

Quality Workforce Development and Supports

PDG B-5 Needs Assessment

State Advisory Council Workgroup – July 10, 2019

The early care and education (ECE) workforce in Hawai'i encompasses a wide range of occupations, skill sets, and settings that all come into contact with children age 0-5. It includes self-employed care givers working in their homes, teachers, assistant teachers, teacher aides, and administrators working in childcare centers, teachers in family-child interaction learning (FCIL) programs, special education preschool teachers, home visitors, and license-exempt care givers (family, friends, neighbors). This omits a number of other related professions that either fall outside of ECE (e.g., pediatricians, nurses, speech therapists, social workers, child welfare case workers) or for whom interaction with children is incidental or indirect (e.g., clerical staff in childcare centers, state administrators, teacher coaches and mentors, higher education faculty).

To determine the size and characteristics of this workforce, data must be aggregated across a range of agencies, organizations, and businesses, and in Hawai'i this is not regularly done. A 2004 report by Good Beginnings Alliance (now Hawai'i Children's Action Network) claims to be the "first comprehensive statewide survey" to examine compensation, qualifications, and turnover of the ECE workforce. It also reports on workforce demographics and qualifications and is limited to center-based ECE settings. No earlier such studies are known. In 2017, a collaboration between Hawai'i Children's Action Network and the University of Hawai'i Center on the Family produced the *Hawai'i Early Learning Needs Assessment* that includes what appears to be the second comprehensive statewide survey of the ECE workforce. In addition to childcare centers, the *Needs Assessment* includes home-based providers and FCILs and reports on staffing, benefits, recruitment and retention, and professional development. Although these are the only known studies to aggregate and analyze data on Hawai'i's ECE workforce, other data are available that may be summarized for the purposes of a new needs assessment. In the discussion that follows, we will review findings from the most recent workforce study (DeBaryshe et al. 2017), examine some of the

Members of the Early Care and Education Workforce

- Family childcare providers
- Childcare center administrators
- Preschool teachers
- Teacher aides
- Infant/toddler teachers
- FCIL teachers
- Assistant teachers
- Home visitors
- Special education preschool teachers
- Before/after-school providers
- Nannies
- Family, friends, neighbors

quantitative data currently available, and make occasional reference to national studies that bear upon the local workforce. We will conclude with a brief look at the limitations and gaps in current knowledge.

Workforce size and composition

There is no definitive measure of workforce size, rather there is a patchwork of data that spans State and federal agencies and private providers and makes use of sometimes orthogonal definitions. Although estimates of workforce size abound none includes license-exempt providers. The U.S. Bureau of Labor Statistics produces the most widely cited statistics, the Occupational Employment Statistics (OES), published annually. Unfortunately, the OES data are limited to just three ECE categories (Bureau of Labor Statistics (2019a, b, c):

- *Childcare worker* (family child care, nannies, before- and after-school providers, and some center-based caregivers);
- *Preschool teacher* (lead and assistant teachers, including those in infant/toddler centers; excludes special education teachers);
- *Childcare center/preschool administrator* (center-based program directors).

According to OES data (Figure 1), in the last twenty years the EC workforce in Hawai'i grew substantially and

DEFINITIONS OF ECE OCCUPATIONS – OES DEFINITIONS

Preschool teacher:

Educates (language, motor, social skills, colors, shapes, numbers, letters) and cares for children under age 5 in a preschool, day care center, or other child development facility. May be required to hold State certification.

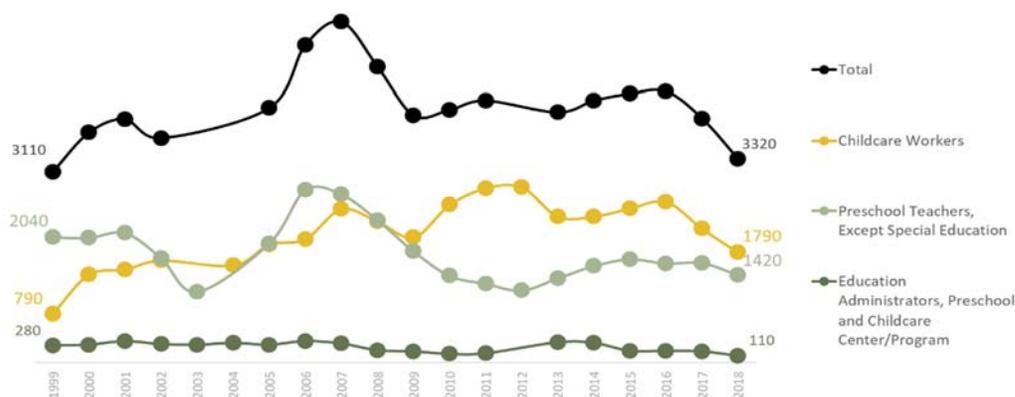
Child care worker:

