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Building the Foundation for Education: Investing in Kentucky's Young Children

All children need a strong start in life to thrive. We know from decades of research that strong early childhood experiences provide a foundation for success in later childhood and adulthood. We also know that the greatest returns on investment for building human capital come from early childhood services. And we know that if we want to remain competitive in the global marketplace of goods and ideas that we need all children to reach their full potential. While Kentucky has taken many positive steps to improve early childhood systems, we need to increase our investments in Kentucky's youngest children to give all a strong start.

This report highlights the key role early childhood plays in lifetime success; outlines the critical components of strong early childhood experiences; reviews how Kentucky is working to provide young children a solid foundation; and identifies additional opportunities for Kentucky to provide every child from birth through age eight a chance to reach their full potential.

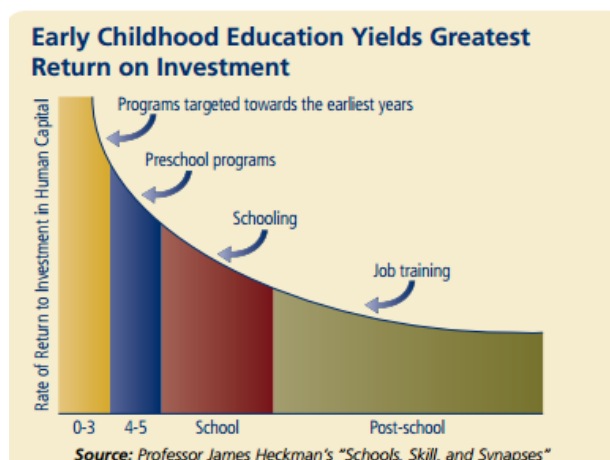
Fast Fact: There are 507,300 children ages 0-8 in Kentucky.¹

Why prioritize the years from birth through age 8?

Babies brains develop rapidly from birth until age five, and interactions with parents and caregivers impact the pace of brain development.² The critical growth of neurological and biological systems that occurs during those years lays the foundation for children's future growth and development.³ The early years provide the greatest opportunity for setting children on a path to become successful students and later, capable and productive citizens. Strong early childhood experiences prepare children for school and reduce the need for later remediation.

The best time to invest in children's development is during these first five years of life (see Figure 1) – delivering the greatest returns in human capital (7-10 percent per year, per child).⁴ The work of Nobel Laureate Economist James Heckman shows us that it is more cost effective to invest now in early childhood education for children at risk of not succeeding at school than to pay later for remediation and the high cost of fixing chronic social problems such as the high school dropout rate, teen pregnancy, poor health, pervasive poverty, and high unemployment and underemployment.⁵ Investments should first target children in low-income families, because achievement gaps actually begin before Kindergarten.⁶

Figure 1



curriculum.⁸ Students who are not proficient readers in third grade are four times more likely to later drop out of school, and 75 percent of them will still be poor readers in high school.⁹

Fast Fact: In school year 2012/13, 52 percent of third graders in Kentucky public schools were not proficient in reading.¹⁰

Experiencing adverse events in early childhood can disturb the growth of the neurobiological systems responsible for our physiological and behavioral responses to the challenges and stressors of everyday life – thereby creating risk of lifelong consequences for both physical and mental well-being.¹¹ The long-term risks include acute and chronic diseases, and even a shortened life span, regardless of whether there is memory of the trauma experienced in early childhood.¹²

Fast Fact: 10 percent of Kentucky children under age 9 have experienced three or more adverse childhood experiences, excluding socioeconomic hardship.¹³

The most tangible outcome of strong early childhood experiences is increased earned income as an adult. When important developmental needs are addressed in early childhood, youth are more likely to complete high school. In 2011, the median annual income for those with a bachelor's or higher degree was \$50,000, compared to almost \$30,000 for those who completed high school or obtained a GED and nearly \$23,000 for high school dropouts.¹⁴ Receiving at least a high school education is necessary for anyone hoping to achieve economic self-sufficiency and raise a family – the 2012 poverty threshold for a family of four with two children was \$23,283.¹⁵

Fast Fact: In school year 2012/13, 14 percent of Kentucky high school students did not graduate within four years.¹⁶

The increased likelihood of good physical and mental health represents another outcome of strong early childhood experiences. We know from the Adverse Childhood Experiences (ACE) Study that adverse events (such as child abuse or neglect, domestic violence, abandonment or parental separation/divorce, or parental incarceration, substance abuse or mental illness) have a negative impact on children's development. Children whose early years are marked by adverse events are at increased risk later on for poor physical health (cardiovascular disease, chronic lung disease and cancer), mental health (depression), and behavioral health (alcoholism and drug abuse).¹⁷ Also, those experiencing multiple

adverse events in childhood have “substantially greater risks for life-threatening psychiatric disorders, overlapping mental health problems, teen pregnancies, obesity, physical inactivity, and smoking.”¹⁸

Figure 2



Source: United Way of Greater Cincinnati 2013 *Impact Report*.

The strength of the foundation built during the first eight years of childhood not only has long-term implications for the individual, but for the larger community and economy as well (see figure 2). The Commonwealth needs a healthy and highly educated workforce in order to attract and fill the kind of jobs that pay wages sufficient for raising a family; to make Kentucky a competitor in the growing global economy; and to adequately staff our nation’s military. A more highly educated Kentucky citizenry would yield increased tax revenues and reduced spending on public assistance.¹⁹ High school graduates contribute about twice as much in taxes, are less likely to access public assistance,

are much less likely to serve time in prison and have better health outcomes and life expectancies than young adults who do not complete high school.²⁰ Similarly, the physical and mental health conditions resulting from adverse experiences and poor health in early childhood impose significant societal costs through reduced workforce productivity, increased rates of disability, and a strain on our healthcare system.²¹

What are the components of strong early childhood experiences?

In the earliest years children all need the same fundamental things to promote and sustain developmental gains. They need stimulating environments, opportunities to learn, and teaching from caregivers (both in the family and the community) to build cognitive abilities and skills and achieve educationally. They also need high-quality nutrition, medical and dental care, and secure emotional attachments to caregivers for good physical, oral and social-emotional health. When children get all of these crucial needs met, they thrive and can grow into the successful adults we want and need them to be, but if these needs are not met they can face serious obstacles to their overall well-being.²²

For a compendium of early childhood services in Kentucky, view the 2010 report from the Governor’s Task Force on Early Childhood and Education at <http://www.workforce.ky.gov/ECTFreport.pdf>.

Early Care and Education

Education begins in the home at infancy and continues throughout childhood with teaching and support from family, caregivers, schools and the community. The first eight years are a critical period of development for “physical well-being and motor development, language and literacy development, cognitive development (including early math and science skills), social-emotional development, and

motivational and regulatory skills associated with school readiness and later life success.”²³ The long-term success associated with high-quality early care and education includes higher levels of educational attainment, career advancement and earnings.²⁴

Parents who work need access to high-quality, affordable care outside the home to ensure the developmental needs of their children are met. Child care not only provides children stable and safe care when their parents are at work; it also allows parents to earn the income needed to meet the needs of their children.²⁵

Fast Fact: 14 percent of Kentucky children ages 1-5 are read to less than 3 days per week by a relative.²⁶

Child Care

Pre-Kindergarten care ranges from child care for infants and young children to full- and part-day preschool classes. Child care for infants and young children can greatly benefit children if providing high-quality care, but parents need a mechanism to find high-quality providers they can trust to meet important quality standards.²⁷ For this reason, Kentucky began a Quality Rating and Improvement System (QRIS) in 2001 called STARS for KIDS NOW (STARS). STARS is currently a voluntary system whereby licensed and certified child care providers can apply for a rating from one to four stars and receive technical assistance, with rating levels determining financial incentives. The standards used to rate providers are associated with quality care and include staff/child ratios; group size; curriculum; parent involvement; staff training/education; regulatory compliance; and personnel practices.²⁸ In addition to incentivizing quality improvements by providers, STARS helps parents make more informed choices.

Fast Fact: 38 percent of Kentucky’s licensed center, licensed home, and certified home child care providers participate in STARS.²⁹

Fast Fact: 28 percent of participating child care providers in STARS have a 3- or 4-star rating representing high-quality care.³⁰

In addition to the use of a Quality Rating and Improvement System, it is important for states to adopt Early Learning and Development Standards that outline age-appropriate expectations for child development.³¹ Kentucky first developed early childhood standards in 2003 (the 2013 standards are available from the Governor’s Office of Early Childhood). The standards offer a framework for parents, professionals, and others to understand what children are developmentally capable of knowing and doing from birth through four years of age, in order to help children thrive.³² Kentucky has engaged in the best practice of aligning its Early Childhood Standards for 3- and 4-year-olds with its academic standards for Kindergarten.

