Hawai‘i Early Learning Needs Assessment

This work was supported by the Samuel N. and Mary Castle Foundation, the Hawai'i Kids Count project, and the USDA National Institute of Food and Agriculture Hatch project #1000391.

Suggested citation:

DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family.

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CENTER ON THE FAMILY

HAWAI'I KIDS COUNT

Hawai'i Children's Action Network

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EXECUTIVE SUMMARY

A strong early childhood system is essential to the well-being of young children and their families. The period from birth through age 5 is the time when children's brain development is most responsive to positive environments, setting the stage for lifelong learning, health, and well-being (National Scientific Council on the Developing Child, 2007). High quality early childhood programs enhance school readiness for all children and are of particular benefit to children living in poverty or facing other risk factors (Barnett, 2011; Magnuson, Meyers, Ruhm, & Waldfogel, 2004; Phillips et al., 2017). Reliable, affordable childcare also allows parents to stay in the workforce. Finally, each dollar spent on early childhood programs yields a three- to eight-fold return in long-term economic benefits to society (Council of Economic Advisers, 2015; Karoly, 2016).

This project was conducted in order to inform strategic planning for early childhood development, care, and learning programs in our state. Specific goals were to describe the current capacity of Hawai'i's early childhood system, identify underserved communities or age groups, suggest priorities for action and policy, and establish a baseline for evaluating future progress.

This assessment focused on three early childhood sectors:

- **Center-based programs** including licensed infant-toddler (IT) centers serving children under age 3, group childcare (CC) centers serving 2- to 5-year-olds, and EOEL-DOE public preschool.
- **Family childcare homes** (FCC) serving up to six children in the provider's own home.
- **Family-child interaction learning programs** (FCIL) attended by children together with an adult family member, offering a dual focus on child development and family strengthening.

Data sources included population estimates, administrative data from the State Department of Human Services (DHS), and online surveys administered to early childhood providers across the state. Surveys were returned by 159 center program directors (61% response rate, with respondents collectively holding 75% of all center licenses), 174 FCC providers (42% response rate), and 6 FCIL program directors (100% response rate).

Key Findings

There is an overall shortage of early childhood seats, with an especially critical shortage of infant-toddler care and regions of the state that are childcare deserts.

- 64% of our young children need childcare because their parents work. But the state has enough DHS-regulated childcare seats to serve only about 25% of children under age 6.
- Childcare for preschool-age children is much more available than infant-toddler care. In the young child population there are 2.5 children age 3 to 5 for each group childcare center (CC) seat compared to 37 children under age 3 for each licensed infant-toddler center (IT) seat.

- Availability also differs widely by geographic region. Childcare is less available in rural areas, and Kaua'i, Moloka'i, and Lāna'i islands have no licensed infant-toddler centers.
- Demand exceeds capacity and most providers have a waitlist. Yet, very few providers are interested in expanding their programs to serve more children. Lack of facilities and cost are the main obstacles.

Childcare is a major family expense and even middle-income families may be burdened by the cost of care. In fact, Hawai'i was ranked as the least affordable state for center-based care in 2015, using cost as a function of family income (Child Care Aware of America, 2016a).

- The average cost for full-time, year-round care is approximately $7,800 for FCC and $9,500 for center-based care. Costs at infant-toddler centers are especially high, exceeding $13,000 for children under 12 months old.
- Not all families pay full market rates. Head Start, Early Head Start, and public pre-K are offered at no cost to eligible children. About 30% of families receive DHS-administered tuition subsidies or other forms of financial assistance, but required co-payments may still be high.

Quality must be a primary consideration for our early childhood system. Existing quality data are very limited, but show areas of strength.

- Hawai'i does very well in terms of programs earning a national accreditation in early childhood.
- Early Head Start, Head Start, and accredited programs reported higher rates of recommended best practices compared to other centers. More highly educated FCC providers showed similar trends.
- Hawai'i does not collect and publish program quality data and is one of only eight states not implementing a quality rating and improvement system.

Hawai'i could benefit from increased focus on the well-being of the its early childhood workforce.

- Almost 30% of center directors say staff retention is a challenge, and 50% report that qualified applicants turned down employment offers.
- FCC providers face especially stressful work conditions, devoting long hours to direct care while managing the business aspects of their programs.

Providers offered suggestions for improving Hawai'i's early childhood system.

- Top provider concerns include reducing costs to families, improving program quality, workforce development, and increasing the number of seats.
- Expansion of public pre-K for 4-year-olds must be strategic, allowing public and private providers to serve complementary roles and better address gaps in the early childhood system.
- FCC and FCIL programs serve unique and important roles within the larger system. Supports are needed to ensure the continued viability of these sectors.

Policy Recommendations

Recommendation 1:
Increase the capacity of childcare and preschool programs with a priority on infant-toddler seats and regions of the state with low per capita availability.

- Provide incentives for existing and new providers to address priority needs.
- Increase and diversify funding streams including federal, state, county, business, and philanthropic support.
- Update DHS tuition subsidy rates and develop other solutions to help providers remain in business.
- Expand public preK in a way that complements the role of existing providers.

Recommendation 2:
Decrease out-of-pocket costs, especially for low and moderate-income families, while protecting freedom of choice in selecting care.

- Increase the pool of funds for tuition subsidies and reduce co-payments so that recipients spend no more than 7% of family income on childcare.
- Ensure that subsidies reflect the differential cost of infant-toddler care.
- Maintain freedom of choice in selecting care purchased with subsidies
- Expand supports for moderate- and middle-income families.

Recommendation 3:
Support high quality early childhood experiences throughout the community.

- Explore options for quality metrics and a continuous quality improvement system.
- Assist and provide incentives for all programs and providers to become accredited.
- Fund FCIL and other programs that strengthen parenting.
- Provide outreach and support for informal family, friend, and neighbor care providers.
- Educate families on how to identify high quality childcare and early learning options.

Recommendation 4:
Make strategic investments in a skilled and stable early childhood workforce.

- Develop strategies to increase wages and benefits and strengthen career pathways.
- Ensure that professional development offerings are tailored to the unique needs of each sector and increase access to evidence-based practices such as ongoing coaching.

Recommendation 5:
Address data gaps and provide an infrastructure for data-based decision making.

- Develop an integrated early childhood longitudinal data system.
- Adopt a statewide kindergarten entry assessment.
- Address other data gaps via targeted studies.

Purpose

The work presented in this report was motivated by the following vision: Every child in Hawai'i deserves high quality early care and learning experiences that support his or her optimal development, and every parent in our state deserves access to affordable childcare choices that meet their family's needs and values.

Both societal changes and scientific evidence underscore the need for strategic investments in an early childhood system that support this vision. First, trends in workforce participation have resulted in more children experiencing non-parental care during the early years. Employment among mothers of young children has increased dramatically (Women's Bureau, U.S. Department of Labor, 2016), and the majority of young children now have either both parents (in married couple families) or their single parent in the workforce (U.S. Census Bureau, 2015a). Second, the science of early brain development has advanced and we know more about the crucial effect of early childhood experiences on the rapidly developing brain. A substantial body of research has documented the pathways by which positive relationships and enriching environments during the first five years of life, when most of brain development occurs, set the stage for lifelong learning, health, and well-being (National Scientific Council on the Developing Child, 2007). Third, differences are found in the school readiness and academic achievement of low- versus high-income children, and these gaps tend to widen, rather than narrow, over time. High quality early childhood interventions can offset the negative impacts of poverty and other risk factors on early school success (Barnett, 2011; Magnuson, Meyers, Ruhm, & Waldfogel, 2004).

A strong early childhood system will benefit not only children and parents, but society as well. High quality early childhood programs can improve cognitive, social-emotional, and health outcomes for all children (Gormley, Philips, & Gayer, 2008; Weiland & Yoshikawa, 2013; Yoshikawa, Weiland, & Brooks-Gunn, 2016). The effects of preschool and other early childhood programs are strongest for school-related skills and are most clearly seen during the time of program participation and into the first years of elementary school. Long-term effects such as improved high school graduation rates and college enrollment, higher adulthood earnings, reduced substance use and criminal activity, and better adulthood health have been found (Barnett, 2011; Yoshikawa et al.). Access to childcare also promotes parental labor force attachment. Fewer interruptions to one's work career increase a parent's lifetime earnings and retirement savings and provide greater workforce stability and productivity for employers. Finally, better outcomes for children and families translate into cost savings for society. Economists estimate that each dollar spent on early childhood programs yields a return to society of $3.00 to $8.60 based on increased earnings and reduced needs for social services (Council of Economic Advisers, 2015; Karoly, 2016). To put it simply, early childhood programs are an extraordinarily wise investment.

In an effort to raise awareness and inform strategic expansion of Hawai'i's early childhood development, care, and learning programs, the University of Hawai'i Center on the Family (COF) conducted a needs assessment, with data collection occurring in the fall of 2016. This study was commissioned by the Hawai'i Children's Action Network (HCAN) with funding from the Samuel N. and Mary Castle Foundation, and was designed in partnership with HCAN and the Executive Office on Early Learning (EOEL). The main purpose of the

project was to provide data needed for planning the strategic expansion of early childhood programs in our state. Specific goals were to describe the current capacity of and gaps within Hawai'i's early childhood system, identify the most underserved communities or age groups, suggest priorities for action and policy, and establish a baseline for evaluating future progress.

Glossary

Department of Human Services (DHS): The Child Care Program located within the Benefit, Employment, and Support Services Division of the Hawai'i State Department of Human Services is responsible for childcare licensing and the Child Care Connections Hawai'i and Preschool Open Doors childcare subsidy programs.

Executive Office on Early Learning (EOEL): The EOEL is the state entity responsible for developing a comprehensive system for early childhood development and learning. EOEL oversees the public preschool program in conjunction with the Hawai'i State Department of Education.

Family Childcare Home (FCC): Registered FCC providers offer care in their own homes, serving three to six children at one time, including no more than two children less than 18 months old. FCC businesses are regulated by DHS.

Family-Child Interaction Learning Program (FCIL): FCIL programs have a dual focus on child development and family strengthening. Children attend with a family member or other caretaker, usually for six to eight hours per week, and family members facilitate their child's learning during group activities and individual play. Parent education workshops and family field trips are provided. Most FCIL programs in Hawai'i incorporate a Native Hawaiian cultural focus.

Family, Friend, and Neighbor Care (FFN): Unregulated childcare provided in the child's or caregiver's home by a person who is a relative, family friend, neighbor, babysitter, or nanny.

Group Childcare Home (GCH): A GCH may serve up to 12 children at one time and is licensed by DHS. GCH providers were included in the FCC survey administered as part of this study. In this report, the term "FCC" includes both FCC and GCH providers.

Group Childcare Center (CC): A childcare center licensed by DHS to serve children ages 2 through 5 years old. Commonly referred to as preschool centers.

Infant-Toddler Center (IT): A childcare center licensed by DHS to serve children ages 6 weeks though 36 months.

People Attentive to Children (PATCH): PATCH is the current childcare resource and referral service for Hawai'i and operates the childcare licensing and childcare workforce databases under contract with DHS.

Summary of Study Method

Three main data sources were used in this evaluation: (a) **administrative data** on childcare providers regulated by the Hawai'i State Department of Human Services (DHS) Child Care Program, (b) **population estimates** from national surveys, and (c) **online surveys** administered to early childhood providers across the state.

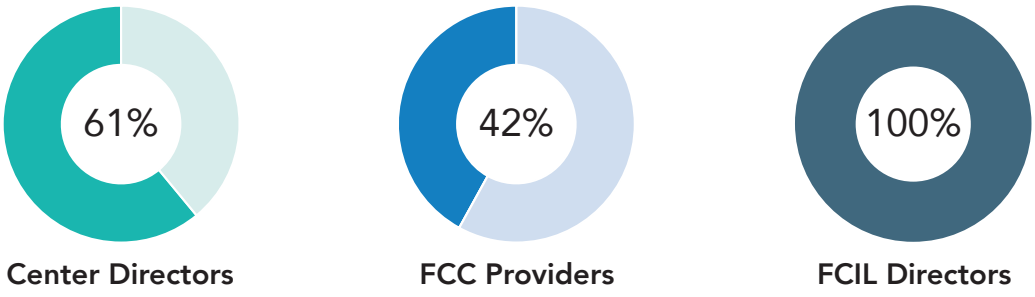
The online surveys were developed for this study with parallel versions for each of three early childhood sectors:

- **A center survey** for program directors of licensed infant-toddler and group childcare centers and principals of DOE schools with an EOEL public preschool classroom. Center programs varied widely in size. The smallest programs had a single classroom, while the largest programs administered 30 to 70 classrooms located at different physical sites.
- **An FCC survey** for proprietors of registered family childcare homes and licensed group childcare homes.
- **An FCIL survey** for directors of family-child interaction learning programs.

Each survey included questions about the following topics: the number and characteristics of children served; staff qualifications, benefits and professional development activities; program practices relating to screening, assessment, and family engagement; potential interest in program expansion and challenges to such expansion; and views on the statewide early childhood system. Questions on each survey version were similar but not always identical in order to capture the information about the unique circumstances of each sector.

The survey response rate was quite high: Surveys were returned by 159 center program directors (61% response rate, with respondents collectively holding 75% of all center licenses), 174 FCC providers (42% response rate), and 6 FCIL program directors (100% response rate).

Survey Response Rates



Profile of Hawai'i's Young Children

To develop an effective plan to serve our state's young children, it is necessary to understand key characteristics of the early childhood population. In this section, we present data on the number and demographic characteristics of our young keiki and their families.

With almost 109,000 children under the age of 6 in our state, young children are a substantial segment of the total population (see Table 1).[1] In fact, the number of young children is equal to about 60% of the total enrollment in our public school system (Hawai'i State Department of Education, 2015). The sheer size of the early childhood population underscores the need to bring greater public and political attention to issues relevant to this age group.

Table 1.
Number of Young Children in Hawai'i by Year of Age and County

Age	State	Hawai'i County	Honolulu County	Kaua'i County	Maui County
Infants	18,853	2,409	13,529	883	2,032
1-year-olds	18,462	2,317	13,279	882	1,984
2-year-olds	18,117	2,382	12,813	906	2,016
3-year-olds	18,597	2,482	13,125	948	2,042
4-year-olds	17,451	2,417	12,158	870	2,006
5-year-olds	17,479	2,492	120,007	941	2,039
Total Population	108,959	14,499	76,911	5,430	12,119

Note: Tabled values represent five-year estimates for the period 2010–2014. Source: National Center for Health Statistics (2015).

Key characteristics of young children and their families are shown in Table 2. Two main issues are evident in these data. First, there is a widespread need for childcare based on parent employment. Most of our young children (64%) have working parents (i.e., an employed single parent or dual-earner married parents). This figure is even higher (75%) when children of single parents are considered separately. Second, there is a sizeable group of vulnerable children who are especially likely to benefit from early childhood programs. Many of our young keiki (15.5%) live in poverty, and an additional 20% are low income. Over 1,780 keiki are homeless—almost one out of every 61 young children in our state. In general, Honolulu County has lower proportions of vulnerable children and Hawai'i County has the highest rates of vulnerability. Honolulu County is distinguished by having the highest median family income and the lowest percentage of single-parent households. Hawai'i County has the highest rate of young children living in poverty.

[1] "Young children" is defined as those from birth through age 5. Depending on the month of the year, some 5-year-olds will be enrolled in kindergarten while others are not yet age-eligible.

Table 2.

State and County Level Indicators of Hawai'i's Young Children and Families

Indicator	State	Hawai'i County	Honolulu County	Kaua'i County	Maui County
FAMILY COMPOSITION[a]					
Young children in married families (%)	67.3 (66.0–68.7)	57.7 (52.3–63.0)	70.7 69.1–72.4)	62.9 (57.0–68.7)	59.7 (54.8–64.6)
Young children with single parents (%)	32.7 (31.3–34.0)	42.4 (37.1–47.6)	29.3 (27.8–30.8)	37.1 (31.3–43.0)	40.3 (36.0–44.7)
Families with at least one young child (%)	45.1 (42.2–48.0)	43.8 (34.8–52.8)	45.4 (42.1–48.7)	45.1 (33.1–57.1)	44.1 (34.8–53.4)
PARENTAL EMPLOYMENT[a]					
Young children in working families (%)	64.0 (62.2–65.8)	68.8 (62.0–75.7)	60.9 (58.9–62.8)	71.0 (61.7–80.3)	74.4 (68.3–80.5)
Young children with single parent in workforce (%)	75.4 (71.4–79.3)	77.4 (64.7–90.1)	72.3 (68.1–76.5)	80.1 (61.2–99.0)	84.9 (73.8–96.1)
INCOME AND POVERTY[a]					
Median income for families with at least one child under 18 ($)	74,919 (73,397–76,441)	55,292 (51,075–59,509)	81,030 (79,955–82,105)	65,662 (60,135–71,189)	63,321 (58,281–68,361)
Young children in living poverty (%)[b]	15.5 (14.3–16.6)	29.8 (24.7–35.0)	12.7 (11.4–14.0)	13.3 (8.6–18.0)	16.5 (12.6–20.4)
Young children living in low-income (%)[c]	15.5 (14.3–16.6)	29.8 (24.7–35.0)	12.7 (11.4–14.0)	13.3 (8.6–18.0)	16.5 (12.6–20.4)
HOMELESS SERVICES CLIENTS[d]					
Young children receiving homeless services (#)	1,781	234	1,290	81	176
Young children as a percentage of homeless service clients (%)	11.9	12.8	12.6	12.2	8.0

Note: [a]Indicators are based on 2011–2015 American Community Survey five-year estimates. Values in parentheses are the upper and lower bounds of the 90% confidence interval for the reported estimates. Source: U.S. Census Bureau (2015a–2015e). [b]Poverty defined as below 100% of the federal poverty level. [c]Low-income defined as below 200% of the federal poverty level. [d]Source: Yuan, Vo, Gleason, & Azuma (2016).

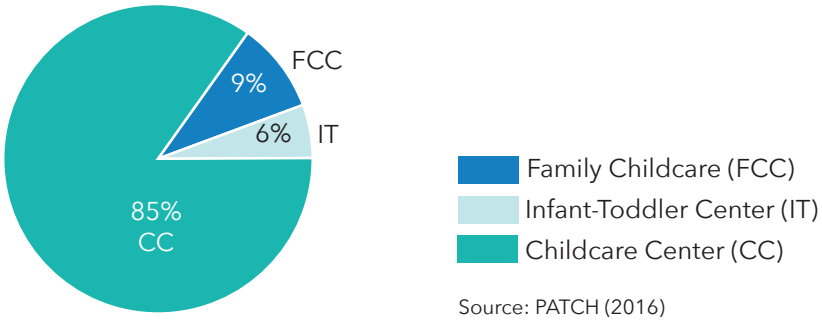
Availability and Access

Availability refers to the number of early childhood program seats, while access is a more complex issue. Distance, wait lists, hours of operation, and cost can all result in some families having difficulty accessing available seats. To what extent can parents find early childhood programs that meet their needs within a reasonable distance from their home or workplace? In this section, we describe the overall number of DHS-regulated childcare seats and the availability of seats for different age groups and regions of the state. We also consider factors such as hours and days of operation—issues that are important for families with long commutes or shift work employees—and waitlists, an indicator that demand may exceed availability.

Number of Childcare and FCIL Seats

In May 2016, there were 413 registered FCC providers, 66 infant-toddler (IT) center licenses, and 425 group childcare (CC) licenses granted by the state, with a total capacity of 25,561 regulated seats. This number represents the licensed capacity, i.e., the maximum number of children providers were allowed to enroll. Some programs chose to serve fewer children than DHS allows ("desired capacity") or had enrollments below the legal capacity. In this report, we use licensed capacity to best represent the potential size of our childcare system.