Attends to the basic needs of children (safety, meals, dressing, bathing, developing routines, oversee play) in schools, businesses, private households, and childcare institutions. Includes licensed family childcare providers, before/after-school program providers, nannies, and some childcare center workers.

Preschool Administrator:

Directs activities of preschool and childcare centers (supervise, plan, prepare budgets, hire) and assists staff in educating and caring for children.

Figure 1. Size of the early childhood care and education workforce, 1999-2018.



Source: Bureau of Labor Statistics, Occupational Employment Statistics. Accessed at <https://www.bls.gov/oes/tables.htm>.

then shrank by nearly the same amount. In 1999, there were 3,110 individuals in the workforce, 25% of whom were childcare workers and 66% of whom were preschool teachers. By 2007, with both categories of worker expanding, their ranks grew to 5,550—a 78% overall increase in just eight years. With the Great Recession came a 25% reduction, a leveling off until 2016, and then another 25% decrease in workforce size. The recession hit preschool teachers the hardest and longest, as this group lost the gains of a growth surge that began around 2003, compared with childcare workers whose numbers, by 2010, had rebounded and surpassed their pre-recession numbers.

Throughout this period of expansion and contraction, the workforce was altered in an important way (Figure 2). Childcare workers went from being a minority, one quarter of the workforce, to a majority (54%). Preschool teachers declined from 66% to 43% of all EC workers. During the same period, administrators declined as well, both in number (from 280 in 1999 to 110) and percentage (from 9% to 3.3%). The shift is consequential both for workers who on average earn less (childcare workers earn 2/3 that of a preschool teacher, as discussed below) and for young children who are less likely to receive the benefits offered by a highly trained ECE educator. Neither the reasons for nor consequences of the changing size and character of the local ECE workforce in Hawai'i have been systematically studied.

Figure 2. Changing composition of the early care and education workforce.

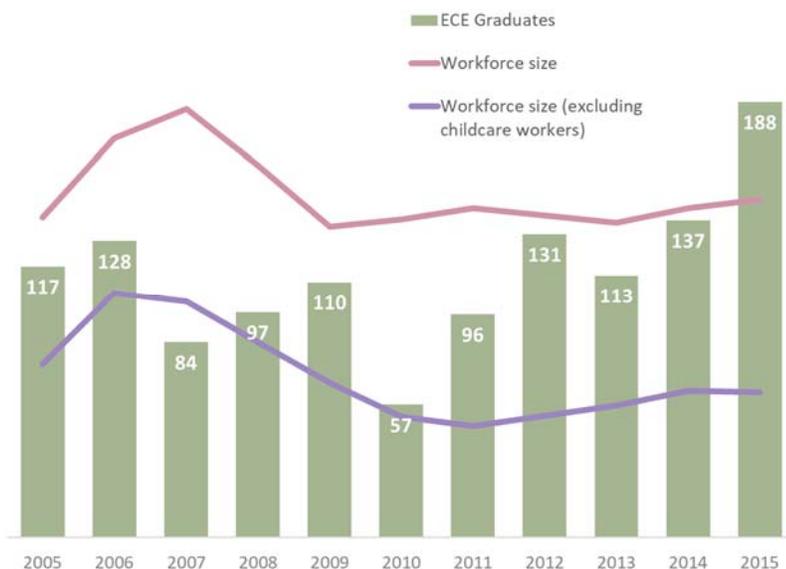


Source: Bureau of Labor Statistics, Occupational Employment Statistics. Accessed at <https://www.bls.gov/oes/tables.htm>

