger-scale settings, preschool programs yield substantial near-term gains in kindergarten readiness, a wide range of studies show.⁴⁹ Yet studies have also found that these immediate test score gains dwindle over time, as children who were not in preschool programs catch up to those who were.⁵⁰ Concern about "fade out" has caused some to question whether scaled programs achieve significant gains for children.⁵¹

In the last few years, three studies have reaffirmed that scaled-up preschool programs can and do have substantial long-term impacts. A May 2021 paper evaluated Boston's city-wide preschool program, for which admissions were conducted via lottery. Students who won a lottery to enter the program went on to achieve an 8 percentage-point (18 percent) gain in on-time college enrollment

⁴⁶ HighScope Educational Research Foundation, "Perry Preschool Project – Study Results," https://highscope.org/perry-preschool-project/.

⁴⁷ Francis A. Campbell *et al.*, "Adult Outcomes as a Function of an Early Childhood Educational Program: An Abecedarian Project Follow-Up," *Developmental Psychology*, Vol. 48, No, 4, January 16, 2012, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3989926/.

⁴⁸ Jorge Luis García et al., "The Dynamic Benefits of Early Childhood Education," NBER Working Paper 29004, July 2021,

https://www.nber.org/system/files/working_papers/w29004/w29004.pdf?utm_campaign=Economic%20Studies&utm_source=hs_email&utm_medium=email.

⁴⁹ Greg J. Duncan and Katherine Magnuson, "Investing in Preschool Programs," *Journal of Economic Perspectives*, Vol. 27, No. 2, 2013, https://pubs.aeaweb.org/doi/pdf/10.1257/jep.27.2.109.

⁵⁰ U.S. Department of Health and Human Services, "Head Start Impact Study Final Report," January 2010, https://www.acf.hhs.gov/opre/report/head-start-impact-study-final-report-executive-summary; U.S. Department of Health and Human Services, "Head Start Impact Study Final Report," January 2010, https://www.acf.hhs.gov/opre/report/head-start-impact-study-final-report-executive-summary.

⁵¹ Deborah A. Phillips, "Puzzling It Out: The Current State of Scientific Knowledge on Pre-Kindergarten Effects," *Brookings*, 2017, https://www.brookings.edu/wp-content/uploads/2017/04/consensus-statement_final.pdf.

and a 5.5 percentage-point gain in on-time enrollment in a four-year college.⁵² And participants in the Boston program achieved these important long-term educational gains even though preschool gains in test scores did not persist into elementary school.⁵³

Two recent studies of Head Start that each relied on the program's phased rollout show a long-term effect from Head Start. One study finds that exposure to Head Start among children in poverty reduced a child's risk of being in poverty at age 30 by 8 percent points — and even more for children who had access to better funded K-12 schools.⁵⁴ The second study finds that participation in Head Start yielded a 12-percentage point (39 percent) increase in college completion and a 23 percent reduction in adult poverty.⁵⁵ Noting the linkages between increased education and increased earnings, the study finds substantial economic returns to time spent in Head Start. That finding on economic return is consistent with a 2013 research review by a group of scholars noting positive economic returns of \$3 to \$7 in benefits for every \$1 spent on preschool education.⁵⁶

While the complex evidence base supports the long-term gains from preschool education programs, the research also points to three other important considerations. First, as both the Boston and Head Start examples indicate, programs can help students achieve long-term educational gains even if test-score impacts are no longer visible. Nobel Laureate James Heckman and others have theorized that this effect occurs because of gains in students' "noncognitive skills," such as perseverance and cooperation.⁵⁷

Second, students are likelier to sustain gains from effective preschool programs if they also attend adequately resourced and effective elementary schools, as the Head Start study above suggested.⁵⁸ Improving K-12 education is thus a part of making Pre-K effective. Finally, quality matters.⁵⁹

⁵² Guthrie Gray-Lobe, Parag Pathak, and Christopher Walters, "The Long-Term Effects of Universal Preschool in Boston," School Effectiveness & Inequality Initiative, May 2021, https://seii.mit.edu/wp-content/uploads/2021/05/SEII-Discussion-Paper-2021.4-Gray-Lobe-Pathak-and-Walters.pdf.

⁵³ Ibid.

⁵⁴ Cortney Sanders, "Research Note: Combining Early Education and K-12 Investments Has Powerful Positive Effects," CBPP, February 28, 2019, https://www.cbpp.org/research/state-budget-and-tax/research-note-combining-early-education-and-k-12-investments-has; see also Rucker C. Johnson and C. Kirabo Jackson, "Reducing Inequality Through Dynamic Complementarity: Evidence from Head Start and Public School Spending," NBER Working Paper 23489, June 2017, https://www.nber.org/papers/w23489.