While STARS and early childhood standards encourage high-quality care from providers, parents also need child care to be affordable. A significant proportion of a family’s budget is dedicated to child care, with low-income families carrying a disproportionate burden based on their annual income.³³ In Kentucky, the annual cost of care for two children (an infant and a 4-year-old) is 37 percent more than the annual cost for rent.³⁴ Annual fees for center-based child care in Kentucky in 2012 averaged \$6,007

for a 4-year-old and \$6,105 for an infant.³⁵ Kentucky is also one of the top ten least-affordable states for before- and after-school center-based care for school-age children.³⁶

Child care assistance helps low-wage parents start and keep jobs and access higher quality care than they could otherwise afford.³⁷ Unfortunately, the Kentucky Cabinet for Health and Family Services implemented cuts to the Child Care Assistance Program (CCAP) in 2013 in response to a budget shortfall (though the cuts to CCAP and Kinship Care combined are only projected to save less than half of one percent of the state budget). Since April 1, 2013, no new families can apply for child care assistance due to freezing the intake process. Since July 1, 2013, the state has reduced the income eligibility for families to receive child care assistance from 150 percent of the federal poverty level to 100 percent, making Kentucky's eligibility rate the lowest in the nation.³⁸ The Department of Community Based Services "anticipated that 2,900 children on average per month would be impacted by the application intake freeze, and 14,300 children on average per month would be impacted by reducing the [income] eligibility."³⁹ From January through November 2013, more than 13,500 Kentucky children who received CCAP due to low income lost their subsidy.⁴⁰ Kentucky now has the unenviable distinction of ranking last among states for access to child care subsidies to help low-income working parents.⁴¹

Disruption in the receipt of child care subsidies is unsurprisingly associated with instability of child care arrangements.⁴² The cuts to CCAP will force low-income working parents now excluded from the subsidy and unable to pay the full cost of child care to either resort to unregulated care (such as relatives or neighbors), or quit work and apply for welfare benefits. The fact that some parents will either lose or have to quit their job is seen in several past studies on the effects of child care subsidy waiting lists.⁴³ In addition to the impact on parental employment, unstable child care arrangements are also problematic for children's development, especially for very young children.⁴⁴ The child care industry is also hard hit, with providers having to lay off staff or close down due to lost revenue from the cuts. More than 200 child care centers in Kentucky have closed since the CCAP changes took effect, and many providers have said the CCAP cuts were a factor.⁴⁵ Even families who do not depend on CCAP could be negatively affected in the form of decreased quality and increased fees due to the changes providers are enacting to make up for lost revenue.

Lifting the freeze on applications for CCAP and raising income eligibility limits to allow additional low-income working families to access the subsidy are two steps needed to improve access to quality child care. In addition to those changes, Kentucky can also strengthen the system of child care in the state by requiring all child care providers to meet some quality standards and by raising the reimbursement rates child care providers receive for CCAP participants.

Given the research base on the importance of high-quality learning experiences for young children, Kentucky plans to require all early childhood education programs to participate in STARS by 2017, using funding from the newly awarded federal Race to the Top grant. With this expansion of STARS, a certain level of quality will now be required of all public preschools, private preschools and day cares, home-based programs, and Head Start programs.⁴⁶

As discussed earlier, STARS is currently a voluntary program, and Kentucky does not require providers accepting child care subsidies to participate in STARS. However, in an effort to encourage providers to accept CCAP subsidies, those that do participate in STARS and have a rating from two to four stars

receive a monetary Quality Incentive Award once a year based on the number of CCAP children served.⁴⁷ Across the nation, 33 states provide higher reimbursements to child care providers that meet higher quality standards, recognizing the additional costs of high-quality care, such as hiring additional staff for lower child-to-staff ratios or paying higher salaries for employees with higher education and training in early childhood.⁴⁸

Providing adequate reimbursement rates for child care providers can entice more providers to accept subsidies as a form of payment, thereby providing more choice for low-income parents who rely on subsidies to access quality care. Increasing the quality of child care means higher costs for providers, and inadequate reimbursement rates can have a negative effect on quality due to insufficient resources. Kentucky has not updated the reimbursement rates since 2006, resulting in the state no longer meeting the federally recommended level (the 75th percentile of current market rates). For example, the difference between the state's reimbursement rate and the 75th percentile is almost \$120 for a young child.⁴⁹ As costs to operate child care centers rise with inflation, "centers pay employees less, meaning holding on to experienced employees becomes harder."⁵⁰ These economic decisions lower the quality of care, and can also result in child care centers closing.

Preschool Services

High-quality preschool services, including state- and federally-funded preschool classes, help prepare children for future learning in school. Attendance at a high-quality preschool is linked to improved cognitive test scores, enhanced social and emotional development, and increased school success.⁵¹ Model demonstration programs such as Perry Preschool and Abecedarian have also been shown to increase earnings as an adult and reduce the risk of poverty and crime.⁵² The effect of high-quality preschool classes on cognitive development is significant enough to close half, or more, of the achievement gap between youth of color and white children or low-income children and their wealthier peers, through the end of high school.⁵³

Ohio: An example of QRIS expansion

A recent study of Ohio's early childhood system found children in the state's star-rated child care centers experienced better outcomes on math and phonetic awareness and less behavioral problems. In order to increase Kindergarten readiness for high-needs children, Ohio is implementing an initiative called Step Up for Quality, requiring all early childhood providers receiving public funding to participate in the state's Quality Rating and Improvement System. To allow sufficient time to prepare to meet the quality standards, all child care providers receiving subsidies will be rated by fiscal year 2020. Providers of the state's public preschool program and the special education preschool program will also be rated by fiscal years 2016 and 2018, respectively. Ohio will continue to use a tiered reimbursement system that provides higher reimbursement rates for higher-quality programs. For example, in Montgomery County a provider of full-time preschool services with the highest star-rating receives \$175 per week versus the \$147 received by a non-rated provider.

Source: Presentation at Ohio Children's Caucus Steering Committee Meeting, October 16, 2013.

Kentucky's public preschool program, which serves 4-year-olds in families with income below 150 percent of the federal poverty level and those in foster care, and 3- and 4-year-olds with developmental delays or disabilities, experienced a less pronounced decline in funding due to the recession than other states, but has not yet returned to pre-recession levels.⁵⁴ The federal Head Start program also provides early childhood education, as well as health, nutrition, and social services, to low-income children and their families to promote school readiness.⁵⁵ Research shows participation in Head Start yields significant short-term improvements in children's cognitive, academic, and social-emotional development, as well as their health.⁵⁶ Kentucky uses its federal Head Start funding to serve as many 3- and 4-year-old children in families with income below 150 percent of the federal poverty level as possible, then using the state-funded preschool program to serve as many additional eligible 4-year-olds as possible.

Fast Fact: 33 percent of Kentucky children ages 3 and 4 are enrolled in the state preschool program or Head Start.⁵⁷

Despite these state- and federally-funded preschool programs, many young children are not attending a public or private preschool, putting them at risk of starting school behind their peers. Access to preschool could be greatly improved by providing high-quality, voluntary full-day preschool for all 3- and 4-year-olds, starting with those in households with incomes below 200 percent of the federal poverty level. So called "universal pre-K" would magnify the positive effects preschool has on children at risk of not succeeding in school, as research has found "larger gains for disadvantaged children when programs contained more children from middle-income families."⁵⁸ Universal pre-K services can also raise standards for Head Start and private preschool programs by incorporating them into the state-funded program, as Oklahoma, West Virginia, and New Jersey have done.⁵⁹

Fast Fact: 58 percent of Kentucky children ages 3 and 4 are not attending a public or private preschool.⁶⁰

A 2009 study of the estimated costs and benefits of expanding Kentucky's preschool program found that when considering "the combined public and private benefits of pre-K, the total estimated benefit is more than \$5 for every \$1 the state would invest in an expanded pre-K program... [and] additional benefits from an expanded pre-K program would include: reduced need for special education; lower incidence of crime; welfare-related savings; lower incidence of grade retention; lower incidence of child abuse and neglect; [and] higher high school graduation and postsecondary enrollment rates for low-income students."⁶¹ The effects of quality pre-K are so great that the College Board puts pre-K for all 3- and 4-year-olds at the top of its recommendations for increasing college enrollment.⁶² The benefits of preschool expansion would be even greater if the quality of Kentucky's preschool services were improved.⁶³ For example, though Kentucky's public preschool program meets 9 out of 10 benchmarks of quality recommended by the National Institute of Early Education Research, the highest quality preschool services utilize home visits on a weekly basis, compared to the two home visits per year currently required in Kentucky.^{64,65,66}

Pre-K expansion would necessitate building up the capacity of providers that already serve young children. Since most 3- and 4-year-olds already spend some time in child care settings, these are ideal environments in which to integrate pre-K services. Developing public-private partnerships between

public preschool programs and quality child care centers will provide more children a high-quality early education and is more cost effective by reducing facilities and transportation costs for school districts. Using high-quality child care centers for delivery of pre-K would also make preschool attendance easier for working families, “increase families’ pre-K choices, make efficient use of existing facilities and parent-provider relationships and help streamline the process through which parents obtain services for their children.”⁶⁷ In fact, any additional appropriations for preschool services should be made on the condition that recipients demonstrate collaboration and coordination with other early care providers, as increased collaboration among early childhood agencies is needed to maximize the benefits of public investments.⁶⁸