Figure 1.
Percentage of DHS-Regulated Seats by Sector



Source: PATCH (2016)

Statewide, most seats were in childcare centers (85%), with 9% of seats in FCC and 6% of seats in infant-toddler centers (see Figure 1). Honolulu County had more total seats than all the other counties combined (18,203 vs. 7,358). The type of childcare seats also differed by county. Honolulu County had the highest proportion of seats in CC settings (87% of all regulated seats vs. 80% for the other counties combined). The share of seats in IT centers was highest in Honolulu and Maui Counties (6% of seats). In contrast, only 3% of seats in Hawai'i County were in IT centers, and Kaua'i County had *no* licensed IT centers. The FCC sector had a much greater presence on the neighbor islands: FCC providers offered 7% of the total childcare seats in Honolulu County compared to 16% of seats in the other counties combined. There were no DHS-regulated seats of any kind on the island of Ni'ihau. Our FCIL survey respondents reported a total enrollment of 3,062 children in the 2015-2016 school year.[2]

[2]This enrollment figure is an under-estimate, as one survey respondent failed to report enrollment and all relevant programs in the FCIL sample may not have been included.

Children per Seat Statewide and by Geographic Region

The count of childcare seats alone is not highly informative. The more important question is whether there were sufficient seats to allow all interested families to enroll their children. Overall, our state had enough DHS-regulated seats to serve 24% of the young child population. In other words, there were four children under age 6 potentially competing for each regulated seat (FCC, ITC, and CC combined).

At full capacity, Hawai'i's regulated childcare system can serve about 25% of young children. Currently the state is experiencing a severe shortage of infant-toddler care.

However, availability differed depending on the type of seat. The availability of center-based care for the preschool age group (ages 3 to 5) far exceeded that of all other sectors. Specifically there were:

- 4 children under age 6 for each DHS-regulated seat (FCC, ITC, and CC combined)
- 2.5 children age 3 to 5 for each CC center seat
- 37 children under age 3 for each IT center seat
- 44 children under age 6 for each FCC seat
- 35 children under age 6 for each FCIL seat.

Like many other community resources, childcare may also be concentrated in particular areas. Does our state have regions that enjoy a relative abundance of childcare while others areas are childcare deserts?

To address this issue, we created two sets of maps to show, respectively, the location of different providers and the ratio of children in the population to available seats.

Figures 2 through 5 show the exact locations of DHS-regulated childcare facilities and FCIL program meeting sites. As expected, facilities tended to be clustered in the population centers of each island, e.g., West Honolulu, 'Ewa, Hilo, and Kahului.

Next, we considered the number of seats in the context of population density. An urban neighborhood should have more seats than a rural neighborhood, since there will be many more children living in an urban region. Figures 7–10 show the number of children per available seat for 11 regions of the state.[3] These maps show which communities were advantaged vs. disadvantaged in terms of the availability of childcare and FCIL program seats. Here, *low* numbers are desirable, indicating that fewer children were potentially competing for each available seat.

Figure 6 shows the ratios for total DHS-regulated seats—CC, IT, and FCC combined. These ratios range from two to eight (excluding Ni'ihau, which has no childcare seats). Hilo and Honolulu had the best availability, with only two children per regulated seat. Central O'ahu and Puna-Kā'u fared the worst, with seven or eight children per regulated seat. The ratios for each early childhood sector were also mapped: Figure 7 shows CC seats, where the regional ratios ranged from one to six. Honolulu, Hilo, and Windward O'ahu had the best availability, while Puna-Kā'u and Windward O'ahu fared the worst. Figure 8 shows IT seats, with ratios ranging from 19 to 74. For IT availability, Honolulu and Windward O'ahu had the most resources. Kaua'i, Moloka'i, and Lāna'i fared the worst—there were *no* IT seats on these islands. FCC seats are shown in Figure 9, with a range of ratios from 15 to 77

[3]Child population estimates used in Figures 6–10 are from the American Community Survey (U.S. Census Bureau, 2015a), which reports estimates suitable for sub-county level analyses.

Figure 2.
Locations of Licensed Childcare Centers

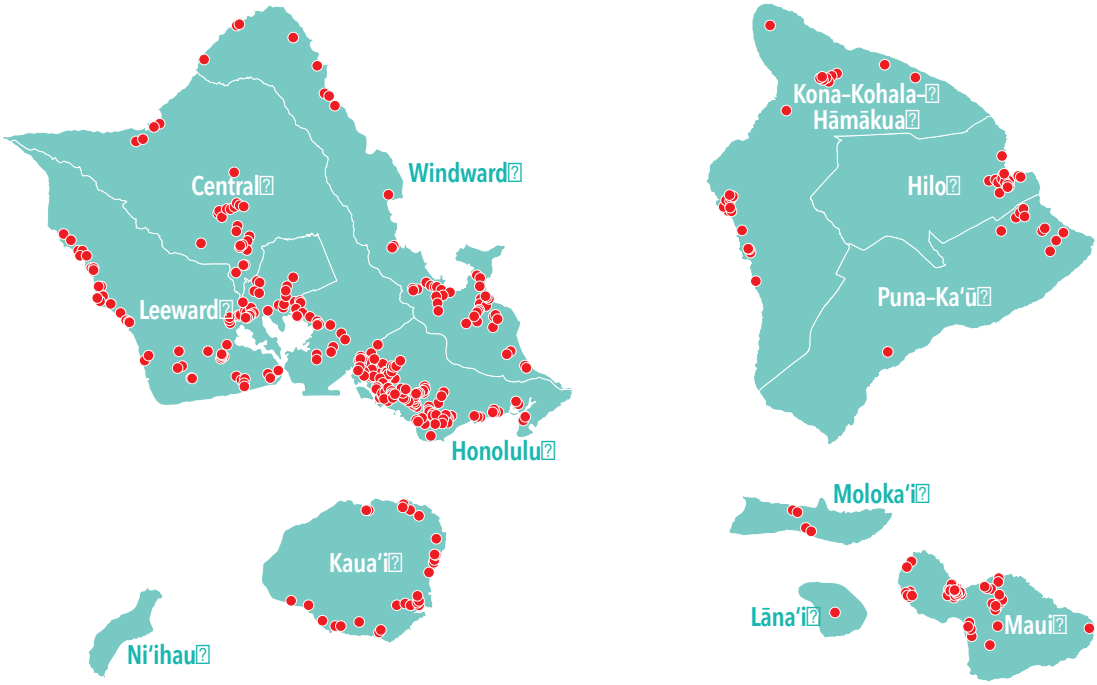


Figure 3.
Locations of Licensed Infant-Toddler Centers

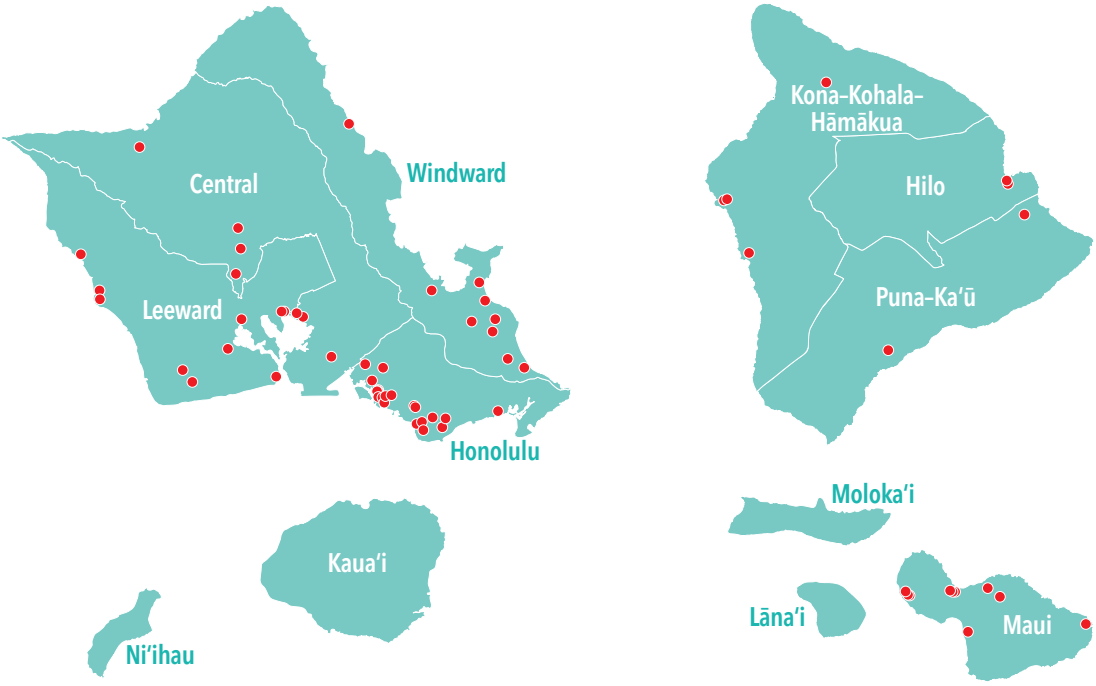


Figure 4.
Locations of Registered Family Childcare Homes

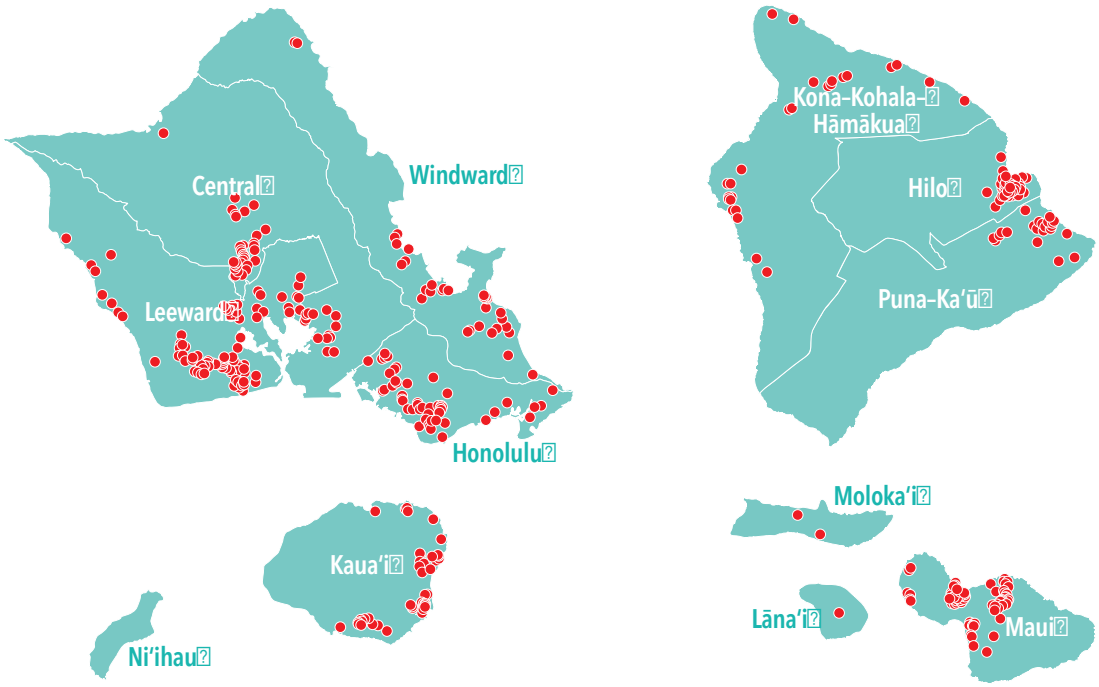


Figure 5.
Locations of FCIL Program Meeting Sites

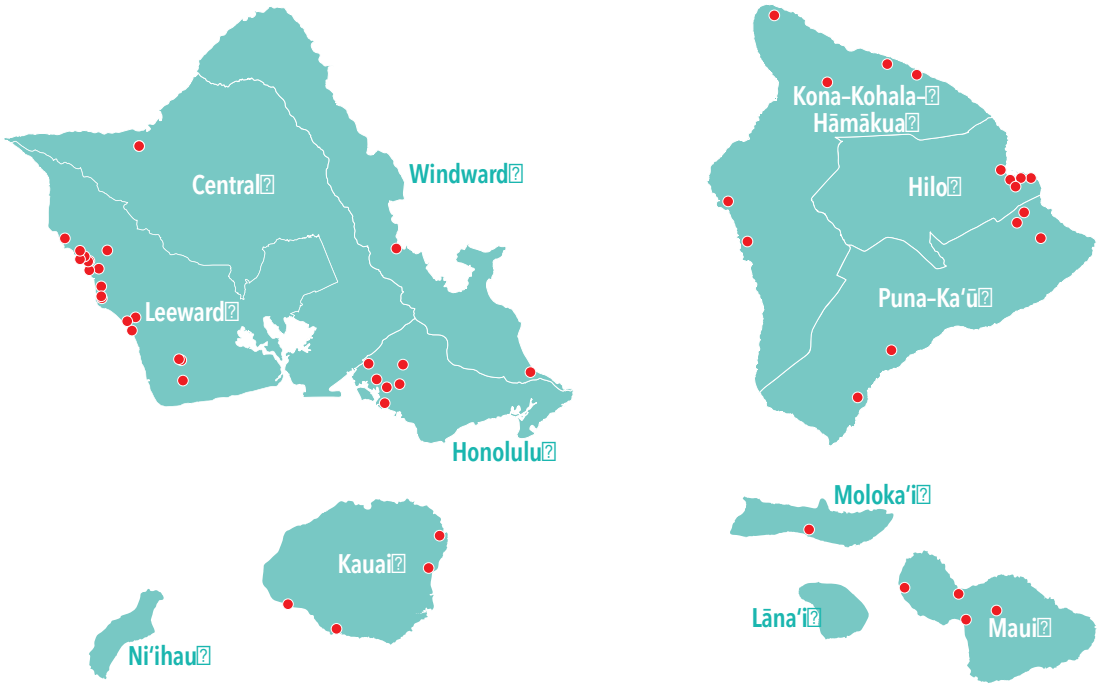


Figure 6.

Number of Children Under 6 Years per DHS-Regulated Childcare Seat

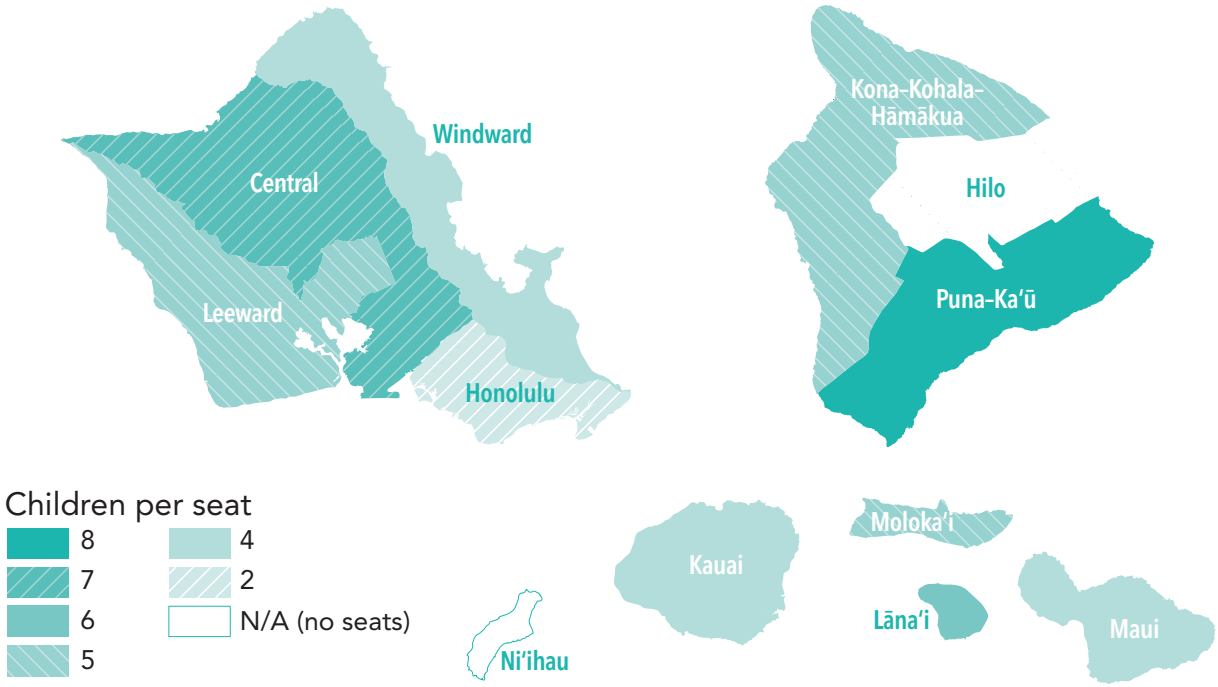


Figure 7.

Number of Children Age 3 to 5 Years per Licensed Childcare Center Seat

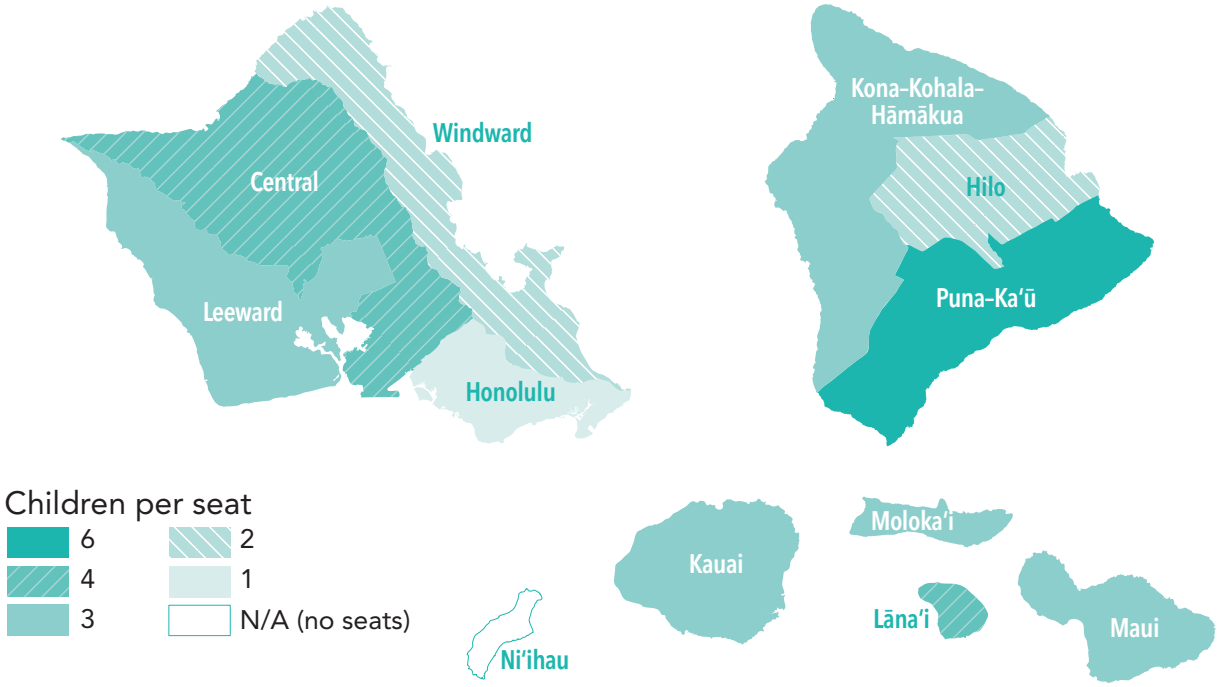


Figure 8.