⁵⁵ Martha J. Bailey, Brenden D. Timpe, and Shuqiao Sun, "Prep School for Poor Kids: The Long-Run Impacts of Head Start on Human Capital and Economic Self-Sufficiency," NBER Working Paper 28268, December 2020, https://www.nber.org/system/files/working-papers/w28268/w28268.pdf.

⁵⁶ Hirokazu Yoshikawa *et al.*, "Investing in Our Future: The Evidence Base on Preschool Education," Society for Research in Child Development, October 2013, https://www.fcd-us.org/assets/2013/10/Evidence20Base20on20Preschool20Education20FINAL.pdf.

⁵⁷ James Heckman, "Cognitive Skills Are Not Enough," presentation at Chicago, Illinois, December 16, 2010, https://heckmanequation.org/resource/cognitive-skills-are-not-enough/.

⁵⁸ Francis A. Pearman II *et al.*, "Teachers, Schools, and Pre-K Effect Persistence: An Examination of the Sustaining Environment Hypothesis," Annenberg Institute at Brown University, July 2019, https://www.edworkingpapers.com/sites/default/files/ai19-85.pdf; see also Johnson and Jackson, *op. cit.*

⁵⁹ Margaret Burchinal *et al.*, "Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs," *Early Childhood Research Quarterly*, Vol. 25, No. 2, 2010, https://www.sciencedirect.com/science/article/abs/pii/S0885200609000738.

Researchers point to the importance of providing an evidence-based, focused curriculum; supporting teachers with quality professional development and coaching; and offering a classroom atmosphere for children that is positive, hands-on, and engaging.⁶⁰

Child Care

The Biden Administration is proposing an expansion of child care subsidies that would eventually provide eligibility for all parents with incomes up to 150 percent of the state median income, with the level of subsidy determined based on income. The proposal would expand on a federal child care program that, prior to the pandemic, served only about 1 in 6 eligible children due to a lack of funding. (See Figure 4.) Families of color face particular challenges affording and accessing child care. (See Figure 4.)

States take different approaches to rationing child care assistance due to limited funding. Some states have narrower eligibility than federal rules require but serve everyone who applies and meets the narrower eligibility criteria, while other states put children on waiting lists or freeze intake (meaning they neither approve new children nor keep a waiting list). In 2020, nearly 100,000 eligible children were on waiting lists in states that kept them. ⁶³ Studies have documented that a significant share of families on these waiting lists lost or quit their jobs while they waited for child care. ⁶⁴

Access to child care can prevent harmful outcomes for families. In the absence of child care, some parents — overwhelmingly women — stop working entirely, often hurting not only their immediate earnings but also their long-term earnings trajectories. Where parents do continue to work, they often rely on make-do, unstable child care arrangements that may lead to lost work hours, increased familial stress, and negative impacts for children. 66

⁶⁰ Phillips et al., op. cit.

⁶¹ Maria E. Enchautegui, "Effects of the CCDF Subsidy Program on the Employment Outcomes of Low Income Mothers," U.S. Department of Health and Human Services, December 2016, https://aspe.hhs.gov/effects-child-care-subsidies-maternal-labor-force-participation-united-states.

⁶² Shiva Sethi *et al.*, "An Anti-Racist Approach to Supporting Child Care Through COVID-19 and Beyond," Center for Law and Social Policy (CLASP), July 14, 2020, https://www.clasp.org/publications/report/brief/anti-racist-approach-supporting-child-care-through-covid-19-and-beyond.

⁶³ Karen Schulman, "On the Precipice: State Child Care Assistance Policies 2020," National Women's Law Center (NWLC), May 2021, https://nwlc.org/wp-content/uploads/2021/05/NWLC-State-Child-Care-Assistance-Policies-2020.pdf.

⁶⁴ NWLC, "Child Care: A Core Support to Children and Families," February 2013, https://www.nwlc.org/sites/default/files/pdfs/childcareoverview.pdf.

⁶⁵ Robert Paul Hartley *et al.*, "A Lifetime's Worth of Benefits: The Effects of Affordable, High-quality Child Care on Family Income, the Gender Earnings Gap, and Women's Retirement Security," NWLC and CSSP, March 2021, https://nwlc.org/wp-content/uploads/2021/04/A-Lifetimes-Worth-of-Benefits-FD.pdf.

⁶⁶ Gina Adams and Monica Rohacek, "Child Care Instability," Urban Institute, October 2010, https://www.urban.org/sites/default/files/publication/29446/412278-Child-Care-Instability-Definitions-Context-and-Policy-Implications.PDF; see also Alejandra Ros Pilarz and Heather D. Hill, "Child-Care Instability and Behavior Problems: Does Parenting Stress Mediate the Relationship?" *Journal of Marriage and Family*, Vol. 79, No. 5, October 2017, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5666338/.

