Paul Decker and Kevin Kelly, Co-Editors

SHOULD CHILDCARE SUBSIDIES BE UNIVERSAL OR TARGETED?

Many experts and policymakers agree on the potential benefits of expanding early childhood education and childcare, including improved long-term outcomes for the children in the programs and economic outcomes for their parents. The recognition of these benefits is reflected in the recently proposed Build Back Better Act, which includes funding to reduce the financial burden of childcare on families. However, there has been significant debate on how this funding should be distributed. While some argue for universal policies that would provide childcare subsidies to all families, regardless of income, others argue that these subsidies should be targeted so that they are only provided to lower-income households.

In this issue, Jill Yavorsky, of the University of North Carolina at Charlotte, and Leah Ruppanner, of the University of Melbourne, argue that childcare should be federally subsidized for all parents to maximize access to the benefits of high-quality childcare. They describe how universal subsidies will increase availability of childcare and wages of workers in the industry, lower financial strains of childcare costs, improve employment outcomes for mothers, and enrich social and cognitive development of children. David Blau, of Ohio State University, argues that most of the benefits of subsidized childcare would be concentrated among lower-income recipients. Hence, targeting subsidies exclusively to lower-income households rather than universally can generate similar aggregate benefits at substantially lower costs to taxpayers. Targeted subsidies also contribute to greater equity of access to benefits across income levels. AN ARGUMENT FOR UNIVERSAL PRESCHOOL AND CHILDCARE IN THE U.S.

Jill E. Yavorsky and Leah Ruppanner

INTRODUCTION

Congress is currently considering legislation, the Build Back Better Act, that would significantly increase federal support for early childhood education and care (ECEC). This legislation is recognition of how fundamental childcare systems are to the U.S. economy. Most families rely on nonparental care for their young children (e.g., formal or informal childcare, extended family, friends, or paid nannies), so they can work in paid employment (National Center for Education Statistics, 2020). Mothers are disproportionately responsible for childcare (Landivar, 2017), meaning access to affordable, reliable, and high-quality childcare is critical to their employment, earnings, and careers (Aisenbrey, Evertsson, & Grunow, 2009; Landivar et al., 2022; Ruppanner, 2020). Further, children's brains are rapidly developing during this time, making them particularly sensitive to their environments (Currie & Rossin-Slater, 2015). Decades of research show that access to *high quality* ECEC provides children with significant short- and long-term educational and social benefits and is a very effective long-term social investment (Currie & Rossin-Slater, 2015; Elango et al., 2015; van Huizen & Plantenga, 2018).

Despite the importance of ECEC, the U.S. childcare system has been deeply underfunded for decades. Childcare organizations face significant staff shortages, high turn-over rates, and difficulties maintaining financial stability (Early Childhood Workforce Index, 2020). Childcare workers earn low wages and experience high economic insecurity (Early Childhood Workforce Index, 2020). Parents face high childcare costs, long enrollment wait-lists and, for many, childcare deserts, low-quality options, and under-resourced facilities (Childcare Aware, 2019; Gould & Cooke, 2015). Further, childcare quality is variable given an absence of mandatory high-quality childcare curricula. This creates a disjointed system that places serious constraints on parents, workers, and childcare providers alike.

Each year, high costs and limited availability also push thousands of parents, mostly women, out of the labor market, particularly when their income does not significantly exceed childcare costs (Ilin, Shampine, & Terry, 2021; Malik, 2019; Morrissey, 2017). Unaffordable childcare is a drain on human capital with broader consequences for employers (e.g., reducing the available worker pool and jeopardizing returns on investments) and social support programs (e.g., increasing reliance on government supports due to declining incomes) (Connelly & Kimmel, 2003). And childcare infrastructure is vulnerable to market instability which, as the pandemic indicated, creates major supply issues (Malik et al., 2018).

To fix these problems, we propose a well-funded, universal ECEC infrastructure model to ensure all children have access to high-quality, affordable childcare from birth. We argue that a universal system, rather than expanding means-tested and market driven approaches, provides a host of interconnected benefits that will (1) reduce shortages and childcare deserts, (2) alleviate the financial strain of childcare costs on families, (3) facilitate mothers' continuous employment across income levels, and (4) enrich children's—particularly those from disadvantaged backgrounds—social and cognitive development.

BENEFIT 1: UNIVERSAL EARLY CHILDHOOD EDUCATION AND CARE (ECEC) WOULD CREATE THE INFRASTRUCTURE TO REDUCE SHORTAGES AND CHILDCARE DESERTS

The United States is experiencing what has been termed a "care crisis"—that is, the current early childhood education and care (ECEC) infrastructure fails to meet the demand of millions of families, and families across income levels struggle to find high-quality ECEC (Hotz & Wiswall, 2019; Malik et al., 2018). Pre-pandemic, one in two families lived in childcare deserts with limited access to affordable childcare (Malik et al., 2018). For some racial/ethnic groups (i.e., Hispanic/Latino, American Indian, Alaskan Native), this proportion was even higher (Malik et al., 2018). Although childcare centers have increased in recent decades, "existing capacity in licensed childcare centers only would have accommodated 33 percent of the children in the United States under the age of 6" (Hotz & Wiswall, 2019). Rural areas are particularly vulnerable to childcare shortages due to lack of labor supply while urban areas face challenges of high out-of-pocket costs (Malik et al., 2018).

The current system, which relies on market forces and a patchwork of state and federal funding, has failed to meet families' ECEC needs for decades, largely because it is based on an unsustainable model. Childcare centers work on slim margins with high infrastructure and operating costs. As a labor-intensive business, workforce salary and benefits account for the majority of program expenses (Workman, 2018). However, reducing labor costs is impossible given mandated staff-to-student ratios and early childhood educators—who are predominantly women and disproportion-ately women of color—are already some of the lowest wage workers in the labor market, with 40 percent relying on public assistance programs at some point during their careers (Workman, 2018). In the absence of widespread and reliable federal or state funding, childcare centers turn to parents to meet these costs, with childcare absorbing high portions of family budgets (Hotz & Wiswall, 2019). This broken model—which includes low worker pay—leads to staff shortages and high turnover rates and undermines continuity and quality of learning and care for children (Bivens et al., 2016).

