THE CLASS OF 1964 POLICY RESEARCH SHOP

VERMONT PRE-K AND CHILDCARE EXPANSION: CONTEXT AND PEER MODELS



PRESENTED TO THE EDUCATION COMMITTEE, VERMONT HOUSE OF REPRESENTATIVES

Representative Peter Conlon, Chair

This report was written by undergraduate students at Dartmouth College under the direction of professors in the Nelson A. Rockefeller Center. Policy Research Shop (PRS) students produce non-partisan policy analyses and present their findings in a non-advocacy manner. The PRS is fully endowed by the Dartmouth Class of 1964 through a class gift given to the Center in celebration of its 50th Anniversary. This endowment ensures that the Policy Research Shop will continue to produce high-quality, non-partisan policy research for policymakers in New Hampshire and Vermont. The PRS was previously funded by major grants from the U.S. Department of Education, Fund for the Improvement of Post-Secondary Education (FIPSE) and from the Ford Foundation and by initial seed grants from the Surdna Foundation, the Lintilhac Foundation, and the Ford Motor Company Fund. Since its inception in 2005, PRS students have invested more than 70,000 hours to produce more than 250 policy briefs for policymakers in New Hampshire and Vermont.

PRS POLICY BRIEF 2223-04 NOVEMBER 3, 2023



PREPARED BY: LILIAN HEMMINS THOMAS LANE



NELSON A. ROCKEFELLER CENTER FOR PUBLIC POLICY AND THE SOCIAL SCIENCES

Contact

Nelson A. Rockefeller Center, 6082 Rockefeller Hall, Dartmouth College, Hanover NH 03755 https://rockefeller.dartmouth.edu/public-policy/class-1964-policy-research-shop Email: Kristin.E.Smith@Dartmouth.edu

TABLE OF CONTENTS

EXECUTIVE SUMMARY		1
1	INTRODUCTION	2
2	PROBLEM STATEMENT	5
3	FEDERAL ACTION	5
4	IMPACTS OF CHILDCARE AND PRE-K ON CHILDREN AND FAMILIES	8
5	CASE STUDIES	10
5	5.1 OKLAHOMA	11
5	5.2 COLORADO	13
5	5.3 MAINE	15
5	5.4 WEST VIRGINIA	18
5	5.5 BRANDENBURG, GERMANY	20
6	CONCLUSION	23
REFERENCES		24

EXECUTIVE SUMMARY

Despite its high ranking from the National Institute for Early Education Research (NIEER) as fourth in the nation for accessibility for four-year-olds and second for three-year-olds, Vermont struggles to provide childcare and pre-K programs that meet the needs of its residents. High quality early childhood education has been shown to have positive impacts that persist beyond school and childhood. Preschool enrollment enables wider workforce participation among parents, boosting community economies. Federal early childhood education programs, most of which are targeted towards low-income children and families, constitute the foundation of preschool programs currently available. Universal preschool is an increasingly discussed issue, yet funding gaps commonly prove politically insurmountable. A growing number of states are implementing programs and measures aimed at expanding pre-K and early childhood classrooms. Oklahoma, Colorado, Maine, and West Virginia have made notable strides in the provision of universal preschool, some through decades-old policies and some through programs still being developed and implemented. Brandenburg, Germany is also included as an additional case study of an effective universal preschool policy infrastructure.

1 INTRODUCTION

Preschool enrollment, particularly at the four-year-old, pre-kindergarten level, is growing around the country. Families are becoming increasingly aware of the positive effects preschool enrollment has on academic and behavioral outcomes. Across all the major public programs, 41 percent of four-year-olds and 17 percent of three-year-olds in the U.S. were served according to the National Institute for Early Education Research (NIEER) at Rutgers University. These major programs are state-funded preschool (which covered 32 percent of four-year-olds and 6 percent of three-year-olds in the U.S.), preschool special education, and Head Start. The United States is ranked 30th amongst the 38 member nations of the Organization for Economic Cooperation and Development (OECD) for preschool enrollment.

In the 2021-2022 school year, 1,526,116 children attended state-funded preschool, an increase of 180,668 children or 13 percent from the prior school year.³ Enrollment increased in all but seven states. Preschool enrollment fell during the COVID-19 pandemic, and enrollment numbers are still rebounding to their pre-COVID levels. Despite the strides several states are making towards the implementation of universal pre-K, current enrollment is eight percent lower than enrollment at the beginning of the 2019-2020 school year.

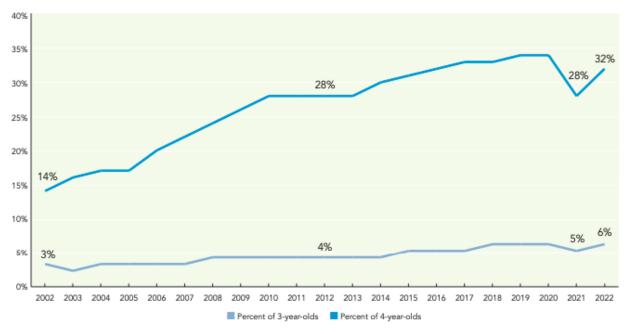
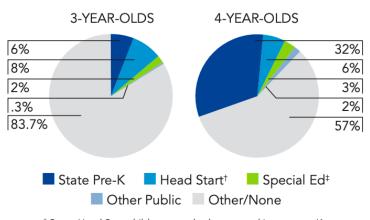


Figure 1.1: Enrollment in state-funded preschool.4



[†] Some Head Start children may also be counted in state pre-K. [‡] Estimates children in special education not also enrolled in state pre-K or Head Start.

Figure 1.2: Percent of population enrolled in early childcare education.⁵

All reported funding for preschool (which includes federal, state, and local dollars) surpassed \$11.5 billion in the 2021-2022 school year, including \$9.51 billion in state funding and at least \$393 million in COVID-19 relief funding. Contrary to enrollment increases which likely reflect a post-pandemic bounce-back, inflation-adjusted nationwide funding decreased by two percent, according to NIEER.⁶

States that have universal pre-K laws or programs do not always achieve high enrollment. Even though, at its simplest, universal pre-K is any state-funded preschool program in which age is the only criterion for eligibility, the term is fuzzy and used differently in different cases. Funding limits and caps on enrollment curb the number of four-year-olds who can participate and hinder the universality of many programs. For example, Georgia has a lottery-funded public pre-K program for which all four-year-olds are nominally eligible. Nonetheless, not all eligible and interested children are able to enroll due to the availability of seats and annual fluctuations in state lottery revenue. NIEER defines universal pre-K as a program that enrolls at least 70 percent of four-year-olds, a standard currently met only by Florida, Iowa, Oklahoma, Vermont, West Virginia, Wisconsin, and the District of Columbia.

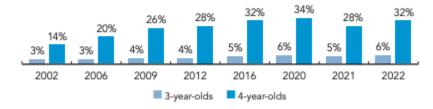


Figure 1.3: Percent of U.S. population enrolled in state-funded preschool.8

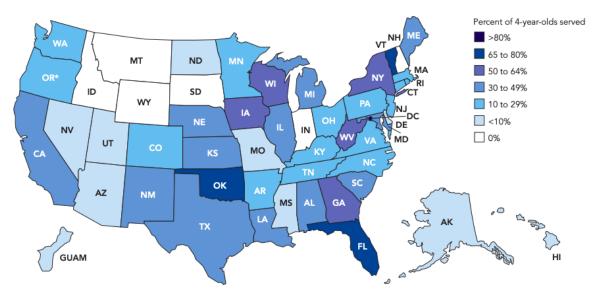


Figure 1.4: Percent of 4-year-olds served by state-funded preschool programs. 9

According to NIEER's State of Preschool Report for 2022, the preschool workforce faces an unprecedented teacher shortage. ¹⁰ In response, many state-funded preschool programs increased the use of waivers to teacher degree and training requirements. ¹¹ NIEER reports that some states have not yet returned to pre-pandemic implementation of policies, including those for continuous quality improvement. ¹² Many states interested in creating and implementing universal preschool programs not only face obstacles identifying viable funding streams, but also struggle to ensure their preschool workforce can actually support an increase in enrollment. Few states provided incentives for teacher retention or recruitment, all of which results in fewer qualified teachers in preschool classrooms. ¹³

Rural states and regions face even more barriers to ensuring all families can find and pay for quality childcare. Many rural areas experience stalled economic growth, have higher rates of child poverty, and see children entering kindergarten already behind their metropolitan-area peers in reading and math. According to research by the Center on American Progress, 60 percent of rural Americans live in a childcare desert. Despite families in rural areas spending, on average, 12 percent of their incomes on childcare, a typical teacher in a rural childcare center earns just \$23,000 per year. In the push to expand childcare opportunities and pre-K enrollment in rural America, advocates and policymakers face unique challenges related to transportation, population density, public awareness, and more.

As a result of the failed efforts of the Biden administration to implement universal pre-K programs at the federal level, the creation and passage of policies that expand the accessibility and affordability of preschool classrooms currently falls to states. The following research will examine policies and initiatives at the state and federal levels that aim to increase preschool enrollment, as well as exploring existing literature on the effectiveness and impacts of preschool on children's academic and behavioral readiness.

2 PROBLEM STATEMENT

Three out of five of Vermont's youngest children do not have access to quality childcare. 15 Parents across Vermont struggle with inaccessible and unaffordable pre-K and early childcare. The costs required to offer sufficient pay and benefits to early childhood education providers and to recruit and retain high-quality educators to the preschool level make tuition unaffordable for most families. The result is a market failure that Vermont and most other states are struggling to overcome. The rural nature of Vermont compounds the shortage of teachers and affordable seats to make preschool even more inaccessible and expensive. Vermont's 2023 Child Care Bill, a \$125 million annual investment that became law during the writing of this report, will provide more families with tuition subsidies, free preschool enrollment for those below 175 percent of the Federal Poverty Line (FPL), and more funding to expand and improve Vermont's educator workforce through support for teacher pay and professional development. The bill created a Prekindergarten Education Implementation Committee charged with improving and expanding pre-K education for children on a full-day basis. The following report aims to inform the Education Committee of the Vermont House of Representatives and other relevant actors on the broader childcare and pre-K landscape at the federal level and in peer states and regions as it considers and implements policy changes surrounding universal pre-K and early childhood education in Vermont.

