EARLY CARE AND EDUCATION

Quality Matters

Executive Summary

Child development from birth to age five lays the foundation for healthy productive lives. Early Care and Education (ECE) has the capacity to improve opportunities for today's workers, increase labor force engagement, and develop a high quality future work force, but only if the care and education are high quality.

* More neural connections are formed from birth to age five than at any other stage in the lifespan.[1]

* A 1995 study found that by age 3, "children with college-educated parents or primary caregivers had vocabularies 2 to 3 times larger than those whose parents had not completed high school."[2] Those differences start to become apparent as early as 18 months of age.[3]

* A quality language-rich environment from birth to 5 can close the gap between children of parents with different levels of education, an important step in leveling the educational playing field.[4]

* Quality care and education provides physical, social, cognitive, and emotional nourishment through mentally stimulating play and activities. In addition to basic safety considerations within a facility, attention to nutrition and sleep are essential to creating a safe and healthy environment for children.

Indiana's Paths to QUALITY™, Teacher Education and Compensation Help (T.E.A.C.H), and Child Care and Development Fund (CCDF) voucher programs work in concert to support improvements in the quality of care and education provided to children birth to five. Paths to QUALITY™ is an evidence-based quality rating and improvement system that provides a framework for developing and supporting quality care in Indiana.

* As of July 2017, just under half of known child care providers in SILM were participating in Paths to QUALITY™ and 38.2% of those (18.9% of all known providers) had a quality rating of Level 3 or Level 4.

* A substantial unregulated market in child care remains beyond the reach of quality assessment and regulation, leaving a large number of children in care that may not maximize brain development and health in the first five years.

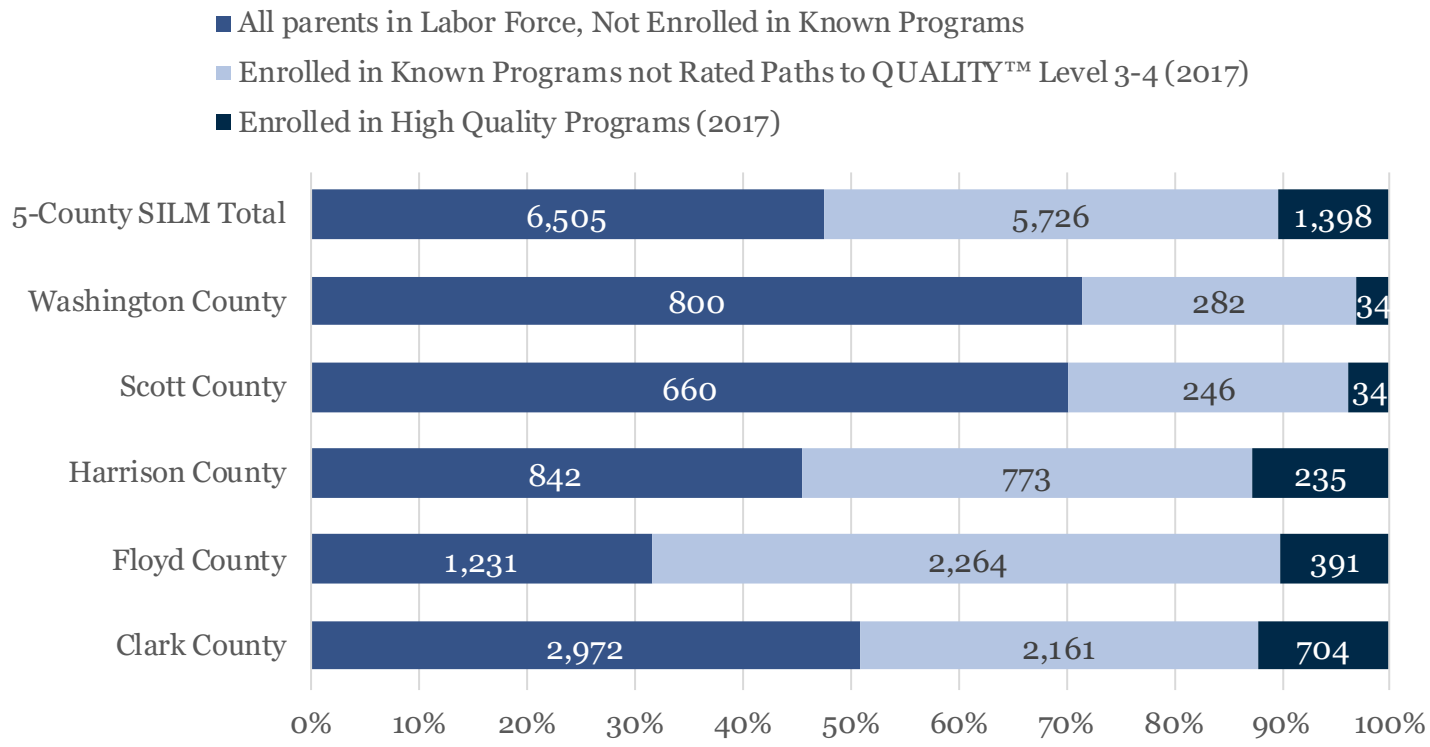
* Indiana provides higher CCDF reimbursement rates to higher quality providers. This helps offset the costs of providing quality care.

* Policies that incentivize higher quality in meaningful ways (with robust subsidies for higher wages and strong bonuses) produce greater participation. The CCDF incentive is a good step, but has not done enough to generate the kind of effective demand that can shift the market.

* Improving the ECE labor force requires policies and funding to support developing a professional workforce, living wage jobs, and opportunities for career advancement.

Indiana has taken steps to improve the quality of ECE options statewide. In the SILM area, less than half of all children in some form of care are in facilities rated as quality ECE providers.

Figure 1: Children of Working Parents: Not in Known Programs, in Known Programs, and in Paths to QUALITY™ Level 3 or Level 4 (High Quality) Known Programs



Sources: U.S. Census Bureau. 2017. "Table B23008: Age of Own Children Under 18 Years in Families and Subfamilies by Living Arrangements by Employment Status of Parents." *American Community Survey 5-Year Estimates, 2012-2016*. www.census.org; Early Learning Advisory Committee. 2018 ELAC Interactive Annual Report. http://www.elacindiana.org/data/2018-elac-annual-

High quality ECE increases stable and reliable labor force participation, provides good jobs with opportunities for advancement and continued growth, nurtures a high quality future labor force, and reduces public spending on special education, juvenile justice, healthcare, criminal justice, and cash assistance.