These issues are widespread and interconnected, meaning interventions focused only on expanding access for low-income families (e.g., means-tested), though important, will not eliminate the infrastructure issues affecting millions of middle- and working-class families and childcare workers serving families of all income levels. Intervention requires a universal approach that invests in ECEC infrastructure-buildings, high-quality programming, and better training and higher pay for staff, across all regions-to eliminate childcare deserts and limited capacity issues. Further, a public expansion to younger ages is essential to the sustainability of ECEC programs. Childcare centers offset higher costs of infant care by including ECEC to 3- and 4-year-olds with higher child-to-teacher ratios. Expanding universal public options for older children without a supplement for infants could cause private centers to struggle to remain solvent, reduce program-quality, and increase their prices for infants, as previous research indicates (Brown, 2018). Taken together, an investment in a universal ECEC program for all young children will increase access to high-quality, affordable care, reduce labor shortages and turn-over, and ultimately, stabilize the childcare industry.

BENEFIT 2: UNIVERSAL ECEC WOULD REDUCE THE FINANCIAL STRAIN OF CHILDCARE ON FAMILIES

Childcare costs are prohibitive for most U.S. families and affordability is a top concern. Center-based care for young children (zero to four years old), ranges from approximately \$5,000 a year in Arkansas to \$24,000 in Washington, DC (Childcare Aware, 2019), exceeding the average cost of in-state college tuition in the majority of U.S. states (Gould & Cooke, 2015). The U.S. Department of Health and Human Services benchmarks childcare affordability at 7 percent or less of a family's total income. For most U.S. families, the median percentage of household income spent on childcare exceeds that threshold (Hotz & Wiswall, 2019), ranging from 9 percent to 18 percent across states (Childcare Aware, 2019). For single households and those with multiple children, childcare costs comprise an even larger portion of a family's income. Although subsidies exist for lower income families, millions of children are eligible for but do not receive them. For example, in 2017, 1.9 million eligible children received subsidized childcare, representing only 14 percent and 22 percent of all children estimated to be eligible under federal and state rules, respectively (U.S. Government Accountability Office, 2021).

Prohibitive costs and accessibility issues prompt many families-low-income and middle-class families—to find lower cost alternatives, including help from family relatives or friends (Hofferth & Collins, 2000; Morrissey, 2017; National Center for Education Statistics, 2020). In these cases, childcare tends to be less reliable and lower quality (Loeb, 2016), reinforcing class- and race-based inequality in access to high-quality, reliable ECEC. Many parents, across income levels, find accessing high-quality care difficult (Hotz & Wiswall, 2019; Malik et al., 2018) but higher earners are better equipped to overcome cost obstacles (Landivar, 2017). U.S. parents in the very top decile spend nine times that of those in the lowest decile on educational products for children (with childcare driving these expenditures) and double the amount parents spend in the top second decile (Kornrich, 2016). This means the rich spend significantly more than all others. Given rising inflation and stagnating wages for the average worker, a universal program would raise the current and future living standards of millions of low-income and middle-class families, enabling them to better meet their daily expenditures, put more money in savings, and invest more in their retirements and children's futures.

BENEFIT 3: UNIVERSAL ECEC WOULD SUPPORT MOTHERS' EMPLOYMENT, EARNINGS, AND CAREERS

Since mothers still shoulder most caregiving in U.S. families, mothers often reduce their work hours or exit or change jobs to meet the care demands of young children (Landivar, 2017). Mothers' incomes, which tend to be lower than fathers', are most often benchmarked against childcare costs to determine their employability (Landivar, 2017), with mothers less likely to work in states where childcare is more expensive (Landivar et al., 2020; Ruppanner, Moller, & Sayer, 2019). Single mothers face intense challenges weighing childcare costs against employment. It is, thus, no surprise that woman-headed households have the highest poverty rates, which increased under the pandemic (22.2 vs. 23.4 percent; United States Census Bureau, 2022). Continuous employment is critical for women's upward mobility, wages, lifetime earnings, and retirement contributions (Aisenbrey, Evertsson, & Grunow, 2009; Kahn, García-Manglano, & Bianchi, 2014). Thus, it is essential to reduce the constraints on mothers' employment—which is contingent on a family's ability to pay for and access high-quality ECEC.

Cross-national evidence suggests that universal, full-time ECEC increases women's labor force participation, particularly when it covers care for very young children (ages 0 to 2; e.g., Baker, Gruber, & Milligan, 2008; Bauernschuster & Schlotter, 2015; Boeckmann, Misra, & Budig, 2015). In the United States, investing in ECEC as a public good is also associated with increases in maternal employment (Landivar et al., 2022; Morrissey, 2017). The expansion of Washington DC's universal ECEC program increased maternal employment by 10 percent, with gains amongst married and unmarried and low-income and high-income mothers (Malik, 2019). Another study found that providing Pre-K programs in public school districts in 10 states led to a 5.5 percentage increase in the employment of married mothers with children ages 4 or older (Sall, 2014). An analysis of 44 states and the District of Columbia shows access to free Pre-K increased women's employment by 2.3 percentage points by both incentivizing women to *return* to the labor market and to *stay* employed after the transition to parenthood (Ilin, Shampine, & Terry, 2021).

Importantly, the full effects of existing U.S.-based universal programs have yet to be realized. Many of these state and local programs offer only limited hours (4 to 6 hours) making parents' full-time employment challenging. And no state, including Washington DC's program, offers universal full-day support for *infants*. Limited-hour and -age programs miss the thousands of women who drop out of the labor market shortly after birth due to ECEC cost and availability issues (Landivar et al., 2022). To maximize women's employment, we argue a universal ECEC program must include full-time, high-quality care from birth to school age.