Number of Children Under 3 Years per Licensed Infant-Toddler Center Seat

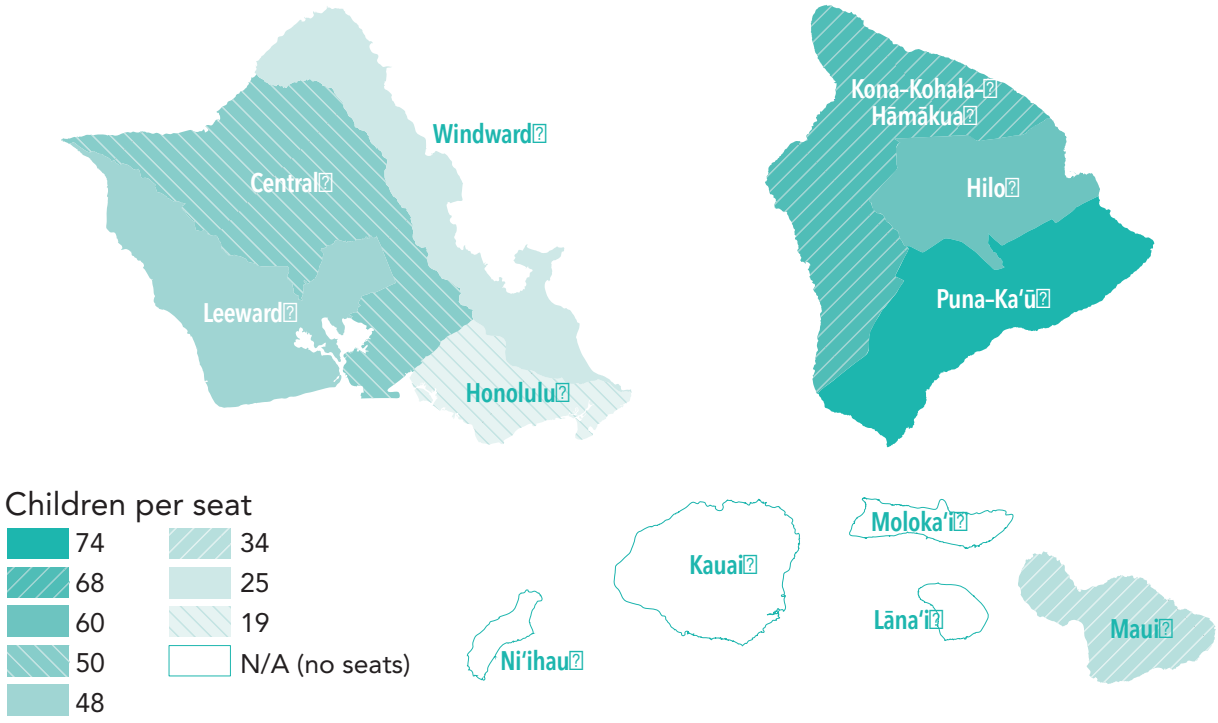


Figure 9.

Number of Children Under 6 Years per Registered Family Childcare Seat

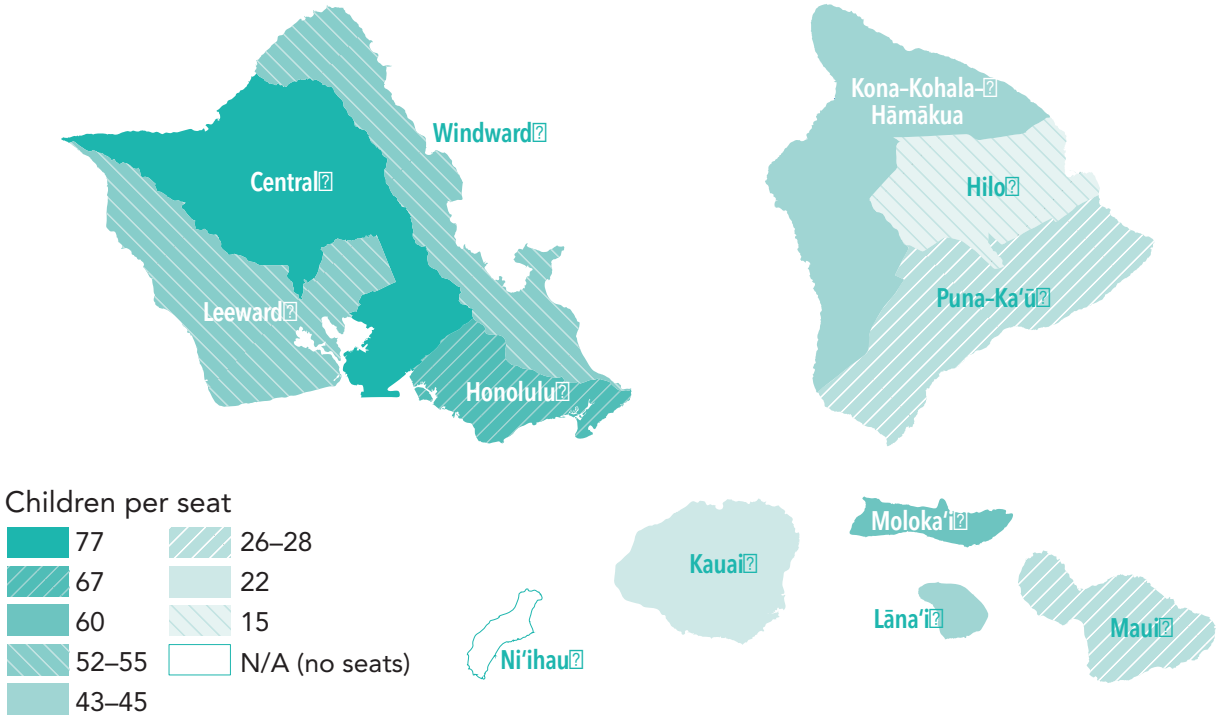
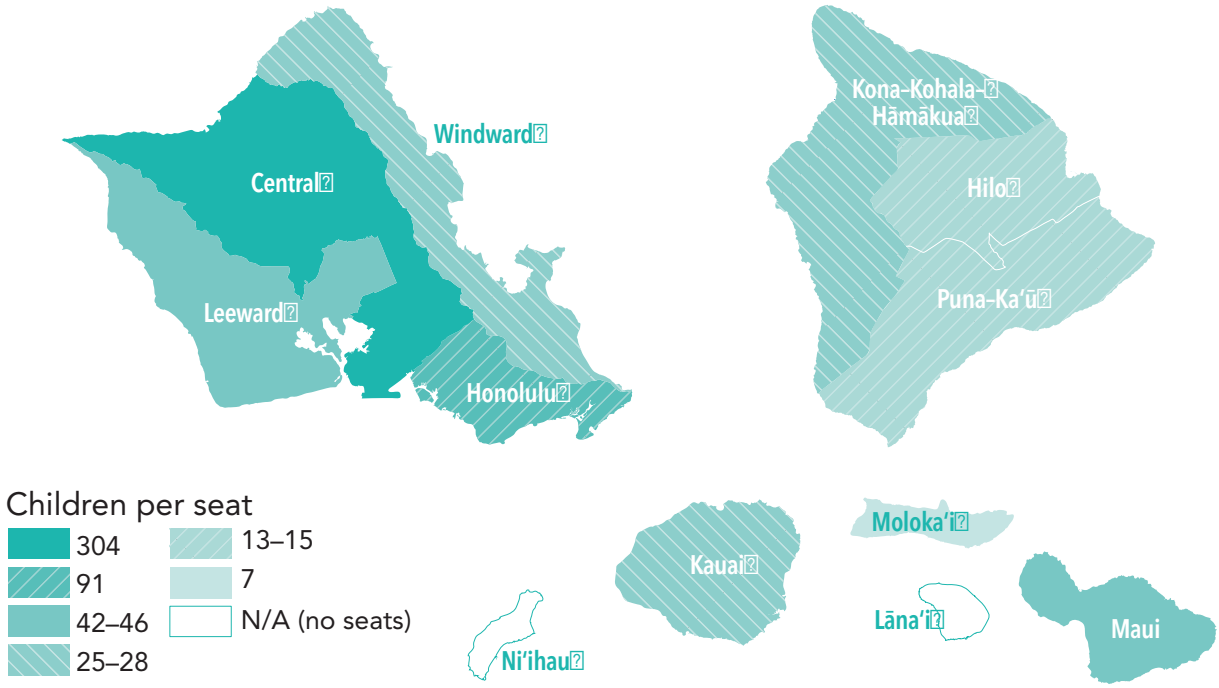


Figure 10.
Number of Children Under 6 Years per FCIL Seat



children per seat. Here, the pattern of availability was in some ways the inverse of that for center seats, suggesting that FCC providers had a greater presence in rural areas with little center-based care, especially infant-toddler care. Hilo and Kaua'i had the best availability of FCC seats, while Central O'ahu and center-rich Honolulu had the lowest density of FCC seats. Finally, FCIL seats (Figure 10) showed a unique pattern. The regional density of FCIL seats and more pointedly, the specific locations of FCIL meeting sites (see Figure 5) were in communities that were predominantly Native Hawaiian. FCIL coverage varied widely, with ratios ranging from 7 to 304 children per seat. Moloka'i, Hilo, and Puna-Kā'u had the highest density of FCIL seats, while Lāna'i, Central O'ahu, and Honolulu were the regions least served by FCIL programs.

Given the scarcity of early childhood seats, most programs either turned away interested families or placed children on a waitlist. Survey results indicated that 92% of center directors, 74% of FCC providers, and 33% of FCIL directors indicated doing so during the current school year. The sizes of these waitlists were striking, approaching program capacity for childcare centers and FCC providers. This does not mean that all families on a waitlist were ultimately denied placement; it may be the case that families apply to several programs, hoping to increase the odds of securing a seat for their child. Nevertheless, the prevalence of large waitlists suggests that demand exceeded capacity. Our survey results regarding waitlists are consistent with the quarterly updates reported in the state licensing database. In the May, 2016 tabulation, 52% of centers and 59% of FCC providers reported to DHS that their program had no current vacancies.

Characteristics of Children Served

Table 3 shows the youngest age groups accepted for enrollment per the DHS childcare licensing database. Readily apparent in these data is the limited number of centers that accepted infants and one-year-olds. What cannot be determined is the number of classrooms or seats for children of specific ages. Within the CC sector, it is likely that centers had more spaces for 3- and 4-year-olds than for 2-year-olds.

FCC and FCIL survey respondents were asked about the ages of children actually enrolled (this question was not included on the center director survey). The majority (66%) of children cared for by FCC respondents and 49% of those enrolled in FCIL programs were under 3 years old. Thus, the numbers of infants and toddlers served in FCC was equal to about half of the capacity of licensed IT centers. FCIL programs served more infants and toddlers than did IT centers, though not as providers of childcare.

Survey respondents reported on selected demographic characteristics of children and families in their programs. These data are shown in Table 4. Programs served a diverse clientele, including special needs, homeless, multi-lingual, and economically disadvantaged children and families. Children living in poverty were over-represented in Centers and FCIL programs compared to the state's overall young child population by a margin of about 2:1.

It should be noted that some programs serve a targeted clientele. For example, Head Start and Early Head Start are mandated to reserve most seats for children living in poverty, while the EOEL pre-K gives preference to children from families living at up to 250% of the poverty level. Other programs, such as Kamehameha Schools and many of the FCILs, serve a high proportion of Native Hawaiians and offer culturally focused curricula. A small number of specialized programs focus on a highly selected group, such as teen parents, recent immigrants, or mothers in recovery from substance abuse. One FCIL program alone

Table 3.
Youngest Age Group Accepted by License Type

	Childcare		Infant-Toddler		FCC	
Age	No.	%	No.	%	No.	%
Under 12 months	0	0.0	54	81.8	370	89.6
1 year	1	0.2	11	16.7	21	5.1
2 years	183	43.1	1	1.5	11	2.7
2.5 to 2.9 years	130	30.6	0	0.0	5	1.2
3 years	105	24.7	0	0.0	4	1.0
4 years	6	1.4	0	0.0	2	0.5
Total	425	100.0	66	100.0	413	100.0

Note: Tabled data represent the number and percentages of licenses. Source: PATCH (2016).

Table 4.
Characterstics of Enrolled Children and Families (Number and Percentage of Children by Sector)

Characteristics of Enrolled Children and Families	Centers		FCC		FCIL	
	No.	%	No.	%	No.	%
Special Needs	532	3.9	32	3.8	81	3.2
Homeless[a]	227	2.0	5	0.6	—	—
Family speaks Hawaiian at home	1,600	14.6	55	6.7	57	2.3
Family speaks other foreign language at home	1,105	8.2	104	12.9	382	12.5
Financial risk[b]	3,370	33.5	120	15.6	953	31.1

Note: Response rates varied across items, and the rate of missing data was high, perhaps because not all programs keep records of these characteristics. Interpret results with caution. Valid responses: Centers (*n* = 99 –119), FCC (*n* = 137–147), FCIL (*n* = 3–5). [a]Data suppressed for FCIL programs due to low response rate. [b]Center and FCIL directors were asked to report children from homes with family income at or below 100% of the federal poverty level. FCC providers were asked about children in families receiving needs based benefits, e.g., TANF, WIC. Source: COF (2017).

enrolled 390 homeless children—approximately 22% of all the young children statewide who received homeless services. The Pūnana Leo Hawaiian language immersion program is another distinctive specialized program.

Other Program Characteristics

A final issue relating to access is whether care is available at the times that families need and within a reasonable commuting distance. For working families, hours of operation and access to year-round care are crucial. Parents who work non-traditional or rotating shifts need flexible arrangements or evening and weekend care. Childcare located close to the home or workplace and accessible by public transportation eases the burden of daily commuting. Currently, little is known about the extent to which these aspects of childcare logistics affect families' daily lives. However, a recent survey of Hawai'i parents of young children revealed the following (Early Childhood Action Strategy, 2016):

- More parents preferred childcare to be located close to their home rather than close to their workplace (62% vs. 30%)
- Most parents needed Monday through Friday workday care (77%), but a substantial sub-group needed evening (10%) or weekend (11%) care.
- Location and hours were second only to quality and cost as the most important factors influencing families' decisions in making childcare arrangements.

Relevant items from the state childcare licensing database are shown in Table 5. Most childcare seats (IT centers, CC centers, and FCC combined) were with providers that offered the flexibility of either part-time or full-time enrollment.[4] However, a full-time school day was

not always defined as eight hours. Twenty seven percent of seats were in programs open less than 40 hours per week. One-third of seats were in settings that opened before 7 a.m., which should suit the needs of most day-shift workers. Closing hours were more likely to be problematic for working parents, as 23% of seats were in settings that closed before 4 p.m. and only 15% of seats were in settings open past 6 p.m. Almost no options were available for parents who worked evenings or weekends, with less than 2% of childcare seats open during these hours. In general, FCC providers were more likely than centers to offer hours that met the needs of working parents.

Table 5.

Hours of Operation (Number and Percentage of Licenses and Percentage of Seats by Sector)

Schedule	Centers			FCC			FCIL		
	No. Licenses	% Licenses	% Seats	No. Licenses	% Licenses	% Seats	No. Licenses	% Licenses	% Seats
Open less than 5 days per week	12	2.5	1.6	21	5.2	5.4	33	3.7	2.0
Open Monday through Friday	471	97.1	97.4	355	87.7	87.6	826	92.8	96.5
Open any weekend days	2	0.4	0.9	29	2.0	7.0	23	3.5	1.5
Part-time enrollment only	26	5.3	2.7	6	1.5	1.5	32	3.5	2.6
Full-time enrollment only	188	38.3	38.6	122	29.5	29.5	310	34.3	37.7
Both available	277	56.4	58.7	258	62.2	69.1	562	62.2	59.7
Open less than 40 hours per week	161	38.4	25.8	32	11.5	12.2	193	27.7	24.8
Open 40 hours or more per week	258	61.6	74.2	247	88.5	87.8	505	72.3	75.2
Open before 7 a.m.	112	23.1	33.1	135	33.3	32.0	247	27.8	33.0
Open 7–8 a.m.	370	76.3	66.4	267	65.9	67.2	637	71.6	66.5
Open 9 a.m. or later	3	0.6	0.4	3	0.7	0.7	6	0.7	0.5
Close before 4 p.m.	173	35.7	25.0	32	7.9	8.3	205	23.0	23.4
Close 4–5 p.m.	256	52.8	59.3	346	85.4	85.3	602	67.6	61.7
Close 6 p.m. or later	56	11.5	15.8	27	6.7	6.4	83	9.3	14.9

Note: Center license is the unit of analysis. Valid responses: Centers (n = 485), FCC (n = 405). Source: PATCH (2016).

[4]Unless otherwise specified in the tables and figures, "centers" refers to both CC and IT centers combined.

What We Know and What We Do Not Know

To summarize the findings relating to availability and access:

- **There was an overall shortage of childcare seats.** Even at full capacity, our licensed childcare centers and registered family childcare homes could serve only one-quarter of our young keiki. There was an especially critical shortage of care for infants and toddlers.
- **Childcare resources were not equally available in different regions of the state.** Care was generally less available in rural areas. The relative childcare deserts within the state were Moloka'i, Lāna'i, the Leeward and Central districts of O'ahu, and all areas of the Big Island other than greater Hilo. Kaua'i, Moloka'i, and Lāna'i islands had no licensed infant-toddler centers.
- **FCC is not prominent in the public discussion of childcare, yet this sector served almost 1 in 10 children** in DHS-regulated care and represented a larger share of the market in rural areas. FCC providers offered hours that better suited the needs of many working parents. Furthermore, FCC providers were a crucial source of infant-toddler care.
- **In terms of the number of children served, the FCIL sector rivaled both IT and FCC.** FCIL programs provided a crucial service to keiki not enrolled in childcare, and along with the IT and FCC sectors, addressed the needs of our under-served infants and toddlers.

Remaining questions not answered in our data include the following:

- **What is the capacity of our current childcare system to serve specific age groups?** Even within a particular provider type (CC, IT, FCC), we cannot say with certainty how many seats are available for a specific age group, such as 2-year-olds vs. 3-year-olds. Providers may elect to accept a narrower range of ages than DHS allows or change the mix of age-segregated and mixed-age classrooms offered, and openings for new children may be constrained by the number and specific ages of children already enrolled. This makes it difficult to project system-wide needs for seats by a particular year of age.
- **Where are all of our young children spending their days?** We do not know the entire childcare landscape. This landscape includes not only all possible sources of childcare, but also the extent to which families cobble together a patchwork of multiple care arrangements to meet their needs. Our data included DHS-regulated settings, FCIL programs, and EOEL pre-K. Other childcare sectors include (a) military childcare, (b) DOE special education and public charter school affiliated programs, (c) family, friend, and neighbor care (FFN), and (d) children who are cared for at home by their parent(s). What is known about these other sectors? In the 2015-2016 school year, the DOE served 2,076 children in EOEL, charter school, and self-contained special education preschool classrooms, with the majority of children enrolled in special education (Lauren Morigichi, personal communication, January 20, 2017). Altogether, DOE and the charter schools added seats that equaled about 8% of the total capacity of DHS-regulated childcare. In addition, military childcare programs served over 2,000 children ranging from birth through age 12 statewide

(Karen Lange, personal communication, January 27, 2017). The DOE-EOEL public pre-K program is growing, and in time should have considerably greater capacity to serve our state's 4-year-old population. However, private programs and providers are and will remain essential in the overall early childhood system. Finally, the number of children in FFN or parent care as the primary care setting is a key unknown. National data from 2011 suggest that almost 39% of children under age 5 had no regular childcare arrangement. Presumably, most of these children were primarily in parent care (Laughlin, 2013). In addition, 18% of children in the national study were in multiple forms of care on a regular basis, and one-third of children spent at least some of their time in FFN care (Laughlin, 2013). It is important to determine how many of Hawai'i's children are in FFN or parent care as their primary care setting as well as the extent to which families use multiple types of care.