3 FEDERAL ACTION

Head Start is a critical part of the early childhood education available in communities across the U.S., particularly for low-income families. While Head Start serves three- to five-year-olds, Early Head Start, begun in 2014, serves pregnant women, infants, and toddlers up to the age of three, focusing on early intervention and support for both parents and young children. Since its establishment, nearly 500 new Early Head Start Child Care Partnerships (EHS-CC) and Early Head Start Expansion grants have been awarded across four rounds of competition. In fiscal year (FY) 2022, there were 165,155 and 32,300 funded slots in the Early Head Start and EHS-Child Care Partnerships programs, respectively.¹⁶

All Head Start grant recipients must, unless a waiver is granted, contribute 20 percent of the total cost of the program from non-federal funds. At least 90 percent of the enrollees in a program must be children from families with an income at or below the federal poverty level or who are eligible for public assistance programs, including SNAP or TANF, or who are experiencing homelessness or in foster care. However, if a program can show that it is meeting the needs of all interested and eligible families in its community using the above criteria, that program may propose to fill up to 35 percent of its funded enrollment with children whose family income is between 100 to 130 percent of the poverty line. Head Start programs must ensure that at least 10 percent of funded enrollment is filled by children with disabilities.

Head Start received a total of \$11.04 billion in FY 2023, an increase of \$288.7 million over FY 2021 levels. That amounted to a funding increase in FY 2023 of \$960 million over FY 2022 levels, including

\$596 million for a 5.6 percent cost-of-living adjustment, \$262 million for quality improvement, and \$100 million for the expansion of Head Start and Early Head Start. Tongress also provided Head Start an additional \$1 billion in one-time funding through the American Rescue Plan Act (ARP), distributed in the summer of 2021 based on each grant recipient's funded enrollment.

President Joe Biden requested an increase in funding for FY 2024 that would allow the Department of Health and Human Services' Administration for Children and Families (ACF) to support an estimated 760,156 slots for eligible children and pregnant women in response to decreases in funded slots. (Head Start served more than 899,000 children in FY 2017¹⁸.) Due to the nationwide shortage in early childhood education (ECE) staff, which has greatly affected the ability of Head Start and other ECE programs to recruit and retain qualified educators, many Head Start programs are reducing enrollment and making changes to their programs to improve compensation to better recruit and retain qualified staff.¹⁹ President Biden's FY 2024 Budget Request would stabilize enrollment in the program by increasing wages and making a down payment to create pay parity between Head Start teachers and elementary school teachers with the same qualifications, as well as a cost of living adjustment for Head Start.²⁰

The ACF reports that, from 2010 to 2022, the share of Head Start Preschool teachers with a bachelor's degree increased from 52 percent to 71 percent, but inflation-adjusted salaries for these teachers actually decreased by two percent during this timeframe: the average teacher salary in real dollars was \$39,096 in 2022 and \$39,912 in 2010. By comparison, kindergarten teachers and public school preschool teachers, who often hold similar credentials as those of the Head Start teachers, earned average annual salaries of \$64,490 and \$52,420 in May 2021, respectively.

The Every Student Succeeds Act of 2015 authorized the Preschool Development Grant (PDG) program to be administered by the U.S. Department of Health and Human Services (HHS). The program was created in the previous year, 2014, through appropriations language and was funded and administered by the U.S. Department of Education. The program supported two types of grants: 1) development grants for states with small or no state public preschool programs, given to develop or enhance their infrastructure and capacity to deliver high-quality services to eligible children in one or more high-need communities, and 2) expansion grants for states with more robust systems to help them implement and expand high-quality programs and serve more children in high-need communities.²¹ Both types of grants were renewable for up to four years, and grantees had the option to implement services through a mixed-delivery system of providers including schools, licensed childcare centers, Head Start, or other community-based organizations. In Fiscal Year 2017, the program became the Preschool Development Grants Birth through Five Initiative (PDG B-5), funded through HHS and jointly administered with the Department of Education. The program focuses on the coordination of the delivery models and funding streams existing in each state's mixed delivery system.²² PDG B-5 funded the development and implementation of a comprehensive needs assessment by state grantees and, in FY 2019 through 2022, new and renewal grants to selected states.

State recipients could choose to use up to 60 percent of their grant funds to award sub-grants to programs in a mixed delivery system.²³

The Child Care and Development Fund (CCDF), administered by ACF, supplements the cost of childcare for low-income families through vouchers or certificates. In FY 2022, the program was appropriated \$9,461,000,000 in mandatory and discretionary funding, and for FY 2023, President Biden requested from Congress a funding increase of \$1.65 billion in an effort to increase the number of children served by the program. CCDF consists of two funding streams: the mandatory Child Care Entitlement (CCE) and the discretionary Child Care and Development Block Grant (CCDBG).²⁴

CCDBG was created by the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) and is subject to annual appropriations. The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 (P.L. 104-193) consolidated funding for childcare under the Social Security Act where CCE is authorized and made such funding generally subject to the requirements of the CCDBG Act. The Child Care and Development Block Grant Act of 2014 (P.L. 113-186) reauthorized the discretionary portion of CCDF through FY 2020 and made significant changes to improve the health, safety, and quality of childcare and to provide more continuous childcare assistance to low-income children and families. The ARP permanently authorized CCE and increased the annual funding level from \$2.9 billion to \$3.6 billion.²⁵

States are required to spend a minimum of nine percent of CCDF funds on activities that are designed to improve the quality of childcare services and increase parental options for and access to high-quality childcare. Of CCDF funds, three percent must go towards activities that improve the quality and supply of childcare for infants and toddlers.²⁶

The combination of the discretionary and mandatory funds provided about \$9.5 billion in federal funding in FY 2021 for childcare. When combined with the state matching and maintenance of effort funds, as well as funds transferred from the Temporary Assistance for Needy Families (TANF) program, annual funding for CCDF in FY 2021 is about \$13 billion. The Consolidated Appropriations Act, 2021 (P.L. 116-260) included an \$85 million increase in CCDBG funds over the previous year. Since FY 2018, Congress has increased the CCDBG appropriation by approximately \$3 billion. In response to the COVID-19 pandemic, Congress provided a total of \$52.5 billion in supplemental funding in three appropriations: \$3.5 billion in the Coronavirus Aid, Relief, and Economic Security (CARES) Act, \$10 billion through the Coronavirus Response and Relief Supplemental Appropriations (CRRSA) Act, and \$39 billion through the ARP Act. President Biden requested CCDBG receive a historic appropriation of \$9 billion for FY 2024 and \$600 billion over 10 years to support expanded access to high quality childcare and preschool. President Biden requested CCDBG receive and preschool.

In FY 2019, the most recent year for which preliminary data are available, over 1.4 million children from about 857,700 low-income families received childcare assistance in an average month through CCDF. Of the children served, 28 percent were infants and toddlers, 28 percent were three or four

years old, 10 percent were five years old, and 34 percent were six years or older. Of the families served, 40 percent had incomes below the FPL (\$21,330 for a family of three in 2019), 27 percent had incomes between 100 and 150 percent of the FPL, and 17 percent had incomes above 150 percent of FPL (with the remaining cases being child-only protective services or invalid or unreported data).²⁹

For more information about FY 2024 funding levels requested by President Biden and Senate Labor/HHS Report Language for all federal preschool programs including PDG B-5, EHS-CCP, CCDBG, IDEA Grants to States, IDEA Preschool Grants (Part B, 619), IDEA Grants for Infants and Toddlers (Part C), Child Care Access Means Parents in School (CCAMPIS), and the National Child Traumatic Stress Initiative, see the following website: https://www.ffyf.org/funding-for-keyearly-learning-programs-fy24-2/.

In his 2021 \$1.75 trillion Build Back Better bill, which ultimately was not enacted, President Joe Biden included a \$400 billion investment for raising wages for early childhood educators, increasing options and decreasing costs for families, and expanding support for quality and the ECE workforce.³⁰ While advocating for it, he said that if enacted, the bill would "finally take us from 12 years to 14 years of universal education in America."³¹

4 IMPACTS OF CHILDCARE AND PRE-K ON CHILDREN AND FAMILIES

Extensive research has been done on the academic and behavioral impacts of ECE. The seminal example is the Perry Preschool Project, which examined low-income Black children and found that enrollment in pre-K has numerous positive impacts such as decreasing the likelihood of criminality and teen pregnancy and increasing educational attainment and income.³² Studies since have sought to replicate that success and expand on it to determine the answers to related questions, such as whether other groups of children or other types of programs can have similar outcomes as Perry Preschool. The accumulated consensus since tends to indicate that early education programs can indeed have durable positive effects on children, but the quality of the program is essential.³³

Test scores are the most basic metric used to assess the short-term impact of early education on children. Generally, research finds that such programs raise children's test scores. This comes with a notable, if not surprising, caveat. The test score boost gradually disappears as children progress through school, with some finding it dissipates by eighth grade.³⁴ There are also assessed benefits in other short-term metrics. While the evidence is weaker, studies have found positive impacts on self-control, motivation, and perseverance, which are believed to be tied to longer-term socio-economic benefits to society.³⁵

Assessing the long-term impacts of early education is difficult due to the decades-long delay between the time of enrollment and the programs having a full and measurable long-term effect. Nonetheless, the research that does exist is encouraging. Studies have found adults who were enrolled in pre-K had lower welfare usage, lower likelihood of criminal activity, higher educational attainment, better health, higher employment, and higher income.³⁶

Studies have found the positive short- and long-term impacts of pre-K enrollment are greater among children from disadvantaged backgrounds.³⁷ This indicates that early education may be essential to not only closing the achievement gaps between children from varying backgrounds, but also to combating poverty, improving public safety, and spurring economic growth. The factors that lead to achievement gaps have been demonstrated to emerge in the very first years of a child's life. For example, lower socio-economic status is correlated with lower English proficiency in children as young as 18 months, and by age two a gap worth about six months of learning has been found.³⁸ For this reason, early interventions like pre-K are the most likely to correct achievement gaps in the most efficient manner.