Introduction

The Early Care and Education (ECE) of children impacts every aspect of a child's development and is a leverage point for building healthy, educated, economically sustainable communities marked by strong quality of life. Investments in high quality ECE provide immediate benefits to local business and the region's economy, and enjoy an even greater long term return on investment.[5] **Quality** drives the strength and resilience of the social and economic returns on investments in ECE.

Quality ECE programs recognize the importance of the brain's plasticity during the early years and maximize the use of that time for positive brain development that lays the foundation for all future learning and for social and emotional growth and stability.[6]

More neural connections are formed from birth to age five than at any other stage in the lifespan.[7] In fact, in the first few years, "more than 1 million new neural connections are formed every second."[8] A 1995 study found that by age three, "children with college-educated parents or primary caregivers had vocabularies two to three times larger than those whose parents had not completed high school."[9] Those differences start to become apparent as early as 18 months of age.[10] A quality language-rich environment from birth to five can close the gap between children of parents with different levels of education, an important step in leveling the educational playing field.[11]

With the majority of parents working, the need for child care presents an opportunity to ensure that children from diverse backgrounds enjoy the benefits of language rich environments that nurture their development. Sixty-five percent of Indiana's children birth to age five live in homes where all parents work.[12] Among those who need care in Indiana, only 15% are enrolled in programs rated "high quality."[13] More children may be enrolled in quality care and education, but because not all providers are rated, the state is unable to accurately account for their quality. Less than half (49 percent) of registered programs in the Southern Indiana Louisville Metro (SILM) region participate in Paths to QUALITY™ (PTQ), the state's Quality Rating and Improvement System (QRIS) (Figure 3). Of those SILM providers rated in the PTQ™ system, 38.2% are rated Level 3 or 4, indicating high quality (Figure 4). With 51% not in the PTQ™ system (Figure 2), this means less than 1 in 5 (18.9%) of SILM registered providers have a high quality rating from the state's QRIS (Figure 2).[14] Increasing supply of quality care requires shifting an idealized image of the stay-at-home mom or baby sitting frame to a professionalized understanding of early child development and the role caregivers and environment play in future outcomes.

Professionalize Early Care and Education

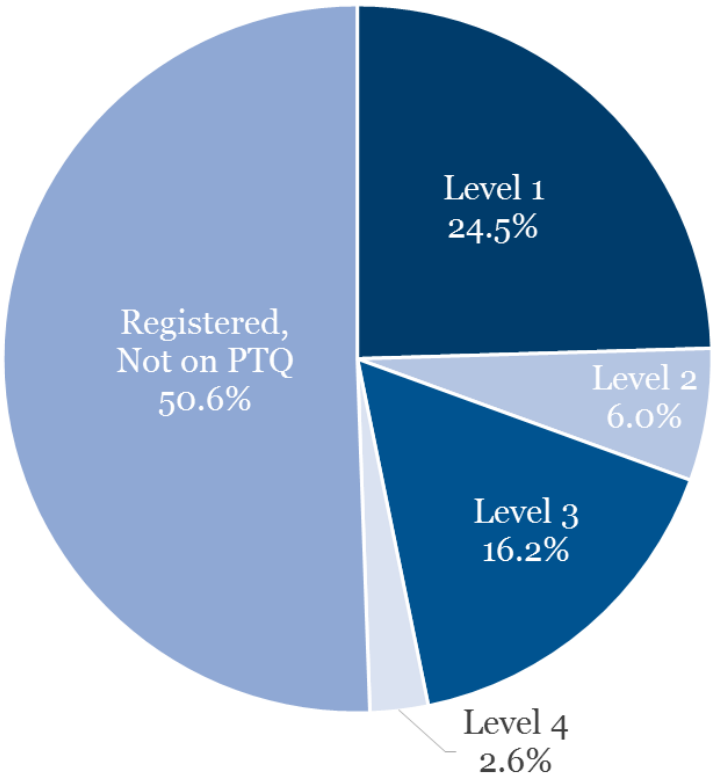
Historically, when people imagined care for children under the age of five, they often thought of "babysitting." Babysitting can nurture child development and education, but it does not have to. Under a babysitting model, caregivers feed and diaper children, but how kids spend their time may vary considerably. This approach to care, which assumes any responsible teen or adult can provide the same service, will not systematically produce strong child development outcomes that prepare kids for school and lifelong learning.

The average standard of education and care in today's pre-kindergarten classrooms has been found to produce strong impacts during the year of the program. However, in the most rigorous recent study assessing Tennessee's statewide pre-K effort, effects were not sustained through third grade.[15] Researchers conclude that explicit attention to the factors that constitute "high quality" must be part of any public investment in order for it to enjoy the returns lauded in other long term studies of pre-K impacts. The current run-of-the-mill programs are insufficient.

Many of today's child care and pre-K programs provide a safe space and some opportunities for play, but they "fail to provide the kinds of instructional support that children need to be ready to learn."[16] Informal settings tend to be more affordable and the decision to opt for informal arrangements cuts across class lines.[17] This choice may be tied to lingering feelings that center-based care's more "institutional" characteristics make it less like home, which remains the preferred

(Continued on page 6)

Figure 2: Paths to QUALITY™ Participation and Rating for SILM Registered Providers (N=265)



Source: SIEOC Data, July 2017.

Figure 3: Indiana's Paths to QUALITY™ QRIS

Quality Rating and Improvement Systems (QRIS) establish criteria for assessing the quality of early care and education. These systems intend to do the following:

* Provide a means for consumers to make informed choices about care
* Help providers assess and improve the quality of the care and education they deliver
* Educate decision-makers on the care and education children receive in participating organizations
* Measure and understand the impact of variations in quality on outcomes.

Established in 2008, Indiana's Paths to QUALITY™ (PTQ) rating system seeks to (Elicker et al 2007) :

* Raise the quality of child care and early experiences for children.
* Give parents the tools to help determine the best quality program for their children.
* Support and recognize providers for quality care.

Paths to QUALITY™ classifies providers using four levels of performance that include attention to protecting and nurturing physical well-being, brain development, and social and emotional stability and support. Each level rating is inclusive of all previous levels so a level three center meets levels 1, 2, and 3 criteria for quality.

Level 1 – Health and Safety

* Program meets basic requirements for health and safety.
* Program develops and implements basic health and safety policies and procedures.
* Staff members receive orientation within 30 days of being hired.