Christian County Public Schools has utilized successful public-private partnerships for pre-K delivery for more than five years. The school district sends its early childhood educators to area day care and Head Start centers to provide more eligible 3- and 4-year olds a high-quality pre-K education. These arrangements cut down transportation costs for the school district and enable them to serve more children than their own facilities can accommodate. The participating centers have a unique selling point for parents and experience professional growth for the staff working alongside the teachers.⁶⁹

Kindergarten and Early Elementary Education

Young children in Kentucky would also benefit from the expansion of Kindergarten. Voluntary full-day Kindergarten for all age-eligible children is a key piece of the continuum of early childhood education and would further increase school readiness rates. Research comparing half-day and full-day kindergarten finds that full-day Kindergartners have easier transitions into first grade and reduced rates of retention and remediation.⁷⁰ However, without sufficient investments during the early elementary grades the benefits gained from Kindergarten attendance will likely fade out.⁷¹

Kentucky currently requires school districts to offer half-day Kindergarten, though many school districts provide full-day Kindergarten and cover the additional costs without state funding.⁷² Pendleton County Schools found a way to cut costs while maintaining full-day Kindergarten and protecting the range of services provided – a potential model for other districts with limited resources. The school district lowered its Kindergarten expenses without charging parents tuition by replacing half of its certified teachers with instructional assistants, dividing the Kindergarten students into two groups, and rearranging the schedule to maximize use of the certified teachers.⁷³

Kindergarten students are now held to new and stronger academic standards due to the adoption of the Common Core State Standards and new grade-level assessments of student proficiency (beginning in 2014).⁷⁴ One way to help ensure young children are prepared to meet these new expectations is through use of Kindergarten entry assessments that are “aimed at articulating and evaluating the set of skills and competencies young children need in order to prepare them for the increased challenges and demands of kindergarten and to succeed in later schooling.”⁷⁵ Kindergarten entry assessments can be used in multiple ways: “to ‘look back’ and understand the cumulative benefits of investments made prior to entering the K-12 educational system, to set instructional plans for the current year, and to ‘look forward’ and begin to plan for and support children’s successes within the K-12 system.”⁷⁶

Starting in school year 2013/14, all Kentucky school districts began administering the BRIGANCE Kindergarten readiness screener to all incoming Kindergartners. While children do not have to pass the screener to enroll, it is used to measure the extent to which a child will enter school ready to engage in and benefit from Kindergarten by measuring cognitive/general knowledge, language and communication, physical well-being, self-help, and social emotional skills.

Fast Fact: In school year 2012/13, 28 percent of the more than 31,000 incoming Kentucky Kindergartners screened were ready to succeed without additional supports.⁷⁷

Early childhood care providers and educators must be mindful of the transition points along the early childhood continuum, which can be challenging for children and present opportunities for breakdown in communication between systems. Transitions between preschool and Kindergarten, and between Kindergarten and first grade are particularly important, as children may have difficulty adjusting to new rules, routines and expectations of each setting. “Providing support to children, including peer support, as they transition from early care and education into Kindergarten classrooms and then into the later grades is shown to have positive effects on later social competence.”⁷⁸ Effective practices for making these transitions as smooth and successful as possible include: “developing partnerships between children, parents and teachers; setting the stage for the parents’ role within their child’s education; and promoting teacher professional development.”⁷⁹ To decrease stress and the potential for negative outcomes, it is vital during these critical transition points to bolster the connections and communication between children’s homes and the provider systems.⁸⁰

As children enter the realm of compulsory school attendance it is necessary to have systems in place to identify problems early, such as chronic absence, so timely interventions can be put in place. Such “early warning systems” use data from multiple sources to provide educators, administrators, and policymakers the information they need to ensure long-term, positive outcomes for children.⁸¹ Research has identified three factors that are highly predictive of a student’s risk of dropping out of school that should be tracked in early warning systems: course performance, school attendance, and behavior. The tipping point thresholds for these factors are: “missing 20 days of school or being absent 10 percent of school days; two or more mild or more serious behavior infractions; an inability to read at grade level by the end of third grade; failure in English or math in sixth through ninth grade; a GPA of less than 2.0; two or more failures in ninth grade courses; and failure to earn on-time promotion to the tenth grade.”⁸² Ideally, early warning systems would include Kindergarten students, as “hyperactivity-inattention and high levels of anxiety among Kindergartners have also been associated with high school dropout,” and “chronic absence in Kindergarten has been linked to lower levels of achievement in math, reading, and general knowledge in first grade.”⁸³

Schools can develop early warning systems using data on these indicators to intervene early when a student approaches one or more of the thresholds for being at risk of school failure or disengagement. The implementation of Infinite Campus in Kentucky gives school districts the capability to create an early warning system, however it is currently up to each school to decide whether or how to do so.

Other Developmental Needs

For young children to truly succeed, “we must first dispel the notion that classroom learning is isolated from other aspects of child development.”⁸⁴ As an example, “children who enter Kindergarten with below-average language and cognitive skills are most likely to catch up only if they are physically healthy and have strong social and emotional skills.”⁸⁵ We know that children who are hungry or ill have more difficulty learning and miss more school days than their peers. Health impacts almost every other aspect of child well-being, making it an utmost priority for children’s growth and development.

Developmental Screenings

Regular developmental screenings, beginning in infancy, monitor whether children are maturing as expected and can catch developmental delays early. “Screenings for hearing and vision impairments, metabolic disorders, and development delays are an aspect of adequate and ongoing pediatric health care that can have significant effects on children’s developmental outcomes.”⁸⁶ Routine screenings throughout childhood allow for early identification and intervention, which “can improve cognitive and academic outcomes, as well as have positive effects on employment later in life.”⁸⁷ If a screening identifies a concern, families need a timely referral to a specialist, an in-depth assessment, and access to any needed treatment or services for the child.

Fast Fact: 26 percent of Kentucky children under age 6 have received a developmental screening.⁸⁸

One way to increase use of routine screenings is to ensure all types of early care providers are knowledgeable enough about child development to identify potential concerns and refer families to a screening. Kentucky’s First Steps early intervention system serves children birth to age 3 with developmental disabilities regardless of family income. First Steps offers comprehensive services through a variety of community agencies and service disciplines, with services provided in the home, at a child development center, or in a clinical setting.⁸⁹ Early childhood care providers can play an important role in identifying children and referring a family to First Steps, if providers are knowledgeable about it.

Fast Fact: Nearly 11,000 Kentucky families receive services from First Steps.⁹⁰

Identification of Adverse Childhood Experiences

While most of the work done on adverse childhood experiences (ACE) has studied adults who experienced one or more ACE during childhood, there is growing interest in identifying the presence of these adversities in young children in order to prevent the associated negative outcomes. Similar to many developmental screenings, a questionnaire on the presence of ACE could be completed at well-child visits in pediatric offices or through home visiting programs. An ACE screening would enable providers to consider preventive care tailored to a high-risk child’s needs, and to connect families with services designed to increase resiliency in children with a high ACE score. A recent pilot test of an ACE screening tool at well-child visits shows that brief tools can be used to screen for ACE in pediatric practices, and the results of the screening can be particularly instructive for implementing primary prevention strategies for childhood behavior problems, developmental delays, and injuries.⁹¹

Comprehensive Health Care

All children need health coverage, and they also need that coverage to translate into access to quality care. Health coverage needs to cover the full range of health needs including physical, mental, vision and oral health. Kentucky has made strides in connecting children and their families to coverage by removing red-tape barriers in Medicaid and the Kentucky Children's Health Insurance Program (KCHIP), expanding Medicaid eligibility up to 138 percent of the federal poverty level for adults, and creating its own health benefit exchange.

Fast Fact: 6 percent of Kentucky children ages 0-5 do not have health insurance.⁹²

Quality health care needs to begin before a child's birth, with early and regular prenatal care to increase the chance of a healthy start in life. Women who regularly see a health care provider during pregnancy have healthier babies and are less likely to deliver prematurely or to have other serious pregnancy-related problems.⁹³ Prenatal care can include screening and treatment for medical conditions, tests for potential birth defects and diseases, monitoring of the fetus' development, and patient education on behaviors, such as smoking, that jeopardize the health of the baby.⁹⁴

Fast Fact: 64 percent of Kentucky mothers receive early and regular prenatal care.⁹⁵

After birth, children need consistent physical health and oral health care to maintain optimal health. "Regular pediatric care is important for assessing and monitoring children's health status over time, staying up-to-date on immunizations, and identifying and addressing any threats to development as early as possible."⁹⁶ Pediatric care providers are an important source for the developmental screenings discussed above, or referral to an appropriate provider, particularly in the case of dental care. For children under age eight, "dental caries is one of the greatest unmet needs," and leaving tooth decay untreated can "lead to secondary physical illness, delay overall development, compromise school attendance and performance, and interfere with psycho-social functioning."⁹⁷

Fast Fact: 57 percent of Kentucky children enrolled in Medicaid or KCHIP receive dental services.⁹⁸

Comprehensive and Coordinated Care

Too often, services operate on the hypothesis that the issues confronting kids and families come in silos. However, we know that health is inseparable from education and education is inseparable from economic security, etc. Contributing factors to overall child well-being need to be addressed through a comprehensive and coordinated approach to provide Kentucky children a strong start in life.