One place to look for a possible explanation is at the flow of ECE graduates coming from colleges and universities. It may be the case that as the number of new workers entering the field fluctuates so too does the size of the workforce. Figure 3 juxtaposes workforce size (as measure by OES data) with numbers of ECE graduates from the University of Hawai'i System between the 2004-2005 and 2014-2015 school years. The data reveal a very weak correspondence between graduates from ECE programs and workforce size. An increase in graduates from 2007-2009 coincides with a marked decline in workforce size, and as the number of UH graduates increases between 2010 and 2015 the number employed in ECE positions remains level. There are many reasons we should not be surprised by disconnect between graduates and workforce size. The workforce is comprised of a large number of childcare workers, while ECE graduates are likely to be opting for the better paid educator positions

such as those in childcare centers and preschools for which their education has qualified them. However, even when our measure of workforce size excludes childcare workers (see the lower line in Figure 3), the relationship between number of graduates and workforce size still appears to be tenuous. The University of Hawai'i is not the only higher education institution in Hawai'i to offer ECE degrees; Chaminade University also offers online undergraduate and graduate degrees that could potentially combine with UH degrees to influence workforce size. Data from CU are available back to 2011 and, like the UH data, display a weak relationship with the number of ECE workers.

Figure 3. ECE graduates from the University of Hawai'i System and ECE workforce size, 2005-2015.



Sources: University of Hawai'i data provided by Hawai'i Data eXchange Partnership (DXP); workforce figures come from the Bureau of Labor Statistics, Occupational Employment Statistics.

At the beginning of the century, a survey of the ECE workforce found it to be 97% female (Good Beginnings Alliance 2004). More recent data from the University of Hawai'i (provided by Hawai'i DXP) shows that 96% of all graduates from early childhood programs between 2003 and 2016 have been women.

The number of workers in this field falls far short of what is needed to provide access for all of Hawai'i's keiki to high quality care and education. Unfortunately there is no precise count of families in Hawai'i who desire and/or need space for their child in a formal ECE program, but we can generate a rough estimate. Assuming a 1:6 teacher-child ratio for infants and toddlers and a 1:10 ratio for 3-5-year-olds, providing access to 100% of the state's 109,000 children would require 14,533 teachers. A more conservative estimate would be limited to the 64% (69,760) of young children for whom all available parents are in the paid workforce and therefore are likely to need care while their parents go to work (DeBaryshe et al. 2017). They would require 9,301 teachers. Compare this to the 3,320

currently in the workforce and the magnitude of the educator shortage becomes clear. The most obvious and most often cited reason for the teacher shortage is low pay.

In addition to investigating the causes and consequences of a fluctuating workforce size and shifting character, there are several unknowns that future research might uncover. First, little is known about the racial and ethnic demographics of Hawai'i's workforce. A substantial number of families in the state are immigrant families whose languages and cultures require accommodation. With a clearer picture of the racial-ethnic make-up of the workforce, as well as languages spoken, countries of origin, and relevant skills, as well as a better understanding of who is caring for whom, system leaders would be better able to provide the appropriate supports in the places where they are most needed. Second, we do not know about where the greatest needs lie for additional ECE-trained educators across the islands, not to the extent that we know where access to childcare spaces is most needed. Some regions may rely more than others on temporary or less skilled educators and caregivers and therefore require additional supports to recruit qualified educators. Third, some parts of the ECE workforce tend to be overlooked more than others, and one area where this is very much the case is home visiting. As one of the four primary settings where children receive care and education services in the state (alongside childcare centers, family child care, and family-child interaction learning programs), more should be learned about who visits children and families in their homes. Fourth, much could be learned about when and why people leave the ECE workforce. Examining these dynamics is critical if the state is going to both attract and retain a qualified workforce. Finally, perhaps the least understood aspect of the ECE system is family, friend, and neighbor care. There simply is no good estimate of how widespread this form of care is, who is utilizing it, and how best to support those caregivers when they are not on the radar.