- **Why are children in their present care arrangements, and is this consistent with family preferences?** The reasons why children are in a particular set of care arrangements is the result of a complex negotiation of necessity, availability, affordability, and beliefs about what is best for one's child. Currently, our state has little information on why families selected their current childcare arrangements and the extent to which these arrangements were a product of family choice vs. practical constraints. A recent survey of Hawai'i families indicated that perceived quality, cost, location, and hours were the strongest influencers on childcare decisions (Early Childhood Action Strategy, 2016). However, 31% of families were strongly influenced by the fact that their provider had an opening, indicating that availability may trump preference. Almost 29% of respondents cited preference for a family member, suggesting that some families were able to arrange for care the matched their values. More needs to be done to document the extent to which families feel their care arrangements are stable, affordable, convenient, and good for their children.

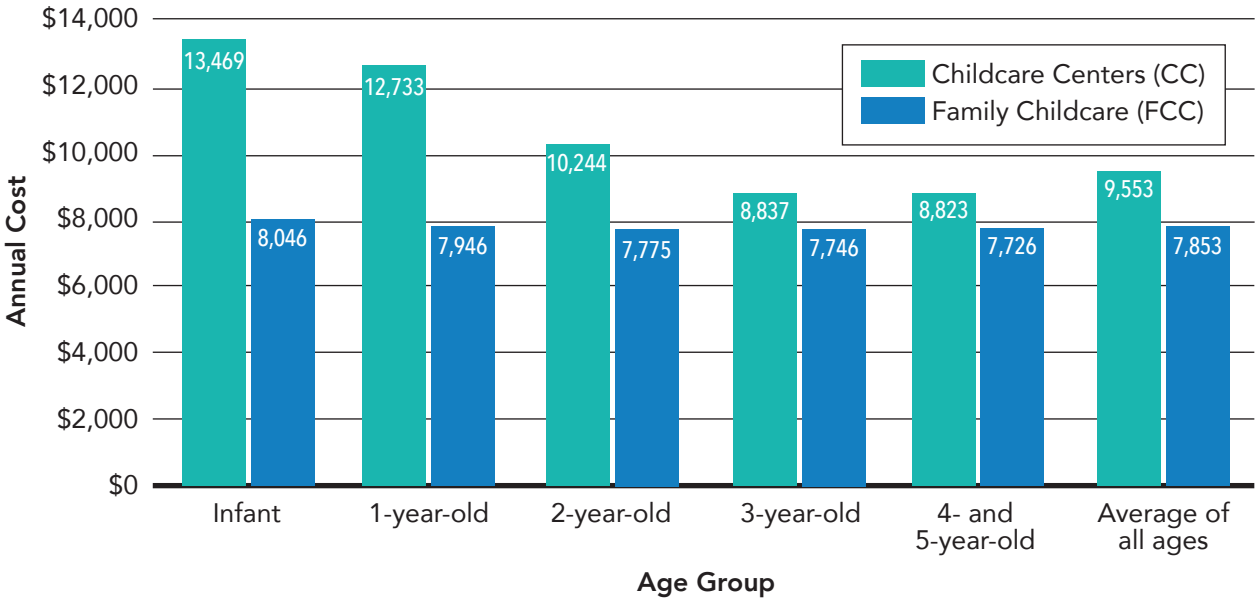
Cost

The cost of childcare is a significant family expense and an important factor that may limit parental choice. In this section, we discuss the cost of care by sector, child age, and county. We also describe sources of support that may reduce or eliminate out-of-pocket cost for eligible families.

The average cost of full-time, year-round center care for ONE child is more than $9,500. Infant care exceeds $13,000 per year.

The cost of year-round, full-time childcare for children of different ages is shown in Figure 11. In 2016, tuition and fees averaged $9,553 for center-based care and $7,853 for FCC.[5] However, costs differed by child age, care setting, and county. Center-based care was consistently more expensive than FCC, especially for infants and toddlers. Centers also charged more for younger children, with the average cost for infant care exceeding $13,000 per year. FCC providers, in contrast, charged similar rates for children of all ages. Prices in Honolulu County prices were higher than in all other counties, both for centers ($10,220 vs. $8,213) and FCC ($8.404 vs. $7,276). Finally, centers with a national early childhood accreditation charged higher average rates ($10,699) than centers with other forms of accreditation or no accreditation ($8,879 and $8,703, respectively).

Figure 11.
Average Cost of Year-Round, Full-Time Care by Child Age and Sector

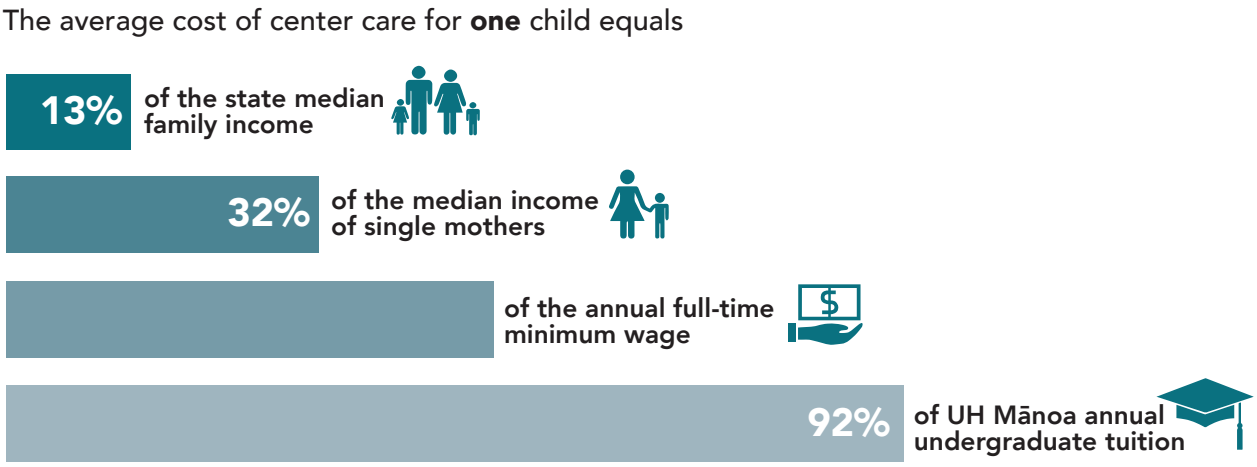


Note: Valid responses: Centers (*n* = 319), FCC (*n* = 383). Source: COF (2017).

[5]These averages were based only on programs reporting tuition and fees in the licensing data base. Programs with missing data or those that did not charge tuition or fees were not included.

Were these costs affordable for most families? There is no generally accepted definition of childcare affordability. The U.S. Department of Health and Human Services policy is that low-income families should spend no more than 7% of family income on care for all children in the family combined (Child Care and Development Fund Program, 2016). To put this into perspective, Figure 12 shows the costs of center-based care for one child compared to several other financial benchmarks. These comparisons make it clear that childcare is a major family expense and that the full market price of childcare is beyond the reach of low-wage workers and most single-mother households.

Figure 12.
The Relative Cost of Childcare



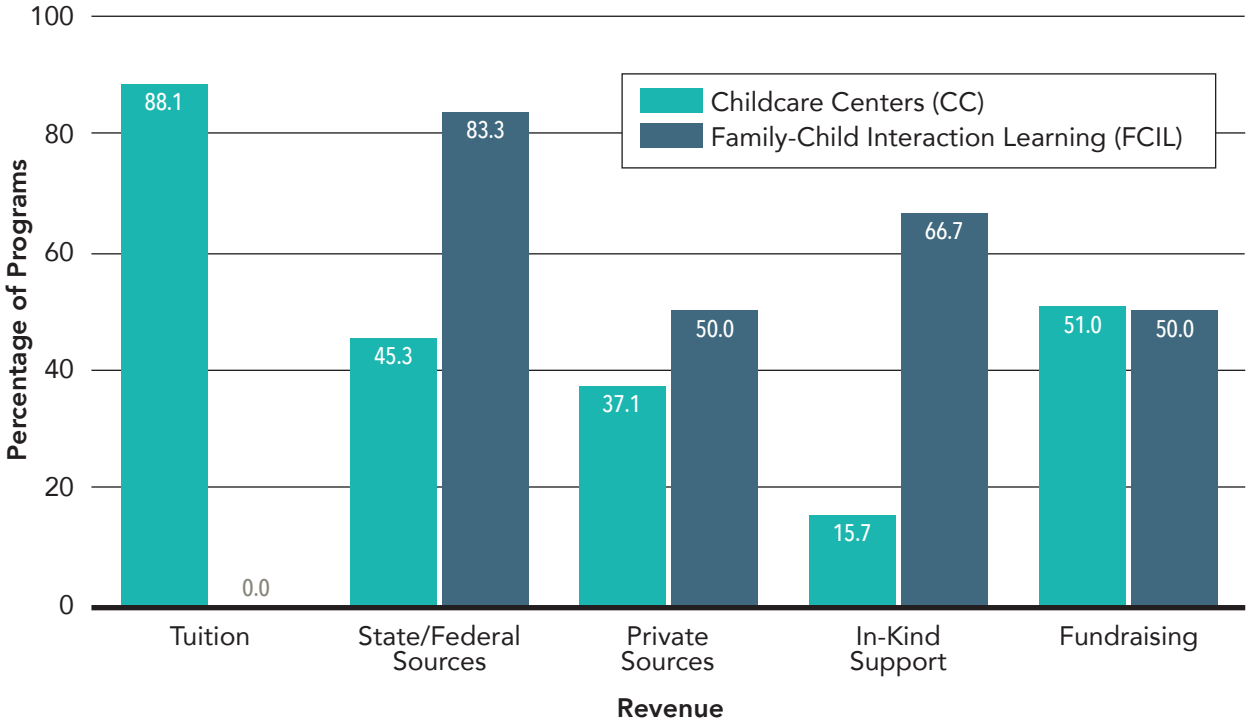
Fortunately, there were sources of assistance with childcare costs, at least for low-income families. First, some programs were offered free of charge. Head Start and Early Head Start are funded primarily by the federal government and enrollment is free to most families living at or below the federal poverty level. Together, Head Start and Early Head start comprised 12% of all DHS-regulated childcare seats. Public preschools, including DOE special education, EOEL and public charter schools were also free of charge. EOEL and charter schools serve children from families at up to 250% and 200% of federal poverty guidelines, respectively. Finally, all FCIL survey respondents indicated their programs were offered free of charge, regardless of family income.

Sources of financial assistance that reduced or even completely covered tuition costs included the DHS-administered Preschool Open Doors and Child Care Connections Hawai'i childcare subsidy programs, scholarships funded by private philanthropies such as Pauahi Keiki Scholars, military childcare subsidies, and scholarships or sliding fee scales offered by the providers themselves. One large private school offered a sliding fee scale and full fees that were well below market rates, effectively subsidizing tuition even for middle income families.

Survey respondents were asked to report on children receiving financial aid. Two forms of assistance were considered: Funds external to the childcare program, such as Child Care Connections Hawai'i or Pauahi Keiki Scholars, and assistance provided directly by the program itself, such as in-house scholarships or sliding scales. Note that these two forms of assistance are not mutually exclusive—a child could receive both. Center directors indicated that 16% of enrolled children received in-house financial aid and 20% received external assistance. FCC providers reported that 23% of children in their care received subsidies or similar forms of external financial assistance.

It is also important to point out that programs themselves received financial assistance. Sources of program revenue are shown in Figure 13. Relatively few providers were able to fund program operations through tuition revenue alone. Many center-based programs received federal or local grants and assistance such as the USDA school lunch program. To a lesser extent, centers also relied on in-house fundraising and in-kind contributions such as free or reduced-cost facilities and volunteer services. No FCIL programs charged tuition, having historically been supported by federal and foundation grants and community partnerships providing no-cost access to meeting space. We did not ask FCC providers to report on revenue sources based on the assumption that these providers operate primarily on tuition revenue.

Figure 13.
Sources of Revenue for Centers and FCIL Programs



Note: Valid responses: Centers (*n* = 159), FCIL (*n*= 6). Source: COF (2017).

What We Know and What We Do Not Know

To summarize the findings on cost:

- **The average cost for full-time, year-round care was approximately $7,800 for FCC and $9,500 for center-based care.** Costs for infant-toddler centers were especially high, exceeding $13,000 for children under 12 months of age.
- **Not all families paid the full market rates.** About 12% of children received free services in Head Start or Early Head Start, about 20% of children were covered by tuition subsidies, and about 15% of children received some form of program-sponsored financial aid or benefitted from a sliding fee scale.
- **Many programs themselves received support in the form of grants, contracts, and in-kind contributions** that lowered operating costs and presumably allowed programs to charge lower tuition rates. This network of federal, state, municipal, and private support helps nonprofit programs offset the true cost of providing care.

Remaining question not answered by our data include the following:

- **What are the actual out-of-pocket costs to families and how much of the family budget does this represent?** We know little about the families' actual out-of-pocket costs for childcare, what percentage of total family income goes to such care, and how this differs across low-, middle-, and high-income groups. In fiscal year 2015, the average monthly per-child subsidy provided by DHS ranged from $292 for those in FCC to $513 for those enrolled in infant-toddler centers (State of Hawai'i Department of Human Services, 2016). Thus, the average subsidy award is roughly equal to half of the average market rate tuition. Note that this does not mean that most subsidy recipients have a 50% tuition co-payment. Per DHS policy, subsidies may cover 10% to 100% of full tuition costs, depending on family income. A recent survey of Hawai'i parents found the average reported out-of-pocket cost per child was $434 per month, and that just under 20% of families received some form of help paying for childcare (Early Childhood Action Strategy, 2016). Note that the Early Childhood Action Strategy (ECAS) data are not directly comparable to the DHS figures. First, the ECAS study included all parents, not just those using formal childcare. Parents who cared for their child at home or who used family, friend, and neighbor care would have no or very low costs, resulting in an average out-of-pocket cost that was well below market tuition rates. In addition, the ECAS figure for assistance included DHS and non-DHS subsidies, scholarships, employer-sponsored benefits, and informal sources of assistance with childcare expenses such as cash contributions by grandparents.
- **What proportion of eligible children receive subsidies or free early childhood program services?** Programs may report the number of participating children, but this information does not tell us how many eligible children were not reached. Eligibility for many assistance programs is based on a complex set of criteria (e.g., income relative to the state median, household size, family violence, disability) on which family status may change rapidly (e.g., currently employed). This makes it difficult to project the number of potentially eligible children. Knowing the size of

the eligible population is required in order to measure progress towards the goal of serving all children in need. In state fiscal year 2015, DHS provided subsidies for 9,833 young children through the Child Care Connections Hawai'i and Preschool Open Doors programs (State of Hawai'i Department of Human Services, 2016). It has been estimated that Hawai'i serves 9% of all children eligible for Early Head Start, 57% of those eligible for Head Start, and 28% of children eligible for CCDBG childcare subsidies (Schmidt and Walker, 2016). We do not know the unduplicated count of children served through the combination of these three programs and/or other sources of assistance available in the community. As a result, we do not have a clear picture of the gap yet to be covered in terms of ensuring that all families are able to afford appropriate early childhood services.

- **What is the true cost of delivering early childhood programs, especially high quality programs?** Focusing on the cost to families overlooks the equally important question of how much it costs providers to deliver early childhood programs. Sources of support for program operations may include tuition and fees, fundraising and donations, grants and contracts, quality incentives, USDA food program reimbursements, and the value of items such as tax breaks, no-cost technical assistance, and in-kind support. Early childhood staff may also be seen as providing unacknowledged subsidies to employers, families, and society by working for wages and benefits that are disproportionately low compared to the value of the professional services they render. Estimating the true cost of offering high quality programs is a complex endeavor, but a necessary first step in understanding the extent to which government and other resources must augment market forces in order to develop and sustain a strong early childhood system for Hawai'i.

Quality

When children are entrusted to the care of others, the expectations are that programs are safe, nurturing, and effective in supporting all aspects of healthy development. The benefits of early childhood programs come primarily from those that meet high standards of quality. In addition to providing sufficient access and affordable care, a key goal for Hawai'i's early childhood system is to ensure high quality in all sectors.

Childcare quality can be divided into structural and process aspects (Bowman, Donovan & Burns, 2001). *Structural* aspects of quality include group size, teacher-student ratio, staff educational qualifications, health and safety procedures, and the available space per child. Structural aspects of quality lend themselves to regulation. *Process* aspects of quality comprise the activities and interactions in which children are engaged. This includes the frequency, richness, and sensitivity of teacher-child interaction; security of bonds between children and staff; strength of the partnership between families and staff; provision of stimulating, child-appropriate curriculum and activities; and implementation of positive child guidance strategies. Process quality is more difficult to measure and regulate than structural quality. But process quality is essential because it is the more direct cause of positive child outcomes (DeBaryshe, 2015; Phillips et al., 2017).

In this section we present data from the provider surveys relating to process and structural quality. This includes teacher credentials, accreditation status, assessment practices, and family engagement strategies.

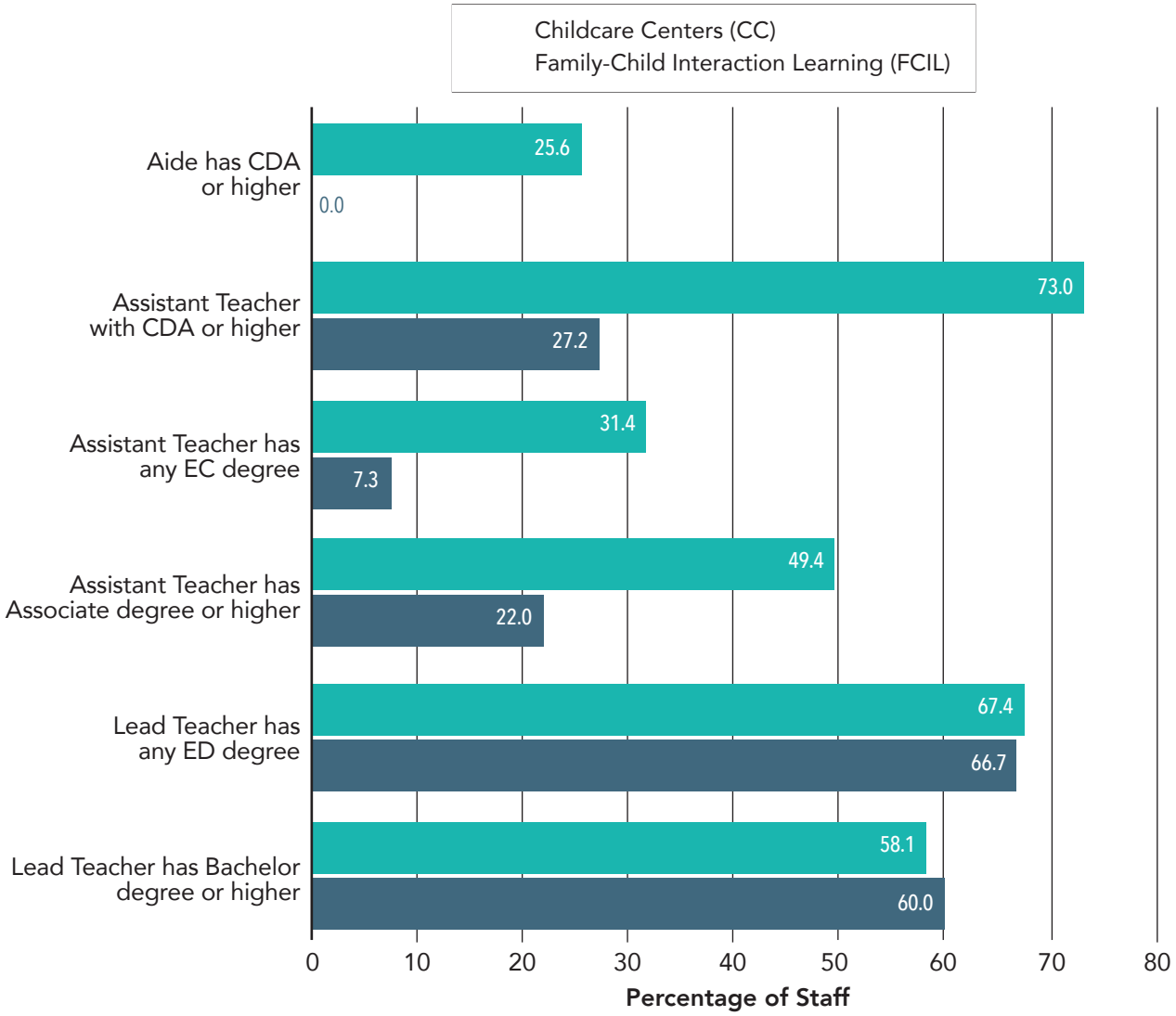
Staff Educational Credentials

Although specific recommendations differ, the quality benchmarks for teacher and staff education suggested by national organizations (e.g., National Association for the Education of Young Children, National Institute for Early Education Research, Office of Head Start) typically exceed the minimum qualifications required for licensing, including the licensing standards in Hawai'i (Administration for Children and Families, 2016; Barnett et al., 2017; National Association for the Education of Young Children, n.d.). Overall, the field is moving towards the goal that lead teachers have a bachelor's degree in early childhood education. For assistant teachers and aides, the most common recommendation is a child development associate credential (CDA). However, EOEL and Head Start, respectively, require or encourage assistant teachers to have an associate's degree.