BENEFIT 4: HIGH-QUALITY UNIVERSAL ECEC INFRASTRUCTURE WILL HELP CLOSE CLASS-BASED EDUCATIONAL GAPS

Children who participate in high-quality ECEC experience a range of cognitive and socio-development rewards (see implementation results from Educare, 2022). Recognizing these benefits, an increasing focus is on expanding access to high-quality ECEC to help equalize learning experiences between advantaged and disadvantaged children. Accordingly, many states have implemented a variety of federal- and state-funded programs to maximize these benefits. Some programs have stringent eligibility criteria, while others are universal or near universal.

Research clearly shows that federal- and state-funded ECEC are associated with short- and long-term benefits for children, especially for those who are low-income or otherwise would not attend preschool (Currie & Rossin-Slater, 2015; Elango et al., 2015). Coupled with the previously described advantages of a universal approach, the case for *high-quality universal ECEC* to improve outcomes among disadvantaged—and other groups of—children is mounting. Studies, including one of a large and representative group of universal Pre-K programs, show that children, after enrollment, are less likely to repeat a grade or have development and behavioral problems (Zerpa, 2018) and experience immediate test score gains (Cascio, 2017). Test score gains were higher for low-income children and *larger* than gains experienced by comparable students in means-tested programs (Cascio, 2017). Although long-term studies of universal Pre-K programs are more rare (due to recency in implementation), emerging scholarship identifies the early positive returns from high-quality universal programs persist, evidenced by higher rates of high school graduation, SAT test-taking, and college attendance (Gray-Lobe, Pathak, & Walters, 2021). We also argue these programs should be expanded to children of younger ages, especially because half of parents use non-parental care arrangements for children ages 0 to 2 years old (National Center for Education Statistics, 2020). Standardizing and ensuring access to high-quality care for infants and toddlers is critical because brain development is a cumulative process starting at birth.

Despite the expansive children-related benefits and recent increase in offerings of high-quality programs, enrollment in federal- and state-funded Pre-K programs still varies dramatically, with 84 percent of 4-year-olds in Washington DC and Vermont enrolled in any federal- or state-provided programs, compared to 13 percent in Idaho, Indiana, and New Hampshire (Friedman-Krauss et al., 2021). In many states, the need for affordable ECEC far exceeds the state or federal eligibility requirements for subsidized care, and states fail to cover all those who are eligible, suggesting that expanding a means-tested program is not the solution (U.S. Government Accountability Office, 2021). Moreover, quality varies by race, with Black and Hispanic children less likely to attend high-quality programs than White children (Rothwell, 2016). This means that high-quality Pre-K programs are still limited in their reach for many children (Ruppanner, 2020), further illuminating the need for a universal high-quality ECEC infrastructure.

CONCLUSION

The implementation of a well-funded, universal ECEC (birth to school age) is critical to address the interlocking issues that afflict the childcare industry and families' access to quality care and learning programs. As it stands, the current system relies on families to absorb exorbitant childcare costs, which strains family budgets, pushes mothers out of employment, and limits the quality of programming families can afford. Moreover, the current model—which includes very low pay for early childcare workers—relies on underpaying for the care of young children, with these costs borne heavily by women, particularly women of color, who overwhelmingly comprise this workforce. A universal ECEC approach would reduce childcare shortages and deserts, raise the working conditions of childcare workers, reduce families' outof-pocket costs, support maternal employment, and increase access to high-quality, enriching programs from birth. Expanding funding for means-tested programs is inadequate to overcome the infrastructure challenges (e.g., limited capacities, mismatching of labor with childcare needs in different communities, and early childcare labor supply and pay issues, etc.) that have a significant impact on availability, cost, and quality of ECEC for families across different communities; nor would it have as meaningful of an impact on maternal employment rates, given evidence that expanding universal programs increases women's employment across income levels. Taken together, the benefits of a universal ECEC infrastructure would be extensive it would immediately improve the living standards for children, women, and families, pay significant dividends to children's futures, and more broadly, have positive impacts on the U.S. economy.

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THE CASE FOR TARGETED PRESCHOOL AND CHILDCARE SUBSIDIES

David M. Blau

INTRODUCTION

This paper addresses the question of whether all children should be eligible for preschool and childcare subsidies or whether subsidies should be targeted to disadvantaged children. The question is timely given major increases in federal support for preschool and childcare proposed in the Build Back Better (BBB) Act. I focus on two main criteria for evaluating the universal-versus-targeted question: efficiency and equity.

Efficiency is about bang for the buck: What are the benefits of preschool and childcare to the recipients and their families, and how do the benefits compare to the cost of the subsidies? The most important potential benefit is to children: high-quality preschool can stimulate child development, leading to improved school performance and increased educational attainment, employment, earnings, health, and reduced crime. The evidence discussed below indicates that these benefits are substantial for disadvantaged children but small or null for more advantaged children, who have access to other high-quality environments in the absence of subsidized preschool. The benefits far outweigh the costs for disadvantaged children but not for more advantaged children (Elango et al., 2016). Thus, efficiency considerations favor targeted subsidies.

Equity is about fairness: lower-income children face many early life disadvantages and lag their higher-income peers in cognitive and socioemotional development as early as age 3, with lifelong consequences for social and economic outcomes (Duncan & Magnuson, 2013). It is unfair for a child to be burdened for life by the circumstances of birth, so lower-income children should receive support to help overcome early disadvantages. Disadvantaged children in the U.S. receive lower-quality care on average than their more advantaged peers, despite the existence of targeted programs such as Head Start, because the programs are underfunded and leave a large majority of eligible children unserved. Equity considerations clearly favor increased funding for targeted subsidies.

The following three sections spell out these arguments in more depth. In the final section, I discuss several objections made about targeted programs including lack of political support, high administrative costs, and stigmatizing disadvantaged families.