Regulation requires that:

* The license and registration, both issued by [the] Family and Social Services Administration (FSSA), are current and in good standing.
* In the case of faith-based programs, the ministry meets all Child Care and Development Fund (CCDF) provider eligibility standards.

Level 2 – Learning Environment

* Provides an environment that is welcoming, nurturing, and safe for the physical, emotional and social well-being of all children.
* Activities and materials reflect the age, interests and abilities of all children.
* Program provides for the children's language and literacy skill development.
* Staff provides pertinent program information to families.
* Organization promotes staff/assistant caregivers' development and training.
* Program has a written philosophy and goals for children.

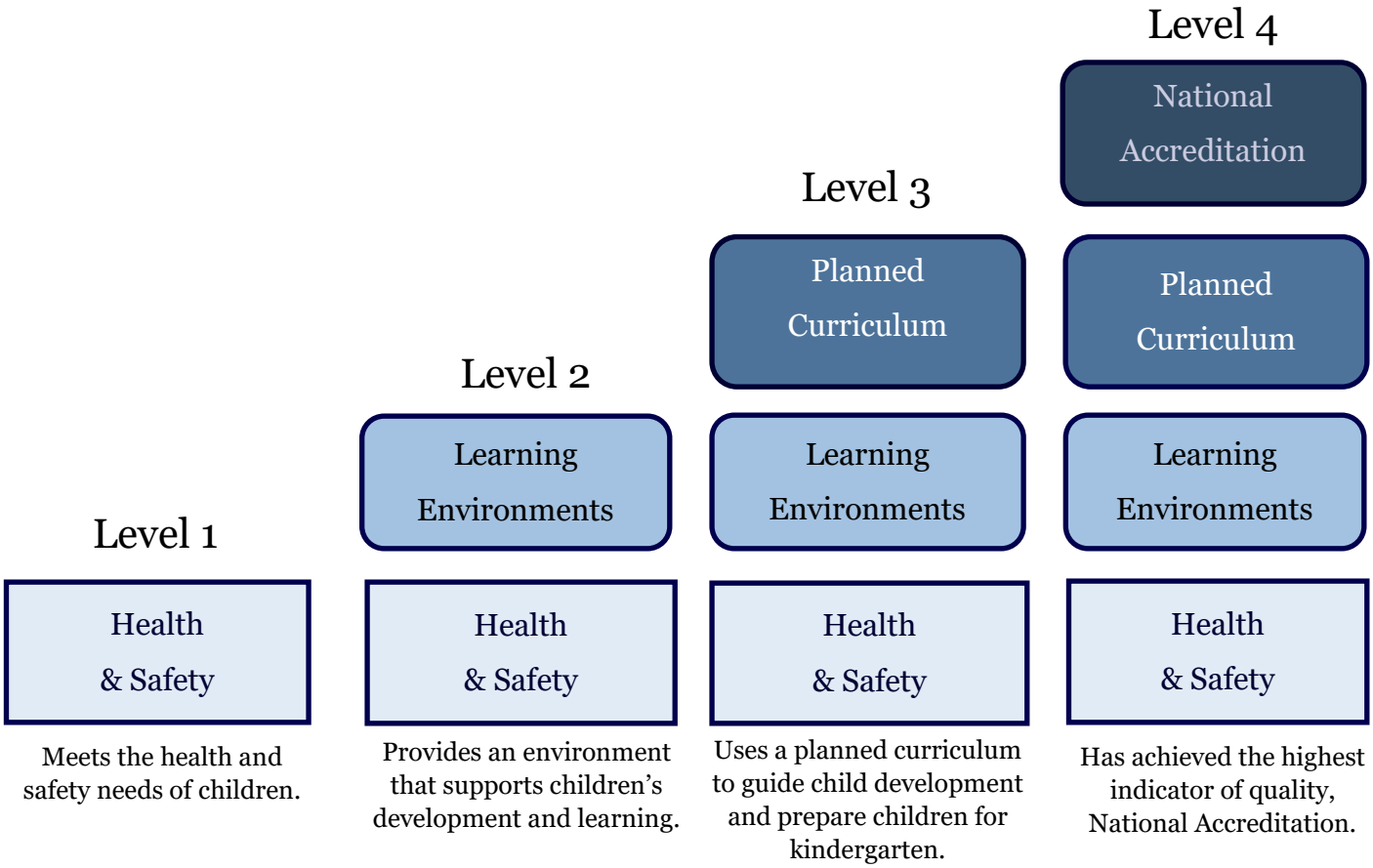
Level 3 – Planned Curriculum

* A written curriculum and planned program for children reflects developmentally appropriate practice.
* Program evaluation is completed annually by parents and staff.
* Actively engage in program evaluation and have an action plan for improvement.
* Demonstrate professional growth of Director and staff or lead caregiver and assistants in excess of licensing requirements.
* Facilitate family and staff input into the program.
* Program has been in operation for a minimum of one year or lead Caregiver has at least 12 months experience in a licensed or Bureau of Child Care nationally recognized accredited child care setting as a child care provider.

Level 4 – National Accreditation

* Accreditation is achieved through the National Association for the Education of Young Children (NAEYC) or the National Association of Family Child Care (NAFCC).
* Professional development and involvement continues including mentoring other directors / providers.

Source: Elicker, James, Carolyn Clawson Langill, Karen Ruprecht, and Kyong-Ah Kwon. 2007. *Paths to Quality A Child Care Quality Rating System for Indiana: What is its Scientific Basis?* West Lafayette, IN: Purdue University Center for Families and Department of Child Development & Family Studies. Retrieved March 1, 2017 ScientificBasisPTQ.pdf).



option in the cultural psyche that idealizes the stay-at-home mother as the best child care option. In reality, however, "[c]hildren in informal settings learn meaningfully less, on average, in both literacy and math than those in formal child care centers or preschools."[18]

Informal care arrangements are common and most often occur beyond the oversight of licensing procedures. In SILM, nearly half of children birth to five, whose parents are in the labor force, and who are cared for by someone other than a parent, receive care through informal arrangements outside of licensed or registered facilities (Figure 2). Even in national samples, only about a quarter of one and two-year-olds are in licensed formal care settings. [19]

The difference in quality between formal and informal care is striking. For example:

* Four-year-olds in home-based, informal care watch an average of almost two hours of television per day, compared with fewer than 7 minutes in formal care.[20]
* 93 percent of formal caregivers report doing both reading and math activities on a daily basis compared with 68 percent of informal caregivers for reading and 60 percent for math.[21]

Indiana has a science-based validated Quality Rating Improvement System (QRIS) (See Figure 3 for full explanation).[22] As noted, however, too few providers engage Paths to QUALITY™ (PTQ) and among those that do, less than half have achieved a high quality rating (Figure 4). Research suggests that some aspects of quality take longer to achieve than others, but among the quickest results are changes in activities.[23] Providers that engage quality improvement systems tend to make changes to program activities in the first year of participation.