Compensation

Most teachers who provide care and education for Hawai'i's children birth through age 5 are not earning a living wage. The median annual earnings of childcare workers in 2018 were \$26,090 (U.S. Bureau of Labor Statistics 2018), just 61% of the state's median income (\$42,480) and the lowest in the nation when adjusted for cost of living (Whitebook et al. 2018). Childcare center/preschool administrators, at \$54,210 a year, earned the 8th highest median wage in the nation, but when adjusted for cost of living this too drops them to number 50. The only group to be doing better than last is preschool teachers, who earned \$38,840 a year in 2018, 91% of the state's median income. The State Department of Business, Economic Development and Tourism (2017) has estimated a "self-sufficiency income standard" to estimate how much income is required annually to meet one's basic needs without government assistance. For a single adult, the necessary income is approximately \$33,000 per year, and for an adult with one preschool-aged child, the figure is \$56,000. The median wage of childcare workers falls well short of these, and that of teachers and administrators does not meet

Median annual income, 2018

Childcare workers

\$26,090

Preschool teachers

\$38,840

Program administrators

\$54,210

Source: U.S. Bureau of Labor Statistics,
Occupational Employment Statistics,
https://www.bls.gov/oes/current/oes_hi.htm

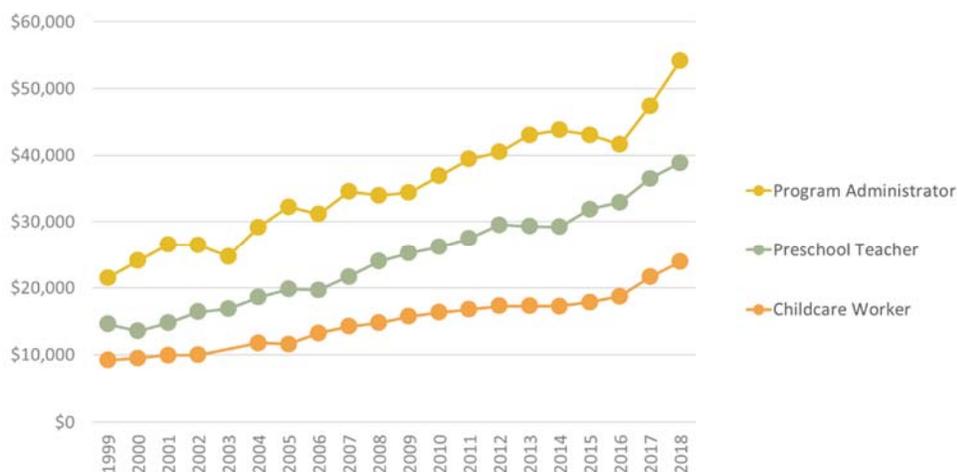
the self-sufficiency threshold for a working parent. At the national level, preschool teachers are twice as likely, and childcare workers are 2½-times as likely, to be receiving government assistance compared with the workforce as a whole (Whitebook et al. 2018: 41).

Low wages are believed to contribute to high turnover, low job satisfaction, and difficulties attracting highly qualified applicants. The *Hawai'i Early Learning Needs Assessment* (DeBaryshe et al. 2017) finds that approximately 3 in 10 lead and assistant teacher positions in childcare centers were vacated during the most recent school year. More than a quarter of center directors report that staff retention is a challenge and over half indicate that qualified job applicants are likely to turn down their job offers.

On a positive note, real wages (i.e., adjusted for inflation) in Hawai'i's ECE workforce have been steadily increasing each year over the last twenty years (Figure 4). Since 2016, childcare workers have seen a substantial increase in median wages of 27.7%, and the jump is even greater for program administrators whose median wage rose by 30.3%. In the same time period, the increase for preschool teachers has been a more modest, but nonetheless substantial, 18.0%. To date there is no known explanation for the recent uptick in wages.

Whitebook and her colleagues (2018) have identified a pattern that appears to be associated with rising wages. Examining wages in all 50 states and Washington, DC, they find that ECE wage increases (inflation-adjusted) are more common in places where minimum wage also increased during the same period. In Hawai'i, the state's minimum wage increased three times in the last three years (\$0.75 in 2016 and 2017; \$0.85 in 2018). Figure 5 shows the growth of Hawai'i's minimum wage in both nominal and inflation-adjusted (real) terms. Since 2015, when minimum wage was \$7.75, this state-mandated wage floor increased by 28%, or nearly a third in real terms. As discussed above, wages in ECE occupations also jumped substantially between 2016 and 2018, consistent with the pattern Whitebook et al. (2018) observe. For advocates of early learning professionals, this provides some evidence that supporting a minimum wage increase across the state may bring much needed rewards to this industry. In 2019, the Hawai'i State Legislature took up proposals to raise the minimum wage once again but they were defeated.

Figure 4. Median Annual Wage (2018 dollars) for ECE Workers in Hawai'i, 2008-2017.