To help our students graduate from high school and complete college, we need to think comprehensively about education, particularly in the early years. A wide body of evidence shows that when states coordinate approaches among proven services targeting children birth through age 8, outcomes can improve substantially.⁹⁹ A comprehensive approach should ensure that services that improve parenting skills for families with infants and toddlers are connected and sharing information with preschool and elementary school providers. In turn, preschools should be coordinating with

elementary schools to help align health care, child care and education services that are available to meet families' and children's needs.

There are efforts underway to ensure that care is comprehensive and coordinated in Kentucky. The Governor's Office of Early Childhood and the Early Childhood Advisory Council are tasked with strengthening state-level coordination and collaboration among Kentucky's early childhood services.¹⁰⁰ The Office of Early Childhood also produces Early Childhood Profiles for every county to help create local dialogue leading to local strategies to improve early childhood outcomes.¹⁰¹

Madison County has an excellent example of collaboration between pre-K and K-12 educators designed to improve school readiness rates. Trainings focused on Kentucky's early childhood education standards are provided free to all Madison County day care centers that belong to the district's Early Childhood Alliance, and for a minimal charge to others, including those from nearby counties. Madison County Public Schools got certified as a child care center trainer and at weekend trainings its teachers provide day care workers with literacy and numeracy activities that are inexpensive and easy to implement. These trainings, coupled with the "mentoring triangles" in which day care workers observe preschool and Kindergarten teachers in their classrooms, work to create "a seamless transition between a child care setting and public preschool and Kindergarten."¹⁰²

Keeping with the belief that what gets measured gets done, Kentucky has also developed a longitudinal data system through the Kentucky Center for Education and Workforce Statistics which collects and links state agency data systems to track services, program participation, and academic performance – enabling the state to track child outcomes through college completion.¹⁰³ With funding from its federal Race to the Top grant, Kentucky will integrate even more data systems from across the early childhood continuum, and by 2017 the state will have the ability to identify and analyze specific factors that create success for children and families – enabling targeted funding of successful strategies to improve academic success.¹⁰⁴

Supporting Parents as Caregivers

Parents play perhaps the most important role in the successful development of young children, beginning even before a child is born. Parents can set the stage for optimal development prenatally through the first eight years of childhood by maintaining an environment that nurtures growth and learning and mitigates the negative effects of stress. The environmental interaction in the critical years between birth and age three especially, where rapid brain development takes place, can set the trajectory for a child's long-term outcomes. Creating an ideal setting for development requires resources and skills that not all parents intuitively have. Supporting parents as caregivers helps ensure their children develop to their full potential.

This knowledge of the critical role parents play in their children's success has spurred the development of a two-generation framework for "creating opportunities for and addressing needs of both vulnerable parents and children together."¹⁰⁵ Two-generation strategies can break the intergenerational cycle of poverty. A holistic two-generation approach has education as a core component, economic supports to keep families afloat while they build skills toward better jobs and financial security, and a focus on social capital to build on the strength and resilience of families (see Figure 3).¹⁰⁶

Figure 3



Source: Ascend: The Aspen Institute.

development of skills that are linked to in-demand job opportunities to promote economic mobility and stability for families.¹¹¹

Fast Fact: 18 percent of Kentucky births are to mothers with less than 12 years of education.¹¹²

Early childhood education that involves parents helps to improve effective communication within the parent-child interaction, which can set the tone for their long-term relationship. Family supports like home visitation services for parents, in tandem with quality early childhood education from birth to age five, help children develop cognitive and character skills that drive success in education, career, and

An example of a “whole family” approach that focuses on both parents and children simultaneously is the Family Scholar House in Jefferson County. Family Scholar House offers low-income single mothers and their children with subsidized housing at the agency’s campus (if needed); helps parents enroll in postsecondary education and obtain needed financial and/or work study assistance; provides case management services to assist in securing family support benefits such as child care and improve parenting and time management skills; and arranges monthly workshops and group activities for the families to engage in peer support and interact with mentors.¹⁰⁷

Education and Workforce Development

In order for parents to provide a stable environment as their child develops, they need access to employment and educational opportunities. The Kentucky Transitional Assistance Program (KTAP) and Kentucky Works Program (KWP) provide assistance to eligible children and families that offer supportive services to promote family self-sufficiency. These services help to support education and employment for low-income parents by providing cash assistance and child care in order so parents to remain in the workforce or further their skills in order to eventually obtain employment. An expansion of this service to reach a broader range of parents would help to promote economic stability and parent participation in higher education.

Fast Fact: 8 percent of Kentucky parents are unemployed.¹⁰⁸

Two-generation approaches offer opportunities to improve the education levels of parents, which strongly influence children’s academic achievement.¹⁰⁹ For example, a large study of incoming Kindergarteners found that those whose mothers had more education were “more likely to score in the highest quartile in reading, mathematics, and general knowledge” compared to those whose mothers had less formal education.¹¹⁰ Educational services for parents must include the

life.¹¹³ Kentucky currently supports a research-based home visiting service called Health Access Nurturing Development Services (HANDS) that provides education and support for first time mothers throughout the state. Increasing access to services like HANDS and broadening eligibility to include subsequent children would further increase the positive impact of home visiting services.

Fast Fact: 82 percent of Kentucky children ages 0-3 have mothers who did not receive a new parent home visit.¹¹⁴

Fast Fact: Nearly 10,000 Kentucky families are served by HANDS.¹¹⁵

Economic Supports

As the costs of living continue to rise without matching increases in wages, raising a child can be costly and difficult for economically stable families, and extremely hard for families struggling with poverty. Economic research suggests that even a few years of poverty can have negative and long lasting effects on a child, especially if poverty is experienced during the first five years of life.¹¹⁶ Children fare better when families are financially secure. Growing up in a household that experiences poverty threatens a child's health, safety, and educational attainment.¹¹⁷

Fast Fact: 52 percent of Kentucky children ages 0-8 are low-income.¹¹⁸

Maintaining a stable home requires having the financial resources to meet children's basic needs. For that reason, Kentucky has implemented the Child Support Enforcement Program, providing assistance to custodial parents or legal guardians of minor children in obtaining financial support from a non-custodial parent. The service is based on laws and regulations that require the establishment of paternity, child support, medical support, and reimbursement of welfare benefits expended on behalf of children.

Fast Fact: 58 percent of obligated child support is collected for Kentucky children.¹¹⁹

Stable housing is associated with positive outcomes in child health, academic achievement, and development.¹²⁰ Yet, such stability can be a challenge for low-income families, who are more likely to rent than own, and more likely to spend more than 30 percent of household income on rent.¹²¹ When rent takes up a high percentage of income, there is less money for other essentials, such as medical care, nutritious food, and educational materials.¹²² The issue hits urban families hardest, because city rents tend to be higher. Kentucky participates in federal and state programs that provide subsidized and public housing, rental assistance, and homeownership vouchers.

Fast Fact: An estimated 54 percent Kentucky renters cannot afford the average cost of a 2-bedroom unit.¹²³

Fast Fact: 5 percent of Kentucky's students in Kindergarten through third grade are homeless.¹²⁴

In order to make certain that children have their nutritional needs met Kentucky participates in the federal Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). WIC is a short-term nutritional intervention designed to influence lifetime nutrition, health behavior and contribute to increased brain development in high-

risk populations. WIC provides nutrition education, breast-feeding promotion and education and access to essential health-care services. SNAP provides food benefits to individuals and families that qualify based on need.

Fast Fact: 312,000 Kentucky children receive food benefits from SNAP.¹²⁵

Fast Fact: 100,000 Kentucky infants and toddlers receive food benefits and services from WIC.¹²⁶

Social Capital

Parents struggling with poverty or other stressors can experience poor mental health. Maternal depression has been shown to negatively affect child development.¹²⁷ Supporting access to mental health and substance abuse services for parents can help to improve the outcomes of young children. In Kentucky, the Early Childhood Mental Health Program supports access to early childhood staff and teachers as well as children; however the service does not serve parents. There is support for substance abuse services in Kentucky through the KIDS NOW Plus program Substance Abuse Treatment for Post-Partum Women. KIDS NOW Plus identifies and intervenes with pregnant women who use or are at-risk of using alcohol, tobacco, and other drugs. They provide screenings and prevention and education classes. Additionally, changes with the federal Affordable Care Act will greatly expand access to mental health and substance abuse services, as they are required benefits.¹²⁸

Fast Fact: 9 percent of Kentucky children ages 0-8 have at least one parent in the household with poor or fair mental health.¹²⁹

Parental mental illness and substance abuse are two frequent factors in incidences of child abuse or neglect, but sometime child abuse and neglect occur because parents simply cannot cope with overwhelming levels of stress. Recognizing that child abuse prevention requires a multi-disciplinary approach, the Center for the Study of Social Policy and partners developed the Strengthening Families conceptual framework and approach to preventing child abuse and neglect by working differently with families. The Strengthening Families approach believes every parent should feel supported by their community and that every parent needs community support, because all families go through times of stress. The approach builds on family strengths while buffering risks and can be implemented through small but significant changes in everyday actions. It can also be integrated into existing programs, strategies, systems and community opportunities. Lastly, it creates a common language and approach among agencies so that communities can meet the diverse needs of their families.¹³⁰ Kentucky is currently exploring developing a comprehensive and integrated framework, such as Strengthening Families, to promote the health and well-being of young children.