In one study, a rigorous evaluation design found observable improvements to quality, but noted that improvements to education and experience of the ECE workforce (which necessarily take longer to achieve) kept programs from seeing improvements in their QRIS rating in the first 6 months of participation.[24] Overall, however, research supports the effectiveness of QRIS in supporting advancements in quality care and improving the education and training of the ECE workforce.

Figure 4: Paths to QUALITY™ Participation and Ratings among Registered Providers, SILM 2017

	Registered, but Not Participat-ing (percent of registered providers)	Level 1 (percent of registered providers)	Level 2 (percent of registered providers)	Level 3 (percent of regis-tered)	Level 4 (percent of registered providers)	Total	Percent of Registered Providers that are PTQ™ Level 3 or 4	Percent PTQ™ that are Level 3 or 4
Clark	49 (59.0%)	12 (14.5%)	6 (7.2%)	13 (15.7%)	3 (3.6%)	83	19.3%	47.1%
Floyd	46 (43.0%)	34 (31.8%)	8 (7.5%)	15 (14.0%)	4 (3.7%)	107	17.8%	31.1%
Harrison	17 (47.2%)	6 (16.7%)	1 (2.8%)	12 (33.3%)	0 (0.0%)	36	33.3%	63.2%
Scott	6 (42.9%)	5 (35.7%)	1 (7.1%)	2 (14.3%)	0 (0.0%)	14	14.3%	25.0%
Washington	16 (64.0%)	8 (32.0%)	0 (0.0%)	1 (4.0%)	0 (0.0%)	25	4.0%	11.1%
SILM Total	134 (50.6%)	65 (24.5%)	16 (6.0%)	43 (16.2%)	7 (2.6%)	265	18.9%	38.2%

Source: Southern Indiana Economic Opportunity Corporation, Resource and Referral data as of July 2017.

Quality care and education provide physical, social, cognitive, and emotional nourishment through mentally stimulating play and activities. In addition to basic safety considerations within a facility, attention to nutrition and sleep are essential to creating a safe and healthy environment for children. Understanding what this means at each age and stage requires education in child development.

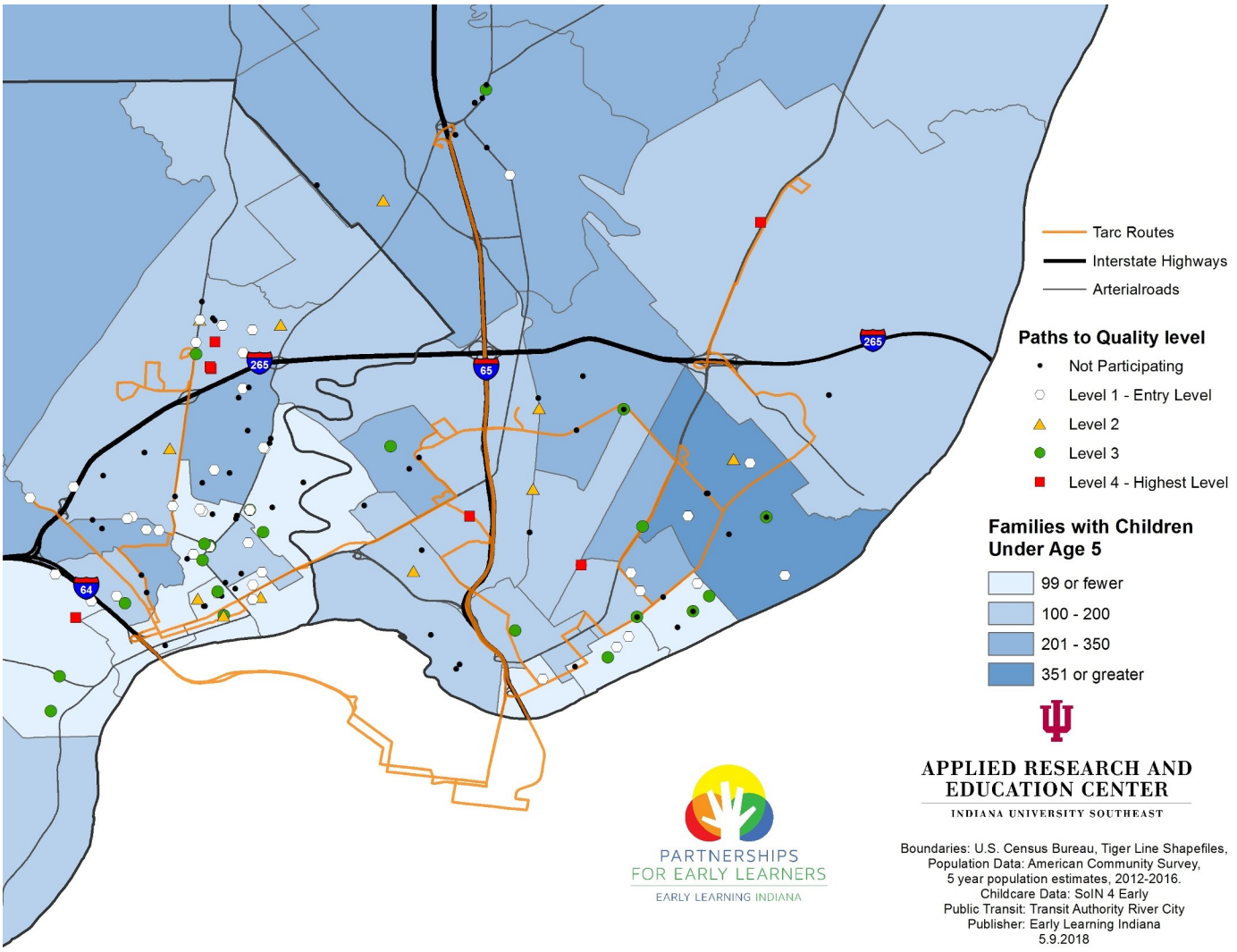
The quantity and quality of interaction between adult care providers and the children they serve can promote strong social and emotional development and increase the size of a child's vocabulary.[25] In quality ECE settings a clear understanding of early childhood development and psychology informs play activities that stimulate particular brain and motor functions in ways that are most appropriate to maximizing growth at each stage of development.[26]