Preschool is intended to foster child development by providing a stimulating environment. A high-quality preschool has a developmentally appropriate curriculum implemented by well-trained teachers in classrooms with suitable space and materials. Quality within a classroom is determined by "The teacher's language complexity and level of instruction, the teacher's ability to create interesting activities for children that engage their attention, and the positive nature of the classroom, specifically more affirmation and warmth and less disapproving and behavioral controls" (Farran, 2017, p. 48). The term "high-quality preschool" will be used here as shorthand for programs that score well on a reliable measure of quality. High-quality preschool is expensive because it requires teachers who are trained in child development.

Most government subsidies designated for childcare, as opposed to preschool, require work or work-related activities by the parents. These subsidies, such as the Childcare and Development Fund (CCDF) and the Child and Dependent Care Credit (CDCC) in the U.S. do not require use of high-quality care as defined above. The main benefit of a childcare subsidy is to enable mothers of young children to participate in the labor force, but potentially at the cost of developmental stimulation. Childcare subsidies are unlikely to be efficient in the sense defined above for any children.

EFFICIENCY

Elango et al. (2016) review evidence on the effects of high-quality preschool programs targeted at disadvantaged children in the U.S. They discuss small-scale demonstration programs from the 1960s through the 1980s as well as the major large-scale targeted program, Head Start. The evidence from randomized evaluations of the key demonstration programs¹ is that these programs increased IQ, achievement test scores, and conscientiousness of participants at kindergarten entry (Elango et al., 2016, Table 4.4). In some cases, the cognitive effects faded with age, but the programs nevertheless had substantial beneficial effects on later-life outcomes including educational attainment, employment, earnings, health, reduced criminal activity, and lower welfare dependence (Table 4.7). The programs with the longest follow-ups to date have estimated benefit-cost ratios of at least 3:1 and as much as 6:1 (Table 4.8).

Elango et al. (2016) report a similar pattern in their review of evidence on the effects of Head Start: positive short-run effects on cognitive and non-cognitive achievement, some of which fade over time, and beneficial long-run effects on important life outcomes. The internal rate of return to Head Start expenditure for early participants is estimated to be 13.7 percent and the internal rate of return to the government is conservatively estimated to be 5.4 to 9.1 percent (Bailey, Sun, & Tempe, 2021). Head Start more than pays for itself. The benefit-cost ratio is lower for more recent cohorts of participants, but still sizeable (Kline & Walters, 2016).

Evidence on the effects of *universal* high-quality preschool programs on child development and subsequent adult outcomes is relatively scarce for the U.S. Most states and some cities have pre-kindergarten (pre-k) programs for four-year-old (and in some cases three-year-old) children. Some are universal and others are meanstested. They are very heterogeneous in size, quality, and years in existence, making

¹ Perry Preschool Project, Carolina Abecedarian Program, Infant Health and Development Program, and the Early Training Project.

broad generalizations difficult. The most reliable evidence is from evaluations of the Georgia, Oklahoma, and Boston universal pre-k programs. They have characteristics associated with high quality (small group size and child-staff ratio and well-educated teachers) and have been in existence for more than 20 years.

The developmental effects of the Georgia and Oklahoma programs were evaluated by Cascio and Schanzenbach (2013) using a Difference-in-Differences (DD) approach in which the differences in the outcomes of age-eligible children in Georgia and Oklahoma before and after the programs rolled out are compared to beforeafter outcome differences in states that did not implement a universal program during the same period (late 1990s). They report substantial positive impacts on fourth grade reading and math scores for children eligible for free or reducedprice school lunch (income less than 185 percent of the Federal Poverty Level [FPL]). The reading effects faded out by eighth grade, but the math effects remained moderately large. In contrast, there were no beneficial effects for higher-income children.

Gray-Lobe, Parthak, and Walters (2021) evaluated the impact of a universal preschool program in the Boston public schools. Slots in classrooms with excess demand are allocated by lottery and there are follow-up data on educational outcomes for up to 20 years. The lottery assignment is random conditional on family preferences and geographic residence, enabling a research design that closely mimics a randomized controlled trial. The analysis revealed substantial positive effects of preschool enrollment on high school graduation, college enrollment, and SAT scores, and reductions in school disciplinary incidents. There were no statistically significant differences in effects for lower and higher income children, but most of the children were lower income.

Cascio (forthcoming) estimated the short-run developmental impacts of a group of universal state pre-k programs and another group of targeted state programs serving four-year-old children. Universal state pre-k programs had positive effects on the cognitive achievement of low-income children at the end of the preschool year, while targeted programs had small and mainly negative effects. There were no cognitive benefits from universal programs for higher-income children.² It is not clear how to interpret the differences in effects of universal and targeted programs. Existing targeted preschool programs may be lower quality on average than existing universal programs, but this is not an inherent feature of targeted programs.³

In contrast to the U.S., universal preschool programs are the norm in Western Europe, where they are national in scope, impose uniform quality standards, and have high coverage. Blau (2021) reviewed recent quasi-experimental evaluations of the effects of universal preschool programs in several European countries. The evidence shows that these programs have beneficial effects on many short- and long-run outcomes for disadvantaged children but not for more advantaged children in most cases. There are many differences in the policy environment in Europe and the U.S., so it is risky to extrapolate from the results in Europe. Nevertheless, those results are quite similar qualitatively to the results for the U.S. discussed above.

To my knowledge, there are no evaluations of the effects of childcare subsidies such as CCDF and CDCC on child development in the U.S. However, there was a major expansion of childcare subsidies for children ages 0 to 4 in Quebec in the

 $^{^2}$ Zerpa (2021) finds a similar pattern of effects of universal and targeted state pre-k on grade repetition and health.

³ Weighted by the number of children served, universal programs meet an average of 6.0 of the 10 structural quality benchmarks in Friedman-Krauss et al. (2019) while targeted programs meet an average of 5.3.

1990s, which has been evaluated using a DD framework with the rest of Canada as a comparison group. Baker, Gruber, and Milligan (2019) found negative early impacts of the program expansion on non-cognitive development and health, and negative effects on health and life satisfaction in early adulthood. They also found a substantial increase in youth crime. The average quality of the childcare subsidized by the Quebec expansion was comparable to the average quality of childcare in the U.S. This suggests that childcare that is not focused explicitly on stimulating child development does not benefit children and may even harm their development. The negative impacts were larger for higher-income children (Kottelenberg & Lehrer, 2017), suggesting that families substituted highly subsidized lower-quality care for the more developmentally stimulating options typically available to higher-income children.