By the same token, increasing the accessibility and affordability of child care can lead to significant employment gains, especially for mothers. A recent literature review found that reducing the cost of child care boosted maternal employment, with stronger effects on the employment of single mothers, mothers with younger children, and mothers with low incomes.⁶⁷ A study by the Urban Institute found that, when controlling for other differences, states that spend more on child care assistance have higher employment rates for mothers with low incomes.⁶⁸

Child care assistance both reduces the high cost burden of child care on families and, as noted above, can lead to better employment outcomes. Taken together, these impacts result in increased income for families, which can help children achieve better long-term outcomes.

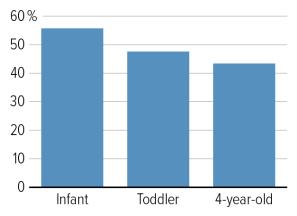
Several studies of the long-term educational and developmental impacts of child care document positive results, especially for disadvantaged children. A study that took advantage of differences in the timing of an expansion in access to high-quality child care across school districts in one state in Germany found that child care fostered the development of motor, language, and socioemotional skills, particularly for boys, immigrant children, and children whose parents had low levels of education, helping to "level the playing field." ⁶⁹ A study of an expansion of high-quality child care to low-income families in Chile found similar improvements, including in self-regulation and adaptability skills, which research from economics and psychology has linked to cognitive and social functioning later in life.⁷⁰

In the United States, a 20-year longitudinal study of children with varying care arrangements

FIGURE 4

Center-Based Child Care Is Unaffordable for Low-Income Families

Cost of care as share of income for family of three with income at 100% of poverty line



Note: All figures are for 2019. Child care costs were \$11,896, \$10,158, and \$9,254, for infant, toddler, and 4-year-old care, respectively. The poverty line for a family of three was \$21,330. Child care costs were calculated by weighting state-level average child care cost by the number of programs by type reported by each state.

Source: 2019 Department of Health and Human Services Poverty Guidelines; Child Care Aware, "The US and the High Price of Child Care," 2019

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in early childhood found that attending high-quality child care was consistently associated with higher performance on standardized tests and cognitive measurements at four periods of time

⁶⁷ Taryn W. Morrissey, "Child care and parent labor force participation: a review of the research literature," Review of Economics of the Household, Vol. 15, No. 1, 2017, https://link.springer.com/article/10.1007/s11150-016-9331-3; see also Enchautegui, op. cit.

⁶⁸ Enchautegui, op. cit.; see also Morrissey, op. cit.

⁶⁹ Christina Felfe and Rafael Lalive, "Does early child care affect children's development?" *Journal of Public Economics*, Vol. 159, March 2018, https://www.sciencedirect.com/science/article/pii/S0047272718300148.

⁷⁰ Grace E. Noboa-Hidalgo and Sergio S. Urzúa, "The Effects of Participation in Public Child Care Centers: Evidence from Chile," *Journal of Human Capital*, Vol. 6, No. 1, 2012, https://www.journals.uchicago.edu/doi/abs/10.1086/664790.

ranging from ages 3 to 15.⁷¹ Attending high-quality child care was also associated with higher grades and plans to attend a more selective college once children reached adolescence.⁷² Research in the United States further suggests that positive results from child care are likelier for low-income children.⁷³

There are notable child care studies with more troubling findings. An evaluation of Quebec's universal child care program documented negative outcomes for children's non-cognitive development, when compared to children in the rest of Canada. ⁷⁴ Negative effects on cognitive development were documented in a study of children from relatively affluent families in Italy. ⁷⁵

As with preschool programs, quality is a key driver of child outcomes. One-third of children in Quebec were served in publicly subsidized, nonprofit early childhood centers, which met high standards of quality. These centers were "demonstrated to deliver positive cognitive, health, and behavioral results on average." But because of limited capacity and staffing, two-thirds of children were served in family-based and for-profit centers that on average met much lower standards. ⁷⁶

In the United States, a study of the impacts of increasing work and child care utilization among single mothers after significant changes to economic security programs primarily used by single mothers in the 1990s found negative effects on children's test scores but *only* for those in informal care settings,⁷⁷ which lack the quality standards of formal child care.⁷⁸ Similarly, a study by the National Institute of Child Health and Human Development and Greg Duncan found that child

⁷³ Carolyn J. Heinrich, "Parents' Employment and Children's Wellbeing," *Future of Children,* Vol. 24, No. 1, 2014, EJ1029033.pdf.