Physically, socially, emotionally, and mentally nurturing environments impact vocabulary, pre-literacy skills, quantitative reasoning, classroom behavior, problem solving, and soft skills necessary for children to show up to kindergarten ready to learn.[27] Assessments of kindergarten readiness that measure only language and math skills miss the importance of social and emotional development to later performance.[28]

Those who score below average on language and cognition skills and demonstrate limited social and emotional skills at the beginning of kindergarten are most likely to have the lowest ratings on self-control and classroom motivation at the end of first grade.[29] These impacts persist over time.[30]

In the SILM region a mix of rural and more densely populated suburban communities face distinct challenges. Washington and Scott counties suffer from a dearth of quality child care options, while Clark, Floyd, and Harrison counties are home to more providers overall and to more quality providers (Figure 4 and 6). Clark, Floyd, and Harrison have higher levels of education and earnings than Scott and Washington, generating effective demand for quality care (Figure 4). Figures 5 and 6 indicate the geographical distribution of families with children under the age of five and locations of

Figure 5: Paths to QUALITY™Participation, Ratings, and Geographic Distribution of Families with Children Under Age 5, SILM Population Centers



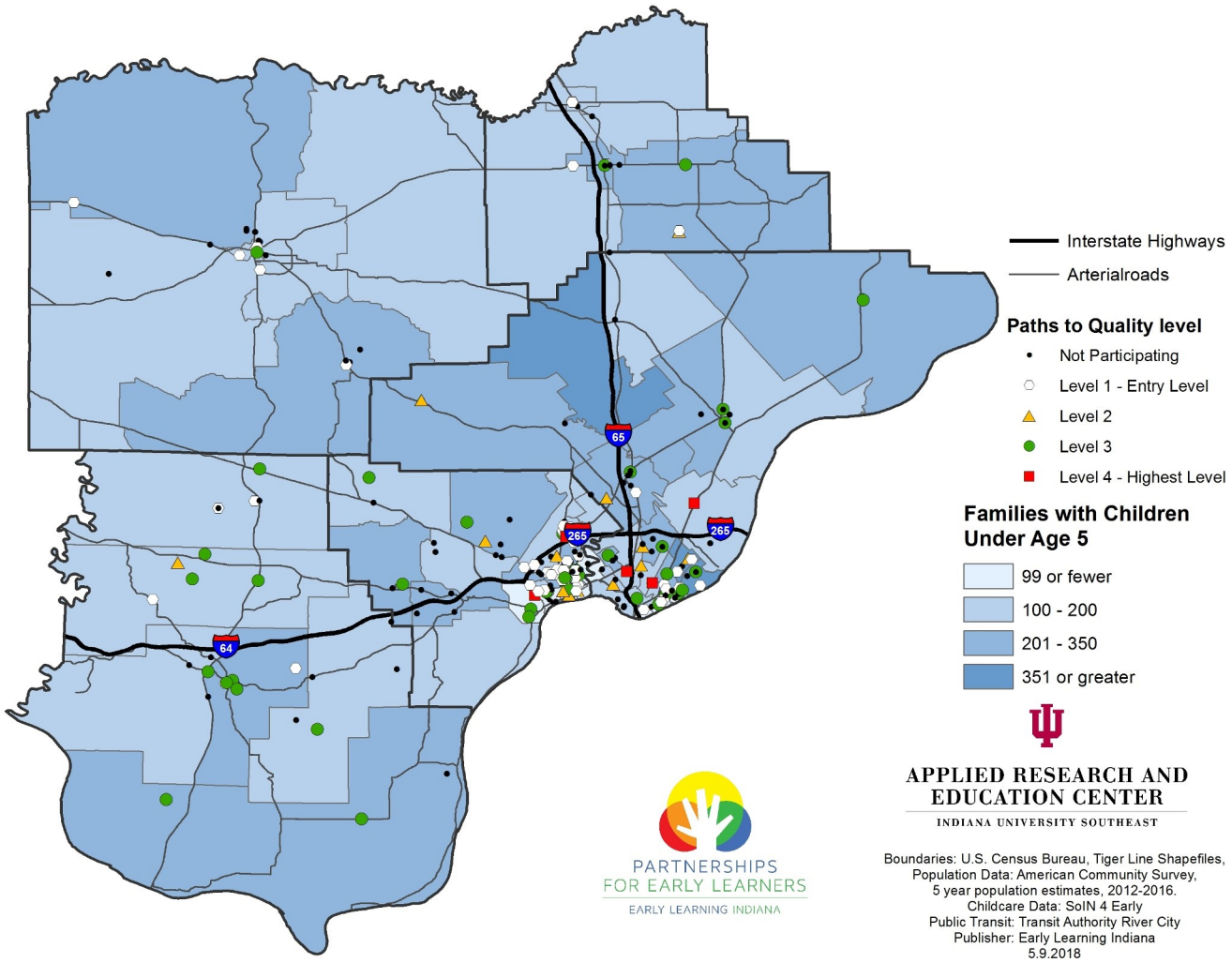
registered child care providers by PTQ™ rating. Rural areas of all five counties, however, remain underserved, limiting both employment and care options for young families in those areas (Figures 4 and 6).

Barriers to Quality

Barriers to quality occur on both the supply and demand sides of the child care market.[31] Affluent parents with high levels of education are both able and likely to demand and pay for high quality care that includes highly qualified teachers, safe facilities with stimulating, age appropriate developmental toys and books, and low student teacher ratios that facilitate positive social and emotional development in small group settings.[32] Low- to moderate-income families, however, are less able to demand quality for the price they can afford.

Higher income families live free of the daily stressors of poverty known to impact early childhood development. More highly educated parents are more likely to talk with their infants and toddlers, and to have a range of developmentally appropriate toys and books in the home. These advantages accumulate and result in higher scores on kindergarten readiness at age five. The busy and often stressful lives of low to moderate-income parents combined with lack of knowledge about early childhood development, may leave children with less overall

Figure 6: Paths to QUALITY™Participation and Ratings and Geographic Distribution of Families with Children Under Age 5, SILM



interaction and fewer books and educational activities.