Attention should be given to the educational requirements for early childhood program educators. Some states require that all pre-k teachers have a college degree and certification in early childhood education, while others only require a Child Development Associate (CDA) certificate. This may have implications for the quality of the programs and therefore their ultimate effectiveness, as research shows that higher teacher qualifications are indeed correlated with higher quality early childhood education environments.³⁹

Some studies find unintended side effects relating to wealthy families when they analyze universal early childhood education programs. High-income families are likely to already send their children to a private program in the absence of universal public provision, and some research indicates that when a universal public program is implemented, the public program somewhat depresses outcomes for children of high-income families.⁴⁰

Full-day pre-K programs have been shown to be significantly more effective than half-day programs at improving school readiness on most metrics, including by improving attendance and decreasing chronic absences.⁴¹ A study of Wisconsin's universal pre-K system, which offers half-day pre-K to all four-year-olds, found many Wisconsin parents declined to enroll in the program due to the half-day format.⁴²

Early childhood education programs can also provide benefits beyond positive impacts on children themselves. Because early education programs function effectively as childcare, universal early education programs allow parents, especially mothers, to enter or reenter the workforce. Whether a program is full-day or part-day is key for workforce participation. Research shows that while part-time childcare has little to no significant impact on mothers' workforce participation, full-time childcare leads to significantly more mothers in the workforce than both no childcare and part-time childcare. The effects on maternal employment appear to be strongest in low-income families, where the cost of childcare was likely prohibitively high before public provision was made available.

5 CASE STUDIES

Despite several states having laws or programs that define or suggest universality, funding shortfalls, enrollment caps, and local differences curb enrollment, making it difficult to define such programs as universal. The National Institute for Early Education Research defines the provision of universal pre-K as enrolling at least 70 percent of four-year-olds in a given state. According to NIEER, the District of Columbia and six states (Florida, Oklahoma, Vermont, Iowa, West Virginia, and Wisconsin) have implemented universal preschool. D.C. is the only one to provide universal preschool at age three as well as age four and the only state to serve more than half of three-year-olds (69 percent). Vermont, ranked second according to NIEER for accessibility of preschool amongst three-year-olds, offers eligible three-year-olds preschool, but only served 35 percent of them in the 2021-2022 year according to NIEER. Most of these states have smaller populations: only Florida ranks in the top 20 most-populous states. Most of these states have smaller populations: only Florida ranks in the top 20 most-populous states.

Georgia, Illinois, and New York have universal preschool policies in law but have not been able to implement them fully, primarily for funding reasons.⁴⁷ Even more states, including California, Colorado, Hawaii, and New Mexico, have passed laws establishing universal pre-K systems in the past year.⁴⁸ In other states including Michigan,⁴⁹ New Jersey,⁵⁰ and Arkansas,⁵¹ governors have expressed their support for universal pre-K and some have begun drafting policy for the funding of universal pre-K programs. Alabama⁵² and Rhode Island⁵³ are also making steady progress with increasing pre-K enrollment but still have a way to go before achieving NIEER's standard for universal pre-K. NIEER ranks states by how accessible preschool is for three- and four-year-olds based on state data on enrollment in preschool programs and Census data.⁵⁴

Included in the following case studies of Oklahoma, Colorado, Maine, West Virginia, and Brandenburg, Germany are overviews of each program and their eligibility requirements, funding amounts and mechanisms, political backgrounds on their development and implementation, and more.

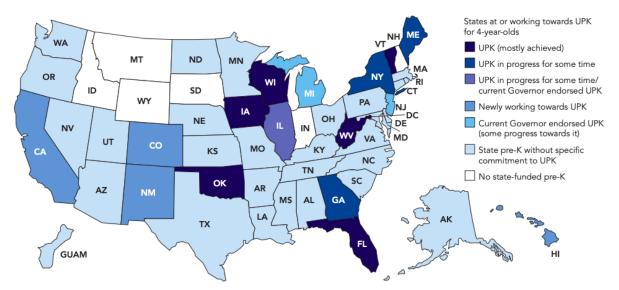


Figure 5.0.1: Progress towards universal preschool in the 50 states.⁵⁵

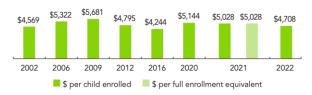
5.1 OKLAHOMA

All four-year-olds in Oklahoma have access to free pre-K through a policy that has been in place since 1998. Enrollment of four-year-olds in pre-K peaked at 74 percent between 2012 and 2016 and fell to 61 percent in 2021, likely due to the COVID-19 pandemic. Such high enrollment percentages place Oklahoma in the third highest rank for access to pre-K among the fifty states.⁵⁶ All public schools offer a pre-K program for four-year-olds, and no income level is required for eligibility.⁵⁷ The state ranks 20th by NIEER for access to early childhood programs for three-year-olds, whose funding is provided through a pass-through from the state to public school districts. All Oklahoma public pre-K programs offer an Early Childhood Certified Teacher, a 10:1 child to teacher ratio, full day or half-day programs, comprehensive school services, and they adhere to statewide curriculum standards.⁵⁸

Like the K-12 funding structure in Oklahoma, state contributions to pre-K programs are about equal to local contributions. According to NIEER, Oklahoma ranks 25th for state spending and seventh for all reported spending.

PERCENT OF POPULATION ENROLLED IN PUBLIC ECE

3-YEAR-OLDS 4-YEAR-OLDS PERCENT OF STATE POPULATION ENROLLED 6% 65% 70% 70% 14% 8% 65% 56% 80% 27% 0% Special Ed‡ Other/None Head Start[†] 2002 2006 2009 2012 2016 2020 2021 2022 † Some Head Start children may also be counted in state pre-K. 4-year-olds 3-vear-olds [‡] Estimates children in special education not also enrolled in state pre-K or Head Start. STATE SPENDING PER CHILD ENROLLED (2022 DOLLARS)



Figures 5.1.1-3: Oklahoma statistics on early childhood education.⁵⁹

The politicization of establishing universal preschool was not an obstacle for Oklahoma. The 2016 State Superintendent of Education, Joy Hofmeister once said, "We're not certainly battling this at the legislature... That is not a conversation that I hear." In 1998, a Democratic state legislator slipped Oklahoma's pre-K previsions into an existing bill that intended to close a loophole in the Oklahoma school funding formula that allowed districts to enroll four-year-olds in kindergarten to receive extra funding. When asked whether the state legislators who voted on the deal were aware of the pre-K programs and funding within the bill, Steven Dow, a longtime early childhood education advocate in Oklahoma, said, "Almost nobody knew... You want to talk about stuff that really nobody understands, start mucking with the state aid funding formula." Because the preschool program was not established by a stand-alone bill, it got through without much public attention. Because the preschool program was founded in the state school funding formula, it is protected from the whims of annual appropriations processes.

Oklahoma's preschool system is largely the same now as it was when first established in 1998. State law allows public school early childhood programs to operate in collaboration with other public and private early childhood programs, including assisted living centers, corporate facilities, and Educare. Districts may place public school teachers in community-based programs, childcare centers, and Head Start programs, and children in those settings are considered public school enrollees and receive the same services. Some districts enroll three-year-olds with funding that might include Title I, Head Start, special education, and general funds, not specific state funding.

The Oklahoma State Department of Education (OSDE) launched the "Ready Together" recovery plan for pre-K through grade 12 students in Spring of 2021, including a webpage that serves as a hub for information on initiatives and guidance, a number of which are large scale, state-level initiatives that support preschool programming.⁶¹ In May of 2021, the governor signed the "Oklahoma Play to Learn Act" which acknowledges the importance of child-centered, play-based learning as a rigorous and appropriate way for children in the early childhood grade levels to learn important academic content.⁶² In December 2022, Oklahoma was awarded a PDG B-5 renewal grant for \$12 million to be used for reforming data collection and usage through the expansion of the Early Learning Inventory and creation of an Early Childhood Integrated Data System.⁶³

Researchers have found that Oklahoma's preschool programs work.⁶⁴ Scholars at Georgetown University have been studying the long-term impacts of universal pre-K in Tulsa, Oklahoma for 20 years. A 2012 paper reported that male and free-lunch-eligible third graders who were enrolled in pre-K demonstrated statistically significant learning gains in math, even at the end of third grade. 65 Recent papers from Georgetown not yet officially published or peer reviewed suggest children who attended preschool were more likely to take advanced courses and graduate high school on time, more likely to enroll in higher education programs, and more likely to vote in elections after turning 18.66 Another study found pre-K graduates scored higher on a test of letter-word identification upon kindergarten entry.⁶⁷ In a study of the social-emotional impacts of pre-K, children who participated in Oklahoma demonstrated more attentiveness and less timidity. 68 Economists have predicted Tulsa preschool grads will earn higher salaries based on their elementary school test scores, which have previously been linked to earnings. 69 Oklahoma's fourth grade reading scores have trended upwards since 2002, the year before its first cohort of preschool graduates reached third grade. The effects were greater amongst marginalized racial and disadvantaged income groups, suggesting that pre-K enrollment has a larger impact on students from minority or disadvantaged backgrounds and, thus, has great potential to serve as an equalizer.

Those who were enrolled during Oklahoma's first year of offering free public preschool are presently about 30 years old. Oklahoma offers the education sector and policymakers a rare opportunity to examine the long-term impacts of free and universal pre-K, before most states have even broached it.