EQUITY

The equity argument for targeted preschool subsidies discussed in the Introduction is straightforward. Here, I report evidence that, in contrast to a pattern that would be consistent with equity considerations, disadvantaged children receive less nonparental care and lower-quality care than their more advantaged peers. I then show that Head Start and CCDF, both of which are targeted to lower-income children, serve only a modest fraction of eligible children. The same is true of both targeted and universal state pre-k programs.

Distribution of Quantity, Type, and Quality of Childcare by Income

Flood et al. (2021) show that there is a strong income gradient in average weekly hours of non-parental care at ages 0 to 2, with children in families with income exceeding \$75,000 receiving nine more hours of non-parental care on average than children in families with income below \$50,000. The gap was five hours at ages 3 and 4 (Flood et al., 2021, Table B-4). Centers provide higher-quality care on average compared to care by relatives, and children in the higher income group are 16 percentage points more likely to be enrolled in a center at ages 0 to 2 than are children in families with income below \$25,000. The gap is 14 percentage points at ages 3 and 4 (Table B-10). Using a measure of the quality of teacher-child interactions that is comparable across settings (the Arnett Scale of Caregiver Behavior), the quality of care received by children in families with income exceeding \$75,000 is 0.37 standard deviations greater than for children in families with income below \$25,000 (Table B-15). Thus, lower income children receive less non-parental care, less center care, and lower-quality care.⁴

Distribution of Subsidies by Income

Five major programs provide most public funding for childcare and preschool in the U.S.: Head Start, CCDF, CDCC, state pre-k, and Temporary Assistance for Needy Families (TANF). Table 1 shows recent data on funding, eligibility, and coverage for these programs. Head Start serves low-income children exclusively, mainly children at or below the FPL. It received \$9.7 billion in funding in 2019 and served 873,000 children. Head Start serves mainly 3- and 4-year-old children, but currently enrolls fewer than 40 percent of children in poverty in this age group. State preschool programs served about 1.6 million children in 2019 at a cost of \$10.4 billion, including

⁴ I thank the authors of Flood et al. (2021) for generously sharing data used to compute these figures.

Program	Children served (millions)	Eligibility	Annual funding (\$ billions)	Average cost per child (\$)	Coverage rate
Head Start	.87	$FI < 1.3 ^{*}FPL$	9.66	11,065	33% age 3^{a} 38% age 4
Pre-kindergarten	1.63	Variable ^b	10.43	6,399	6% age 3 34% age 4
CCDF	1.4	FI < .85*SMI	9.3°	6,643	14-22% ^d
CDCC	6.37°	Ages 0–12	3.8	597	UK
TANF Direct ^t	UK	FI < FPL	3.74	UK	UK

Table 1. Funding and coverage of major U.S. preschool and childcare subsidies in 2019.

Notes: All data are for calendar year or fiscal year 2019 unless otherwise noted. Coverage Rate = Percent of eligible children served. FI = Family Income. FPL = Federal Poverty Level. SMI = State Median Income. UK = Unknown. Figures for children served are for all ages covered by each program.

^a Head Start coverage rate data are from 2014/2015. Head Start funding excludes \$370 million in indirect costs such as monitoring, training, technical assistance, and program support. Enrollment includes children ages 0 to 5. Age 4 enrollment was 323,000 and age 3 enrollment was 306,000.

^b Pre-k eligibility varies across states according to income and child age. Data from Friedman-Krauss et al. (2019) indicate that roughly 45 percent of universal state pre-k enrollees were eligible for free or reduced-price lunch (FI < 1.85*FPL).

^c CCDF funding includes transfers from TANF.

^a CCDF coverage data are for FY 2017. 14 percent is the coverage rate using the federal guideline of FI < .85*SMI. States are permitted to impose lower income limits. 22 percent is the coverage rate using state income limits.

^eCCDC children served refers to the number of returns on which the credit is claimed. The number of children could be larger.

^t TANF Direct is direct expenditure on childcare services from TANF funds. Information on the number of children served is not collected. Includes federal and state funds.

Sources: Head Start Program Facts: Fiscal Year 2019, https://eclkc.ohs.acf.hhs.gov/about-us/article/head-start-program-facts-fiscal-year-2019. Barnett and Friedman-Krause (2016).

Pre-k: Friedman-Krauss et al. (2019).

CCDF: McHenry and Smith (2021). Coverage data: Friedman-Krauss et al. (2019).

CDCC: Statistics of Income—2019. Individual Income Tax Returns, Line Item Estimates, IRS, Washington, DC.

TANF Direct: McHenry and Smith (2021).

federal and local supplements. These programs served 34 (6) percent of eligible 4-(3-) year-old children. Roughly half the children served in universal pre-K programs have income less than 1.85 times FPL. CCDF funding was \$9.3 billion, and the program served 1.4 million children, 14 to 22 percent of income-eligible children. The federal income tax bills of families claiming the CDCC were reduced by \$3.8 billion in 2019. The credit was claimed on 6.4 million returns. 46 percent of the benefits went to taxpayers with Adjusted Gross Income greater than \$100,000 (not shown in the table). Direct expenditure on childcare by TANF was \$3.4 billion, with an unknown number of children served.

IMPLICATIONS FOR POLICY

The case for targeted subsidies for high-quality preschool on efficiency and equity grounds is strong. There are significant developmental benefits for disadvantaged children, which serve as the foundation for subsequent gains in education, employment, earnings, health, and crime reduction. Public subsidies for high-quality preschool for disadvantaged children are among the highest-value uses of public funds (Hendren & Keyser-Sprung, 2020). The benefits are high both for the chil-

dren who receive the services and for the public budget: such investments pay for themselves in the long run through increases in taxes resulting from higher earnings, less receipt of public assistance, less expenditure on special-needs education, and lower costs of crime. Equity considerations support expansion of targeted programs because there is a large unmet need for high-quality preschool for disadvantaged children in the U.S.