⁷¹ Deborah Low Vandell and Margaret Burchinal, "Early child care and adolescent functioning at the end of high school: Results from the NICHD Study of Early Child Care and Youth Development," *Developmental Psychology*, Vol. 52, No. 10, October 2016,

https://www.researchgate.net/publication/308878544 Early child care and adolescent functioning at the end of high school Results from the NICHD Study of Early Child Care and Youth Development.

⁷² *Ibid*.

⁷⁴ Michael Baker *et al.*, "The Long-Run Impacts of a Universal Child Care Program," *American Economic Journal: Economic Policy*, Vol. 11, No. 3, 2019, https://www.aeaweb.org/articles?id=10.1257/pol.20170603.

⁷⁵ Margherita Fort, Andrea Ichino, and Giulio Zanella, "The cognitive cost of daycare 0-2 for children in advantaged families," February 8, 2017, https://sbe.maastrichtuniversity.nl/duhr/wp-content/uploads/sites/13/2017/03/paper Fort.pdf.

⁷⁶ CCPA National Office, "You must be kidding: Confronting key myths about Quebec's childcare system," *Monitor*, April 25, 2017, https://monitormag.ca/articles/you-must-be-kidding-confronting-key-myths-about-quebecs-childcare-system; see also Conor Williams, "When 'Universal' Child Care Isn't Universally High-Quality," *Atlantic*, May 1, 2018, https://www.theatlantic.com/family/archive/2018/05/quebec-child-care-family-leave/559310/.

⁷⁷ Raquel Bernal and Michael P. Keane, "Child Care Choices and Children's Cognitive Achievement: The Case of Single Mothers," *Journal of Labor Economics*, Vol. 29, No. 3, July 2011, https://www.researchgate.net/publication/227631888 Child Care Choices and Children's Cognitive Achievement The Case of Single Mothers.

⁷⁸ Steven Jessen-Howard *et al.*, "Understanding Infant and Toddler Child Care Deserts," Center for American Progress (CAP), October 21, 2018, https://www.americanprogress.org/issues/early-childhood/reports/2018/10/31/460128/understanding-infant-toddler-child-care-deserts/.

care quality and whether care was center-based were predictive of children's preschool cognitive development.⁷⁹

The Biden proposal takes important steps to invest in quality. Notably, it pledges to provide adequate funding "to cover the true cost of quality early childhood care and education — including a developmentally appropriate curriculum, small class sizes, and culturally and linguistically responsive environments that are inclusive of children with disabilities." Given the importance of attracting and retaining staff with the skills and training to provide quality child care, the proposal provides a \$15 minimum wage for child care staff, along with professional development to build career pathways in child care. Increased wages and stability for child care workers will benefit not only those children in child care, but also the children of child care workers. With greater focus on child care, these quality investments are key. So too are adequate federal and state regulations that establish and enforce appropriate minimum standards for child care quality and create incentives for improvements in quality.

Higher Education

Accessible, well-funded post-secondary education is crucial for residents' quality of life, a strong economy, and thriving communities. However, since the Great Recession of 2007-09, rising costs have made such education less accessible. The burden is especially great for families of color, which pay a greater share of their income for college as a result of long-standing employment and wage discrimination. To address the issue of accessibility and cost, President Biden has proposed to provide matching funding for states to eliminate tuition and fees at community colleges, Minority Serving Institutions, and Historically Black Colleges and Universities; increase the maximum Pell Grant, which students can use at all accredited colleges and universities; and promote college completion. There is solid evidence that these approaches yield meaningful educational gains.

Free Community College

A new paper by Douglas Harris and Jonathan Mills reports on a particularly relevant randomized control trial of free college. The Degree Project, in Milwaukee's public schools, told students beginning in ninth grade that they could receive \$12,000 in college scholarships if they met high school GPA and attendance requirements. Although students could use that aid at any in-state public institution, the program's communications stressed that the funding would be sufficient to make two-year college tuition-free. After more than a decade of follow-up, the randomized control trial finds that the program increased graduation rates from two-year colleges by 3 percentage points, or 25 percent; that the early notification about the program caused students to take additional steps in preparation for college during high school; and that the merit requirements excluded students

⁷⁹ National Institute of Child Health and Human Development Early Child Care Research Network, and Greg J. Duncan, "Modeling the impacts of child care quality on children's preschool cognitive development," *Child Development*, Vol. 74, No. 5, October 2003, https://www.jstor.org/stable/3696188.