5.2 COLORADO

In 2023, Colorado launched free pre-K and became the most recent addition to the brief list of states offering 'universal' preschool. Through the Universal Preschool (UPK) Colorado program, every child in Colorado is eligible for at least half-day (15 hours per week) free, voluntary preschool in the year before they are eligible for kindergarten beginning in the 2023-2024 school year. Based on available funding for the 2023-2024 school year, 4-year-olds from families living below 270 percent of the FPL and who have one other qualifying factor are eligible for an additional 15 hours stacked on top of the baseline half-day. Three-year-olds with a household income below 270 percent of the FPL or who meet one of the qualifying factors are eligible for free part-time (10 hours per week) preschool programming. Qualifying factors include homelessness, dual language learner qualification, those in

foster/kinship care, and those with an Individualized Education Program (IEP, for children with dietary restrictions, routine medication, language and physical supports, and a variety of other needs).⁷³

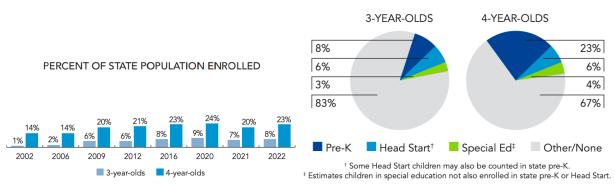
In 2021, Colorado HB21-1304 created the Transition Working Group and required the collaboration of the federally authorized Early Childhood Leadership Commission, the Transition Advisory Group, and the Transition Working Group to develop a Transition Plan for the establishment of a Department of Early Childhood (CDEC) and recommendations for a new statewide, universal, voluntary preschool program. The group, which included public, private, and nonprofit stakeholders from across the state, released its <u>set of recommendations</u> in 2022.⁷⁴ Funding for universal preschool was created when, in 2020, Proposition EE was passed, increasing the tax on cigarettes and tobacco and creating a new tax for nicotine and vaping products.⁷⁵ With revenue from the taxes Proposition EE instated, Colorado's preschool budget for the 2023-2024 year was \$322 million.⁷⁶

Before the passage of UPK, Colorado provided pre-K for children from low-income families and children who have language delays or other risk factors. About a quarter of 4-year-olds attended state-funded preschool, and more than three fourths of those seats were in public school district classrooms.⁷⁷

The CDEC appointed Local Coordinating Organizations (LCOs) to support communities in their participation in UPK Colorado. LCOs help to create and facilitate partnerships between providers and represent the voice and needs of their communities. They also support families and providers in navigating resources, including during the application process.⁷⁸ The state will not require quality standards to be met in the first year, meaning it will allow for classrooms with as many as 24 children, more than the current guideline of 16.⁷⁹

Colorado originally indicated that four-year-olds living below 270 percent of the FPL or who meet one of the other qualifying factors would be eligible for additional free hours of pre-K, beyond the 15-hour baseline. However, after collecting applications, funding constraints forced the state to revise eligibility guidelines to necessitate that applicants must live below 270 percent of the FPL *and* meet one other qualifying factor. A spokesman for Governor Jared Polis (D) shared that, as of early August, 43,288 families had signed up for universal preschool, half of which had at least one qualifying factor. Applications were accepted on a rolling basis, and 39,311 students who applied were matched with one of the five providers they selected in their application. After the eligibility revision, an estimated 13 percent of four-year-olds can get an additional 15 hours of state-funded preschool, or 4,000 of the more than 30,000 who accepted their match. Note that both of the following figures predate Colorado's new universal pre-K program.

PERCENT OF POPULATION ENROLLED IN PUBLIC ECE



Figures 5.2.1-2: Statistics on Colorado early childhood education.⁸³

The CDEC also revised its approach to compensating preschool providers. Instead of paying a provider for the number of students it has the capacity to enroll, the CDEC will calculate funding based on the number of students actually enrolled, forcing providers to adjust plans and budgets with a less predictable and reliable method a month from the start of the school year. According to a CDEC spokesperson, the adjustment came after data showed that there were significantly more seats than enrolled students; about two seats were open for every child whose family applied. So Governor Polis indicated he wants to expand preschool and offer 18 hours a week to all four-year-olds by the end of his second term in 2026, although where the funding would come from is unclear.

Colorado, like Vermont and many other states, faces a shortage of ECE teachers. Using more than \$110 million in federal COVID aid, Colorado created numerous programs offering grants to cover employee benefits, retention, and professional development for childcare providers; free courses for becoming Early Childhood Teacher Qualified; and state-funded apprenticeships, scholarships, and mentoring and leadership programs with the goal of increasing the workforce by five percent by June 2022.⁸⁷

5.3 MAINE

According to the website of the Maine Department of Education (DOE), the decision on whether to develop and offer a public preschool or pre-K program belongs to local districts. Public preschools are approved and monitored by the Maine DOE and funded through its Essential Programs & Services (EPS) formula, and/or through local school budgets. The Maine DOE reports that approximately 80 percent of Maine public school districts offer at least one public preschool classroom and that approximately 52 percent of all eligible children are enrolled in pre-K statewide. Approximately 24 percent of Maine public preschools partner with a Head Start agency, local childcare provider, or private preschool program. Research has found that interest and need significantly exceeds enrollment opportunities. Pre-K enrollment varies greatly between regions. In Aroostook County, 89 percent of eligible four-year-olds were enrolled, compared to only three percent in Knox County according to a 2016 report by Educate Maine. Furthermore, only 18 percent of Maine

PERCENT OF POPULATION ENROLLED IN PUBLIC ECE

preschool students attend full day, five-day-a-week programs as of a February 2020 report released by the Maine Education Policy Research Institute at the University of Southern Maine.⁹³

3-YEAR-OLDS 4-YEAR-OLDS PERCENT OF STATE POPULATION ENROLLED 7% 44% 3% 1% 90% 2% 44% 53% 18% 14% 10% Head Start[†] Special Ed^{††} 2005 2008 2011 2017 2019 2020 $^{\scriptscriptstyle \dagger}$ Estimates children in Head Start not also enrolled in state pre-K. 3-year-olds †† Estimates children in special education not also enrolled in state pre-K or Head Start

Figures 5.3.1-2: Statistics on Maine early childhood education.⁹⁴

According to the National Institute for Early Education Research, state funding totaled about \$23.9 million, up around \$1.3 million, or six percent, (adjusted for inflation) since last year. State spending per child equaled \$3,881 in 2019-2020, up \$194 from 2018-2019 (adjusted for inflation), placing Maine in 31st place for state spending on preschool. Local governments are required to match the funding provided by the state in an amount calculated based on local poverty value. Maine met nine of NIEER's 10 quality standards benchmarks.⁹⁵

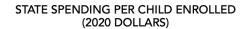




Figure 5.3.3: State early childhood education spending per enrolled child in Maine.⁹⁶

Educate Maine, a nonprofit aimed at advancing education policies and practices that increase educational attainment and career readiness among Maine students, releases research reports annually on a number of economic and education issues and policy priorities, many of which include collaboration with the Maine State Chamber of Commerce and other business and development organizations like the Maine Development Foundation. Educate Maine defines preschool as referring to any educational/care programming available to three- and four-year-olds prior to kindergarten and pre-K as referring to publicly-funded full time or part time programming for four-year-olds the year before kindergarten. Educate Maine's 2021 Education Indicators Report included the following data points according to pre-pandemic data from 2019⁹⁸:

Access:

a. 22 percent of Maine children live in a childcare desert.

- i. This data point is based on The Center for American Progress's definition of a childcare desert as "any census tract with more than 50 children under age five that contains either no childcare providers or so few options that there are more than three times as many children as licensed childcare slots."
- b. Only about one third of Maine four-year-olds are enrolled in publicly funded pre-K.
 - i. After reaching nearly half of four-year-olds enrolled in public pre-K in 2019 (47 percent), that number declined significantly to 35.6 percent amid the pandemic.
- c. Only nine percent of districts offered full-day pre-K in 2019 although the recently awarded Pre-K Expansion Grants should help increase this number.

Affordability:

- d. Educate Maine reports that while Maine has a subsidy program for low-income families, it is vastly underutilized.
- e. The average cost of full time, center-based infant care in Maine is \$11,700 per year. For more on county-specific or type of care-specific cost amounts, see the <u>2021 Maine Child Care Market Rate Survey</u> prepared for the Maine Department of Health and Human Services Office of Child and Family Services.
- f. A two-parent family making the state's median income spends an average of 14 percent of their yearly income on childcare for one child.
- g. A single-parent family making the state's median income spends an average of 45 percent of their yearly income on childcare for one child.

Quality

- h. Only about one quarter of Maine childcare providers are at step three or four (the highest levels) of the Quality for ME rating system.
- i. Maine childcare providers are struggling to retain qualified staff, many of whom are leaving the field for lower-skilled positions that pay more.

Workforce:

j. The median wage for kindergarten teachers in Maine (\$53,270) is more than twice the median wage of early childhood educators (\$24,030).

In 2013, the Maine Early Learning Investment Group (MELIG), formed as a consortium of business leaders with a vision of increased investment in early childhood education, partnered with Educare Central Maine and its regional administrative partner, Kennebec Valley Community Action Program (KVCAP) and selected rural Somerset County as the site of a development project aimed at demonstrating the positive impact of early childhood education and raising public awareness. The report concluded that a whole family approach, professional development, community trust and relationships, and blended funding sources are all crucial to the provision of childcare in Somerset County.