On the supply side, providers face challenges in terms of finding the time to complete the tasks required by the QRIS system and funding to cover the costs associated with meeting standards. Staff education and training as well as family engagement all take time. Costs include increased staff hours for planning, assessment, and family engagement, higher wages for qualified staff, facility improvements, supplies to support developmentally appropriate curricula, and the costs of ongoing professional development.

In 2011, Purdue University completed its comprehensive evaluation of Indiana's Paths to QUALITY™ standards and their implementation. Among Indiana providers, the biggest obstacles to moving to the next PTQ™ level:[33]

* Finding the time to complete tasks required
* Completion of required education and training.
* Insufficient funding to meet standards.

In the years between the 2011 study and today, the Indiana Association for Child Care Resource and Referral has developed technical assistance and training resources to help alleviate these barriers, but the same issues still affect participation and advancements in quality ratings.[34]

Time

Time is both a structural barrier in its own right and relates to cost. Child care providers, whether formal or informal, operate with low margins. This means directors and administrative staff, or proprietors in home-based settings, are responsible for a wide range of administrative tasks. The addition of another layer of work means more time on the job for people who are already working long hours. In terms of time for professional development, planning, and assessment, providers do not tend to have enough staff to allow some to leave the care setting for professional development opportunities, planning, or administration and interpretation of assessment.

PTQ™ advancement requires additional family engagement. Whether that comes in the form of family newsletters or family programming, planning and execution of family engagement requires time. Providers have to pay for the additional staff time when taken beyond their standard work schedule or they must find a way to free up staff time in the existing work schedule. Neither of these is easy to accomplish in organizations that tend to operate with tight staffing and budgets.

Wages in the sector are low. This factor shapes staff willingness and ability to invest additional time or personal resources in professional development. Even when the state and their employer contribute significantly to covering the costs, as through the Teacher Education And Compensation Helps (T.E.A.C.H.) program, agencies still have to find ways for staff to carve out time for training and education.

Cost[35]

If providers are to deliver quality care, they need to be able to pay for the following:

* An educated work force, engaged in ongoing

professional development.

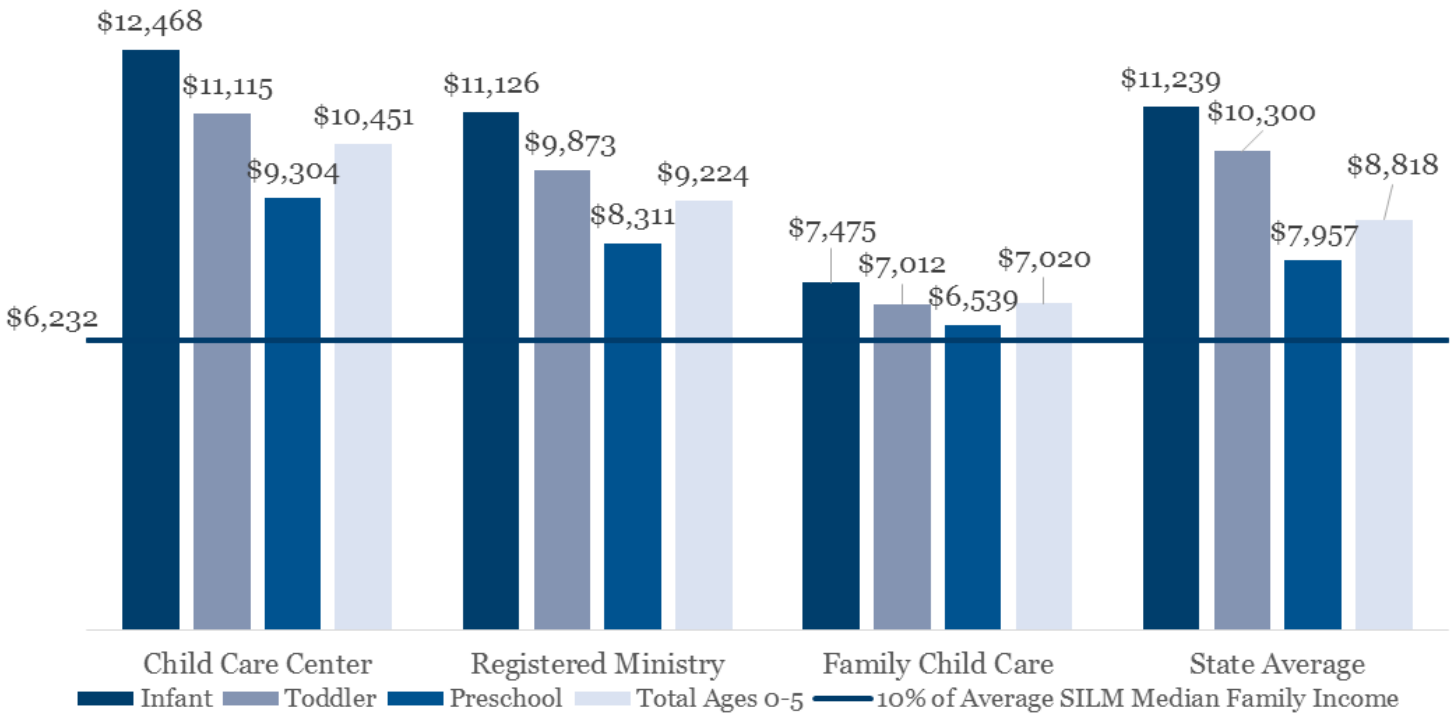
* Hiring additional staff to support low child to adult ratios.
* Regular performance assessment to support continuous feedback, improvement, and accountability.
* Safe facilities that are conducive to learning.
* Toys, books, and supplies that aid in developmental play.
* Equipment and supplies necessary to comply with health and safety standards.

Many parents of children under the age of five struggle to pay for high quality care. According to the federal government, child care is *affordable* when families spend no more than ten percent of income on child care. For families with children birth to age five, ten percent of their income often fails to reach the level necessary to cover the costs of quality child care for one child, much less if they have more than one (Figure 5).

The average county median family income across the SILM is $62,316.[36] Ten percent of that amount is $6,232. The average cost of high-quality care in the region ranges from a low of $6,539 for preschool in a family child care setting to $12,468 for infant care in a child care center (Figure 7).