⁸⁰ Victoria Jackson and Matt Saenz, "States Can Choose Better Path for Higher Education Funding in COVID-19 Recession," CBPP, February 17, 2021, https://www.cbpp.org/research/state-budget-and-tax/states-can-choose-better-path-for-higher-education-funding-in-covid.

without increasing performance. Analyzing the benefits of increased degree attainment compared to the costs of the program, the paper finds a positive return.⁸¹

The findings in the Milwaukee study replicate findings elsewhere regarding programs promoted to high school students as making college free. For example, a study of one of the most famous free college programs, Kalamazoo Promise, compared outcomes for students before and after the program was introduced and found that it increased the share of students who graduated college in six years by 10 percentage points, a gain of more than 25 percent. ⁸² Positive results from offering tuition-free college to students while in high school were also found in an economically targeted program with merit requirements in Nebraska, ⁸³ and universal programs without such requirements in Pittsburgh and in Knox County, Tennessee. ⁸⁴All of these studies indicate positive economic returns to such investments, Harris and Mills also found. ⁸⁵

While pointing to important gains from offering free college tuition, the studies also suggest the importance of making other policy changes at the same time. In particular, there is evidence that programs making community college free may lead some students to shift their attendance to these schools over four-year schools, even when the students might be likelier to graduate at four-year institutions and earn higher incomes thereafter. ⁸⁶ This highlights the importance of supporting college completion across institutions, easing the pathway for students to transfer successfully between two- and four-year schools, and making college more affordable at four-year as well as two-year schools. The Biden proposals include these investments, as discussed below.

⁸¹ Douglas N. Harris, "Is free college a good idea? Increasingly, evidence says yes," Brookings, May 10, 2021, https://www.brookings.edu/blog/brown-center-chalkboard/2021/05/10/is-free-college-a-good-idea-increasingly-evidence-says-yes/; see also Douglas N. Harris and Jonathan Mills, "Optimal College Financial Aid: Theory and Evidence on Free College, Early Commitment, and Merit Aid from an Eight-Year Randomized Trial," Annenberg Institute at Brown University, May 2021, https://edworkingpapers.com/sites/default/files/ai21-393.pdf.

⁸² Timothy J. Bartik, Brad J. Hershbein, and Marta Lacohwska, "The Effects of the Kalamazoo Promise Scholarship on College Enrollment, Persistence, and Completion," W.E. Upjohn Institute for Employment Research, December 2017, https://research.upjohn.org/cgi/viewcontent.cgi?article=1246&context=up_workingpapers.

⁸³ Joshua Angrist, David Autor, and Amanda Pallais, "Marginal Effects of Merit Aid for Low-Income Students," NBER Working Paper 27834, September 2020, https://www.nber.org/system/files/working-papers/w27834/w27834.pdf.

⁸⁴ Lindsay C. Page *et al.*, "The Promise of Place-Based Investment in Postsecondary Access and Success: Investigating the Impact of the Pittsburgh Promise," *Education Finance and Policy*, Vol. 14, No. 4, 2019, https://direct.mit.edu/edfp/article/14/4/572/12330/The-Promise-of-Place-Based-Investment-in.

⁸⁵ Harris and Mills, op. cit.

⁸⁶ Joshua Goodman, Michael Hurwitz, and Jonathan Smith, "College Access, Initial College Choice and Degree Completion," NBER Working Paper 20996, February 2015, https://scholar.harvard.edu/files/joshuagoodman/files/collegetypequality.pdf; see also Celeste K. Carruthers, William F. Fox, and Christopher Jepsen, "Promise kept? Free community college, attainment, and earnings in Tennessee," Federal Reserve Bank of Atlanta, February 2020, https://www.atlantafed.org/-/media/documents/news/conferences/2020/04/16/southeastern-micro-labor-workshop/Carruthers_Fox_Jepsen.pdf.

Pell Grants and Completion Initiatives

The Pell Grant is the nation's largest source of need-based grant aid. Over half of Black and American Indian students and nearly half of Hispanic students receive Pell Grants. However, the current maximum Pell Grant — \$6,495 per year — falls far short of the cost of attending college, a gap that has grown over the last four decades. The Biden Administration has proposed increasing the maximum Pell Grant to \$8,37089 and indexing the grant level for inflation going forward. This increase would help students cover more of the cost of attending college, reduce the amount that students have to take out in loans, and potentially reduce the amount of time students work while in school, which when significant can crowd out study time and reduce the likelihood of college completion. On the cost of attending college the likelihood of college completion.

Increasing aid for college boosts both attendance and completion, numerous studies indicate. In what has long been the most widely cited research review, two authors in 2009 concluded, "The best estimates suggest that eligibility for \$1,000 of subsidy increases college attendance rates by roughly four percentage points. Aid eligibility also appears to increase completed schooling and shift students from community colleges toward four-year schools." ⁹¹

In 2019, a formal metanalysis (synthesizing multiple studies) found smaller but still positive results for continued enrollment and completion: "grant aid programs increase the probability of persisting and degree completion from two to three percentage points, and, assuming a linear relationship of aid amount and impact, we estimate that an additional \$1,000 of grant aid improves year-to-year persistence by 1.2 percentage points with smaller effects for degree completion." ⁹²

⁸⁷ Table 1.1 in Emily Kelly *et al.*, "Trends in Pell Grant Receipt and the Characteristics of Pell Grant Recipients: Selected Years, 2003–04 to 2015–16," prepared for the National Center for Education Statistics, September 2019, https://nces.ed.gov/pubs2019/2019487.pdf.