The efficiency case for universal preschool subsidies is weak. Most of the evidence shows minimal benefits of high-quality preschool for more advantaged children, due to the relatively high-quality of the parental and nonparental care available in the absence of subsidies. However, we know very little about the relationship between family income and the developmental benefits of preschool beyond the finding that low-income children receive large benefits and higher-income children do not. The benefits may decline smoothly with family income or there might be an income threshold beyond which the benefits drop sharply. This makes it difficult to recommend a specific income threshold for eligibility. Rather than impose an arbitrary income cutoff for eligibility, higher income families could be eligible for preschool subsidies with a cost sharing rate that increases with income. A program with no income limit but cost sharing that rises smoothly to 100 percent above some income threshold would allow voluntary participation by higher-income families.

Childcare subsidies without a requirement for high-quality care are unlikely to stimulate the development of young children. Such subsidies facilitate employment of parents (mainly mothers) of young children. This increases their net family income, which can be beneficial for children. But the effect on child development of an increase in income is much smaller than from spending the same amount of money on high-quality preschool (Chapparo, Sojourner, & Wiswall, 2020). Employment can provide direct benefits to mothers of young children by allowing them to maintain an attachment to the labor force, which contributes to wage growth and control of family resources. However, childcare subsidies often result in relatively small increases in employment, with much of the take-up by mothers who would have been employed anyway (Blau, 2003).

COUNTER ARGUMENTS

It is often claimed that political support for universal programs is stronger than for targeted programs. Skocpol (1991) argues that initiating a broadly based program to gain political support allows subsequent extensions to provide additional more targeted benefits to disadvantaged families, a form of "targeting within universalism." Greenstein (1991) responds that there are examples of politically popular targeted programs, including Head Start. Their political support is due to the in-kind nature of their benefits, the fact that the benefits are for children, and they are perceived as effective in accomplishing their objectives. A program for which all children are eligible but with cost sharing at higher income levels could potentially combine high political support with the efficiency and equity benefits of a targeted program.

Greenstein additionally argues that fiscal constraints are not adequately considered by proponents of universal programs. Table 2 illustrates the fiscal implications of free universal high-quality preschool for children ages 3 and 4, as proposed in the BBB Act. Two hypothetical per-child funding levels are considered: Head Start (\$11,065) and the current state pre-k average (\$6,399). The first row shows the cost of adding coverage for children ages 3 and 4 with Family Income (FI) < 2 times FPL

		Gross additional cost (\$ billions) at per child cost of	
Family Income (FI)	Children ages 3–4 not enrolled in Head Start or pre-k, millions	Head Start (\$11,065)	Pre-K (\$6,399)
FI < 2*FPL .33*(FI > 2*FPL)	1.85 1.64	20.48 18.15	11.84 10.49
Total, FI<2*FPL plus: .33*(FI > 2*FPL) .67*(FI > 2*FPL) 1.0*(FI > 2*FPL)	3.49 5.13 6.77	38.62 56.77 74.91	22.33 32.83 43.32

Table 2. Hypothetical additional annual cost of preschool for children ages 3 and 4 not currently served by Head Start or state pre-k.

Notes: FI = Family Income. FPL = Federal Poverty Level. Data are for 2019. See Table 1 for the per-child costs of Head Start and state pre-k. There were 3.11 million children ages 3 and 4 with FI < 2*FPL. 0.629 were served by Head Start (assuming all children enrolled in Head Start have FI < 2*FPL) and .45*1.4 = 0.630 by state pre-k (see Table 1, notes a and b). This leaves 1.85 million currently unserved. There were 8.03 million children ages 3 and 4 in total in 2019. Subtracting the 3.11 million with FI < 2*FPL leaves 4.92 million. One-third of 4.92 is 1.64 million. Row 1 shows the cost of serving children with FI < 2*FPL not currently enrolled in Head Start or pre-k. Row 2 shows the cost of serving alternative proportions of children with FI > 2*FPL. This allows an illustration of the cost of serving alternative proportions of children with FI > 2*FPL, shown in the last three rows. The table shows gross costs. Subtract \$4.77 billion in savings from eliminating CCDF, CDCC, and TANF direct expenditures for 3- and 4-year-old children to obtain the net cost of the scenarios in the last three rows. 27 percent of children served by CCDF are ages 3 and 4 (Table 1, note c), and 30 percent of CDCC and TANF direct expenditures are assumed to be for children ages 3 and 4.

Sources: Population by age: Annie E. Casey Foundation.

Children in poverty: National Center for Children in Poverty. Data reported from this source are for children ages 3 to 5. I assume two-thirds are ages 3 and 4.

not currently served by Head Start or state pre-K.⁵ At the Head Start funding level, this would cost \$20.5 billion. The second row shows the cost of covering one-third of the children above 2 times FPL, which would be \$18.1 billion. Universal coverage would cost \$74.9 billion (last row). Accounting for savings of \$4.77 billion from eliminating redundant CCDF, CDCC, and TANF expenditures for children ages 3 and 4, the net cost would be \$70.2 billion. The gross and net costs would be \$43.3 billion and \$38.5 billion, respectively, funded at the current average cost of state pre-k. These are rough calculations and could overstate the cost of universal preschool. Proposed funding for the universal preschool provision of BBB is \$6 billion annually for the first three years. Even if the estimates in Table 2 are high by a factor of two, the proposed BBB funding is highly inadequate, suggesting an unwillingness to confront the reality of the high cost of universal preschool.