Survey data on staff education for centers and FCIL programs is shown in Figure 14. Directors were asked to report on the highest level of education ranging from high school diploma to graduate degree.6 A second metric was whether staff held any degree (not necessarily the highest degree) in early childhood education or a related field. For both sectors, the majority of lead teachers had a bachelor's degree or higher (58% and 60%, respectively) and about two-thirds had any degree in early childhood. Qualifications of assistant teachers were higher for centers than FCIL programs. At just under 26% with a CDA, aides were the category of staff furthest from meeting desired benchmarks.

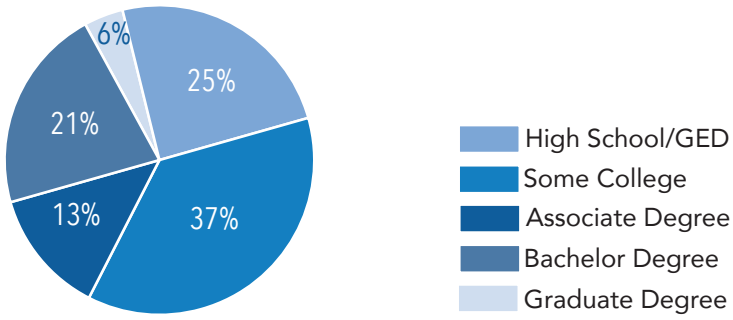
[6]This section of the survey appeared to be confusing for many respondents as the total number of highest degrees reported did not always match the total number of teachers. Please interpret these data with caution, as they are considered rough estimates of the credentials of center and FCIL staff.

Figure 14.
Staff Education for Centers and FCIL Programs



Note: Bars represent the percentage of staff within each type of position. Valid responses: Center (*n* = 149), FCIL (*n* = 5). Source: COF (2017).

Figure 15.
FCC Provider Highest Level of Education Completed



Note: 10% of providers also have a CDA and 54% have a degree in EC. Valid responses: *n* = 174. Source: COF (2017).

There are no parallel education benchmarks for FCC providers, although the National Association for Family Child Care (NAFCC) considers education, training hours, and provider experience in their accreditation standards (National Association for Family Child Care, n.d.). FCC providers' self-reported highest level of education is shown in Figure 15. One-quarter of FCC providers had a bachelor's degree or higher. In addition, 54% had any degree in early childhood and 10% had a current CDA.

Accreditation

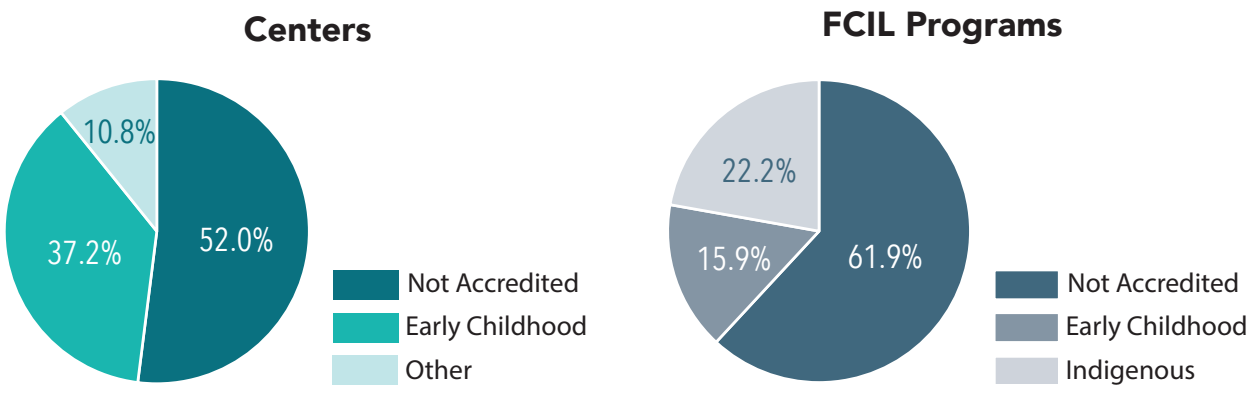
Voluntary accreditation in early childhood is among the most widely accepted indicators of program quality. In many states, accredited programs receive higher subsidy reimbursements and/or are automatically awarded the highest level in a quality rating system.

Figure 16 shows the percentage of seats in programs with different forms of accreditation. Three types of accreditation are shown—Early Childhood, Indigenous, and Other. Early Childhood accreditation included those awarded by the National Early Childhood Program Accreditation (NECPA), National Association for the Education of Young Children (NAEYC), and National Association for Family Child Care (NAFCC). Indigenous accreditation was from the World Indigenous Nations Higher Education Consortium (WINHEC). Other accreditation included recognition from bodies that typically oversee K–12 schools such as the Hawai'i Association of Independent Schools (HAIS) or the Western Association of Schools and Colleges (WASC), and accreditations relating to a particular educational approach such as the Montessori method. If a program held both an early childhood and another educational accreditation, it was included in the early childhood category.

> "Accreditation provides credibility, makes us strive to do better, and eases parents' minds, knowing that our schools are held to higher standards."
>
> —Center program director

As seen in Figure 16, many programs held accreditation in some form. About 37% of center seats were in programs with an early childhood accreditation. Large, multi-site programs and, to a lesser extent, church-sponsored programs, were most likely to have an early childhood accreditation. Almost 11% of center

Figure 16.
Accreditation Status of Center and FCIL Programs



Note: Values respresent the percentage of total seats. Valid responses: Centers (*n* = 491), FCIL (*n* = 6). Source: COF (2017).

seats, usually in classrooms affiliated with a K–12 private school, had other educational accreditations. In the absence of a national accreditation specific to FCIL programs, FCIL providers needed to look elsewhere for relevant recognitions. One FCIL program, offering 16% of all FCIL seats, earned a special accreditation from NAEYC. Two other FCIL programs, offering 22% of FCIL seats, had WINHEC accreditation.

In open-ended comments, many directors indicated that accreditation was worth the substantial cost and effort. In addition to serving as a recruitment tool for families, accreditation was seen as a vehicle for professional development and program improvement, and increasing staff morale and sense of mission. It should be noted that accreditation is not without controversy. Accreditation is at the program level and does not necessarily ensure the quality of every classroom or teacher. Non-accredited programs can certainly offer high quality care, and many small programs lack the resources needed to pursue accreditation. It could also be argued that Head Start and Early Head Start programs (HS/EHS), none of which are currently accredited in Hawai'i, should be considered high quality given the detailed federal performance standards governing their program operations.

Screening Practices

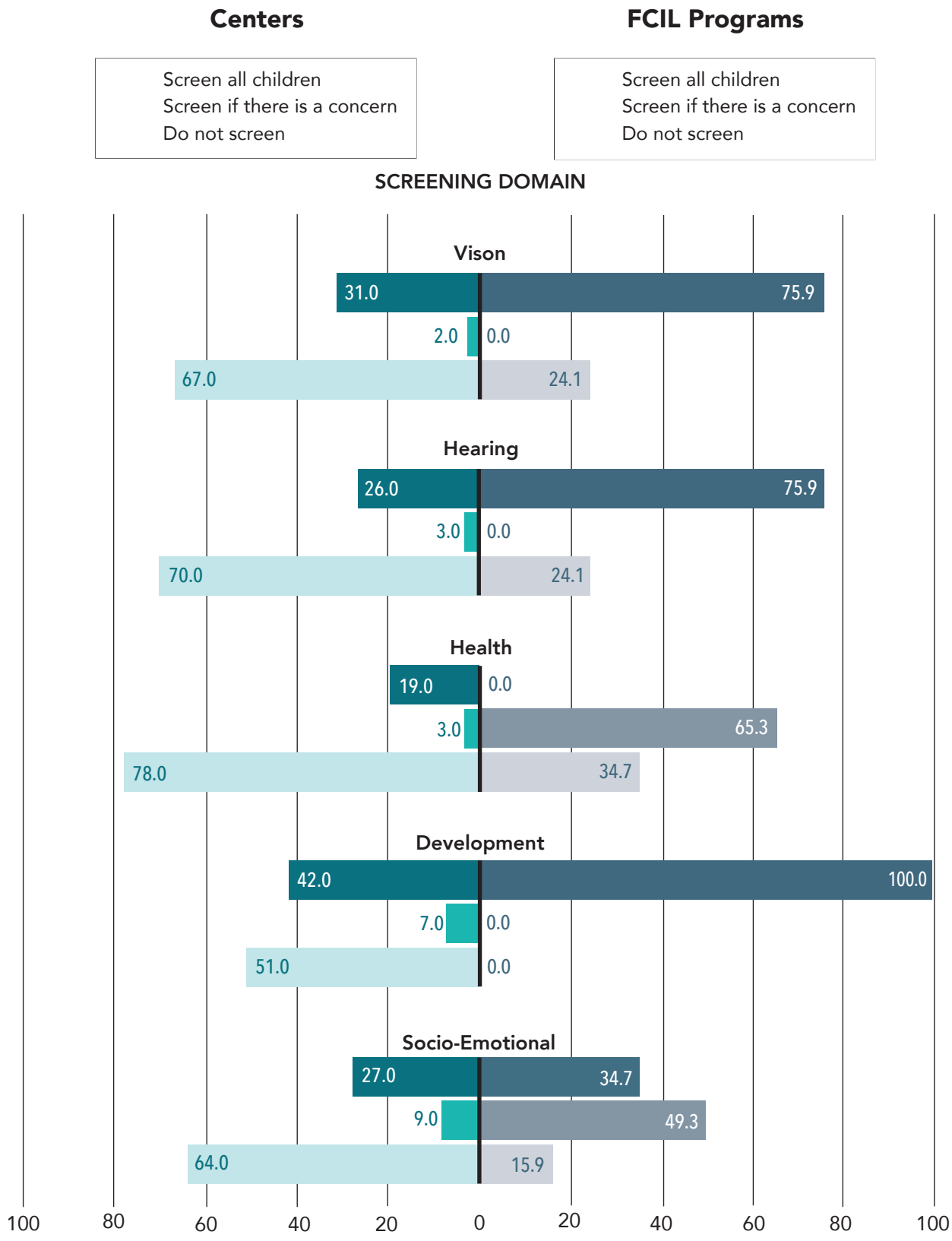
Early childhood programs can provide a valuable public health service by helping families ensure their children receive the periodic sensory, developmental, and behavioral health screenings recommended by the American Association of Pediatrics (2017). Early childhood providers can also offer developmental surveillance, help families understand screening results, conduct screenings in house, and/or make referrals for more in-depth assessment as warranted. Universal screening of all children in their childcare setting is not required in our state, but is a goal worthy of consideration.

Information on screening practices was obtained from survey respondents. Most programs (70% of centers and 83% of FCILs) asked parents about prior child screening results at the time of enrollment. Data on screening administration for center and FCIL programs is shown in Figure 17.[7] Within centers, universal screening was most common for general development (42% of children) and least common for health (19%). In contrast, FCIL programs achieved very high levels of developmental (100%) and vision/auditory screening (76%). All FCIL programs engaged parents in the screening process by using a parent-report tool, the Ages and Stages Questionnaire.

The percentage of children receiving universal screening was higher than the percentage of programs that screened all children. This is because large programs were more likely to conduct screening. Head Start and Early Head Start are mandated to screen all children within 45 days of enrollment and several of the largest multisite programs had voluntarily implemented universal screening. The survey for FCC providers did not include questions specific to screening; however, FCC providers are well situated to educate families about the need for screening and developmental surveillance.

[7]In Figures 16–19, data are weighted by program capacity. Weighted scores reflect the percentage of total seats across programs that answered the surveys. When programs vary widely in size, weighted data are a more accurate reflection of the experience of a typical child in our early childhood system. For example, 38 center program directors (26% of programs that answered the survey) indicated their program does developmental screening with all enrolled children. Because these 38 programs included the largest programs in the state, their collective enrollment comprised 42% of all children served by programs that answered the survey. In other words, the 26% of programs that did universal developmental screening served 42% of all children.

Figure 17.
Screening Practices in Centers and FCIL Programs



Note: Bars represent the percentage of total seats in each sector. Valid responses: Centers (*n* = 145–146), FCIL (*n* = 6).
Source: COF (2017).

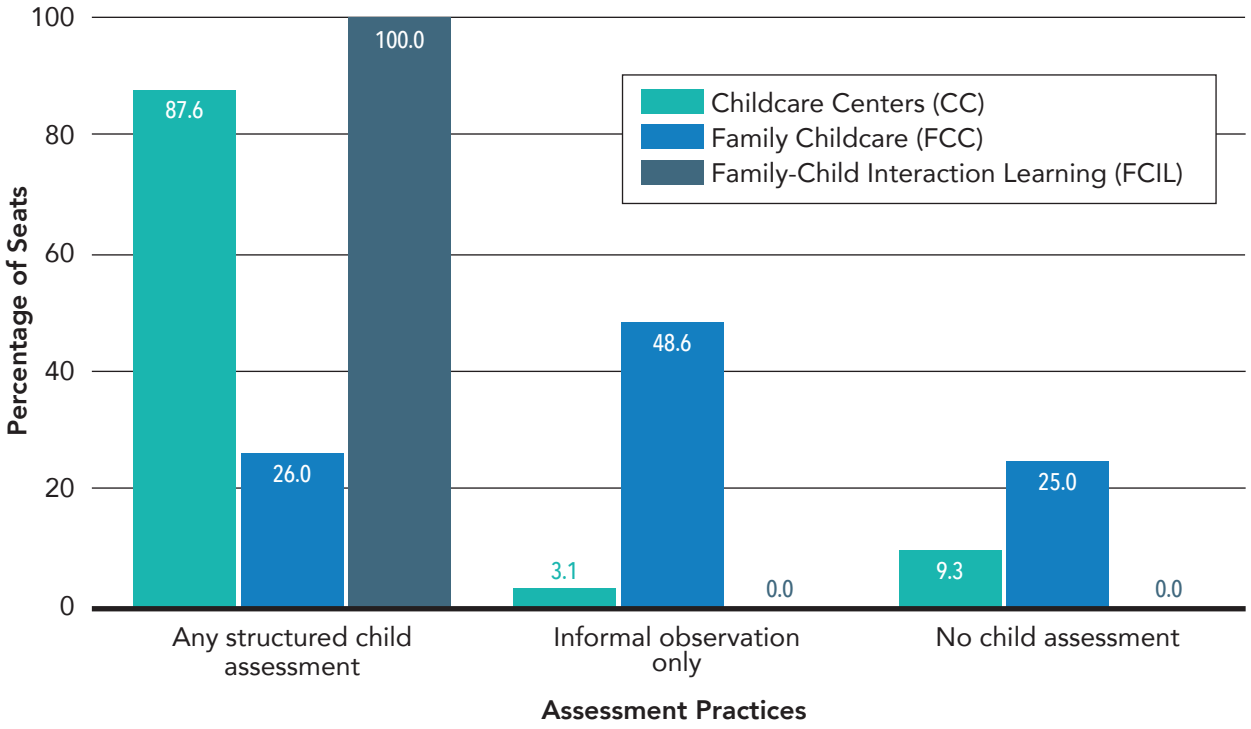
Child Assessment

High quality programs collect ongoing, developmentally-appropriate assessment of children's motor, cognitive, and social-emotional skills for use in planning and individualizing learning activities and monitoring children's progress over time. Data on child assessment practices came from the provider surveys (see Figure 19 and Tables 6 and 7).

Figure 18 shows whether programs collected any type of structured assessment data, relied on informal observation notes only, or collected no child assessment data. Structured assessment included portfolios, teacher ratings, and norm- or criterion-referenced assessments. Structured assessment data were collected on 88% of children in centers, 100% of children in FCIL programs, and 26% of children in FCC. FCC providers were the most likely to use informal observation as the only assessment strategy.

In terms of specific assessment tools, all providers made use of informal observation (see Tables 6 and 7). Among the various structured assessment tools, centers were most likely to use teacher-designed portfolios, the Work Sampling System, and Teaching Strategies Gold. FCIL programs made extensive use of portfolios and standardized assessments.

Figure 18.
Child Assessment Practices by Sector



Note: Bars represent the percentage of seats in each sector. Valid responses: Centers (*n* = 159), FCC (*n* = 174), FCIL (*n* = 6).
Source: COF (2017).

Table 6.

Child Assessment Measures Used in Center and FCIL Programs (Number of Programs and Percentage of Programs and Seats by Sector)

Measure	No. Programs	% Programs	% Seats
CENTERS			
Informal observation and notes	92	65.2	51.1
Teaching Strategies Gold	32	22.7	37.4
High Scope	4	2.8	1.8
Standardized tests	12	8.5	24.5
Performance probes	2	1.4	0.6
Teacher-designed portfolios	76	53.9	33.7
Work Sampling System	36	25.5	25.7
Other child assessment tool	33	23.4	33.3
FAMILY-CHILD INTERACTION LEARNING (FCIL)			
Informal observation and notes	6	100	100.0
Teaching Strategies Gold	0	0.0	0.0
High Scope	0	0.0	0.0
Standardized tests	5	83.3	98.1
Performance probes	0	0.0	0.0
Teacher-desgined portfolios	5	83.3	98.1
Family-designed portfolios	2	33.3	32.8
ASQ	6	100.0	100.0
ASQ_SE	5	83.3	84.1
Other child assessment tool	1	16.7	22.2

Note: Percentages sum to more than 100% because response choices were not mutually exclusive. Valid responses: Centers (n = 141), FCIL (n = 6). Source: COF (2017).

Table 7.
Child Assessment Measures Used by FCC Providers (Numbers of Providers and Percentage of Providers and Seats)

Measure	No. Providers	% Providers	% Seats
Not on a regular basis	54	32.3	32.3
Informal observation and note-taking	105	62.9	64.4
Portfolios or samples of children's work	43	25.7	25.9
Screening or formal assessment	11	6.6	7.8

Note: Percentages sum to more than 100% because response choices were not mutually exclusive. Valid responses: *n* = 167.
Source: COF (2017)

Classroom Assessment

High quality programs assess the quality of their classrooms and/or the effectiveness of individual teachers. Classroom assessment is a key activity for professional development, self-reflection and continuous quality improvement. Results from survey items pertaining to classroom and teacher assessment is shown in Figure 19 and Table 8. FCC providers were not asked about classroom assessment.