Kinship Caregiver Needs

Non-parental relatives raising children often face special challenges. For instance, without legal custody or guardianship, it can be very difficult to obtain health care or complete school enrollment forms, but many kinship caregivers do not want or cannot afford a legal relationship with the children in their care.¹³¹ Many times, relatives step in to help stabilize the situation for children on a temporary basis,

with the understanding that the parents will resume care once they are able. However, these living arrangements can last for years and often become a permanent situation.

To ensure children in kinship families have access to education and health care, 23 states have enacted health care consent laws and 14 states have enacted education consent laws that allow kin caregivers to access these services for the children in their care without the need for legal custody or guardianship.¹³² Such laws allow a caregiver to complete an affidavit under penalty of perjury that they are the primary caregiver of the child, and then by presenting the form they can consent to health care treatment or school enrollment. Consent laws should protect parents' rights by explicitly stating the parents' right to rescind an affidavit at any time and by specifying that the affidavits do not give the caregiver legal custody of the child.

Fast Fact: 6 percent of Kentucky children are raised by kin.¹³³

How can Kentucky strengthen its early childhood care and education system?

A recent bipartisan poll shows the vast majority of voters rate ensuring children get a good start in life as a top national priority (second only to increasing jobs and economic growth). Voters also think our nation should be doing more to start children off in kindergarten with the knowledge and skills needed for success, and they overwhelmingly believe it is important to make early education and child care more affordable for working families.¹³⁴

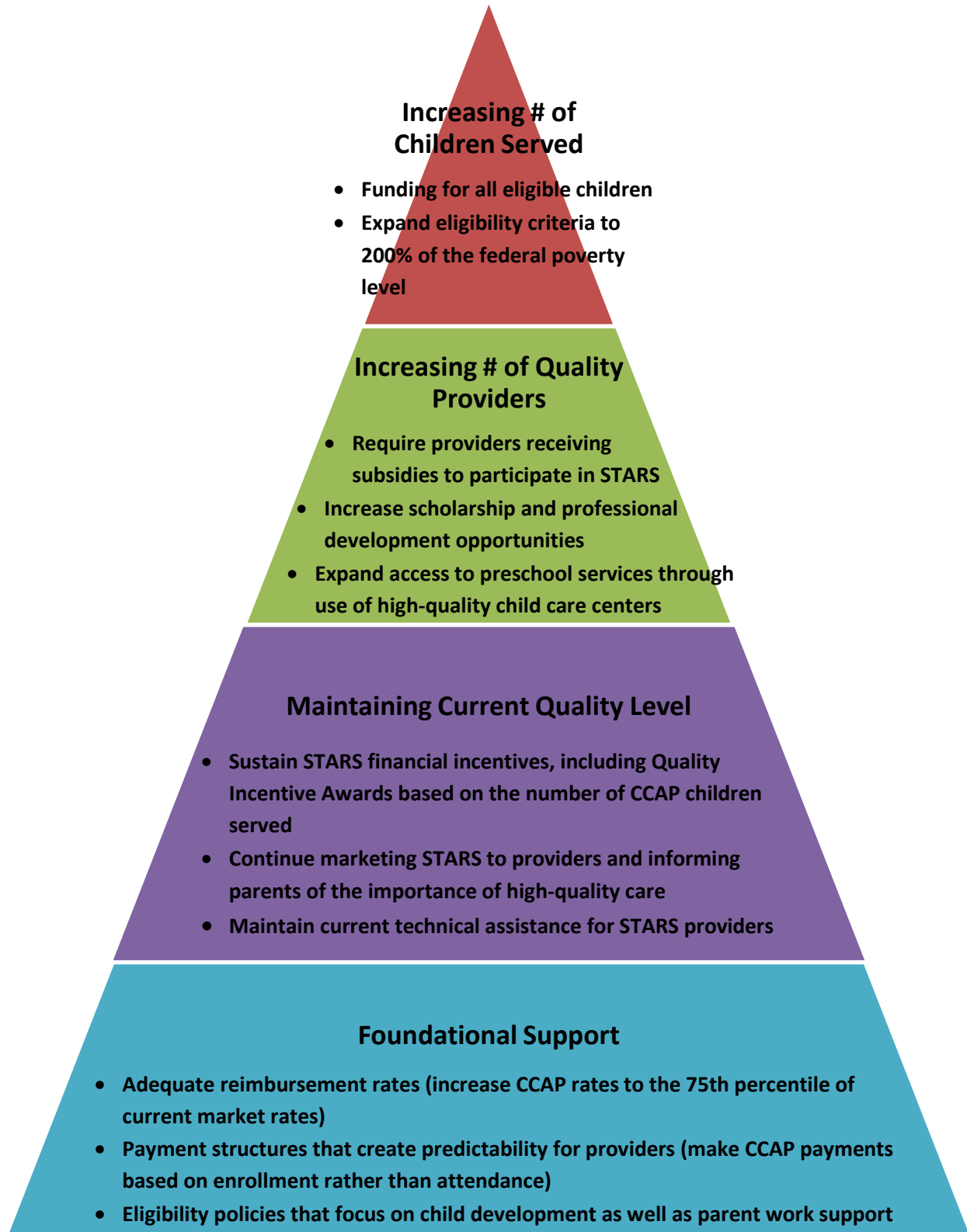
As discussed throughout this report, Kentucky has many solid policies and supports in place, but there are still a number of targeted opportunities to ensure the children of the Commonwealth receive the strongest start possible in life (see Figure 4). Some opportunities can and should be acted upon in the short term, including the following:

- Lift the freeze on applications for the Child Care Assistance Program and reverse the budget cuts made to child care subsidies;
- Restore the income eligibility level for CCAP so families earning up to 150 percent of the federal poverty level can receive help paying for child care;
- Encourage the use of high-quality child care centers for delivery of preschool services, in addition to public preschool and Head Start;
- Ensure child care providers receive adequate reimbursement to provide high-quality care to low-income children; and
- Establish a Children's Caucus in the Kentucky state legislature to address shared issues and common goals and to promote strong public policies to improve the well-being of Kentucky children, such as a comprehensive system of early childhood services.

Other actions to improve early childhood services will require additional planning and/or identification of resources to implement, including:

- Further increase eligibility for the Child Care Assistance Program to 200 percent of the federal poverty level (the minimum income level needed for family self-sufficiency);
- Further increase eligibility for Kentucky's public preschool program to 200 percent of the federal poverty level;
- Change the Child Care Assistance Program policies so that payments are based on enrollment rather than attendance to provide a more stable income stream for child care centers and reduce their administrative burden; and
- Require child care providers that serve children and families through the Child Care Assistance Program to meet basic standards of quality.

Figure 4: Strategies for Increasing Access to Quality Early Childhood Care and Education



Source: Adapted from groundWork Ohio.