Other arguments against targeted programs are that (1) they have high administrative costs compared to universal programs because of the need to verify income; (2) the bureaucratic process of documenting income can be costly for disadvantaged families lacking adequate transportation, paid time off from work, and documentation; (3) documenting income is a demeaning process that stigmatizes disadvantaged families, discourages them from accessing benefits, and treats them as

⁵ The BBB Act requires states to continue funding pre-k at no less than the current level to be eligible for the new funding.

second-class citizens; and (4) income volatility can cause discontinuity in subsidy receipt if eligibility cutoffs are enforced with high frequency. These are valid points, and the fact that their costs cannot be easily quantified does not mean they should be ignored. The high cost a of universal program must be weighed against these drawbacks of targeted programs. Perhaps additional resources could be included in a targeted program to minimize the cost to families of income-testing.

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RESPONSE TO DAVID BLAU'S ESSAY

Jill E. Yavorsky and Leah Ruppanner

Across these essays, we are in agreement with David Blau that: (a) early childhood education and care (ECEC) is critical to children's development and requires significant additional investment; (b) targeted and universal programs provide children—especially low-income children—short- and long-term benefits (Cascio, forthcoming; Cascio & Schanzenbach, 2013; Gray-Lobe, Pathak, & Walters, 2021); and (c) U.S.-based research shows universal programs provide higher quality standards and better outcomes for disadvantaged children than targeted programs (Cascio, forthcoming). Yet, we disagree that expanding means-tested programs to low-income families is the best solution.

We argue here that a means-tested approach is inadequate to: (1) ensure middleclass families' access to affordable high-quality programming; (2) raise the wages of ECEC workers; and (3) facilitate maternal employment across the income distribution. Hence the important need for a universal approach to ECEC.

COUNTERPOINT 1: MIDDLE-CLASS FAMILIES ALSO SUFFER FROM EXPENSIVE, INACCESSIBLE, AND LOW-QUALITY ECEC

Blau argues that expanding low-income children's access to ECEC is economically efficient but he is reluctant to establish clear income thresholds to qualify families for subsidized ECEC. We argue that this difficulty is because childcare is unaffordable across nearly all income levels. Middle income families—who neither qualify for subsidies nor have high salaries to outspend costs—are particularly vulnerable to high childcare costs and low-quality provisions (Chaudry & Waldfogel, 2017; Hotz & Wiswall, 2019). Thus, as evidence shows, it is incorrect to assume non-low-income families can *afford* high-quality ECEC.

Moreover, targeted programs will not solve *access* issues faced by millions of families across income levels (Hotz & Wiswall, 2019; Malik et al., 2018). Childcare deserts—where demand for ECEC far exceeds supply—are especially likely to occur in middle-income neighborhoods, given the absence of federal and state funding that is available in low-income communities and high purchasing power of high-income neighborhoods to boost childcare capacity (Malik et al., 2018). Expanding only low-income funding would fail to solve capacity problems plaguing means-tested and market-driven approaches.

COUNTERPOINT 2: LOW PAY AND HIGH TURN-OVER AMONGST CHILDCARE WORKERS PENALIZES WORKERS AND DETERIORATES PROGRAM QUALITY

Blau rightly advocates for higher quality programming for low-income children but ignores the link between program quality and widespread ECEC labor issues. Despite the importance and intensity of these jobs, ECEC workers rarely earn benefits such as health insurance and are paid 40 percent less than the median hourly wage of workers in other occupations (\$12.24 vs. \$20.17) (Banerjee, Gould, & Sawo, 2021; U.S. Bureau of Labor Statistics, 2020). As a result, childcare staff turnover rates are high, with 26 to 40 percent leaving their jobs each year (Totenhagen et al., 2016). The pandemic compounded many of these supply issues, with the childcare sector dramatically declining after the onset of the pandemic (McLean et al., 2021). Despite economic recovery, the "early care and education sector remains in crisis, with 131,200 fewer jobs today than at the outset of the pandemic" (Center for the Study of Child Care Employment, 2022).

Attracting and retaining qualified talent is critical to delivering high-quality ECEC (Manning et al., 2017). Labor shortages disrupt children's routines, require centers to increase teacher-child ratios, and divert critical resources to recruiting, training, and retaining employees (U.S. Department of the Treasury, 2021). These issues are industry-wide, meaning expanding targeted programs is an inadequate solution. Rather, childcare requires a universal infrastructure with stricter regulation of programming, children's outcomes, and staff pay.

COUNTERPOINT 3: UNIVERSAL HIGH-QUALITY ECEC INCREASES MOTHERS' EMPLOYMENT AND SUPPORTS ECONOMIC GROWTH

Blau's argument related to cost and efficiency excludes the extensive economic benefits of a universal program that would result from increases in women's employment across income levels. As we highlighted in our main essay, universal ECEC programs significantly increase mothers' employment (e.g., Malik, 2019). Such increases would improve women's overall economic mobility, reduce gender gaps in wages and labor force participation, generate additional tax revenues for the U.S. government, and have other important wide-scale societal benefits.

Estimates suggest that a universal ECEC program would provide \$138 billion in increased economic output through increased parental employment (\$48B); tax

gains from reduced childcare disruptions on employment (\$60B); and economic expansion in the childcare industry (\$30B) (Kashen et al., 2022). This *\$138 billion return on investment* far exceeds Blau's estimated cost of \$70.2B for implementation of a universal system for 3- and 4-year-old children. Moreover, this \$138B is likely an *underestimation* of the return on investment because these calculations do not include the additional savings that would be gained from: (1) reduced reliance on government support programs; (2) increases in family incomes, spending, and standards of living; and (3) long-term economic benefits to children's better education, and improved behavioral and employment outcomes into adulthood (see main essay).

Ultimately, universalizing access to high-quality ECEC is one of the most efficient and effective public investments.

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RESPONSE TO JILL YAVORSKY AND LEAH RUPPANNER

David M. Blau

I address several specific points raised by Jill Yavorsky and Leah Ruppanner and then conclude with some general thoughts.