⁸⁸ Michelle Dimino, "How Doubling the Pell Grant Could Be a Down Payment on Free College," Third Way, May 19, 2021, https://www.thirdway.org/memo/how-doubling-the-pell-grant-could-be-a-down-payment-on-free-college.

⁸⁹ President Biden has proposed Pell Grant increases in both the American Families Plan and the Fiscal Year 2022 Budget Request for the Department of Education, totaling a \$1,875 increase.

⁹⁰ Catherine A. Hawkins et al., "The relationships among hours employed, perceived work interference, and grades as reported by undergraduate social work students," Journal of Social Work Education, Vol. 41, No. 1, 2005, https://www.tandfonline.com/doi/abs/10.5175/JSWE.2005.200202122; see also Gary R. Pike, George D. Kuh, and Ryan Massa-McKinley, "First-Year Students' Employment, Engagement, and Academic Achievement: Untangling the Relationship Between Work and Grades," Journal of Student Affairs Research and Practice, January 2008, https://www.luminafoundation.org/files/advantage/document/Affordability.Benchmark.Research/First-Year.Students.Employment.Engagement.and.Academic.Achievement.pdf.

⁹¹ David Deming and Susan Dynarski, "College Aid," NBER, August 2010, https://www.nber.org/system/files/chapters/c11730/c11730.pdf; see also Spiros Protopsaltis and Sharon Parrott, "Pell Grants — a Key Tool for Expanding College Access and Economic Opportunity — Need Strengthening, Not Cuts," CBPP, July 17, 2017, https://www.cbpp.org/research/federal-budget/pell-grants-a-key-tool-for-expanding-college-access-and-economic.

⁹² Tuan D. Nguyen, Jenna W. Kramer, and Brent J. Evans, "The Effects of Grant Aid on Student Persistence and Degree Attainment: A Systematic Review and Meta-Analysis of the Causal Evidence," Association for Education Finance and Policy, February 7, 2018,

https://aefpweb.org/sites/default/files/webform/Financial%20aid%20meta%20analysis%20manuscript.pdf.

Two studies are particularly striking. In Florida, students who received a need-based state grant award for use at public institutions, one with a little-known cutoff based on the expected family contribution under federal financial aid need analysis, had a 4.6 percentage-point (22 percent) increased likelihood of graduating college within six years. In a national study, students meeting the fluctuating cutoff for the maximum Pell Grant (meaning they have zero expected family contribution) were likelier to graduate college and to earn more four years after graduation. The authors conclude that "additional grant aid raises welfare for these students and likely pays for itself several times over." ⁹³

Notably, the 2019 metanalysis also found that "additional supports in conjunction with aid, such as faculty advising and peer support, nearly doubled the effect sizes." Research by Douglas Webber and Ronald Ehrenberg likewise demonstrates that institutional investments in student services has a meaningful relationship with college persistence and completion. He most striking example of these effective supports is the City University of New York's Accelerated Study in Associate Programs (ASAP), which nearly doubled graduation rates for community college students in its first three years. Similar positive impacts were found when three Ohio community colleges replicated the ASAP model. He Biden Administration has proposed making make a large investment in these types of critical supports for college completion.

Paid Leave

The Biden Administration has called for creating a national paid family and medical leave program that will provide workers with paid time off from work when a baby is born, a child joins a family through adoption, or when someone in the family is ill. Under the Biden proposal, workers taking paid leave would receive a minimum of two-thirds of their wage (and the replacement rate would go up to eight-tenths for the lowest-paid workers).

Paid leave makes it possible for working people to meet familial obligations and stay healthy while keeping their job and receiving a paycheck. In the absence of such paid leave, a worker with a new child or a sick family member, or a worker who becomes sick themselves often faces only bad choices. They can take unpaid leave and sacrifice income that may be critical for their family's well-being. Or they can stay at work, forgo providing or being provided care, and risk losing their job

⁹³ Jeffrey Denning, Benjamin Marx, and Lesley Turner, "Propelled: The Effects of Grants on Graduation, Earnings, and Welfare," Institute for the Study of Labor, September 17, 2018, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3249906.

⁹⁴ Douglas A. Webber and Ronald G. Ehrenberg, "Do Expenditures Other Than Instructional Expenditures Affect Graduation and Persistence Rates in American Higher Education," NBER Working Paper 15216, August 2009, https://www.nber.org/papers/w15216.