Endnotes

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- ¹ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/100-child-population-by-single-age?loc=19&loct=2#detailed/2/any/false/868,867,133,38,35/42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61/418>. Accessed November 2013.
- ² United Way of Greater Cincinnati (2013). *2013 Impact Report*. Available at http://www.uwgc.org/files/1/2013_Impact_Reports/2013_Impact_Report_EDUCATION_Children_Prepared_for_Kindergarten.pdf. Accessed November 2013.
- ³ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.
- ⁴ Heckman, J. (2013). *The Heckman Equation*. Available at <http://heckmanequation.org/content/resource/heckman-equation-flyer>. Accessed December 2013.
- ⁵ First Five Years Fund (2013). *Why It Matters*. Available at <http://www.ffyf.org/content/why-it-matters>. Accessed December 2013.
- ⁶ First Five Years Fund (2013). *Education*. Available at <http://www.ffyf.org/content/education>. Accessed December 2013.
- ⁷ Fiester, L. (2013). *Early Warning Confirmed: A Research Update on Third-Grade Reading*. Annie E. Casey Foundation. Available at <http://www.aecf.org/~media/Pubs/Topics/Education/Other/EarlyWarningConfirmed/EarlyWarningConfirmed.pdf>. Accessed November 2013.
- ⁸ Fiester, L. (2010). *Early Warning: Why Reading by the End of Third Grade Matters*. Annie E. Casey Foundation. Available at http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/123/2010KCSpecReport/AEC_report_color_highres.pdf. Accessed November 2013.
- ⁹ Ibid.
- ¹⁰ Kentucky Department of Education (2013). *State Report Card 2012-2013*. Available at <http://applications.education.ky.gov/SRC/AssessmentByState.aspx>. Accessed January 2014.
- ¹¹ Center on the Developing Child at Harvard University (2010). *The Foundations of Lifelong Health Are Built in Early Childhood*. Available at http://developingchild.harvard.edu/index.php/resources/reports_and_working_papers/foundations-of-lifelong-health/. Accessed November 2013.
- ¹² Ibid.
- ¹³ Data obtained from the Annie E. Casey Foundation, October 2013. Child Trends and Population Reference Bureau analysis of 2011-12 National Survey of Children's Health data.
- ¹⁴ Aud, S., et. al. (2013). *The Condition of Education 2013, Table 439: Median Annual Earnings of Full-time Year-round Workers 25 to 34 Years Old, by Sex, Race/Ethnicity, and Educational Attainment: Selected Years, 1995 through 2011*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Available at http://nces.ed.gov/programs/digest/d12/tables/dt12_439.asp. Accessed November 2013.
- ¹⁵ U.S. Census Bureau (2012). *Poverty Thresholds by Size of Family and Number of Children*. Available at <http://www.census.gov/hhes/www/poverty/data/threshld/index.html>. Accessed December 2013.
- ¹⁶ Kentucky Youth Advocates (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/7969-high-school-students-not-graduating-on-time?loc=19&loct=2#detailed/2/any/false/1233/any/15333>. Accessed December 2013.
- ¹⁷ Center on the Developing Child at Harvard University (2010). *The Foundations of Lifelong Health Are Built in Early Childhood*. Available at http://developingchild.harvard.edu/index.php/resources/reports_and_working_papers/foundations-of-lifelong-health/. Accessed November 2013.
- ¹⁸ Ibid.
- ¹⁹ Kentucky Youth Advocates (2011). *Increasing the High School Graduation Rate*. Available at http://kyyouth.org/wp-content/uploads/2012/11/Blueprint-for-Kentucky's-Children_Increasing-the-High-School-Graduation-Rate.pdf. Accessed November 2013.
- ²⁰ Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., and Smink, J. (2008). *Dropout Prevention: A Practice Guide*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Available at <http://ies.ed.gov/ncee/wwc/PracticeGuide.aspx?sid=9>. Accessed November 2013.

-
- ²¹ Center on the Developing Child at Harvard University (2010). *The Foundations of Lifelong Health Are Built in Early Childhood*. Available at http://developingchild.harvard.edu/index.php/resources/reports_and_working_papers/foundations-of-lifelong-health/. Accessed November 2013.
- ²² Center for the Study of Social Policy (2013). *Results-Based Public Policy Strategies for Supporting Early Healthy Development*. Available at <http://www.cssp.org/policy/reports/Supporting-Early-Healthy-Development.pdf>. Accessed November 2013.
- ²³ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.
- ²⁴ Annie E. Casey Foundation (2013). *The First Eight Years: Giving Kids a Foundation for Lifetime Success*. Available at <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/F/FirstEightYears/AECFTheFirstEightYears2013.pdf>. Accessed November 2013.
- ²⁵ National Women's Law Center (2013). *Child Care: A Core Support to Children and Families*. Available at <http://www.nwlc.org/sites/default/files/pdfs/childcareoverview.pdf>. Accessed December 2013.
- ²⁶ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/5108-children-ages-1-to-5-whose-family-members-read-to-them-less-than-3-days-per-week?loc=19&loct=2#detailed/2/any/false/1021,18,14/any/11545,11546>. Accessed November 2013.
- ²⁷ Annie E. Casey Foundation (2013). *The First Eight Years: Giving Kids a Foundation for Lifetime Success*. Available at <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/F/FirstEightYears/AECFTheFirstEightYears2013.pdf>. Accessed November 2013.
- ²⁸ Kentucky Cabinet for Health and Family Services, Department for Community Based Services (2012). *STARS for KIDS NOW*. Available at <http://chfs.ky.gov/dcbs/dcc/stars/>. Accessed December 2013.
- ²⁹ Kentucky Governor's Office of Early Childhood (2013). *2013 Early Childhood Profile*. Available at http://kcews.ky.gov/reports/earlychildhoodprofile/ECP_2013_Statewide.pdf. Accessed December 2013.
- ³⁰ Data obtained from the Kentucky Cabinet for Health and Family Services' Kentucky Integrated Child Care System, *Child Care Provider Search* at <https://prd.chfs.ky.gov/KICCSPublic/ProviderSearchPublic.aspx> on December 16, 2013.
- ³¹ Annie E. Casey Foundation (2013). *The First Eight Years: Giving Kids a Foundation for Lifetime Success*. Available at <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/F/FirstEightYears/AECFTheFirstEightYears2013.pdf>. Accessed November 2013.
- ³² Kentucky Governor's Office of Early Childhood (2013). *Early Childhood Standards: 2013*. Available at <http://kidsnow.ky.gov/School%20Readiness/Pages/Early-Childhood-Standards-2013.aspx>. Accessed December 2013.
- ³³ Ewen, D. and Matthews, H. (2010). *Adopting 12-Month Subsidy Eligibility: Impacts on Children, Families, and State Child Care Programs*. Center for Law and Social Policy. Available at <http://www.clasp.org/admin/site/publications/files/12montheligibility.pdf>. Accessed December 2013.
- ³⁴ Child Care Aware of America (2013). *Parents and the High Cost of Child Care: 2013 Report*. Available at <http://www.naccrra.org/publications/naccrra-publications/2013/11/parents-and-the-high-cost-of-child-care-2013-report>. Accessed December 2013.
- ³⁵ Ibid.
- ³⁶ Ibid.
- ³⁷ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.
- ³⁸ Kentucky Youth Advocates (2013). News Release: *Some 8,700 Families Per Month Face Losing Child Care Assistance Starting Monday, July 1*. Available at <http://kyyouth.org/some-8700-families-per-month-face-losing-child-care-assistance-starting-monday-july-1/>. Accessed December 2013.
- ³⁹ Kentucky Cabinet for Health and Family Services' response to October 25, 2013 WFPL article, *Kentucky Ranks Last in U.S. for Access to Child Care Assistance, Report Says*. Available at <http://wfpl.org/post/kentucky-ranks-last-us-access-child-care-assistance-report-says>. Accessed December 2013.
- ⁴⁰ Lexington Herald-Leader (December 29, 2013). *Thousands of Kids, Hundreds of Centers Hurt By Cuts in State Child Care Funding, Advocates Say*. Available at <http://www.kentucky.com/2013/12/29/3009102/parents-child-advocates-see-affect.html>. Accessed January 2014.