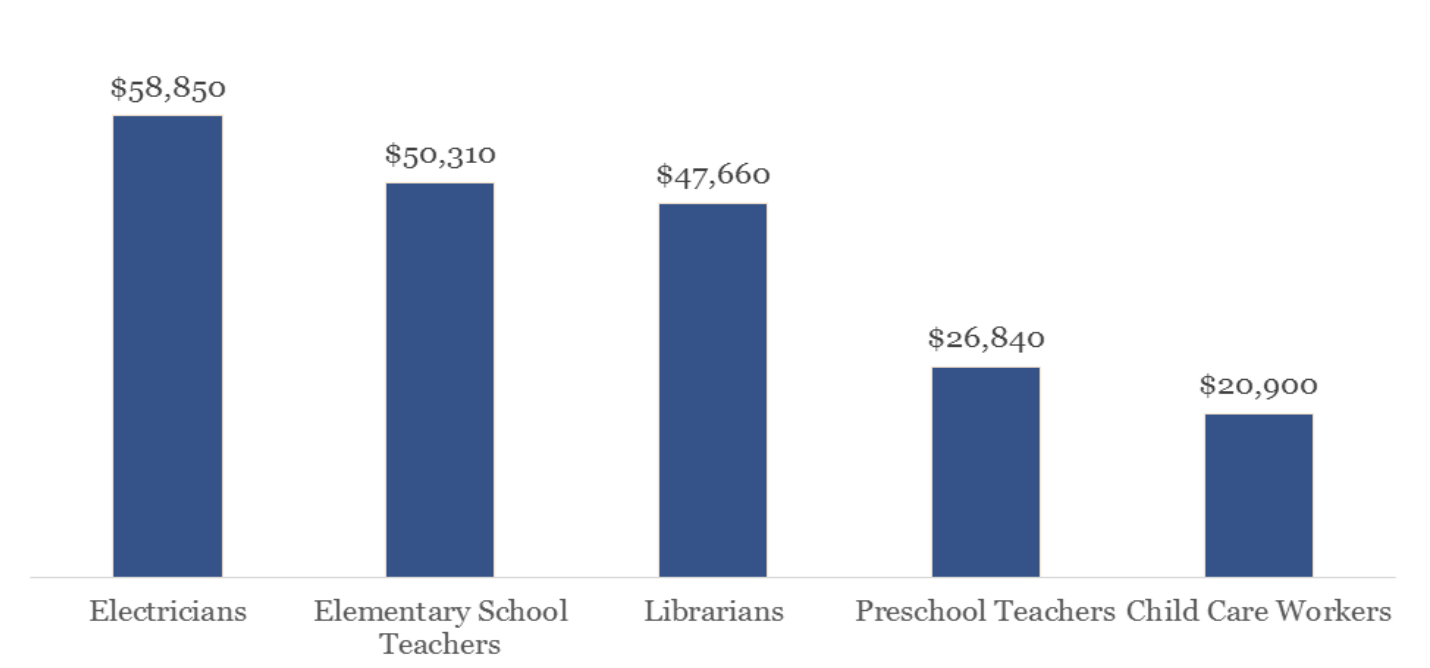
Some of the provider costs for engaging in PTQ™ can be recovered through providers' ability to charge higher rates for better care. A majority of Indiana parents interviewed for the Purdue Evaluation of PTQ™ reported a willingness to pay more for higher level PTQ™ providers. As Figure 6 illustrates, however, not all parents can afford to pay more. The National Center on Child Care Quality

Figure 7: Average Cost of High-Quality Care by Program Type and Age, State of Indiana



Sources: Early Learning Advisory Council. 2018. "Indiana Early Childhood Interactive Dashboard: 2018 ELAC Interactive Annual Report, Affordability." http://www.elacindiana.org/data/2018-elac-annual-report-interactive-dashboard/; U.S. Census Bureau. 2017. "Table B19013: Median Household Income in the Past 12 Months (in 2016 Inflation-Adjusted Dollars)." *American Community Survey 5-Year Estimates, 2012-2016*. www.census.gov.

Figure 8: Mean Annual Earnings by Occupation for a Sample of Occupations that Require the Same Level of Skill or Training Required to Provide Quality Child Care, Indiana 2017



Source: Bureau of Labor Statistics. May 2017. "State Occupational Employment and Wage Estimates Indiana."

Improvement, a service of the Administration for Children & Families Office of Child Care, found the following[37]:

* Without state supports in the form of tiered voucher rates based on quality rating, providers simply cannot afford to engage the quality improvements required to increase their QRIS level.
* Across the board, providers can break even at QRIS Level 1.
* At Level 2, those in states with tiered rates fall short of the break even, and those with tiered rates and bonuses do slightly better than breaking even.
* At Level 3, providers in states with tiered rates make money and those that also have bonuses end up even further ahead.

Indiana provides tiered reimbursement rates that support providers' ability to raise rates and maintain enrollments as they advance to higher levels. Indiana provides financial support to providers that wish to move from Level 3 to Level 4, and also provides small one-time bonuses to providers who advance levels, and annual bonuses to those who maintain PTQ™ Level 4. But these incentives are small– a $1000 bonus each year for maintaining Level 4.

Tiered reimbursement both supports supply of quality care and supports demand by making it possible for low-income parents to choose (demand) high quality care. If however, those who do not qualify for vouchers, struggle to pay higher rates, providers may still find it difficult to recover the costs of providing high quality care.

Additionally, Current tiered reimbursement rates are in line with the average costs of care at each level of quality in Indiana's SILM counties,[38] but those costs reflect a sector that continues to pay low wages and struggles to maintain a highly qualified stable workforce. In other words, reimbursement rates that match current average fees for child care are not enough to constitute effective pressure toward and support for local providers to become "high quality."

Qualified Workforce

Parents are not required to have education or licensing to care for young children and the baby-sitting model of child care tends to assume that those who care for children need not have such background either. This approach suggests that a friendly, nurturing character is sufficient to provide for the needs of young children. The data on outcomes, however, has long indicated that the following features of high quality care play significant roles in supporting maximum neurological development in the first five years:

* Developmentally targeted activities.
* A language-rich environment with appropriate opportunities for stimulation and social interaction.
* Sound nutrition and appropriate sleep (in terms of frequency and duration).

Child care workers' earnings are roughly equivalent to fast food workers… In economic terms, the care of Indiana's youngest citizens is equivalent to flipping burgers in a fast food operation.