Source: Bureau of Labor Statistics, Occupational Employment Statistics. Accessed at <https://www.bls.gov/oes/tables.htm>

Figure 5. Minimum wage in Hawai'i, 1968-2018.



Source: Consumer Price Index, Federal Reserve Bank of Minneapolis.

Compensation may also take the form of benefits. DeBaryshe et al. (2017) surveyed childcare center and FCIL program directors and provide a snapshot of some of the benefits they and their employees receive. Traditional benefits such as paid sick leave and vacation, medical insurance, and dental insurance are offered to more than 95% of childcare center educators (slightly less than half reserve them for full-time staff). Less widespread are life insurance (received by 71%) and free or reduced-price care for children of staff members (63%). Across FCILs, this range of benefits is offered by 99-100% of programs. Self-employed family childcare providers do not generally have the luxury of receiving benefits. Although they may purchase health and life insurance, for example, they do so to the detriment of their own income.

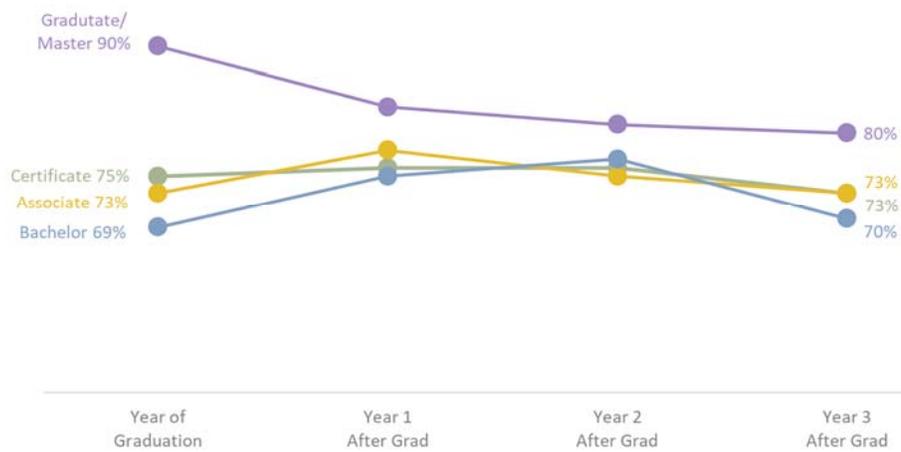
Higher education and professional development

Students earning degrees in early childhood education from Hawai'i's colleges and universities may be newcomers to the workforce or educators returning to school to obtain additional training and credentials. We do not know the absolute size of those two groups or their relative proportion. In the most recent workforce survey, more than half (58%) of lead teachers in childcare centers had earned bachelor's degrees or higher and two-thirds (67%) had either a 2- or 4-year degree in early childhood (DeBaryshe et al. 2017). Among, family childcare providers, one quarter had a bachelor's degree or higher, 13% had an associate's degree, and another quarter had no college experience.

To collect data on educators and caregivers entering or returning to higher education would make known how many are doing so, which degrees they earn, and how much time and money they are investing to boost their credentials. Tracking their paths into the labor force after graduation would permit assessing how wages compare before and after obtaining a degree. Such data could be influential for those considering such a pathway in their careers but who need compelling evidence that such a large investment of time and energy is likely to pay off in higher wages. For now, the available data does not reveal where students come from, only where they go after graduation.

Using the state’s longitudinal data system, Hawai‘i Data eXchange Partnership (DXP) has matched records of graduates in the UH System with records of workers maintained by the Department of Labor and Industrial Relations to examine this important transition point into the workforce. The data reveal that between Fall 2006 and Fall 2013 the UH System graduated 1,158 students, averaging 165 each year in ECE programs at the undergraduate (90.5%) and graduate levels (9.5%). Of those, three-quarters could be found in the workforce within three years of graduating (Figure 6). For post-baccalaureate degree holders, the numbers are even higher. 9 out of 10 worked in Hawai‘i the year they graduated, and three years later 8 out of 10 remained.

Figure 6. Percent of ECE graduates found in Hawaii's workforce by award level (Fall 2006-Fall 2016).