-
- ⁴¹ Schulman, K. and Blank, H. (2013). *Pivot Point: State Child Care Assistance Policies 2013*. National Women's Law Center. Available at http://www.nwlc.org/sites/default/files/pdfs/final_nwlc_2013statechildcareassistancereport.pdf. Accessed December 2013.
- ⁴² Presentation at Child Care Policy Research Consortium Conference, Bethesda, MD, October 23–25, 2012. "Subsidies and Continuity: Overview of Findings of Recent Studies." Available at <http://www.researchconnections.org/files/meetings/ccprc/2012/B2SubsidiesandContinuity.pdf>.
- ⁴³ National Women's Law Center (2013). *Child Care: A Core Support to Children and Families*. Available at <http://www.nwlc.org/sites/default/files/pdfs/childcareoverview.pdf>. Accessed December 2013.
- ⁴⁴ Adams, G. and Rohacek, M. (2010). *Child Care Instability: Definitions, Context, and Policy Implications*. The Urban Institute. Available at <http://www.urban.org/publications/412278.html>. Accessed January 2014.
- ⁴⁵ Lexington Herald-Leader (December 29, 2013). *Thousands of Kids, Hundreds of Centers Hurt By Cuts in State Child Care Funding, Advocates Say*. Available at <http://www.kentucky.com/2013/12/29/3009102/parents-child-advocates-see-affect.html>. Accessed January 2014.
- ⁴⁶ Kentucky Governor's Office of Early Childhood (2013). *Kentucky All-STARS: Accelerating Learning Statewide through an Advanced Rating System*. Available at <http://www2.ed.gov/programs/racetothetop-earlylearningchallenge/applications/2013-kentucky.pdf>. Accessed January 2014.
- ⁴⁷ Kentucky Cabinet for Health and Family Services (2013). *STARS for KIDS NOW Operations Manual*. Available at <http://chfs.ky.gov/NR/rdonlyres/A1AE772D-AE26-455A-A5AA-7A4605A256DE/0/STARSOperationsManual.pdf>. Accessed December 2013.
- ⁴⁸ Schulman, K. and Blank, H. (2013). *Pivot Point: State Child Care Assistance Policies 2013*. National Women's Law Center. Available at http://www.nwlc.org/sites/default/files/pdfs/final_nwlc_2013statechildcareassistancereport.pdf. Accessed December 2013.
- ⁴⁹ Ibid.
- ⁵⁰ Lord, J. (2013). *Kentucky Ranks Last in U.S. for Access to Child Care Assistance, Report Says*. WFPL. Available at <http://wfpl.org/post/kentucky-ranks-last-us-access-child-care-assistance-report-says>. Accessed December 2013.
- ⁵¹ Barnett, W. S. (2013). *Getting the Facts Right on Pre-K and the President's Pre-K Proposal*. National Institute for Early Education Research. Available at <http://www.nieer.org/sites/nieer/files/Getting%20the%20Facts%20Right%20on%20Pre-K.pdf>. Accessed October 2013.
- ⁵² Magnuson, K. (2013). *Fast Focus: Reducing the Effects of Poverty through Early Childhood Interventions*. Institute for Research on Poverty, University of Wisconsin-Madison. Available at <http://www.irp.wisc.edu/publications/fastfocus/pdfs/FF17-2013.pdf>. Accessed November 2013.
- ⁵³ Barnett, W. S. (2013). *Getting the Facts Right on Pre-K and the President's Pre-K Proposal*. National Institute for Early Education Research. Available at <http://www.nieer.org/sites/nieer/files/Getting%20the%20Facts%20Right%20on%20Pre-K.pdf>. Accessed October 2013.
- ⁵⁴ Barnett, W.S., Carolan, M.E., Fitzgerald, J., and Squires, J.H. (2012). *The State of Preschool 2012: State Preschool Yearbook*. National Institute for Early Education Research. Available at <http://nieer.org/publications/state-preschool-2012>. Accessed October 2013.
- ⁵⁵ U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start (2013). *About Head Start*. Available at <http://eclkc.ohs.acf.hhs.gov/hslc/hs/about>. Accessed December 2013.
- ⁵⁶ Advisory Committee on Head Start Research and Evaluation (2012). *Final Report*. Available at https://www.acf.hhs.gov/sites/default/files/opre/eval_final.pdf. Accessed December 2013.
- ⁵⁷ Kentucky Governor's Office of Early Childhood (2013). *2013 Early Childhood Profile*. Available at http://kcews.ky.gov/reports/earlychildhoodprofile/ECP_2013_Statewide.pdf. Accessed December 2013.
- ⁵⁸ Barnett, W. S. (2013). *Getting the Facts Right on Pre-K and the President's Pre-K Proposal*. National Institute for Early Education Research. Available at <http://www.nieer.org/sites/nieer/files/Getting%20the%20Facts%20Right%20on%20Pre-K.pdf>. Accessed October 2013.
- ⁵⁹ Ibid.
- ⁶⁰ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/7188-children-ages-3-to-4-not-enrolled-in-preschool?loc=19&loct=2#detailed/2/any/false/995,932,757,470,116/any/14230,14231>. Accessed November 2013.
- ⁶¹ Jepsen, C., Troske, K., and Brasher, C. (2009). *Estimates of the Costs and Benefits of Expanding the Early*

Childhood Education Program in Kentucky. University of Kentucky, Center for Business and Economic Research. Available at http://cber.uky.edu/Downloads/CBER_early_educ_report_final.pdf. Accessed December 2013.

⁶² Pew Center on the States (2011). *Transforming Public Education: Pathway to a Pre-K-12 Future*. Available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2011/Pew_PreK_Transforming_Public_Education.pdf. Accessed December 2013.

⁶³ Jepsen, C., Troske, K., and Brasher, C. (2009). *Estimates of the Costs and Benefits of Expanding the Early Childhood Education Program in Kentucky*. University of Kentucky, Center for Business and Economic Research. Available at http://cber.uky.edu/Downloads/CBER_early_educ_report_final.pdf. Accessed December 2013.

⁶⁴ Barnett, W.S., Carolan, M.E., Fitzgerald, J., and Squires, J.H. (2012). *The State of Preschool 2012: State Preschool Yearbook*. National Institute for Early Education Research. Available at <http://nieer.org/publications/state-preschool-2012>. Accessed October 2013.

⁶⁵ Jepsen, C., Troske, K., and Brasher, C. (2009). *Estimates of the Costs and Benefits of Expanding the Early Childhood Education Program in Kentucky*. University of Kentucky, Center for Business and Economic Research. Available at http://cber.uky.edu/Downloads/CBER_early_educ_report_final.pdf. Accessed December 2013.

⁶⁶ Kentucky Legislative Research Commission. *Kentucky Administrative Regulation 704 KAR 3:410*. Available at <http://www.lrc.state.ky.us/kar/704/003/410.htm>. Accessed December 2013.

⁶⁷ Pew Center on the States (2011). *Transforming Public Education: Pathway to a Pre-K-12 Future*. Available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2011/Pew_PreK_Transforming_Public_Education.pdf. Accessed December 2013.

⁶⁸ Governor's Task Force on Early Childhood Development and Education (2010). *Early Childhood Services in Kentucky: A Framework to Ensure School Readiness for Our Students, Schools and Communities*. Available at <http://www.workforce.ky.gov/ECTFFinalreport.pdf>. Accessed December 2013.

⁶⁹ Prichard Committee for Academic Excellence (Fall 2009). *Pre-K, To Go: Collaboration Brings New Access*. Available at <http://www.prichardcommittee.org/wp-content/uploads/2012/12/Prichard-Special-Report--Pre-K-Innovations.pdf>. Accessed January 2014.

⁷⁰ Children's Defense Fund (2012). *Increasing Access to Full-Day K*. Available at <http://www.childrensdefense.org/child-research-data-publications/data/increasing-access-full-day-k.pdf>. Accessed December 2013.

⁷¹ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.

⁷² Children's Defense Fund (2013). *Full-Day Kindergarten in Kentucky*. Available at <http://www.childrensdefense.org/child-research-data-publications/data/state-data-repository/full-day-k/2013-kentucky-full-day-k.pdf>. Accessed December 2013.

⁷³ Kentucky School Boards Association (October 2012). *Kentucky School Advocate*. Available at <http://www.ksba.org/2012OctoberAdvocate.aspx>. Accessed January 2014.

⁷⁴ Children's Defense Fund (2013). *Full-Day Kindergarten in Kentucky*. Available at <http://www.childrensdefense.org/child-research-data-publications/data/state-data-repository/full-day-k/2013-kentucky-full-day-k.pdf>. Accessed December 2013.

⁷⁵ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.

⁷⁶ Ibid.

⁷⁷ Kentucky Governor's Office of Early Childhood (2013). *2013 Early Childhood Profile*. Available at http://kcews.ky.gov/reports/earlychildhoodprofile/ECP_2013_Statewide.pdf. Accessed December 2013.

⁷⁸ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Bruce, M., Bridgeland, J., Fox, J., and Balfanz, R. (2011). *On Track for Success: The Use of Early Warning Indicator and Intervention Systems to Build a Grad Nation*. Civic Enterprises and the Everyone Graduates Center at Johns Hopkins University. Available at http://new.every1graduates.org/wp-content/uploads/2012/03/on_track_for_success.pdf. Accessed December 2013.

-
- ⁸³ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.
- ⁸⁴ Annie E. Casey Foundation (2013). *The First Eight Years: Giving Kids a Foundation for Lifetime Success*. Available at <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/F/FirstEightYears/AECFTheFirstEightYears2013.pdf>. Accessed November 2013.
- ⁸⁵ Ibid.
- ⁸⁶ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.
- ⁸⁷ Ibid.
- ⁸⁸ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/7874-children-under-age-6-who-received-a-developmental-screening?loc=19&loct=2#detailed/2/any/false/1021/any/15186,15185>. Accessed November 2013.
- ⁸⁹ Kentucky Cabinet for Health and Family Services (2013). *What Is First Steps?* Available at <http://chfs.ky.gov/dph/firststeps.htm>. Accessed December 2013.
- ⁹⁰ Kentucky Governor's Office of Early Childhood (2013). *2013 Early Childhood Profile*. Available at http://kcews.ky.gov/reports/earlychildhoodprofile/ECP_2013_Statewide.pdf. Accessed December 2013.
- ⁹¹ Marie-Mitchell, A. and O'Connor, T. (2013). "Adverse Childhood Experiences: Translating Knowledge into Identification of Children at Risk for Poor Outcomes." *Academic Pediatrics*, vol. 13, no. 1. Available at <http://www.sciencedirect.com/science/article/pii/S1876285912002793>. Accessed January 2014.
- ⁹² Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/32-children-without-health-insurance-by-age-group?loc=19&loct=2#detailed/2/any/false/867,133,38,35,18/17,18,19/303,304>. Accessed November 2013.
- ⁹³ U.S. Department of Health and Human Services, National Health Information Center. (2013). *Have a Healthy Pregnancy*. Available at <http://healthfinder.gov/HealthTopics/Category/pregnancy/doctor-and-midwife-visits/have-a-healthy-pregnancy>. Accessed September 2013.
- ⁹⁴ March of Dimes PeriStats (2013). *Kentucky Quick Facts: Prenatal Care*. Available at <http://www.marchofdimes.com/peristats/ViewTopic.aspx?reg=21&top=5&lev=0&slev=4&dv=mt>. Accessed September 2013.
- ⁹⁵ Kentucky Youth Advocates (2011). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/3808-births-to-mothers-receiving-early-and-regular-prenatal-care?loc=19&loct=2#detailed/2/any/false/38,35,18,17,16/any/9067,9068>. Accessed November 2013.
- ⁹⁶ Tout, K., Halle, T., Daily, S., Albertson-Junkans, L., and Moodie, S. (2013). *The Research Base for a Birth through Age Eight State Policy Framework*. Alliance for Early Success. Available at <http://www.childtrends.org/wp-content/uploads/2013/10/2013-42AllianceBirthto8.pdf>. Accessed November 2013.
- ⁹⁷ Ibid.
- ⁹⁸ Kentucky Youth Advocates (2011). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/3811-children-enrolled-in-medicaid-or-kchip-who-received-dental-services?loc=19&loct=2#detailed/2/any/false/133,38,35,18,17/any/7816,7817>. Accessed December 2013.
- ⁹⁹ Annie E. Casey Foundation (2013). *The First Eight Years: Giving Kids a Foundation for Lifetime Success*. Available at <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/F/FirstEightYears/AECFTheFirstEightYears2013.pdf>. Accessed November 2013.
- ¹⁰⁰ Kentucky Department of Education (2013). *Early Childhood Advisory Council*. Available at <http://education.ky.gov/commofed/adv/pages/early-childhood-advisory-council.aspx>. Accessed December 2013.
- ¹⁰¹ Kentucky Center for Education and Workforce Statistics (2013). *Early Childhood Profiles*. Available at <http://kcews.ky.gov/Reports/EarlyChildhoodProfile/default.aspx>. Accessed December 2013.
- ¹⁰² Kentucky School Boards Association (July 2011). *Kentucky School Advocate*. Available at <http://www.ksba.org/Downloads/11%20July%20August%20Advocate.pdf>. Accessed January 2014.
- ¹⁰³ Kentucky Center for Education and Workforce Statistics (2013). *Understanding the Data*. Available at <http://kentuckyp20.ky.gov/UnderstandingData.aspx>. Accessed December 2013.