Figure 19 shows a summary of classroom assessment practices. The category of "Any structured assessment" included observation-based rating scales like the CLASS or ECERS, curriculum-specific fidelity tools, and program-designed checklists or rubrics. Among center-based programs, classroom assessment was a less widespread practice than the assessment of individual children. Somewhat less than two-thirds (63%) of seats were in centers that did some form of structured assessment, while 13% of seats were in centers that used only informal observation to evaluate classroom quality. It is surprising, and of likely concern, that 24% of children were enrolled in centers that made no efforts to assess classroom quality. In contrast, 100% of FCIL seats were in programs that assessed classroom quality.

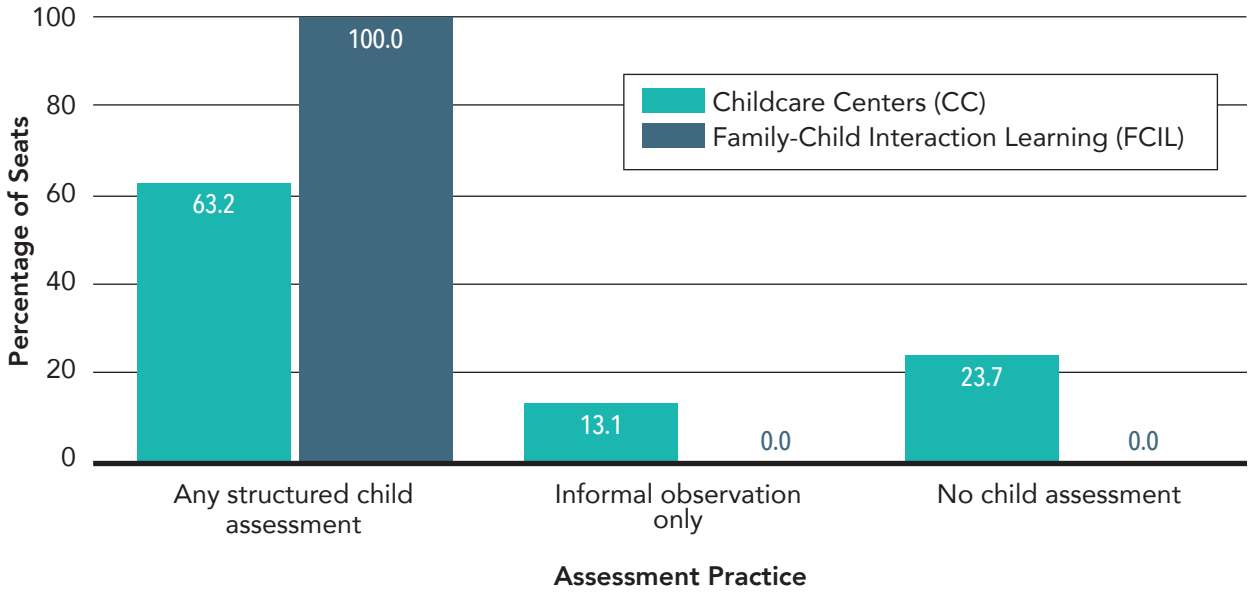
The specific classroom assessment tools used by different programs are shown in Table 8. Many programs used multiple tools. Among centers, informal observation, the CLASS rating scale, and program-designed tools were the most common choices. Among FCIL programs, informal observation, curriculum- and program-specific fidelity measures, and the CLASS were widely used.

Family Engagement Practices

A final area of program quality is that of family engagement practices. Family engagement refers to the extent to which programs are welcoming to families of diverse backgrounds, include families as active participants in program governance and decision-making about their own child, enable two-way communication, and provide information about childrearing issues such as effective parenting and access to community services.

Figure 19.

Classroom and Teacher Assessment Practices for Centers and FCIL Programs



Note: Bars represent the percentage of total seats. Valid responses: Centers (*n* = 139), FCIL (*n* = 6). Source: COF (2017).

Table 8.

Classroom and Teacher Assessment Measures Used by Centers and FCIL Programs (Number of Programs and Percentage of Programs and Staff by Sector)

Measure	Centers			FCIL		
	No. of Programs	% Programs	% Staff	No. of Programs	% Programs	% Staff
ECERS	7	5.0	2.4	2	33.3	10.6
ITERS	4	2.9	1.2	2	33.3	10.6
CLASS-IT	4	2.9	14.1	2	33.3	32.8
CLASS-PreK	15	10.8	45.3	2	33.3	32.8
TPOT	0	0.0	0.0	0	0.0	0.0
Program designed tool	27	19.4	15.5	2	33.3	51.2
Informal observation and notes	61	43.9	45.6	3	50.0	67.2
Curriculum fidelity instrument[a]	n/a	n/a	n/a	5	83.3	100.0
Other	16	11.5	19.9	1	16.7	22.2

Note: Percentages sum to more than 100% because programs may use multiple assessment tools. Valid responses: Centers (*n* = 139), FCIL (*n* = 6). Source: COF (2017). [a]This item was not included on the Center director survey.

Family engagement practices for centers and FCIL programs are shown in Table 9. For centers, the most common cluster of practices, reported by 73% to 92% of programs, were those comprising a traditional perspective on family engagement (e.g., parent-teacher conferences, asking parents to volunteer in the classroom, distributing information about child rearing). About half of centers supported families as teachers through actions like offering a lending library, hosting parent workshops, or working with families to set children's learning goals. The least frequent cluster of practices (reported by 11–38% of programs) were those related to either giving families a role in program governance or family-oriented outreach, such as home visits and the direct provision of family social

Table 9.
Family Engagement Practices for Center and FCIL Programs (Numbers and Percentage of Programs by Sector)

Practice	No.	%
CENTERS		
Parent-Teacher Conferences	146	91.8
Three or more communication modes	145	91.2
Families and staff jointly set learning goals for each child	87	54.7
Families share their knowledge, skills, time, or materials	116	73.0
Modification of curriculum to include family values, language culture, and living conditions	93	58.5
Home Visits	18	11.3
Family representatives on governing boards/committees	54	34.0
Family input on curriculum or classroom practices and policies	36	22.6
Family input on program reviews/evaluations or continuous quality improvement	61	38.4
Workshops, guest speakers, one-on-one support	87	54.7
Lending library books/materials	80	50.3
Social events for families	129	81.1
Families are given information or resources on topics related to child development, parenting etc.	134	84.3
Families are given written or oral referrals to community services and programs	116	73.0
Programs provides support services for family or adult wellbeing such as adult education, counseling, or job training	19	11.9
Other	7	4.4

(Continued)

Table 9 *(Continued)*

Practice	No.	%
FAMILY-CHILD INTERACTION LEARNING (FCIL)		
Parent-Teacher Conferences	4	66.7
Three or more communication modes	5	83.3
Families and staff jointly set learning goals for each child	4	66.7
Families share their knowledge, skills, time, or materials	5	83.3
Modification of curriculum to include family values, language culture, and living conditions	6	100.0
Home Visits	5	83.3
Family representatives on governing boards/committees	3	50.0
Family input on curriculum or classroom practices and policies	5	83.3
Family input on program reviews/evaluations or continuous quality improvement	6	100.0
Workshops, guest speakers, one-on-one support	6	100.0
Lending library books/materials	5	83.3
Social events for families	6	100.0
Families are given information or resources on topics related to child development, parenting etc.	5	83.3
Families are given written or oral referrals to community services and programs	5	83.3
Programs provides support services for family or adult wellbeing such as adult education, counseling, or job training	4	66.7
Staff talk to family members on all or most days about their child's day in the program	6	100.0
Other	1	16.7

Note: Valid responses: Centers (*n* = 159), FCIL (*n* = 6). Source: COF (2017)

services. It should be noted that, with the exception of Head Start and Early Head Start, few programs included comprehensive family support in their program mission.

Consistent with their mission, FCIL programs reported enacting most of the recommended family engagement practices. Compared to centers, FCIL programs were more likely to offer direct family support services, make home visits, modify practices to meet family needs, and include families in program governance.

Family engagement practices for FCC providers are shown in Table 10. On most items that were parallel across sectors, FCC providers had lower rates compared to centers and FCIL

programs. Still, a substantial minority of FCC providers used a wide range of desirable family-friendly strategies. Given the intimacy of the FCC setting and the fact that families may stay with the same provider for many years, FCC providers are in a position to develop trusting relationships with the families they serve and a thorough understanding of each family's situation. This ultimately suggests that FCC is a valuable and underutilized resource for family engagement and support.

Understanding Variation in Quality-Relevant Practices

Finally, we attempted to identify which programs were mostly likely to employ the kinds of practices seen in higher quality programs. We assessed centers and FCC providers only, as the number of FCIL programs was too small to allow for group comparisons.

Among childcare centers, we predicted that Head Start and Early Head Start (HS/EHS) programs and centers with an early childhood accreditation would be higher than average on survey items relating to best practices. This prediction was based on the content and rigor of both HS/EHS program performance standards and accreditation standards. We divided center programs into three groups—HS/EHS, accredited in early childhood, and other—and compared these groups on selected items from the center director survey. Several differences were found for screening, classroom assessment, and family engagement. The general pattern was for highest scores among HS/EHS, intermediate scores for accredited programs, and lowest scores for other program.

Table 10.
Family Engagement Practices for FCC Providers (Number of Providers and Percentage of Providers and Seats)

Practice	No. Providers	% Providers	% Seats
FCC PROVIDERS			
Talk to parents each day	166	97.6	97.7
Families and staff jointly set learning goals for each child	93	54.7	55.6
Families share their knowledge, skills, time, or materials	79	46.5	46.7
Social events for families	45	26.5	27.8
Lending library of books or materials	63	37.1	36.9
Provide resources on topics related to child development, parenting, etc.	125	73.5	74.8
Provider(s) help families find child services	81	47.6	51.3
Provider(s) help parent find adult services	56	32.9	36.0
Other	8	4.7	4.4

Note: Valid Responses: *n* = 167. Source: COF (2017).

As mandated, HS/EHS reported universal screening in all five domains of health and development. Accredited programs were intermediate between HS/EHS and other programs—about one-third of accredited programs conducted universal developmental and socio-emotional screening, compared to 20% and 16% of other centers.[8] All HS/EHS programs collected some form of structured classroom assessment data, compared to 53% of accredited programs and 31% of other programs. HS/EHS programs reported an average of 14.75 family engagement strategies, compared to 9.8 on average for accredited programs and 7.6 for other programs. Again, this likely relates to HS/EHS performance standards and mandates to provide comprehensive education, health, and family support services. Compared to other programs, accredited sites were more likely to engage families in governance issues and to involve families in their child's instruction. There were no systematic differences between the three groups for reported teacher credentials or child assessment practices.

For the FCC sector, we used provider education as the predictor of quality-relevant practices. Here we divided providers into two groups—those with formal education credential (i.e., a CDA or college degree) and those with no such credentials. Credentialed providers were more likely to collect information on children's learning and development, including informal observation, portfolios, and formal assessments. Credentialed providers differed on only one of the nine family engagement strategies: These providers were twice as likely to host a lending library for families to borrow books or toys. This suggests that provider education is associated with some aspects of the quality of the FCC environment, in particular, a focus on monitoring children's progress.

What We Know and What We Do Not Know

To summarize the findings on program quality:

- **Hawai'i is about halfway to the goal of achieving the level of teacher qualifications recommended by national organizations.** Our state recently received high marks from the Center for Child Care Employment for "making headway" on staff qualifications (Whitebook, McLean, & Austin, 2016, p. 93).
- **Hawai'i early childhood programs should be commended for their commitment to quality as evidenced by participation in voluntary accreditation.** A substantial portion of seats were in accredited programs. In fact, Hawai'i is among the states with the highest percentage of accredited centers (Child Care Aware American, 2016b)—an impressive achievement considering that the state does not provide incentives for accreditation, such as differential subsidy levels or higher rankings on a quality rating and improvement system. FCIL programs have been especially creative in seeking recognition from relevant accrediting bodies in the absence of a national organization specific to the family-child interaction model.
- **There was considerable variation in screening, child assessment, and classroom assessment practices.** HS/EHS, FCILs, and accredited centers generally reported strong practices in these areas. However, most children statewide did not receive sensory, health, or developmental screenings in their programs. As a result, Hawai'i is missing a valuable opportunity for the early detection and remediation of child

[8]All group differences discussed in this section were statistically significant, with results varying from $.02 < p < .0005$.

health and learning concerns. Also of concern is the number of center-based programs that did no evaluation of teacher or classroom quality. Finally, about 9% of children in centers, and a larger share of those in FCC had teachers who did not monitor their individual interests, skills, or progress. Thus, it appears that some programs would benefit from assistance in improving assessment practices. There was also variation in family engagement practices. Again, HS/EHS, FCILs, and accredited centers tended to show strengths in this area.

Remaining questions not answered by our data include the following:

- **How do Hawai'i programs stand on rigorous and objective metrics of quality, especially process quality?** Our survey provided only limited self-report data on this crucial issue. Although individual programs may collect sound data in this area, there is currently no source of universal and reliable data on program quality in our state. Some states with a quality rating and improvement system (QRIS) collect and post data that rank all centers or providers according to level of overall quality. Hawai'i could consider implementing a QRIS or a more streamlined mechanism for documenting program quality. Modifications to the current state childcare workforce registry could also be considered, such as requiring regular updates of the educational credentials of all staff and providers listed.
- **To what extent is the range of quality seen in our early childhood programs associated with differences in child outcomes?** Currently, it is not known whether certain programs in the state or particular aspects of program services are especially effective in promoting positive child outcomes. An evaluation of program effectiveness requires child-level data on program participation, quality of the program(s) in which that child enrolled, child characteristics at program entry, and child outcomes at the time of program exit or kindergarten entry. Without a comprehensive early childhood database, similar to the K–12 longitudinal data system, it is difficult for the state to answer more than basic questions about outcomes of our early childhood system.
- **What is the range of curricula used in our early childhood programs?** The use of evidence-based, sequenced, and developmentally appropriate curricula with rich and engaging content is an important component of program quality. The present evaluation did not address curriculum choice or implementation fidelity.
- **Does the public understand what constitutes a high quality program?** Is quality an important factor in making childcare decisions? These issues were also beyond the intended scope of the present evaluation. Local data indicate that quality was the single most important factor in parents' selection of childcare arrangements, with preparation for kindergarten also of high concern (Early Childhood Action Strategy, 2016). However, national data suggests that parents are not well informed about what constitutes quality, and as a result, may not be discerning consumers when it comes to evaluating available childcare choices (Harvard T. H. Chang School of Public Health, 2016). Consumer education for parents and state lawmakers on the components and importance of program quality appears warranted.

Workforce Issues

Teachers, caretakers, and other classroom staff play an essential role in supporting children's well-being and potential. In this section, we describe the number and kinds of early childhood staff detailed by survey respondents, along with information on work conditions and professional development opportunities.

Staffing and Benefits

Center and FCIL program directors reported a total of 2,722 and 246 staff positions, respectively. Among FCC providers, 73% had no assistance with the childcare business, 23% were helped by a household member, and only 3% had a paid employee. A breakdown of staff by position type is shown in Table 11. For centers, the category of "Other" included curriculum specialists, coaches, and other professionals providing support for teachers or families. Most FCIL programs used different position titles, but had staff with responsibilities similar to classroom lead teachers and assistants. FCIL programs had a high proportion of Other staff, many of whom were responsible for working directly with parents and other adult family members.

Additional information on staff positions is shown in Table 12. With the exception of center aides, the majority of positions were full-time. Stable positions were defined as those filled by the same person for the duration of the past school year; this is the inverse of staff turnover. Roughly 70% of staff positions were stable. Finally, very few center staff were hired with a waiver of DHS minimum qualifications. On all three indicators, the position of center aides was the most distinctive: Aides were the most likely to work part time, be unstable, and hired under a waiver.

Employee benefits are shown in Figure 20. About half of center staff had traditional benefits (medical, dental, paid vacation, and sick leave) regardless of full- vs part-time status. Life

Table 11.
Staff Positions for Centers and FCIL Programs (Number and Percentage of Positions by Type and Sector)

Position	Centers		FCIL	
	No.	%	No.	%
Lead Teacher	1,068	39.2	57	23.2
Assistant Teacher	684	25.1	94	38.2
Aide	688	25.3	0	0.0
Other	282	10.4	95	38.6
Total Staff	2,722	100.0	246	100.0

Note: Valid responses: Centers (*n* = 150), FCIL (*n* = 6). Source: COF (2017).

Table 12.
Staff Characteristics for Centers and FCIL Programs (Number of Positions and Percentage of Total Positions by Sector)

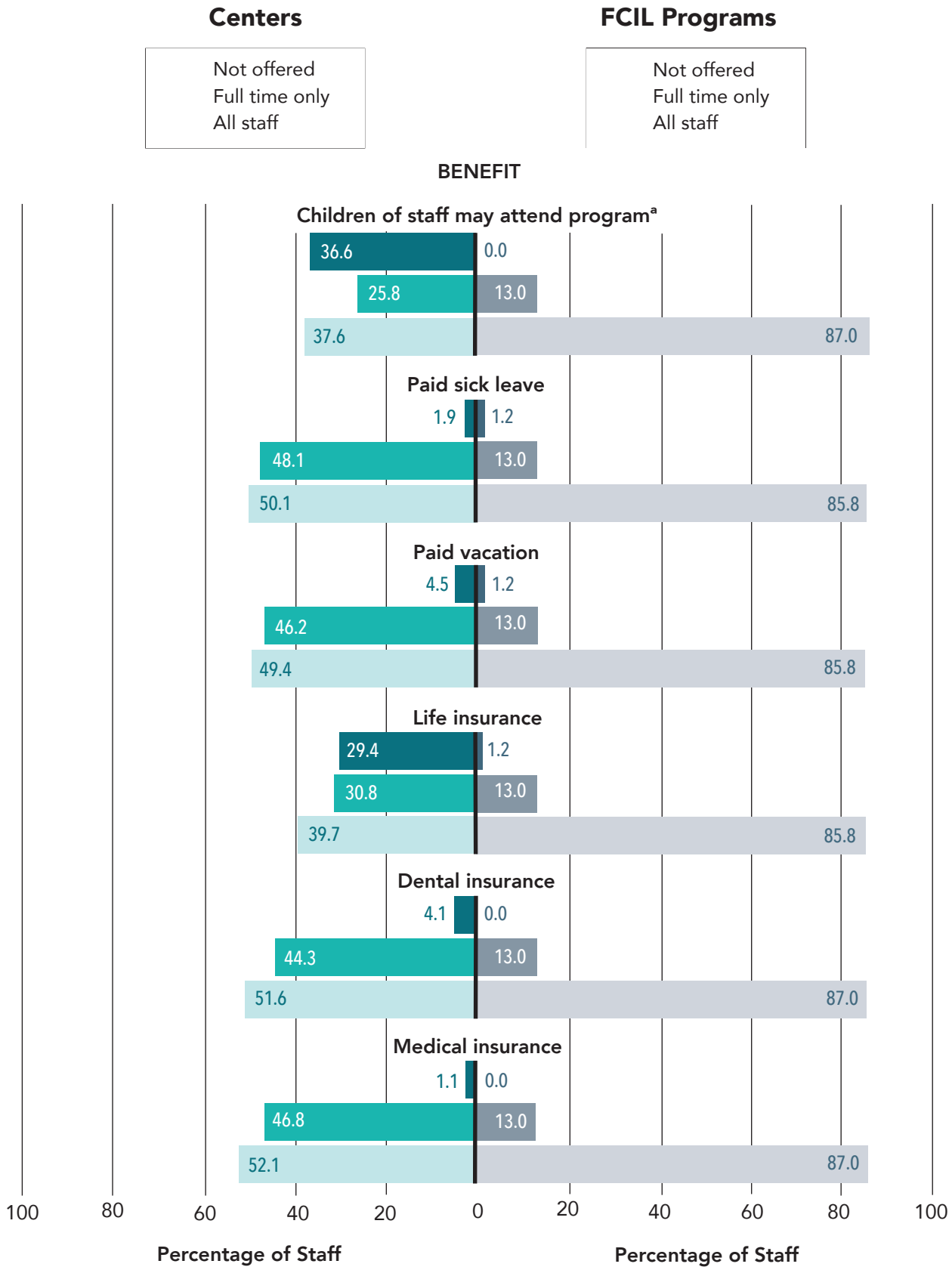
Position	Centers				FCIL		
	No. Programs	% Full Time	% Stable	% Waiver	No. Programs	% Full-Time	% Stable
Lead Teacher	1068	89.9	69.6	2.4	57	73.7	76
Assistant Teacher	684	83.5	68.3	1.6	94	77.7	84.1
Aide	688	58.1	47.4	5.4	0	0.0	0.0
Other	282	78.4	70.2	2.8	95	72.6	69.2

Note: FCIL programs were not asked about waivers. Valid responses: Centers (n = 150), FCIL (n = 6). Source: COF (2017).

insurance and enrollment for employee's children were less common benefits. In general, FCIL programs provided benefits to more of their staff than did centers.