SPECIFIC ISSUES

Funding versus Universality

Yavorsky and Ruppanner tend to conflate funding of early childhood education and care (ECEC) programs with eligibility for the programs. These are distinct issues. A targeted program such as Head Start can be underfunded, as it always has been, but

in principle it could be fully funded to serve all eligible children. A universal program can be underfunded, as would be the case for the preschool program proposed in the Build Back Better (BBB) Act. There is no logical connection between universality and funding. I agree with Yavorsky and Ruppanner that public support for ECEC in the U.S. is too low, but an underfunded universal program is not a solution to the underfunding problem. Yavorsky and Ruppanner state that, "In many states, the need for affordable ECEC far exceeds the state or federal eligibility requirements for subsidized care, and states fail to cover all those who are eligible, suggesting that expanding a means-tested program is not the solution." A means-tested program is not the solution to all ECEC problems, but a fully funded means-tested program can address the ECEC needs of disadvantaged children.

Quality versus Universality

Yavorsky and Ruppanner argue that "... the case for *high-quality universal ECEC* to improve outcomes among disadvantaged—and other groups of—children is mounting." High quality, not universality, is what matters for improving outcomes of disadvantaged children. High quality targeted programs such as Perry Preschool, Abecedarian, and Head Start have improved outcomes of disadvantaged children. Mediocre quality universal programs such as the Quebec child care subsidy expansion have harmed child development. The heterogeneity of state pre-k programs demonstrates that both universal and targeted programs can be of high quality or low quality. I agree with Yavorsky and Ruppanner that high quality is crucial for a preschool program to deliver developmental benefits to disadvantaged children. We disagree on whether a program must be universal to be of high quality.

Who Benefits from High-Quality Preschool?

Yavorsky and Ruppanner tend to downplay the fact that the benefits of high-quality preschool accrue mainly to disadvantaged children: "Decades of research show that access to *high quality* … ECEC provides children with significant short- and long-term educational and social benefits and is a very effective long-term social investment." As discussed in my paper, most studies find no evidence that advantaged children derive developmental benefits from high-quality preschool, because these children tend to be in high-quality environments even in the absence of heavily subsidized high-quality ECEC. Universal access to subsidized high-quality preschool may be desirable for other reasons, but not because it is an effective investment for more advantaged children.

Infrastructure, Low Pay, and Childcare Deserts

Yavorsky and Ruppanner argue that expanding access to means-tested preschool programs will not deal with systemic problems such as lack of infrastructure, low teacher wages, and childcare deserts. "Intervention requires a universal approach that invests in ECEC infrastructure—buildings, high-quality programming, and better training and higher pay for staff, across all regions ..." Universally available infrastructure, such as a public school, is appealing because everyone has a stake in it, even if they don't use it. Such infrastructure belongs to the community and is supported locally. And providing ECEC in public schools is a potential solution to the problem of low pay since preschool teachers in public schools are usually required to meet the same education and training standards as elementary teachers and are paid on the same scale. However, other aspects of this argument are not as plausible. The childcare desert problem is predominantly in low-income areas (Malik et al., 2018), so increased funding for means-tested programs could be an effective

approach to this problem, especially if the income eligibility threshold is increased to include working- and middle-class families.

Maternal Employment

Yavorsky and Ruppanner argue that subsidies for ECEC are important to increase employment of mothers of young children. "To maximize women's employment, we argue a universal ECEC program must include full-time, high-quality care from birth to school age." They cite evidence that universal ECEC has increased employment of mothers of young children. I agree that highly subsidized ECEC can result in increased employment, but the evidence is more nuanced than they acknowledge. Bauernschuster and Schlotter (2015) point out that introducing or increasing an ECEC subsidy in a setting in which employment of mothers is already relatively high has little impact on maternal employment (for example, in Norway and Sweden), while the effect can be large starting from a low level of maternal employment (for example, Germany). Evidence from the U.S. is mixed as well, with some studies showing no impact of universal ECEC on employment and others finding sizeable effects. Even in cases in which there is a positive overall effect of universal ECEC, the effect is often heterogeneous. Two recent studies found that universal ECEC increased maternal employment at the lower and higher ends of the income distribution but not in the middle (Ilin, Shampine, & Terry, 2021; Malik, 2018).

ECEC as an Income Support Program

Yavorsky and Ruppanner argue that "... a universal program would raise the current and future living standards of millions of low-income *and* middle-class families ..." by defraying the burdensome cost of childcare. This is true, but it will *not* raise the incomes of millions of others who choose not to use the program. And it *will* raise the incomes of millions of upper-income families, at a high cost for little demonstrable benefit. A child tax credit would provide more choice for families, allowing them to decide whether to use it for childcare or parental care. ECEC is the wrong approach to increasing living standards.

GENERAL ISSUES

A fundamental issue in the universal versus targeted debate is the goal of ECEC policy. Three possible goals are to (a) support development of disadvantaged children, (b) enable employment of mothers of young children, and (c) raise the living standard of families with children. Equity and efficiency considerations support a focus on goal (a). Yavorsky and Ruppanner argue that an ECEC program should try to achieve all three goals. A fully funded free universal ECEC program covering children from age zero until kindergarten entry, as proposed by Yavorsky and Ruppanner, could achieve all three goals, but Yavorsky and Ruppanner do not consider the costs of such a program. I illustrated the costs of alternative coverage scenarios for children ages 3 and 4. The costs become very large as increasing numbers of middle- and upper-income children are included. Caring for infants and toddlers is very costly, so the cost of a universal high-quality program from birth to kindergarten entry would be enormous. I believe the costs can be justified on efficiency and equity grounds in pursuit of goal (a), but I see little rationale for a universal ECEC program for the purposes of pursuing goals (b) and (c). As noted above, a child tax credit would be a more efficient approach to achieving those goals.

One might argue that the large costs of the universal approach are dwarfed by public spending for defense and the home mortgage interest and charitable contribution deductions that mainly benefit upper income families. I am sympathetic to this argument, but the worthy goal of reducing excessive public support in some domains does not justify introducing excessive support in other domains.

Finally, as noted in my paper, the universal versus targeted dichotomy may be too simplistic. A universal program with a rate of cost sharing that rises with income, reaching 100 percent at a suitably high level of income, could incorporate the best features of both approaches.

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