⁹⁵ Susan Scrivener et al., "Doubling Graduation Rates: Three-Year Effects of CUNY's Accelerated Study in Associate Programs (ASAP) for Developmental Education Students," MDRC, February 2015, https://www1.cuny.edu/sites/asap/wp-

content/uploads/sites/8/2015/02/MDRC Doubling Graduation Rates ASAP Executive Summary Feb 2015.pdf.

⁹⁶ MDRC, "CUNY ASAP Doubles Graduation Rates in New York City and Ohio," February 2021, https://www.mdrc.org/publication/cuny-asap-doubles-graduation-rates-new-york-city-and-ohio.

anyway due to emergencies or strain.⁹⁷ One in five low-paid working mothers report losing a job because of illness or the need to care for a family member.⁹⁸

Family leave offers improved economic security for families and the improved well-being that comes from being able to attend to family obligations when they arise. Parents value this leave when it is available. With the introduction of California's first-in-the-nation paid family leave program, many more mothers took maternity leave than before, and fathers increased their leave-taking as well.⁹⁹

Although there are good reasons to believe all forms of paid leave can benefit children, research has focused on its most common form: paid family leave. Because programs have emerged in the United States only recently, the most notable study of their long-term effects comes from overseas. In Norway, researchers found that children whose mothers received paid maternity leave graduated high school at a rate 2 to 3 percentage points higher than children whose mothers did not. Further, college attendance increased by 3.5 percentage points and earnings at age 30 increased by 5 percentage points. One analyst has noted that if the United States experienced the same effects as Norway, paid leave could lead to 87,000 more high school graduates, 86,000 more students headed to college, and \$1.2 billion in increased adult earnings *annually*. One

Paid leave programs can help children by enabling their parents to attend to family needs and still keep their jobs — as opposed to forcing parents to lose income with unpaid leave, or remain at work under severe duress and potentially face discharge from unsympathetic employers. There is substantial evidence that, in California, overall work hours and wages for mothers increased after the state introduced its first-in-the-nation paid family leave law in 2004. While evidence on long-term effects on employment is mixed, preventing the loss of a job and income in a period of family strain can be an important gain for children.

⁹⁷ See the testimony statement by Pronita Gupta, "Paid Family and Medical Leave," to the U.S. House of Representatives Committee on Ways and Means, May 8, 2019, https://www.clasp.org/sites/default/files/publications/2019/05/2019%2005%2008%20Pronita%20Gupta%20PFML%20testimony%20.pdf.

⁹⁸ *Ibid*.

⁹⁹ Maya Rossin-Slater, Christopher J. Ruhm, and Jane Waldfogel, "The Effects of California's Paid Family Leave Program on Mothers' Leave-Taking and Subsequent Labor Market Outcomes," *Journal of Policy Analysis and Management*, Vol. 32, No. 2, December 17, 2012, https://onlinelibrary.wiley.com/doi/abs/10.1002/pam.21676; see also Ann P. Bartel *et al.*, "Paid Family Leave, Fathers' Leave-Taking, and Leave-Sharing in Dual-Earner Households," *Journal of Policy Analysis and Management*, Vol. 37, No. 1, November 6, 2017, https://onlinelibrary.wiley.com/doi/10.1002/pam.22030.

¹⁰⁰ Pedro Carneiro, Katrine V. Løken, and Kjell G. Salvanes, "A Flying Start? Maternity Leave Benefits and Long-Run Outcomes of Children," *Journal of Political Economy*, Vol. 123, No. 2, 2015, https://www.journals.uchicago.edu/doi/abs/10.1086/679627?journalCode=jpe.

¹⁰¹ Tara O'Neill Hayes and Margaret Barnhorst, "How Children Benefit from Paid Family Leave Policies," American Action Forum, June 9, 2020, https://www.americanactionforum.org/research/how-children-benefit-from-paid-family-leave-policies.

¹⁰² Rossin-Slater, Ruhm, and Waldfogel, *op. cit.* See also Charles L. Baum II and Christopher J. Ruhm, "The Effects of Paid Family Leave in California on Labor Market Outcomes," *Journal of Policy Analysis and Management,* Vol. 35, No. 2, February 2, 2016, https://onlinelibrary.wiley.com/doi/abs/10.1002/pam.21894; and Joelle Saad-Lessler and Kate Bahn, "The Importance of Paid Leave for Caregivers," CAP, September 27, 2017, https://www.americanprogress.org/issues/women/reports/2017/09/27/439684/importance-paid-leavecaregivers/.