Program directors' perceptions of hiring and retention issues are shown in Figure 21. About half of center directors were satisfied with applicant qualifications, while FCIL directors were much less likely to feel that applicants had suitable prior experience. Directors in both sectors had more positive views about the skills of their actual hires. Securing applicants to whom offers were made was also difficult. Half of FCIL directors and 58% of center directors indicated that applicants turned down job offers based on wages or benefit packages. Fewer directors indicated that staff retention was a challenge, especially within FCIL programs. Several directors commented on staff members' passion for serving children and their own success in creating a rewarding work environment. The average reported time to make a hire was 2.1 months for centers and 1.7 months for FCIL programs (not shown in Figure 21).

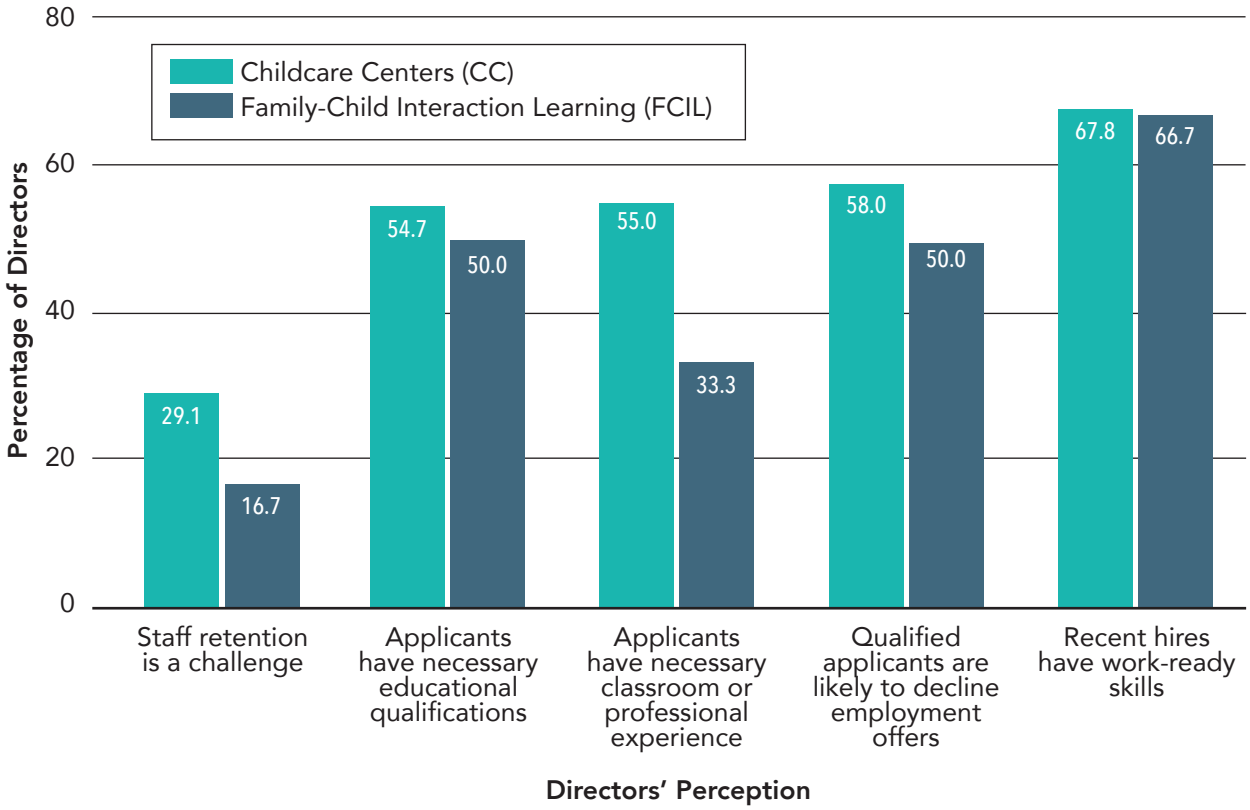
Figure 20.
Staff Benefits for Center and FCIL Programs



Note: [a]Either free or reduced tuition. Valid responses: Centers (n = 133–150; FCIL (n = 6). Source: COF (2017).

Figure 21.

Perceptions of Staff Recruitment and Retention for Centers and FCIL Programs



Note: Bars represent the percentage of directors who answered "Agree" or "Strongly agree." Valid responses: Centers (*n* = 152), FCIL (*n* = 6). Source: COF (2017).

Staff Supervision and Professional Development

Professional development supports provided to center and FCIL staff are shown in Table 13. It was almost universal for staff to receive some form of in-house training, on average 21 hours per year in centers and 25 hours per year in FCIL programs (hours are not shown in Table 13). Almost all staff were able to attend conferences, outside workshops, or continuing education courses with no out-of-pocket cost and often on paid time. Reimbursement for taking formal college courses, and particularly paid time off to attend college classes, was less common. Employees of FCIL programs were more likely to receive professional development support than were center staff. Almost all FCIL staff also had opportunities to work with kūpuna or cultural practitioners.

Professional development activities for FCC providers are shown in Table 14. Professional development was a very different issue for FCC providers, who must pursue such opportunities on their own. Three of the four most common activities were informal, self-directed activities such as looking for resources online or seeking advice from other providers. Attending workshops, conferences, and informal courses was also common—and presumably done to meet annual continuing education hours required by DHS. About 8% of providers had taken college courses in the past year.

Table 13.

Professional Development Support for Center and FCIL Programs (Number of Programs and Percentage of Programs and Staff by Sector)

Support Provided	Centers			FCIL		
	No. Programs	% Programs	% Staff	No. Programs	% Programs	% Staff
In-house training	132	87.4	96.7	6	100.0	100.0
Reimbursement for cost of professional conferences, workshops, or non-credit courses	117	90	93.3	6	100.0	100
Paid time to attend professional conferences, workshops, or non-credit courses	89	68.5	79.6	6	100.0	100
Reimbursement of tuition cost for job-related college courses	69	53.1	76	4	66.7	85.8
Paid time to attend college courses	29	22.3	43.1	4	66.7	85.8
Training/collaboration with cultural practitioners[a]	n/a	n/a	n/a	6	100.0	100.0
Training/collaboration with kūpuna or those with expertise in intergenerational programs[a]	n/a	n/a	n/a	5	83.3	98.8

Note: [a]This question was not included on the Center director survey. Due to high rate of missing data for Centers, interpret results with caution. Valid responses: Centers (*n* = 151 for in-house training, *n* = 130 for other items), FCIL (*n* = 6). Source: COF (2017)

Table 14.

Professional Development Activities of FCC Providers in the Past 12 Months (Number and Percentage of Providers)

Activity	No.	%
Attended workshops, informal courses, or conferences	134	79.8
Taken a college class	14	8.3
Member in a professional group	23	13.7
Used internet, video, or printed resources	151	89.9
Asked for advice from a professional in the field	84	50
Met with other childcare providers to exchange ideas	101	60.1
Met with a coach or consultant	11	6.5
Worked on earning or renewing CDA	13	7.7
Other	23	13.7

Note: Valid responses: *n*=174. Source: COF (2017).

Staff in center-based and FCIL programs may also refine their skills through the mechanism of ongoing supervision. Almost all staff (87–100%, depending on the item) were provided with formal performance reviews, feedback on their teaching, opportunities for self-reflection, and consultation on specific problems or issues. In most cases, supervision was provided by the program director or site supervisor. Other persons involved in ongoing supervision included program specialists/coaches, peers, and outside consultants. Within center-based programs, about 40% of teachers had access to peer mentoring. Although a similar percentage had assistance from a coach or program specialist, that figure is somewhat deceiving: Less than 20% of programs used specialists or coaches; however these tended to be the very large programs that employed a disproportionate number of teachers statewide. Compared to centers, FCIL programs made greater use of in-house program specialists for staff support and less use of peer-to-peer support. Both sectors made relatively modest use of outside consultants.

"Our pay rate is not a living wage."

—Center director

When asked to comment on their experiences arranging for professional development, respondents stressed the difficulty of scheduling training time during the work day or expecting staff to attend training outside of their regular work day. Lack of local trainers, finding PATCH courses that were a good match with staff needs, and providing individualized professional development were also mentioned. Successes included providing assistance with CDA and degree completion, and team-oriented, in-house supports such as staff selection of training topics, visits to other programs, and peer-to-peer consultation. Successful in-house approaches were seen as increasing staff knowledge and confidence.

Of possible concern was the finding that a small number of centers—all of which had very few teachers—provided no in-house training, formal performance evaluations, or other forms of supervision and feedback. This suggests the need to identify and support this small group of struggling directors to become more effective supervisors and mentors for their classroom staff.

What We Know and What We Do Not Know

To summarize the findings on staffing and professional development support:

- **Most center-based and FCIL program staff had access to at least a moderate degree of support for continued professional development and effective performance.** This included ongoing supervision, in-house training, release time and/or funding for conferences, workshops, or continuing education courses. Support for pursing higher education was less widespread, especially tuition assistance.
- **Professional development was a challenge for FCC providers,** both in terms of identifying appropriate experiences and being able to make time in their already long work days. This is a group for whom alternatives to the traditional delivery format of face-to-face workshops is especially important.

Remaining questions not answered by our data include the following:

- **To what extent are existing professional development experiences well-utilized and effective?** First, professional development opportunities may be available but not fully used. Our survey did not ask how many teachers took advantage of benefits like tuition reimbursement or conference registration. The hours, location, and delivery format of training opportunities can all affect participation. With busy lives and competing demands, staff may not voluntarily pursue opportunities outside of the work day. Second, we know little about the outcomes of in-house training or continuing education offerings in our community. The literature on effective professional development indicates that focused, research-based content; practice, coaching, and feedback on the use of new techniques; and creating a community of self-reflective and mutually-supportive learners are all factors needed to successfully change teacher knowledge and behavior (DeBaryshe, 2015; Phillips et al., 2017). The present study was not intended to collect this level of detailed information about local professional development opportunities.
- **Is early childhood seen as a valued and viable career?** Despite its indisputable value to society, the early childhood field is characterized by low pay and benefits, limited opportunities for career advancement, and a demoralizing lack of public regard for the dedication and professionalism of those who choose this line of work. For example, almost half of childcare workers and one-third preschool teachers nationally earn so little that they must rely on financial benefit programs like food stamps or the earned income tax credit to make ends meet (Whitebook et al., 2016). The present evaluation did not address wages, financial distress, job satisfaction, or career plans. For Hawai'i, as for all states, the well-being of the early childhood workforce is a pressing issue.

Program Expansion

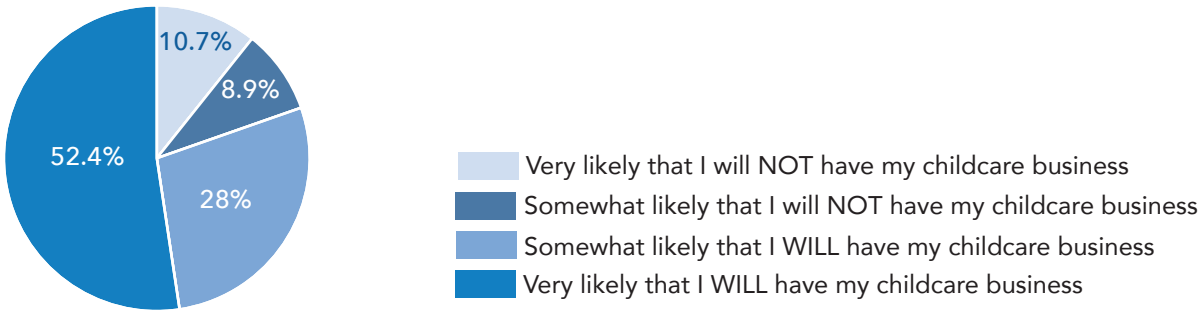
To what extent are current programs and providers ready to play a role in growing our early childhood system? In this section, we present data on the level of interest in program expansion, as well as key challenges or obstacles to serving more children or providing a wider range of services.

Interest in Expansion

Survey respondents were asked about their level of interest in changing the scope of their current program (see Table 15). Although the specific questions asked differed across the three sectors, a striking pattern emerged. All FCIL programs wanted to serve more children and families, often by adding new neighborhood sites or by serving new client groups. A substantial minority of FCC providers were open to the idea of adding drop-in care and potentially opening their own group childcare home or childcare center. In contrast, the large majority of center directors reported no interest in changing their scope of services. Just under 20% of directors were interested in serving more toddlers and preschool-aged children, but only 11% were open to the idea of adding infant seats. Even fewer directors were interested in adding drop-in care or nontraditional hours—the kinds of services that could be useful to many working parents.

FCC providers were also asked whether they expected to still be running their business three to five years in the future (see Figure 22). Most FCC providers (80%) said they were somewhat or very likely to still be in business, and the majority of respondents provided written comments about their future plans. The most common reason for continuing (37%) was personal enjoyment of this line of work. Many respondents wrote, "I love this business!" The most common reasons for leaving FCC were retirement (14%) and changing life circumstances such as moving, family responsibilities, or plans to enter a new field of work (20%).

Figure 22.
FCC Providers Expectations For Their Business 3 to 5 Years in the Future



Note: FCC (*n* = 168). Source: COF surveys.

Challenges of Expansion

Center and FCIL program directors were asked about potential challenges to expansion or reasons why their program may not be interested in expanding services. These results are shown in Table 16. For center directors, lack of space or appropriate facilities was the most common reason for not wanting to increase the number of seats, followed by lack of staff and cost. For most centers, the questions about converting to a full-day or year-round schedule were not applicable, as programs already operated that way. The most common reason for not wanting to offer drop-in care or evening or weekend hours was that such services were not part of the program mission; lack of staff and current success of the program were the next most common reasons. FCIL programs, funded solely by

Table 15.
Interest in Program Expansion (Number and Percentage of Programs or Providers by Sector)

Area of Possible Expansion	No.	%
CENTERS[a]		
Seats for children under 12 months	17	11.2
Seats for toddlers 12–35 months	30	19.7
Seats for 3-year-olds	30	19.7
Seats for 4- and 5-year-olds	28	18.4
Changing from part-day to full-day hours	5	3.3
Changing to a year-round calendar	7	4.6
Adding night or weekend hours	1	0.7
Adding drop-in care	6	3.9
FCIL[a]		
Serving more children and families	6	100.0
Opening additional FCIL sites	5	83.3
Serving a new or additional demographic group	3	50.0
FCC[b]		
Increasing the number of hours per week I offer care	16	9.6
Adding or increasing night or weekend hours	21	12.7
Adding drop-in care	71	42.8
Starting a licensed infant-toddler or preschool center	39	23.5

Note: Items and response choices varied across sectors. [a]Tabled values are respondents answering "Yes, possibly" or "Yes, already planning this change." [b]Tabled values are respondents answering "Yes or possibly." Valid responses: Centers (n = 152), FCIL (n = 6), FCC (n = 166). Source: COF (2017).

external grants, were most limited by cost. To offer more services would require an unlikely infusion of additional grant money. Lack of space and staff were also common challenges. It was striking how few respondents in either sector listed lack of need as a reason for not considering expanding. Directors were almost unanimous in agreeing that their families and the community at large needed increased access to seats and flexible care options.

Many respondents also provided written comments on this section of the survey (77% of center directors and 83% of FCIL directors). Most center directors said they simply had no physical space in their current facility. The prohibitive cost and burdensome permitting process needed for renovation, construction, new rental space, or land purchases were also discussed. The cost and effort required to recruit and train new staff were of particular concern for center-based programs not already serving infants and toddlers. FCIL directors emphasized the need for sustainable funding. Identifying new staff with the right mix of skills and "heart" was a secondary concern.

Table 16.

Obstacles Relating to Program Expansion for Centers and FCIL Programs (Percentage of Programs by Sector)

	Facilities or Space	Staffing	Cost	Program Already Successful	Not in Mission	Not Needed by Program Familes	Not Needed in Commu-nity
CENTERS							
Seats for infants under 12 months	52.0	32.2	35.5	15.1	20.4	2.6	0.0
Seats for toddlers 12–35 months	45.4	25.7	23.0	10.5	15.8	0.7	0.0
Seats for 3-year-olds	30.9	13.8	12.5	8.6	1.3	0.0	0.0
Seats for 4- to 5-year-olds	27.6	11.8	12.5	8.6	0.7	0.0	1.3
Part day to full day hours	3.9	4.6	5.9	9.9	2.6	3.3	0.0
Year-round calendar	5.3	12.5	10.5	12.5	5.9	2.0	1.3
Night or weekend hours	13.2	25.7	17.8	21.1	38.8	11.8	3.9
Drop-in care	10.5	19.7	9.9	20.4	33.6	6.6	2
Other	2.0	2.6	1.3	7.9	3.9	1.3	0.0
FCIL							
Serving more children/families	50	50	83.3	16.7	0.0	0.0	0.0
Operating additional FCIL sites	50	50	83.3	0.0	0.0	0.0	0.0
Serving a new demographic	0.0	0.0	33.3	0.0	16.7	0.0	0.0

Note: Tabled values are the percentages of programs indicating "Yes." Percentages sum to more than 100% because repsondents were asked to check all choices that applied. Valid responses: Centers (n = 152), FCIL (n = 6). Source: COF (2017).