In Spring 2021, the Maine Association for the Education of Young Children, in partnership with The Family Child Care Association of Maine, YMCA Alliance of Maine, and Maine Head Start Directors Association, published the "State of Child Care in Maine." The report aimed to highlight the

importance of federal COVID-19 relief funds, included 470 survey respondents: owners or leaders of one or several licensed childcare programs representing 598 programs and every county in Maine. A full 43 percent of family childcare providers and childcare centers reported they face growing waitlists and are unable to meet demand, 58 percent of childcare centers report understaffing, 34 percent of family providers reported being under-enrolled, and 29 percent of family providers and 44 percent of centers operate at a deficit.¹⁰⁰

Governor Janet Mills' Maine Jobs and Recovery Plan, which took effect in October 2021, invested \$10 million in federal ARP funds to increase the number of four-year-olds enrolled in public pre-K across the state. Through multiple competitive grant rounds, the Maine DOE provided funding to local school administrative units (SAUs) to cover facility renovations, staff recruitment and training, and other start-up costs linked to establishing new public pre-K programs, creating additional classrooms, or transitioning from part-day/part-week to full-day/full-week. Applicant SAUs were encouraged, through the provision of priority in the application review process, to partner with licensed community providers (e.g., private preschools, childcare providers, Head Start centers, YMCAs, etc.) and/or other SAUs-a policy which, according to this research, reflects the extent of the state government's investment in and/or development of mixed delivery systems of preschool. Priority was also granted to applicants who would provide longer duration of education and serve socioeconomically disadvantaged students. 101 The DOE will also provide technical assistance and professional learning to SAUs for pre-K expansion. Three rounds of grant opportunities were offered to SAUs to start or expand pre-K in the 2022-23 and 2023-24 school years. Grants ranging from \$55,000 to a little more than \$600,000 were awarded to 28 SAUs, some with cost extensions through two fiscal years. 102 More information about Pre-K Expansion Grantees and Awards can be found on https://www.maine.gov/doe/learning/earlychildhood/pkexpansiongrant/2021.

5.4 WEST VIRGINIA

The state of West Virginia struggles with among the nation's highest rates of poverty, especially for children. Yet, West Virginia now has one of the most comprehensive pre-K programs in the country. For years before the program began, even well-off families in the rural state struggled to find preschool for their children. Because it was so hard for even those with significant financial resources to find preschool options for their children, there was broad support for a universal pre-K program available to all families without means-testing. The program remains quite popular to this day. West Virginia's pre-K program is highly ranked at 6th place nationally for 4-year-old access by NIEER, although it is only 19th for three-year-olds. 104

Consideration of a universal public pre-K program in West Virginia began as far back as 1983, but the current program did not get started until legislation was passed in 2002. The core of the program is contained in W.Va. Code §18-5-44, which mandated that the state Board of Education work with the state Department of Health and Human Resources to ensure that every four-year-old child have access to high quality pre-K within 10 years of enactment, or by 2012. The program also required county-level boards of education to collaborate with existing community pre-K programs, such as licensed

childcare centers or the federal government's Head Start, to implement the new statewide program. ¹⁰⁵ Although it was passed before his time in office, much of the program was rolled out under then-Governor of West Virginia Joe Manchin, who is now a U.S. Senator. ¹⁰⁶

The program did end up taking the full 10 years to get running due to shortages of staff, facilities, and funding. ¹⁰⁷ The program now serves every county in the state, and as of the most recent statistics, West Virginia's program enrolls about two-thirds of the state's four-year-olds and six percent of three-year-olds, or around 13,200 children in total. The children who are not 4-year-olds are eligible usually because they have some sort of special needs or are kindergarten-aged but determined to be better served in a pre-K setting. Class sizes are capped at 20 children, and there must be at least one staff member for every ten children. ¹⁰⁸

Due to changing demographics, West Virginia was able to implement its universal pre-K program without raising taxes. The state has had successively fewer children to educate each year and funding could be moved to pre-K from other education areas. The state spent about \$6,500 per child in 2022, but total spending per child comes to around \$10,200 when federal contributions from IDEA Part C, Head Start, and TANF are added in along with a small amount of local spending. State funding is administered directly to public school districts, and at least half of pre-K classrooms funded are required by law to partner with outside programs, such as local childcare centers, private pre-K, or Head Start. In reality, this collaboration is even more common than the statute stipulates, with about 83% of classrooms involving some sort of partnership. The

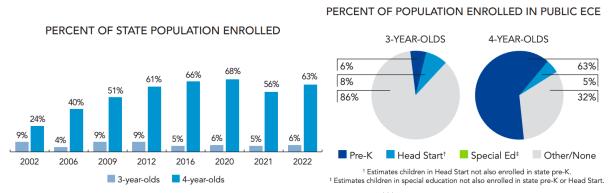


Figure 5.4.1-2: Statistics on West Virginia early childhood education. 111

The most recent rules for new lead pre-K teachers in nonpublic settings, starting in 2013, dictate that they must have a bachelor's degree or higher in early childhood education or a similar field. Starting in 2014, all assistant teachers were required to have an Early Childhood Classroom Assistant Teacher Authorization from the state, which requires a CDA or equivalent. The state requires pre-K programs to offer at least 25 hours of instruction per week and 800 hours per year, with programs operating for at least four days per week.¹¹²

The program's universal eligibility is key to why West Virginia pre-K is ranked so highly. Universal eligibility means the program does not effectively segregate children by class via means-testing. Children eligible for Head Start are served in the same classrooms as the children of middle class and wealthy families, following research findings that socioeconomic integration offers its own social and academic benefits. While funding for individual children may come from means-tested sources, this on its own has no bearing on the child's placement or experience.

Evaluations of West Virginia's pre-K program impacts on the children it served are mixed and especially contentious given the state's long-standing problem of low academic performance among its students. A 2018 study found that the pre-K program has short-term positive impacts on students' literacy, language, and math skills, but it can be hard to pin down long-term impacts with available data and methodologies. Impacts seemed to depend on the quality of the individual program. The program of the individual program.

The program is noted to have had a few unintended side effects. Because childcare providers frequently depend on revenue from pre-K programs to offset their costs for their other programs for younger children, access to infant and toddler care became more difficult after the program was implemented. However, because the state's program required that at least half of the pre-K classrooms funded be offered in collaboration with community partners such as these already existing childcare providers, some of the negative impact on supply by the program was prevented.¹¹⁶

Although West Virginia's pre-K program was passed and implemented under Democratic control of the state government, the state is now controlled by a Republican governor and a Republican legislature with different priorities than its predecessors. Recent legislative sessions have not considered expanding the program to three-year-olds as a priority, even though that might seem to be the logical next step. Instead, they have sought to establish more charter schools and have created an education savings account program, which allows the use of public funding by families for homeschooling or private school fees if they choose to leave or simply not access the public school system.¹¹⁷

5.5 BRANDENBURG, GERMANY

While there is wide variation regarding the implementation of pre-K childcare programs across the states and much that can be learned from that variation, an international perspective is often helpful for American policymakers to help ensure their perspectives are not unduly constrained. This is best done by looking to peer countries comparable to the U.S., especially on the metric of income. Germany is an especially useful comparison for childcare because not only is it similar to the U.S. in terms of income, but it also has a similar governmental structure, with 16 states underneath an overarching federal government. This section will look specifically at Brandenburg, which is one of Germany's most rural states and surrounds its capital of Berlin. Berlin is its own city-state and not part of Brandenburg. The German childcare system is highly ranked internationally, scoring fifth place

among the 41 countries classified as high-income according to the United Nations. By comparison, the United States was put at 40th place, just above the very bottom. 118

Germany approaches childcare very differently than the U.S. does. A common approach in the U.S. is to determine what groups do not have adequate childcare and then work to improve access for those families via piecemeal programs. By contrast, in 2013 Germany simply declared that every child over the age of one has a right to a space in a daycare facility, or *Kita*, which is short for *Kindergarten*. The government then worked backwards from that point to build a system that ensured the rights of each child were fulfilled. This right to a childcare space is legally enforceable. Parents can sue the government if they cannot find a space in public childcare, with the damages calculated according to an estimation of lost wages arising from the parent having to care for their child themselves. While the system is still not as robust as it is supposed to be on paper, it is much more so than any U.S. state's system.

This universal program had its roots in earlier actions starting in the early- to mid-2000s, when Germany began to adopt what it termed a 'sustainable family policy.' This policy sought to reduce family poverty by encouraging mothers to participate in the workforce rather than remain at home by investing in early childhood education. The goal of the program in Germany is not so much to improve academic outcomes for children later in life as it is to help minimize the difficulties parents may have with staying in the labor force. In 2022, 95 percent of children in Brandenburg between three and six years old attended a Kita, as did 57 percent of children under three. The intervention of the program is the early- to mid-2000s, when Germany began to mid-2000s, which is m

In Germany, children typically attend a Kita starting sometime between age one and five according to the preferences of the parents (age three is common), and then start formal schooling at age six with the first grade. Kindergarten in Germany is not quite equivalent to kindergarten in America. Kitas do not place much emphasis on academics and are more like American pre-K or childcare. About two-thirds of Kitas are privately-owned and one-third are public.¹²¹ About half of the private Kitas are run through religious organizations such as churches, usually by Caritas (a catholic organization) or Diakon (Caritas' protestant equivalent).¹²²

While the broad rules for childcare are set by the federal German government, the details are managed by the states. Brandenburg's system delegates the brunt of the work of organizing Kitas to localities. Each locality is responsible for arranging for suitable facilities and personnel to meet the needs of the community as calculated by a set of statutory requirements. Brandenburg and the localities then give subsidies to these Kitas to fund the required personnel and facilities. Each community chooses how to meet that need, which can be through public Kitas, collaboration with privately-run Kitas, or a combination of the two, although the process is set up so that it is somewhat easier to fund public Kitas compared to private ones. These subsidies are usually calculated on a per-child served basis. Subsidies for personnel costs range from 84 percent to 89.4 percent of expenses. Personnel who care for the youngest children (under three) receive the highest subsidy rate. In 2019, the most recent year with available data, Brandenburg and its localities spent about €7,300 per child. Of the total

spending per child (including parental contributions), 52.5 percent came from the localities, 34.7 percent from the state, and 12.5 percent from parental contributions. This total spending is somewhat higher than the nationwide average of about €6,500 per child. As of this writing, €1 was worth about \$1.05.