There is considerable evidence that paid leave programs improve children's health outcomes. With the introduction of paid maternity leave through temporary disability insurance in five states, the rate of low birth weights declined by 3.2 percent, and the rate of early births dropped by 7.2 percent, with the largest effects on unmarried mothers and Black mothers, one study found. The author suggests that this may be due to reduced physical and psychological stress during the later stages of pregnancy. Under a paid medical leave program, mothers would similarly be able to take leave for pregnancy complications, such as preeclampsia. Another study found that California's introduction of paid family leave reduced infant hospitalizations, particularly for conditions such as contagious infections, that are more likely to occur in group settings such as child care. Other studies have shown positive impacts on rates of breastfeeding and timely vaccinations.

Looking further out into children's lives, a study comparing children born in California to children in other states found that, after California implemented paid family leave, elementary school children born there became comparatively less likely than children in states without such a policy to be overweight or to have Attention-Deficit/Hyperactivity Disorder, ¹⁰⁷ which has been shown to negatively impact adult earnings. ¹⁰⁸ While the researchers cautioned that changing circumstances specific to California might have contributed to this relative improvement in outcomes, they concluded that the results were suggestive of a positive effect for paid leave.

https://www.sciencedirect.com/science/article/abs/pii/S0167629615000533?via%3Dihub.

¹⁰³ Jenna Stearns, "The effects of paid maternity leave: Evidence from Temporary Disability Insurance," *Journal of Health Economics*, Vol. 43, September 2015,

¹⁰⁴ *Ibid*.

¹⁰⁵ Ariel Marek Pihl and Gaetano Basso, "Did California Paid Family Leave Impact Infant Health?" *Journal of Policy Analysis and Management*, Vol. 38, No. 1, October 18, 2018, https://onlinelibrary.wiley.com/doi/10.1002/pam.22101.

¹⁰⁶ Rui Huang and Muzhe Yang, "Paid maternity leave and breastfeeding practice before and after California's implementation of the nation's first paid family leave program," *Economics & Human Biology*, Vol. 16, January 2015, https://www.sciencedirect.com/science/article/pii/S1570677X14000021?via%3Dihub; see also Agnitra Roy Choudhury and Solomon W. Polachek, "The Impact of Paid Family Leave on the Timing of Infant Vaccinations," IZA Institute of Labor Economics, July 2019, https://www.iza.org/publications/dp/12483/the-impact-of-paid-family-leave-on-the-timing-of-infant-vaccinations.

¹⁰⁷ Shirlee Lichtman-Sadot and Neryvia Pillay Bell, "Child Health in Elementary School Following California's Paid Family Leave Program," *Journal of Policy Analysis and Management*, Vol. 36, No. 4, July 25, 2017, https://onlinelibrary.wilev.com/doi/abs/10.1002/pam.22012.

¹⁰⁸ See e.g. Jason M. Fletcher, "The Effects of Childhood ADHD on Adult Labor Market Outcomes," *Health Economics*, Vol. 23, No. 2, February 2014, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6714576/pdf/nihms-1024944.pdf.

Appendix: Race/Ethnicity Data and Terms

In this paper, "Latino" includes all people of Hispanic, Latino, or Spanish origin regardless of race. When citing studies, we use the term the study's authors use. When not citing a study, we use "Latino."

Poverty figures on Black, Latino, and white children are from Danilo Trisi and Matt Saenz, "Economic Security Programs Reduce Overall Poverty, Racial and Ethnic Inequities," CBPP, updated July 1, 2021, https://www.cbpp.org/research/poverty-and-inequality/economic-security-programs-reduce-overall-poverty-racial-and-ethnic.

Poverty figures on Asian children living in families with incomes below the poverty line are from unpublished CBPP analysis of the U.S. Census Bureau's March 2018 Current Population Survey (accessed via IPUMS-CPS). As described in the analysis by Trisi and Saenz, we augment the data with data from the Department of Health and Human Services/Urban Institute Transfer Income Model (TRIM) that correct for the tendency of survey respondents to underreport key government benefits. Note that, while Asian poverty rates overall are lower than for other non-white groups, the Asian community is particularly diverse. A 2015 report by Asian Americans Advancing Justice notes that "lower poverty rates among Asian Americans as a racial group cause many to overlook higher poverty rates among Southeast Asian Americans as distinct ethnic groups." Asian Americans Advancing Justice, "A Community of Contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in the West," 2015, https://www.advancingjustice-aajc.org/sites/default/files/2016-09/AAAI Western Dem 2015.pdf.

Because of data limitations, the Census Bureau's Current Population Survey, the source of the data on white, Black, Latino, and Asian children, cannot provide reliable estimates for small groups, including American Indians and Alaska Natives. CBPP analysis of microdata from the Census Bureau's American Community Survey, a much larger survey, finds that 26 percent of children whose families identify them as American Indian and Alaska Native (alone or in combination with other race/ethnicity groups) live below the official poverty line.