Ninety percent of brain development occurs by age five.[39] Developmentally appropriate stimulation and interaction is essential to maximizing development during this crucial period.[40] Creating and maintaining such environments requires child development knowledge and continual professional development to remain abreast of progress in the field. "The most critical indicator of quality child care is the level of education of the child care provider." [41]

As noted, however, ECE offers low wage jobs that fail to attract an educated or well-trained work force. In comparison with occupations that require roughly the same amount of training, child care workers earn less than half of comparably trained peers and a third less than preschool teachers, who are also underpaid (Figure 8). "Pre-school teachers tend to be younger, less experienced, and compensated less than teachers in kindergarten."[42] Child care workers' earnings are roughly equivalent to fast food workers, a labor force that requires minimal training and that is known to have very high turnover rates. In financial terms, the care of Indiana's youngest citizens is equivalent to flipping burgers in a fast food operation. [43]

Engaging Providers

Paths to QUALITY™ has distinct standards for licensed homes, licensed centers, and unlicensed ministries, facilitating access for a broad range of providers. However, the majority of providers are not yet participating.

Providers in the state of Indiana are not required to participate. Those who receive Child Care Development Fund (CCDF) vouchers are able to access CCDF certification, which has some overlap in requirements, but does not require the same focus on improvement and is roughly equivalent to Paths to QUALITY™ level 2. In addition, based on the separation of church and state, faith based providers are exempt from licensing and regulation. This interpretation leaves many providers able to operate outside the protections and standards that regulation and the QRIS provide. Critics argue that the separation of church and state should require that these providers meet the same standards as anyone else if they wish to serve individuals paying for care with CCDF vouchers.

Some home and faith-based providers would like to participate in Paths to QUALITY™, but note that facilities requirements keep them from being able to pursue the designation. To make structural changes and meet all requirements may be cost prohibitive for, what are often, low-budget operations paying minimal wages. The state provides some opportunities for financial support to meet such criteria, but it still may not be enough. In other cases, facility demands are simply unreachable for reasons other than finances.

The state offers small one-time incentives for each step in the Paths to QUALITY™ progression. The amounts are higher for centers, public schools, and ministries than for homes, thus encouraging the move to center-based care. Providers receive non-cash incentives for the first three levels ($50 for 1 to 2, $1,000 for 2 to 3, and $1,000 for 3 to 4), a one-time $1,500 cash award ($500 for homes) for achieving level 4, followed by an annual $1,000 cash award each year that a center maintains level 4 status ($300 for homes). This is nice, but for Centers working to maintain updated equipment and supplies, and providing strong wages (that keep pace with inflation) to more highly qualified staff, these bonuses, even when combined with higher CCDF reimbursement rates, may not drive action.

Under the current system, providers recognize that pursuing quality can be a strong long term strategy, but with parents looking for inexpensive options, many see too little benefit for the effort.

Summary

Child development from birth to age five lays the foundation for healthy productive lives. ECE has the capacity to improve opportunities for today's workers, increase labor force engagement, and develop a high quality future work force, but only if the care and education are high quality.

More neural connections are formed from birth to age five than at any other stage in the lifespan.[44] A quality language-rich environment can close the gap between children of parents with different levels of education, an important step in leveling the playing field.[45]

Quality care and education provide physical, social, cognitive, and emotional nourishment through mentally stimulating play and activities. In addition to basic safety considerations within a facility, attention to nutrition and sleep are essential to creating a safe and healthy environment for children.

Indiana's Paths to QUALITY™, T.E.A.C.H., and CCDF voucher programs work in concert to support

improvements in the quality of care and education provided to children birth to five, but more can be done:

* Increase public awareness of the importance of high quality care from birth to age five in order to increase support for public and private investments, and improve parent engagement and demand for high quality care.
* Increase Southern Indiana's providers' participation in Paths to Quality by offering greater support for workforce development, both in terms of time and in terms of personnel support to allow time for staff to attend classes.
* The state could have floating, highly qualified child care workers in each region who step in to provide staffing while staff take time for education and training necessary to improve the quality of the program and the career opportunities of the staff.
* Increase incentive for moving from Level 2 to Level 3 to increase the supply of high quality care.
* Continue to provide higher CCDF reimbursement rates to higher quality providers. This helps offset the costs of providing quality care.
* Expand access to vouchers for high quality care on a sliding scale that ensures no family spends more than 10% of income on care, but families also have the capacity to choose high quality care and do not experience a cliff after which the benefit disappears.
* Subsidize higher wages and strong bonuses for centers that employ highly qualified teachers and caregivers as well as those who support staff engaging the T.E.A.C.H. program.
* Public and private grants for health, safety, and educational supplies.
* Provide wage supports or for additional personnel for needed family programming.
* Child care providers can look to share back office expenses and other resources in order to reduce their overhead and direct more of their limited resources to improving quality.

Endnotes

1Horn, Diane, Deborah Norris, Deborah Perry, Rachel Chazan-Cohen, and Tamara Halle. 2016. *Developmental Foundations of School Readiness for Infants and Toddlers: A Research to Practice Report*. Network of infant/toddler Researchers. Washington, D.C. Office of Planning, Research and Evaluation.
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32 Note: quality rating system descriptions and discussions include attention to student teacher ratios, but Perlman et al (2017) explored existing research and found no relationship between such ratios and child development outcomes. The study admits to significant methodological limitations largely due to inconsistencies in measuring both ratios and child outcomes and other research in both ECE and in k-12 and higher education confirm that student-teacher ratios matter. Mitchell and Workman (2014) include the effects of ratio and group size on financial health of centers as an important part of understanding the costs of quality. They direct readers to *Caring for Our Children: National Health and Safety Performance Standards Guidelines for Early Care and Education Programs, 3rd ed.* National Resource Center for Health and Safety in Child Care and Early Education (eds.). http://cfoc/nrckids.org for a full discussion of the rationale for reducing ratios and group sizes. This author believe Perlman's findings are inconsistent with prevailing arguments in the literature, but wants to acknowledge them as the most recent contribution to the dialogue and recognizes this discussion could further develop in the future.
33 This claim is based on conversations at various ECE coalition meetings and the author's conversations with CCRR agency staff and area providers.
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The Applied Research and Education Center (AREC) is an outreach project of Indiana University (IU) Southeast. The AREC provides research, consulting and technical assistance to nonprofit organizations, foundations, government agencies and local businesses. The student staff enhances classroom learning through applied research projects as it actively engages every stage of each community-based project. The AREC combines learning, teaching and doing to support and empower community organizations in the IU Southeast service region.

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