In Germany's federal system, the various levels of government get about 75 percent their money through what are called 'joint taxes,' which are collected together and then redistributed amongst the federal government, states, and municipalities. These taxes include progressive taxes on income, as well as corporate taxes and a 19 percent value-added tax on consumption (VAT) that is similar to a sales tax. The VAT, while not progressive, does have a much lower rate of seven percent for necessities like food. Tax revenue in Germany goes straight to the treasury for redistribution and is not earmarked for specific programs based on what is being taxed. 129

Parental contributions are set by the states and generally vary according to criteria like family size and income. ¹³⁰ In Brandenburg, there is no parental contribution for households with income of €35,000 or less, and there is a sliding max fee scale for families with incomes between €35,000 and €55,000. ¹³¹ Using Brandenburg's official cost estimation tables for childcare, a family with two parents that makes the most recently available (2021) median household income of €45,856¹³² can expect to pay a maximum of about €140 per month for 8 hours of Kita daily Monday to Friday if their child is between three and six. Costs are slightly higher for children under three and in general can range from €40 to €252 monthly depending on the child's age, how many hours of care utilized, and family income (assuming the family is above the income cutoff for no required fees). ¹³³

Despite the German system's high ranking, it is not perfect. There are particular gaps in access for families with children under three that severely impact the government's goal of helping mothers stay in the workforce. Local governments sometimes fail to be aggressive enough in recruiting personnel for their childcare facilities, and the relatively low pay and benefits such positions can have do not help either. A 2021 study found that almost 70 percent of German mothers with children under three do not work, despite less than 30 percent actually desiring to be stay-at-home mothers. The study found a further fifth of mothers work part-time, often because they cannot find a spot in a Kita for their child under three. There is a significant shortage of childcare staff nationwide in Germany, and closing this gap is likely essential to gender equity for parents. A further survey from 2020 found that about half of parents with children aged under three said they needed childcare, but only half of those parents who needed it said they could get it for sufficient hours each week. It is unclear what share of such parents utilized the option to sue the government for compensation for not being able to find childcare.

In Brandenburg specifically, there is an estimated shortage of around 2,900 Kita slots and 11,500 personnel, and 86 percent of children are currently cared for in classrooms with a staffing ratio deemed insufficient by the Bertelsmann Stiftung, an independent policy research foundation. Kitas in Brandenburg currently have a staffing ratio of 9.6 children per staff member, above both the

recommended ratio of 1:7.5 and the nationwide average ratio of 1:8.4. The childcare centers for children under three in Brandenburg have a staffing ratio of 1:5.1, again above the recommended 1:3 and nationwide average of 1:3.9. The care for children under three is where the worst shortages are, both of staff and spots. The government intends to bring these ratios down over the next few years through intensified recruitment efforts, although it is unclear how successful they will be. 136

In comparison to the United States, these problems may seem trite, as public childcare for children under three is essentially unheard of to begin with, let alone such low financial burdens on families. The German system has achieved an outcome where almost all children aged three and older attend a Kita and over half of children under three have childcare, too. Plus, all of that is accomplished at a cost per child comparable to or lower than in the United States. Nonetheless, the shortage of childcare spots and personnel is a severe problem in Germany and one that also exists in America. It should be clear that steps to ensure adequate supply of both are essential for a robust and affordable universal childcare system. Nonetheless, the German system provides a key perspective on how such a universal childcare system can be built.

6 CONCLUSION

Vermont is among the top states nationwide when it comes to accessible and affordable pre-K and childcare, yet it still struggles to provide a universal system. Federal programs make up the bedrock of the early childhood education system in the U.S. through programs like Head Start and Child Development Block Grants. However, the country is still far from the provision of universal childcare. States have made varying levels of progress in the push for more ECE, a policy issue increasingly capturing national and state-level attention. As of 2022, D.C. and six states met the NIEER standard for universal pre-K-70 percent or more four-year-olds were enrolled in the programs. Case studies of Oklahoma, Colorado, Maine, and West Virginia, one of which established universal pre-K 25 years ago and another only in this year, highlighted different funding mechanisms for free or subsidized pre-K and 3-K, varying degrees of rurality, and distinct approaches to mixed-delivery systems. Throughout the childcare delivery system in the United States, there is a shortage of qualified staff and a private market that often fails to meet community needs, due to prohibitive tuition costs and underpaid teachers. Such an environment necessarily increases the role of government as an active partner in order to meet the needs of affected children and their parents.

REFERENCES

17 "FY23 Appropriations Deal Includes a \$960 Million Increase for Head Start," National Head Start Association,

December 23, 2022, https://nhsa.org/press_release/fy23-appropriations-960-million-increase/.

https://www.acf.hhs.gov/sites/default/files/documents/olab/fy-2023-congressional-justification.pdf.

¹ Allison H. Friedman-Krauss et al., *The State of Preschool 2022* (New Brunswick, NJ: National Institute for Early Education Research, 2023), 13, https://nieer.org/the-state-of-preschool-yearbook-2022.

² "OECD Education Statistics: Enrolment Rate By Age," OECDiLibrary, Organisation for Economic Cooperation and Development, accessed October 18, 2023, Enrolment rate by age | OECD Education Statistics | OECD iLibrary (oecd-ilibrary.org).

³ Friedman-Krauss, The State of Preschool 2022, 5.

⁴ *Ibid.*, 6.

⁵ *Ibid.*, 11.

⁶ *Ibid.*, 5.

⁷ Libby Stanford, "Which States Offer Universal Pre-K? It's More Complicated Than You Might Think," *Education Week*, January 25, 2023, https://www.edweek.org/teaching-learning/which-states-offer-universal-pre-k-its-more-complicated-than-you-might-think/2023/01.

⁸ Friedman-Krauss, The State of Preschool 2022, 10.

⁹ *Ibid.*, 14.

¹⁰ *Ibid.*, 15.

¹¹ *Ibid.*, 5.

¹² Ibid.

¹³ *Ibid.*, 15.

¹⁴ Leila Schochet, "5 Facts To Know About Child Care in Rural America," *Center for American Progress*, June 4, 2019, https://www.americanprogress.org/article/5-facts-know-child-care-rural-america/.

¹⁵ "Vermont's Historic Child Care Bill," Let's Grow Kids, accessed October 18, 2023, https://letsgrowkids.org/vermont-child-care-bill-act-76-educators-families-kids#:~:text=The%202023%20Child%20Care%20Bill,that%20looks%20like%20for%20Vermonters.

¹⁶ Administration for Children and Families, *Fiscal Year 2024 Justification of Estimates for Appropriations Committees*, Washington, D.C.: Department of Health and Human Services, 147, https://www.acf.hhs.gov/sites/default/files/documents/olab/fy-2024-congressional-justification.pdf.

¹⁸ "Head Start Program Facts: Fiscal Year 2017," Head Start Early Childhood Learning & Knowledge Center, Department of Health and Human Services, last modified September 30, 2022, https://eclkc.ohs.acf.hhs.gov/about-us/article/head-start-program-facts-fiscal-year-2017.

¹⁹ Administration for Children and Families, Fiscal Year 2024 Justification of Estimates for Appropriations Committees, 141-142.

²⁰ *Ibid.*, Message from the Assistant Secretary.

²¹ *Ibid.*, 152.

²² Administration for Children and Families, Fiscal Year 2023 Justification of Estimates for Appropriations Committees, Washington, D.C.: Department of Health and Human Services, 139,

²³ *Ibid.*, 139-140.

²⁴ *Ibid.*, 83-107.

²⁵ Ibid.

²⁶ Ibid.

²⁷ *Ibid.*

²⁸ Administration for Children and Families, Fiscal Year 2024 Justification of Estimates for Appropriations Committees, Message from the Assistant Secretary.

²⁹ Administration for Children and Families, Fiscal Year 2023 Justification of Estimates for Appropriations Committees, 83-107.

³⁰ "What Build Back Better Means for You: Early Childhood Educators and Program Leaders," National Association for the Education of Young Children, December 2021, <u>policy_buildbackbetter_final.pdf (naeyc.org)</u>.