-
- ¹⁰⁴ Kentucky Governor's Office of Early Childhood (2013). *Kentucky All-STARs: Accelerating Learning Statewide through an Advanced Rating System*. Available at <http://www2.ed.gov/programs/racetothetop-earlylearningchallenge/applications/2013-kentucky.pdf>. Accessed January 2014.
- ¹⁰⁵ Ascend at the Aspen Institute. (2012). *Two Generations, One Future: Moving Parents and Children Beyond Poverty Together*. Available at: <http://ascend.aspeninstitute.org/resources/two-generations-one-future>. Accessed November 2013.
- ¹⁰⁶ Ibid.
- ¹⁰⁷ Family Scholar House (2013). *Join Us*. Available at <http://www.familyscholarhouse.org/join-us.aspx>. Accessed December 2013.
- ¹⁰⁸ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/6519-unemployment-rate-of-parents?loc=19&loct=2#detailed/2/any/false/868,867,133,38,35/any/13484,14405>. Accessed December 2013.
- ¹⁰⁹ Ascend at the Aspen Institute. (2012). *Two Generations, One Future: Moving Parents and Children Beyond Poverty Together*. Available at: <http://ascend.aspeninstitute.org/resources/two-generations-one-future>. Accessed November 2013.
- ¹¹⁰ Fiester, L. (2010). *Early Warning: Why Reading by the End of Third Grade Matters*. Annie E. Casey Foundation. Available at http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/123/2010KCSpecReport/AEC_report_color_highres.pdf. Accessed November 2013.
- ¹¹¹ Ascend at the Aspen Institute. (2012). *Two Generations, One Future: Moving Parents and Children Beyond Poverty Together*. Available at: <http://ascend.aspeninstitute.org/resources/two-generations-one-future>. Accessed November 2013.
- ¹¹² Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/9-births-to-mothers-with-less-than-12-years-of-education?loc=19&loct=2#detailed/2/any/false/867,133,38,35,18/any/10986,10985>. Accessed November 2013.
- ¹¹³ Heckman, J. (2013). *Invest in Early Childhood Development: Reduce Deficits, Strengthen Kentucky's Economy*. Available at <http://heckmanequation.org/content/resource/invest-early-childhood-development-means-deficit-reduction-kentucky>. Accessed September 2013.
- ¹¹⁴ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/7875-children-ages-birth-to-3-whose-parent-did-not-receive-a-new-parent-home-visit?loc=19&loct=2#detailed/2/any/false/1021/any/15188,15187>. Accessed November 2013.
- ¹¹⁵ Kentucky Governor's Office of Early Childhood (2013). *2013 Early Childhood Profile*. Available at http://kcews.ky.gov/reports/earlychildhoodprofile/ECP_2013_Statewide.pdf. Accessed December 2013.
- ¹¹⁶ Magnuson, K. (2013). *Fast Focus: Reducing the Effects of Poverty through Early Childhood Interventions*. Institute for Research on Poverty, University of Wisconsin-Madison. Available at <http://www.irp.wisc.edu/publications/fastfocus/pdfs/FF17-2013.pdf>. Accessed November 2013.
- ¹¹⁷ National Center for Children in Poverty (2013). *Child Poverty*. Available at <http://www.nccp.org/topics/childpoverty.html>. Accessed September 2013.
- ¹¹⁸ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/7867-children-ages-0-to-8-below-200-percent-poverty?loc=19&loct=2#detailed/2/any/false/868,16/1232/15173,15174>. Accessed November 2013.
- ¹¹⁹ Kentucky Youth Advocates (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/6430-child-support-collected?loc=19&loct=2#detailed/2/any/false/868,867,133,38,35/any/13333,13334>. Accessed December 2013.
- ¹²⁰ Torrico, R. (2009). *From Poverty to Child Welfare Involvement: The Critical Role of Housing in Family Stability*. Children, Youth, and Families Practice Update, National Association of Social Workers. Available at <http://socialworkers.org/practice/children/2009/sept2009.pdf>. Accessed September 2013.
- ¹²¹ Aratani, Y., Chau, M., Wight, V., and Addy, S. (2011). *Rent Burden, Housing Subsidies and the Well-Being of Children and Youth*. National Center for Children in Poverty. Available at http://www.nccp.org/publications/pdf/text_1043.pdf. Accessed September 2013.
- ¹²² Ibid.
- ¹²³ Kentucky Youth Advocates (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/5684-high-rental-cost-burden?loc=19&loct=2#detailed/2/any/false/36,868,867,133/any/12287>. Accessed December 2013.
- ¹²⁴ Kentucky Governor's Office of Early Childhood (2013). *2013 Early Childhood Profile*. Available at http://kcews.ky.gov/reports/earlychildhoodprofile/ECP_2013_Statewide.pdf. Accessed December 2013.

-
- ¹²⁵ Kentucky Youth Advocates (2012). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/1298-children-receiving-snap-monthly-average?loc=19&loct=2#detailed/2/any/false/868,867,133,38,35/any/10820>. Accessed December 2013.
- ¹²⁶ Kentucky Youth Advocates (2012). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/1299-children-and-infants-receiving-wic-monthly-average?loc=19&loct=2#detailed/2/any/false/868,867,133,38,35/any/10821>. Accessed December 2013.
- ¹²⁷ Annie E. Casey Foundation (2013). *The First Eight Years: Giving Kids a Foundation for Lifetime Success*. Available at <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/F/FirstEightYears/AECFTheFirstEightYears2013.pdf>. Accessed November 2013.
- ¹²⁸ kynect Key Health Insurance Terms. Available at <http://governor.ky.gov/healthierky/kynect/Pages/terms.aspx>. Accessed December 2013.
- ¹²⁹ Data obtained from the Annie E. Casey Foundation, October 2013. Child Trends and Population Reference Bureau analysis of 2011-12 National Survey of Children's Health data.
- ¹³⁰ Center for the Study of Social Policy (2012). *The Strengthening Families Approach*. Available at <http://www.cssp.org/reform/strengthening-families/the-basics/the-strengthening-families-approach>. Accessed January 2014.
- ¹³¹ Annie E. Casey Foundation (2012). *Stepping Up for Kids: What Government and Communities Should Do to Support Kinship Families*. Available at <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/S/SteppingUpforKids2012PolicyReport/SteppingUpForKidsPolicyReport2012.pdf>. Accessed January 2014.
- ¹³² Beltran, A. (2013). *State Educational and Health Care Consent Laws: Ensure that Children in Grandfamilies Can Access Fundamental Services*. Generations United. Available at <http://www.gu.org/LinkClick.aspx?fileticket=IRkP0DcDAi8%3d&tabid=157&mid=606>. Accessed December 2013.
- ¹³³ Annie E. Casey Foundation (2013). *KIDS COUNT Data Center*. Available at <http://datacenter.kidscount.org/data/tables/7172-children-in-kinship-care?loc=19&loct=2#detailed/2/any/false/1218,1049,995/any/14207,14208>. Accessed December 2013.
- ¹³⁴ First Five Years Fund (2013). *Early Learning Polling Results Fact Sheet*. Available at <http://growamericastronger.org/wp-content/uploads/2013/07/Poll-Fact-Sheet.pdf>. Accessed January 2014.

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