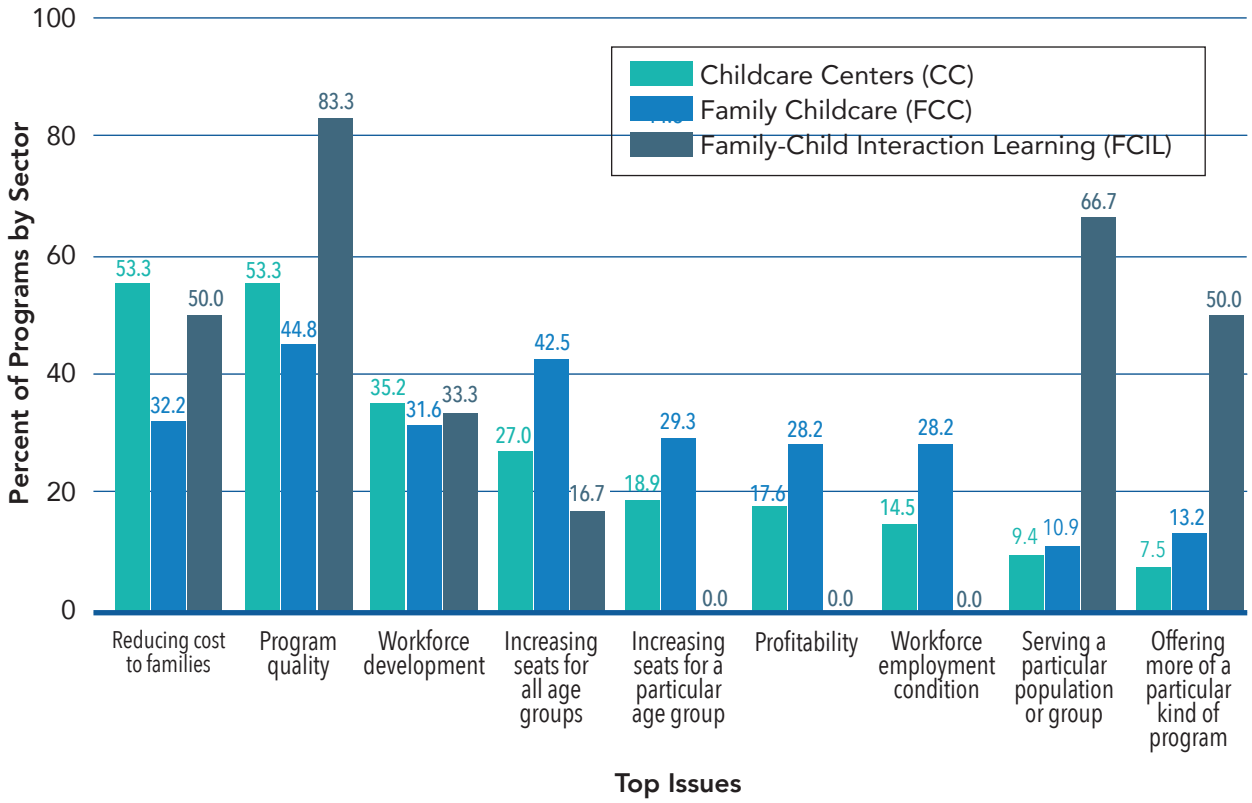
Perspectives on the Early Childhood System

Respondents were asked to reflect on issues pertinent to the design of a well-functioning early childhood system. All three sectors were asked to prioritize the needs for early childhood programs in their community. In addition, open-ended comments relating to the viability of each sector and its role in the statewide early learning system were solicited. In this section we summarize respondents' perspectives on sector-specific issues and system-wide priorities.

Ranking Priority Needs for Early Childhood Programs

Respondents were asked to check their top concerns relating to the statewide early childhood system from a list of ten choices. Results are shown in Figure 23. Center directors and FCC providers identified the same four key issues: Decreasing costs to families, increasing program quality, workforce development, and increasing the number of seats. FCIL program directors included quality and cost in their top-ranked concerns along with two priorities specific to their sector—serving families caring for their children at home and increasing FCIL seats. FCC providers also gave relatively high rankings to three items relevant to their unique situation—seats for infants, profitability, and workforce conditions.

Figure 23.
Key Issues for Statewide Early Childhood System



Note: Respondents were asked to select the three most important issues. Percentages will not sum to 100. Valid responses: Centers (*n*= 159), FCC (*n* = 174), FCIL (*n*= 6). Source: COF (2017).

Perspective of Center Directors

Center directors were asked to comment on the challenges and opportunities that an increase in EOEL public preschool classrooms might create for their own programs. Five themes emerged in this collection of responses. The first theme was the **benefit of EOEL** for the community, especially the provision of free preschool for low-income children (17% of comments). The predominant theme, however, was that EOEL pre-K provided unwelcome **competition** for existing providers, resulting in decreased enrollment and even the threat of being driven out of business (41% of comments). The fear was that EOEL would "eliminate the need for private preschools." Other programs described **coping** successfully with this competition (15% of comments). These programs either adapted by increasing enrollment of 2- and 3-year-old children or felt they served a niche (e.g., small size, a religious orientation, a longer school day, offering summer hours) that families would continue to seek despite the availability of EOEL seats. A fourth theme was **criticism of how EOEL pre-K** was run (17% of comments). This included perceptions that EOEL classrooms were not developmentally appropriate and/or were staffed by teachers poorly versed in early childhood, that the quality of EOEL classrooms had yet to be demonstrated, and the belief that EOEL classroom should be licensed and inspected by DHS. A final theme (14% of comments) addressed **solutions to perceived competition**. This included strategically opening new EOEL classrooms in childcare deserts, or at least not in close proximity to existing community providers. Another solution was to rely on Head Start to serve families below the poverty line while positioning EOEL to serve low- and moderate-income families not financially eligible for Head Start.

> "We are struggling with being able to keep our program affordable for families and still offer a high quality preschool. We are behind in our rent and we do not want to raise our tuition, but we are not sure we can afford to keep on operating."
>
> —Center director

Finally, directors were invited to share comments on issues of their choice that were not covered on the survey. Here the most prominent theme was **meeting families' needs** by addressing access, cost, quality, and protecting family choice (29% of comments). This included the provision of tuition assistance for middle-income families and ensuring that families could use the provider of their choice. The second theme concerned the need for more **communication and coordination** across the early childhood system (21% of comments). **Workforce and business issues** (17%) included a call for additional teacher preparation programs in higher education, providing more in-service professional development support, and finding ways for programs to provide adequate pay while remaining economically viable. Suggestions were also made for improving **subsidy and/or licensing procedures** (7%) and creating effective **public messaging** (4%) about the importance of early childhood education, development, and care.

Perspectives of FCC Providers

FCC providers were asked about issues specific to their sector, including the rewards and challenges of running their childcare business, key resource needs, and the role of FCC within the larger early learning system. Providers spoke eloquently about the positive aspects of their line of work. Two main themes encompassed the rewards of being an

FCC provider: **serving children, families, and communities** (60% of comments) and the **autonomy of being a small business owner** (40% of comments). Providers found deep satisfaction in contributing to children's positive development, supporting families, and meeting the crucial need for lower-cost childcare in their communities. Running a home-based business allowed providers to set their own hours, earn income while caring for family members, and have full control over the design and delivery of their childcare program.

Four themes emerged in the discussion of challenges associated with running one's FCC business. **Business management** was the most commonly mentioned issue (44% of comments). This included bookkeeping, securing tuition payments, maintaining steady enrollment, and overall financial viability. Unique to being an in-home worker was the stress of **caring for children without relief** (31% of comments). Providers worked long hours without breaks or assistance and often felt unable to take sick days or vacation time, as that would leave their clients without care. **Family and child issues** (29% of comments) included parents bringing in sick children or otherwise not following program policies, addressing challenging child behaviors, and designing a program suitable for children of all ages. Finally, **regulations** were perceived as a burden by several respondents (6% of comments). Here, comments focused on limits to the number of children DHS allows providers to serve, particularly the number of infants under 18 months, and challenges associated with hiring an aide or assistant.

Finally, providers were asked what they wanted the public and/or policy makers to know about the role of FCC within the larger early childhood system. Four themes emerged in this set of responses: **professionalism**, unique aspects of FCC programs, FCC business viability, and policy recommendations. Comments relating to the professionalism of FCC providers were especially heartfelt (32% of comments). Providers discussed their need to be recognized and respected as dedicated early childhood professionals. "We are not just babysitters" was a common statement. Providers stressed that they were educators who support both holistic child development and school readiness. Respondents described the **unique aspects of FCC** compared to center-based care (35% of comments). The small size and home-like environment of FCC was seen as more intimate and personal than center care, allowing them to provide more individualized attention to children. Several providers described FCC as being a bridge or transition between parent care and the greater formality of preschool or kindergarten. Many providers saw FCC as a support system for families, based on their program's ability to meet the needs of working parents, offer close collaboration between providers and parents, and keep costs affordable. A final perceived advantage of FCC was the close, affectionate, and

> "Fifty hours of direct childcare plus 10–15 more hours of curriculum and food prep, cleaning, shopping, and paperwork is too much with a family of my own to care for. Employment and tax laws make it too difficult to hire an employee, and if I did, parents can't afford a tuition increase to cover this cost. I already make far less than minimum wage."
>
> —FCC provider

lasting bonds formed between providers and the children and parents they served. FCC **business viability** issues comprised 12% of comments. This included concerns about poor wages for providers—as low as $2 to $3 per hour, per child—lack of health benefits, long hours, and the constant struggle to make a profit. Finally, respondents made suggestions for **policy** (21% of comments). These suggestions included a variety of incentives to support FCC businesses such as tax breaks, a benefit pool, or allowing providers to care for more infants; policies to support and strengthen FCC quality; and a general call for more tuition subsidies for parents.

Perspectives of FCIL Directors

FCIL program directors were asked about issues specific to their sector, resource needs, and the role of FCILs within the early childhood system. Four themes emerged in these comments: understanding the FCIL philosophy and approach, the niche these programs fill within the wider early childhood landscape, funding, and potential implications of EOEL expansion.

Directors felt it was important for the public and policy makers to understand the **philosophy and approach** that distinguish FCIL programs (35% of comments)—for example, the way that FCILs serve children and family members together, addressing school readiness and family strengthening as inseparable strands in a two generation service model, unlike childcare programs. It was also noted that these programs support parents' ability to promote their children's positive development, often through the lens of cultural identity and intergenerational relationships. FCIL programs were described as filling a **unique niche** within the early learning system (38% of comments), offering choices to families, social support to vulnerable groups, and a route to quality early learning experiences for children not enrolled in childcare. Each FCIL program director also mentioned **financial viability** as a concern (19% of comments). These programs were grant funded and faced uncertain futures. Directors felt that state support was both needed and justified, given program goals and outcomes. Finally, comments relating to **EOEL expansion** (23%) stressed the benefits of having both public pre-K and FCIL programs available, primarily because FCIL programs serve a complementary but different purpose. FCILs were seen as a school readiness strategy for very young children who could then transition successfully into public pre-K. Sharing a concern expressed by center directors, FCIL directors stressed that new EOEL classrooms should not compete with existing providers. Since many FCIL meeting sites are on DOE campuses, there were specific concerns that new EOEL classrooms would not displace FCIL programs.

> "FCIL is a kindergarten readiness strategy, but also a family strengthening program. Some families feel that learning starts in kindergarten, but come to realize the value of early childhood education. Our program also gives families a safe place to come to and meet others, and to learn about and feel confident accessing the resources available in the community."
>
> —FCIL director

Recommendations for Policy and Action

Our long-term vision is that Hawai'i will have an early childhood system that gives all families access to affordable, high quality care and early learning experiences for their young children in a range of settings that support family choice. This system will provide wages and career development opportunities sufficient to attract and retain a highly qualified workforce and support sustainable, economically viable programs.

The recommendations below are based on the key findings of this evaluation. The sections below are presented in rough order of priority and attainability. Our goal was to highlight outcomes that can be achieved within a five-year period. We hope the early childhood community, policy makers, and advocates will use these recommendations as a starting to point for developing specific action strategies and legislative initiatives. Effective policy and grassroots action require collective creativity, buy-in from affected constituents, and consideration of the feasibility and possible unintended side effects of proposed new policies. The changing federal policy and funding landscape must also be taken into consideration. Finally, given their insight, the active involvement of providers in the process will help ensure that strategies selected will be effective.

Recommendation 1:

Increase the capacity of childcare and preschool programs with a priority on infant-toddler seats and regions of the state with low per capita availability.

- Provide incentives for existing and new providers to address priority needs.
- Increase and diversify funding streams including federal, state, county, business, and philanthropic support.
- Update DHS tuition subsidy rates and develop other solutions to help providers remain in business.
- Expand public preK in a way that complements the role of existing providers.

Two key priorities are the statewide shortage of infant-toddler care and the particular communities that are childcare deserts. Infant-toddler care is especially expensive to offer, so incentives may need to be substantial and/or focused on sustainability. Examples include increasing subsidy differentials for infants and toddlers, expanding the PrePlus program to include classrooms for our youngest children, and offering grants to defray the cost of hiring new infant-toddler teachers. Given the high proportion of infants served in FCC, plans to increase infant-toddler seats should include FCC providers and their unique needs. Plans to address childcare deserts should be developed with community input and take neighborhood characteristics such as drive times and population size into account. Small and rural communities may need especially creative solutions, such as encouraging childcare businesses on Hawaiian home lands or increasing the representation of FCC or GCCHs. It is also important to consider that effective incentives may be different for existing vs. new providers. Finally, providers identified lack of facilities as a key barrier to program expansion. Solutions for increasing affordable space such as nominal leases for public properties, adding PrePlus classrooms, tax breaks for businesses offering rent-free space to providers, or zoning/permitting waivers could be considered.

State and federal support for the early childhood system is primarily routed through DHS, DOE, and the EOEL. In Hawai'i, the generous commitment of private philanthropies has been an extraordinary resource as well. Increased involvement of counties and the business community will broaden and strengthen Hawai'i's coalition of funders and advocates. In addition to increasing the total funds devoted to early childhood, diversification of funding sources can result in greater flexibility how resources are used.

Finally, Hawai'i's public preK program is modest in size and expected to increase at a measured pace. New classrooms should open in communities with the highest need, with care taken to avoid creating competition with existing providers. Because programs have slightly different client eligibility mandates, Head Start, Early Head Start, public preK, PrePlus, and private providers can take complementary roles, thereby ensuring seats for children from different age and economic groups.

Recommendation 2:

Decrease out-of-pocket costs, especially for low and moderate-income families, while protecting freedom of choice in selecting care.

- Increase the pool of funds for tuition subsidies and reduce co-payments so that recipients spend no more than 7% of family income on childcare.
- Ensure that subsidies reflect the differential cost of infant-toddler care.
- Maintain freedom of choice in selecting care purchased with subsidies
- Expand supports for moderate- and middle-income families.

The cost of center-based care in Hawai'i is the nation's highest, relative to family income. Both low- and middle-income families feel the squeeze. DHS is in the process of setting new eligibility requirements and payment levels for childcare subsidies for fiscal year 2018. Limiting co-payments to 7% of family income without decreasing the total number of children served would be a significant step in promoting affordability and access for low-income families. Equitable access also involves maximizing family choice. For this reason, we recommend that DHS continue the policy of allowing families to apply subsidies to center-based, FCC, or FFN care, and that rate adjustments allow for adequate purchasing power in all sectors. Finally, relief for moderate and middle-income families is also needed. Raising limits on state childcare tax credits and encouraging more employers to offer dependent care flexible savings accounts are possible strategies to consider.

Recommendation 3:

Support high quality early childhood experiences throughout the community.

- Explore options for quality metrics and a continuous quality improvement system.
- Assist and provide incentives for all programs and providers to become accredited.
- Fund FCIL and other programs that strengthen parenting.
- Provide outreach and support for informal family, friend, and neighbor care providers.
- Educate families on how to identify high quality childcare and early learning options.

An effective early childhood system must promote high quality care in all settings in which children spend time. This includes formal childcare, preschool, informal childcare, and parent care. One of the bright spots in Hawaii's early childhood landscape is the number of programs that have achieved voluntary accreditation. However, accreditation is most common among the large center-based programs that have strong internal training resources and the wherewithal to pay accreditation fees. Assistance such as grants to offset application costs, PATCH courses focusing on accreditation, or peer mentoring from accredited programs could help more providers complete the accreditation process. DHS could also expand the current pilot program that offers coaching to FCC providers seeking family childcare accreditation. Subsidy differentials need to be high enough to be an effective incentive for programs to seek and maintain accreditation status, and accreditation differentials should apply to all care settings.

The majority of Hawai'i's young keiki are not enrolled in formal childcare. For this reason, efforts to address quality must be broad in scope. Family, friend, and neighbor care (FFN) is a large and underserved sector that warrants considerably increased attention. The DHS-

sponsored Learning to Grow program provides support for FFC providers in the form of a monthly newsletter and educational materials. However, this program only serves FFN providers who care for children receiving childcare subsidies. Additional methods should be developed to support the many grandparents, babysitters, and informal caretakers who help raise our young children. Such support can help ensure that children in FFN care receive rich and stimulating experiences and adults cope successfully with the demands of their caretaker roles.

Hawai'i's FCIL programs are a unique resource and have taken much care to evaluate the quality of their services. For the first time, the 2017 legislature allocated funding to support FCILs; this is a welcome step that can help secure the long-term stability and potential growth of the FCIL sector. In addition to serving parents, FCIL programs could enroll children in FFN care, thus providing support to FFN providers. Other supports for parents include parent education classes, home visiting, peer led huis, and online, text-based, and call-in information and advice lines. Strategic investments should focus on evidence-based approaches that can be tailored to meet the cultural preferences and practical needs of local families. In addition to childrearing support, families who use childcare can benefit from consumer education that focuses on identifying safe and high-quality care and early learning experiences.

Childcare licensing traditionally has focused on ensuring safety and basic standards. Increasingly, licensing systems are addressing the issue of quality. Most states have implemented a Quality Rating and Improvement System (QRIS)—Hawai'i conducted a pilot study but has not implemented such a system. A QRIS system includes universal measures of program quality; collecting, rating, and publicizing quality data for individual programs; helping providers achieve increasingly higher levels of quality; and helping parents become more informed childcare consumers. QRIS systems are not without issues, and data concerning the effectiveness of these systems is only starting to accumulate. We urge the state to consider further design and implementation of a QRIS or other approaches for systematically assessing and improving quality throughout our early childhood system.

Recommendation 4:

Make strategic investments in a skilled and stable early childhood workforce.

- Develop strategies to increase wages and benefits and strengthen career pathways.
- Ensure that professional development offerings are tailored to the unique needs of each sector and increase access to evidence-based practices such as ongoing coaching.

Workforce issues were among the top concerns identified by providers. The urgent need for worthy wages is by no means unique to Hawai'i, but is exacerbated by our cost of living. Increased preservice and inservice training specific to infant-toddler care could address the perceived shortage of qualified staff in this area. Revisions to existing professional development offerings could be informed by the growing research base on effective content and delivery formats. Finally, programs could voluntarily share their success stories and mentor other providers in implementing innovative inservice strategies. An example of a federally-funded program that follows this model is the Early Head Start – childcare partnership initiative, which has included a Hawai'i grantee.

Recommendation 5:

Address data gaps and provide an infrastructure for data-based decision making.

- Develop an integrated early childhood longitudinal data system.
- Adopt a statewide kindergarten entry assessment.
- Address other data gaps via targeted studies.

Timely and adequate data are necessary to evaluate the success of our early childhood system and inform public policy. An integrated early childhood longitudinal data system would serve this need. This system could be similar to the current state longitudinal data system than links K–12, higher education, and workforce data. An early childhood data system should include information on children's participation in health, childcare, early learning, and social services; screening and evaluation results; and program-level data on quality indicators, staff credentials, staff compensation, and program costs. Such data would answer essential questions concerning children's progress and well-being, effective allocation of resources to higher-need children, and outcomes of investments made in early childhood.

Hawai'i should also take the next steps in completing decision making about a universal kindergarten entry assessment (KEA). Thirty-five states have or are developing a KEA for incoming kindergarten students (Weisenfeld, 2017). KEAs are used for planning and individualized instruction and identifying children. KEAs may also be used to monitor changes in the readiness levels of the early childhood population. Selecting an appropriate, valid KEA that earns the confidence and buy in of the educators who will use it is a complex process. Hawai'i has begun the process by conducting a KEA pilot.

Finally, remaining questions about our early learning system could be addressed through targeted studies. Examples include an updated workforce study, economic forecasting of the resources needed to provide high quality care for all children in the state, and describing the actual pattern of childcare arrangements and needs using a statewide representative sample of families.

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