- ³¹ Aaron Loewenberg, "Sooner the Better: Oklahoma Is a Model for How States Should Provide Pre-K," *Washington Monthly*, June 20, 2022, https://washingtonmonthly.com/2022/06/20/universal-prek-oklahoma-model/.
- ³² Lawrence J. Schweinhart and David P. Weikart. Young Children Grow Up: The effects of the Perry Preschool Program on youths through age 15. High/Scope Press, 600 North River Street, Ypsilanti, MI 48197, 1980.
- ³³ Elizabeth Cascio, *The Promises and Pitfalls of Universal Early Education*, (Bonn, Germany: IZA World of Labor, January 2015), 5, https://wol.iza.org/articles/promises-and-pitfalls-of-universal-early-education/long.
- ³⁴ *Ibid.*, 6.
- ³⁵ *Ibid.*, 6-7.
- ³⁶ Elizabeth Cascio, "Early Childhood Education in the United States: What, When, Where, Who, How, and Why," National Bureau of Economic Research Working Paper Series, Working Paper 28733 (April 2021): 22, 24-25, https://www.nber.org/papers/w28722; Katherine Magnuson and Hilary Shager, "Early Education: Progress and Promise for Children from Low-Income Families," Children and Youth Services Review 32, no. 9 (September 2010): 1193; Cascio, The Promises and Pitfalls of Universal Early Education, 7-8.
- ³⁷ Cascio, "Early Childhood Education in the United States," 25; Cascio, *The Promises and Pitfalls of Universal Early Education*, 1.
- ³⁸ Anne Fernald, Virginia A. Marchman, and Adriana Weisleder, "SES Differences in Language Processing Skill and Vocabulary Are Evident at 18 Months," *Developmental Science* 16, no. 2 (2013): 242-243, https://www.doi.org/10.1111/desc.12019.
- ³⁹ Matthew Manning, Gabriel T. W. Wong, Christopher M. Fleming, and Susanne Garvis, "Is Teacher Qualification Associated with the Quality of the Early Childhood Education and Care Environment? A Meta-Analytic Review," *Review of Educational Research* 89, no. 3 (2019): 401.
- ⁴⁰ Cascio, The Promises and Pitfalls of Universal Early Education, 7-8.
- ⁴¹ Arthur J. Reynolds et al., "Association of a Full-Day vs Part-Day Preschool Intervention with School Readiness, Attendance, and Parent Involvement," *JAMA* 312, no. 20 (2014): 2131, https://doi.org/10.1001/jama.2014.15376.
- ⁴² Ann Schimke, "These Four States Already Have Universal Preschool. What Can Colorado Learn from Them?" *Rocky Mountain PBS*, May 1, 2022, https://www.rmpbs.org/blogs/news/colorado-universal-prek-challenges-comparison/.
- ⁴³ Mike Brewer et al., "Does more free childcare help parents work more?" *Labour Economics* 74 (2022): 13, https://doi.org/10.1016/j.labeco.2021.102100.
- ⁴⁴ Elizabeth Cascio, *Public Investments in Childcare*, The Hamilton Project, Policy Proposal 2017-14 (October 2017): 6, http://www.hamiltonproject.org/assets/files/public investments child care cascio.pdf.
- ⁴⁵ Friedman-Krauss, *The State of Preschool 2022*, 13.
- ⁴⁶ Friedman-Krauss, *The State of Preschool 2022*, 9.
- ⁴⁷ *Ibid*.
- ⁴⁸ Ibid.
- ⁴⁹ Jennifer Brookland, "Whitmer's Pre-K for All Announcement Met with Excitement, Concerns," *Detroit Free Press*, January 28, 2023, https://www.freep.com/story/news/local/michigan/2023/01/28/parents-day-care-michigan-universal-preschool-plan-whitmer/69847876007/.
- ⁵⁰ "Governor Murphy Announces \$120 Million for Preschool Facilities, Brings High-Quality Pre-K to 16 More School Districts," State of New Jersey: Governor Phil Murphy, February 23, 2023, https://www.nj.gov/governor/news/news/562023/20230223b.shtml.
- ⁵¹ Will Langhorne, "Eighth Executive Order 'Blueprint' for Sanders' Education Priorities," *Arkansas Democrat Gazette*, January 11, 2023, https://www.arkansasonline.com/news/2023/jan/11/eighth-executive-order-blueprint-for-sanders-education-priorities/.
- ⁵² "The P-3 Initiatives Aligned to Strong Start, Strong Finish Benchmarks 1-3," Office of Alabama Governor Kay Ivey, accessed October 18, 2023, https://governor.alabama.gov/priorities/education/pre-three/.
- ⁵³ "News Release: Rhode Island Expands Pre-K Enrollment, Sets High Standards for Quality," National Institute for Early Education Research, May 18, 2023, https://nieer.org/wp-content/uploads/2023/05/YB2022 Rhode Island.pdf. Friedman-Krauss, *The State of Preschool 2022*, 178.
- ⁵⁵ *Ibid.*, 9.
- ⁵⁶ *Ibid.*, 124-125.
- ⁵⁷ "School Attendance Guidelines: Pre-K," Oklahoma State Department of Education, last modified October 3, 2023, https://sde.ok.gov/Four%20Year%20Old%20Pre-K.

⁵⁸ *Ibid.*

⁵⁹ Allison H. Friedman-Krauss et al., The State of Preschool 2022, 124-125.

⁶⁰ Lillian Mongeau, "Why Oklahoma's Public Preschools Are Some of the Best in the Country," *The Hechinger Report*, February 2, 2016, https://hechingerreport.org/why-oklahomas-public-preschools-are-some-of-the-best-in-the-country/.

⁶¹ Allison H. Friedman-Krauss et al., *The State of Preschool 2021* (New Brunswick, NJ: National Institute for Early Education Research, 2022), 130-131.

⁶² Ibid.

⁶³ Friedman-Krauss et al., The State of Preschool 2022, 124-125.

⁶⁴ Center for Research on Children in the United States, "Publications," Georgetown University McCourt School of Public Policy, accessed October 22, 2023, https://www.crocus.georgetown.edu/publications/.

⁶⁵ Carolyn J. Hill et al., *The Effects of Oklahoma's Pre-Kindergarten Program on 3rd Grade Test Scores* (Washington, D.C.: Center for Research on Children in the United States, 2012), 2, https://georgetown.app.box.com/s/bxeshfm2t2o4w7709vre.

⁶⁶ Ariel Gilreath, "Tulsa Study Offers More Evidence of Pre-K's Benefits into Adulthood," *The Hechinger Report*, September 29, 2022, https://hechingerreport.org/tulsa-study-offers-more-evidence-of-pre-ks-benefits-into-adulthood/.

⁶⁷ Gormley et al., "The Effects of Universal Pre-K on Cognitive Development," *Developmental Psychology* 41, no. 6 (2005): 880, https://psycnet.apa.org/doi/10.1037/0012-1649.41.6.872.

⁶⁸ Gormley et al., "Social-Emotional Effects of Early Childhood Education Programs in Tulsa," *Child Development* 82, no. 6 (2011): 2095, https://doi.org/10.1111/j.1467-8624.2011.01648.x.

⁶⁹ Timothy J. Bartik, William Gormley, and Shirley Adelstein, "Earnings Benefits of Tulsa's Pre-K Program for Different Income Groups," *Economics of Education Review* 31 (2012): 1153, https://doi.org/10.1016/j.econedurev.2012.07.016.

⁷⁰ The Nation's Report Card, "Fourth-grade Reading Scores Increase in 13 States/Jurisdictions and Decrease in 2 Compared to 2013," U.S. Department of Education, accessed October 22, 2023, http://www.nationsreportcard.gov/reading_math-2015/#reading/state/scores?grade=4.

^{71 &}quot;Submit an Application for UPK Colorado for the 2023-2024 School Year," Colorado Department of Early Childhood, accessed October 22, 2023, https://upk.colorado.gov/.

⁷² *Ibid.*

⁷³ *Ibid.*

⁷⁴ Watershed Advisors, *Colorado Universal Preschool Recommendations* (Denver, CO: State of Colorado, January 2022), https://cdec.colorado.gov/sites/cdec/files/documents/FINALUniversalPreschoolRecommendations.pdf.

⁷⁵ Marshall Zelinger, "Let's Just Vote: Colorado Will Decide on Prop. EE," *9 News KUSA-TV*, October 12, 2020, https://www.9news.com/article/news/local/next/lets-just-vote-colorado-will-decide-on-prop-ee-next-marshall-kyle-clark-2020/73-f48bc81b-6e36-46af-8946-908158a1a595.

⁷⁶ John Frank, "Colorado Backtracks on Universal Preschool Ahead of Debut," *Axios Denver*, August 4, 2023, https://www.axios.com/local/denver/2023/08/04/colorado-cuts-universal-preschool-2023-debut.

Ann Schimke, "Colorado Is Reshaping Early Childhood. Some School Districts Are Nervous," *Chalkbeat Colorado*, March 15, 2022, https://co.chalkbeat.org/2022/3/15/22978393/colorado-preschool-expansion-legislation.

⁷⁸ "Find My Local Coordinating Organization (LCO)," Colorado Department of Early Childhood, accessed October 22, 2023, https://cdec.colorado.gov/universal-preschool-find-my-lco.

⁷⁹ John Frank, "Colorado to Debut Universal Preschool with No New Quality Standards," *Axios Denver*, April 11, 2023, https://www.axios.com/local/denver/2023/04/11/colorado-universal-preschool-quality-standards.

⁸⁰ Marshall Zelinger, "Colorado Says It Doesn't Have Funding for All Universal Pre-K Applicants to Get Full-day Classes," *9 News KUSA-TV*, August 1, 2023, https://www.9news.com/article/news/local/next/next-with-kyle-clark/colorado-funding-universal-pre-k/73-b4ecabdc-c4eb-4a14-8c2e-c96928d0c5ef.

⁸¹ Marshall Zelinger, "Colorado Providers Left with Empty Seats in Universal Pre-K Debacle," *9 News KUSA-TV*, August 7, 2023, https://www.9news.com/article/news/local/next/next-with-kyle-clark/colorado-providers-left-with-open-seats-universal-pre-k-debacle/73-46e0e0c4-4356-4d94-908c-70b8c5fd0cd8.

Ann Schimke, "Colorado Backtracks on Full-time Preschool for 11,000 Kids with Risk Factors," *Chalkbeat Colorado*, August 2, 2023, https://co.chalkbeat.org/2023/8/2/23815102/colorado-universal-full-day-preschool-extra-hours-risk-factors-backtrack.

⁸³ Allison H. Friedman-Krauss et al., The State of Preschool 2022, 45-46.

- ⁸⁴ Erica Breunlin, "A Month Before Universal Preschool Starts, Colorado Is Backpedaling on a Major Funding Promise," *Colorado Sun*, July 26, 2023, https://coloradosun.com/2023/07/26/colorado-universal-preschool-funding-changes/.
- 85 Ibid.
- ⁸⁶ Frank, "Colorado Backtracks on Universal Preschool Ahead of Debut."
- ⁸⁷ Office of Early Childhood, "State and Federal Stimulus Strategies:

Support the Early Care and Education Workforce" (Denver, CO: Colorado Department of Human Services, March, 2022), 5, https://drive.google.com/file/d/1hDSiRMCMe7mappGpkNK mSa vdGL9bJJ/view.

⁸⁸ "Public Preschool," Maine Department of Education, accessed October 22, 2023, https://www.maine.gov/doe/learning/earlychildhood/publicpreschool.

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*

⁹¹ Maine Association for the Education of Young Children et al., "Child Care in Maine: Spring 2021" (Augusta, ME: Maine Association for the Education of Young Children, 2021), 2,

 $\frac{\text{https://static1.squarespace.com/static/5ab256f9fcf7fdd9320fc65c/t/60b4e857da68ad5e09f1b09e/1622468702691/State+0f+Maine+Child+Care+Spring+2021+Final+Report.pdf.}$

- ⁹² Educate Maine and the Maine State Chamber of Commerce, "Early Childhood Education: A Strong Foundation for Maine" (Augusta, ME: Educate Maine, 2016), 3, https://www.educatemaine.org/docs/EarlyChildhood-Policy-Brief-2016-FINAL.pdf.
- ⁹³ Patricia Lech and Janet C. Fairman, "Public Preschool Programs in Maine: Program Design Capacity and Expansion Challenges" (Orono, ME: Maine Education Policy Research at the University of Southern Maine, 2020), 6, https://digitalcommons.usm.maine.edu/cgi/viewcontent.cgi?article=1039&context=cepare_improvement.
- ⁹⁴ Allison H. Friedman-Krauss et al., *The State of Preschool 2020* (New Brunswick, NJ: National Institute for Early Education Research, 2020), 104-105, https://nieer.org/wp-content/uploads/2022/09/YB2020 Full Report.pdf. ⁹⁵ *Ibid.*
- ⁹⁶ *Ibid.*, 104.
- ⁹⁷ "Research and Reports," Educate Maine, accessed October 22, 2023, https://www.educatemaine.org/research-reports.
- ⁹⁸ "Early Childhood Education," Educate Maine, accessed October 22, 2023, https://educationindicators.me/early-childhood-education/.
- ⁹⁹ Maine Association for the Education of Young Children et al., "Child Care in Maine: Spring 2021."
- ¹⁰⁰ *Ibid.*, 2.
- ¹⁰¹ "Pre-Kindergarten Expansion Grants (2021-2024)," Maine Department of Education, accessed October 22, 2023, https://www.maine.gov/doe/learning/earlychildhood/pkexpansiongrant/2021.
- ¹⁰² *Ibid.*
- ¹⁰³ Dana Goldstein, "In Senator Manchin's Home State, Universal Pre-K Is Already a Reality," *New York Times*, October 16, 2021, https://www.nytimes.com/2021/10/16/education/joe-manchin-universal-pre-k.html.
- ¹⁰⁴ Friedman-Krauss, *The State of Preschool 2022*, 158-159.
- ¹⁰⁵ "WV Universal Pre-K," West Virginia Department of Education, accessed May 21, 2023, https://wvde.us/early-and-elementary-learning/wv-universal-pre-k/.
- ¹⁰⁶ Phil Mattingly, "Manchin's Offer to Biden Included Universal Pre-Kindergarten and Obamacare Expansion, But No Child Tax Credit," *CNN*, November 20, 2021, https://www.cnn.com/2021/12/20/politics/joe-manchin-offer-to-biden/index.html.
- ¹⁰⁷ Goldstein, "In Senator Manchin's Home State, Universal Pre-K Is Already a Reality."
- ¹⁰⁸ Friedman-Krauss et al., The State of Preschool 2022, 158-159.
- 109 Goldstein, "In Senator Manchin's Home State, Universal Pre-K Is Already a Reality."
- ¹¹⁰ Friedman-Krauss et al., The State of Preschool 2022, 158-159.
- ¹¹¹ *Ibid*.
- ¹¹² *Ibid*.
- ¹¹³ Goldstein, "In Senator Manchin's Home State, Universal Pre-K Is Already a Reality."
- ¹¹⁴ *Ibid*.

¹¹⁵ Steven W. Barnett et al., "State Prekindergarten Effects on Early Learning at Kindergarten Entry: An Analysis of Eight State Programs," *AERA open* 4, no. 2 (2018): 13-14.

WV Women Moving Forward, "3.4. Mandatory Pre-K in West Virginia: Unintended Consequences," West Virginia University, published 2020, accessed May 21, 2023, https://www.edu/resources/rethinking-dependent-care-options-full-report/3-4-mandatory-pre-k-in-wv-consequences.

¹¹⁷ Brad McElhinny, "Justice Signs Nation's Broadest Education Savings Accounts Bill," *WV MetroNews*, March 29, 2021, https://wwmetronews.com/2021/03/29/justice-signs-nations-broadest-education-savings-accounts-bill/; Goldstein, "In Senator Manchin's Home State, Universal Pre-K Is Already a Reality."

Anna Gromada and Dominic Richardson, *Where Do Rich Countries Stand on Childcare?* (Florence, Italy: UNICEF Office of Research - Innocenti, June 2021), 7, https://www.unicef-irc.org/where-do-rich-countries-stand-on-childcare.

¹¹⁹ Caitlyn Collins, "In Germany, Parents Can Sue the Government for Failing to Provide Child Care," *The Atlantic*, January 10, 2017, https://www.theatlantic.com/business/archive/2017/01/german-childcare/512612/.

¹²⁰ Marion Kaufmann, "Immer noch nicht kindgerecht: Brandenburg fehlen nächstes Jahr 2900 Kita-Plätze," *Tagesspiegel*, October 19, 2022, https://www.tagesspiegel.de/potsdam/brandenburg/immer-noch-nicht-kindgerecht-brandenburg-fehlen-nachstes-jahr-2900-kita-platze-8766778.html.

¹²¹ Statistisches Bundesamt, "Anzahl der Kindertageseinrichtungen öffentlicher und freier Träger in Deutschland in den Jahren 2020 bis 2022," Statistica, published October 2022, accessed April 12, 2023,

https://de.statista.com/statistik/daten/studie/1194803/umfrage/anzahl-der-kitas-in-

 $\underline{deutschland/\#:\sim:text=Zum\%2001.,sowie\%2019.625\%20in\%20\%C3\%B6ffentlicher\%20Tr\%C3\%A4gerschaft.}$

122 Statistisches Bundesamt, "Anzahl der Kinder in Kindertageseinrichtungen freier Träger in Deutschland nach Trägerart zum 01. März 2022," Statistica, published October 2022, accessed April 12, 2023. https://de.statista.com/statistik/daten/studie/1131583/umfrage/kitas-freier-traeger-nach-traegerart/

123 "Kita-Finanzierung," Landkreis Oder-Spree, accessed April 12, 2023, https://www.landkreis-oder-spree.de/Politik-Landkreis/Beir%C3%A4te/Kita-

Finanzierung.php?object=tx,3410.2&ModID=10&FID=1300.330.1&NavID=2426.231.

¹²⁴ Jana Weiss, "Kitafinanzierung im Land Brandenburg," Elterninitiative proKita, published April 12, 2018, accessed April 12, 2023, https://elterninitiative-prokita.de/gesetzliches/kitafinanzierung-im-land-brandenburg/.

¹²⁵ See § 16: Finanzierung der Kindertagesbetreuungsangebote. "Zweites Gesetz zur Ausführung des Achten Buches des Sozialgesetzbuches - Kinder- und Jugendhilfe - (Kindertagesstättengesetz - KitaG)," Landesrecht Brandenburg, Landesregierung Brandenburg, published June 27, 2004, last modified December 16, 2022, accessed April 12, 2023, https://bravors.brandenburg.de/gesetze/kitag#16.

126 Kathrin Bock-Famulla et al., Ländermonitoring: Frühkindliche

Bildungssysteme: Profile der Bundesländer: Brandenburg (Gütersloh, Germany: Bertelsmann Stiftung, 2022), 21-22, https://www.laendermonitor.de/fileadmin/files/laendermonitor/laenderprofile/2022/BB Laenderprofil 2022.pdf.

¹²⁷ See the graphic in the "Grafiken" section titled "Kassenmäßiges Steueraufkommen nach der Ertragskompetenz," which shows tax revenue by source. Gemeinschaftsteuren are the joint taxes. "Steuereinnahmen," Statistisches Bundesamt, published 2022, accessed July 31, 2023,

https://www.destatis.de/DE/Themen/Staat/Steuern/Steuereinnahmen/inhalt.html.

128 "Gemeinschaftsteuren," Statistisches Bundesamt, accessed July 31, 2023.

https://www.destatis.de/DE/Themen/Staat/Steuern/Steuereinnahmen/Glossar/gemeinschaftsteuern.html.

¹²⁹ What Are Taxes and What Are They Used For? (Berlin, Germany: Bundesfinanzministerium, May 2023), 14, 17-18, https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Press Room/Publications/Brochures/whatare-taxes-and-what-are-tey-used-for.pdf? blob=publicationFile&v=2.

¹³⁰ Collins, "In Germany, Parents Can Sue the Government for Failing to Provide Child Care."

¹³¹ "Kita-Elternbeitragsentlastung," Ministerium für Bildung, Jugend und Sport, Land Brandenburg, accessed April 12, 2023, https://mbjs.brandenburg.de/kinder-und-jugend/kindertagesbetreuung/kita-elternbeitragsentlastung.html.

¹³² "Primäreinkommen und Verfügbares Einkommen der privaten Haushalte in Berlin und Brandenburg," Statistik Berlin Brandenburg, accessed June 15, 2023, https://www.statistik-berlin-brandenburg.de/p-i-10-j.

¹³³ See section labeled "Tabellen: Übersicht zur Begrenzung der Elternbeiträge." "Kita-Elternbeitragsentlastung," Ministerium für Bildung, Jugend und Sport, Land Brandenburg.

¹³⁴ Elizabeth Schumacher, "Child Care in Germany Leaves Mothers with Few Options," *Deutsche Welle*, August 21, 2022, https://www.dw.com/en/child-care-in-germany-leaves-mothers-with-few-options-to-work/a-62780575.

¹³⁵ Laiba Mubashar, "'Childcare Puzzle': Which Countries in Europe Have the Highest and Lowest Childcare Costs?" Euronews, last updated March 20, 2023, https://www.euronews.com/next/2023/03/06/childcare-puzzle-whichcountries-in-europe-have-the-highest-and-lowest-childcare-costs.

136 Kaufmann, "Immer noch nicht kindgerecht: Brandenburg fehlen nächstes Jahr 2900 Kita-Plätze."