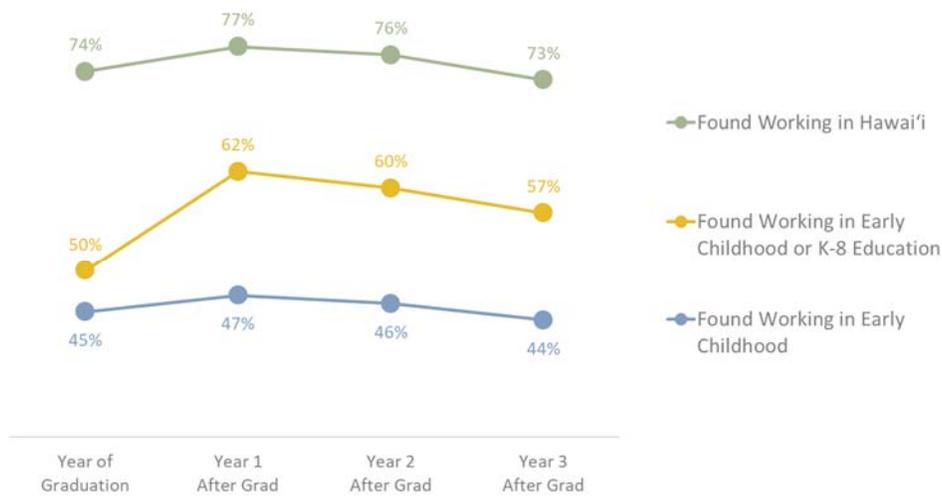


Source: University of Hawai‘i, Hawai‘i Data eXchange Partnership.

Only a fraction of ECE programs at Hawai‘i’s colleges and universities prepare students to be licensed by the Hawai‘i Teachers Standards Board, thereby paving a path to jobs in the public school system. Of the nineteen various early childhood certificates and degrees currently being offered statewide, only four degrees—the University of Hawai‘i’s B.Ed. in elementary education and ECE and B.Ed. in ECE and special education, and Chaminade University’s M.A. in Teaching in ECE with or without a Montessori credential—provide a path to licensure. The vast majority of programs in the state do not, leaving private sector employers as a graduate’s only option. Over the last eight years beginning in 2010-2011, 1 in 5 ECE graduates completed programs leading to licensure.

After completing a certificate or degree, where do graduates go? DXP has assembled a catalog of employers and coded whether or not they are ECE providers, kindergarten-to-8th grade providers, both, or neither. Figure 7 shows that within three years of graduating 44% of UH graduates from ECE programs were working in ECE settings and an additional 13% were working in K-8 settings. This leaves 16% who were working in neither setting and 27% who could not be located in Hawai‘i’s labor force within three years of graduating. Once again, the number of advanced degree earners in

Figure 7. Percent of ECE graduates found working in early care and education (Fall 2003-Fall 2013).



Source: University of Hawai'i, Hawai'i Data eXchange Partnership.

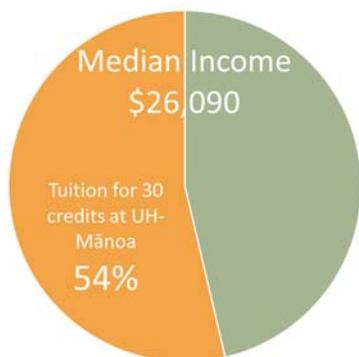
ECE positions (50% after three years) is higher than the number of bachelor's degree earners (37%). Similar to advanced degree earners, 47% of associate degree and certificate earners remained in the ECE field.

Median wages of newly minted UH graduates during this period (2006-2013) were very low—\$14,386 the year of graduation—but doubled within three years of graduation to \$29,920. Although these figures represent aggregate wages of many cohorts with no adjustment for inflation, they do clearly illustrate that recent ECE graduates earned well below the state's median income (\$42,480). After three years in the workforce, these graduates earned more than childcare workers and less than preschool teachers (see Figure 4 above). Those who went into K-8 settings earned substantially (55%) more than those who worked in exclusively early childhood settings: \$46,342 compared to \$29,799.

The DXP data also reveal that, of the 2,111 UH graduates employed in the ECE workforce in 2015, only 333 (16%) earned ECE degrees. A large majority of the remaining 84% earned at least a bachelor's degree, most often in the social sciences, humanities, or education.

Missing from the discussion so far is the issue of access higher education for the ECE workforce and the various supports available to reduce barriers. At the University of Hawai'i Mānoa campus, tuition for 30 credit hours of undergraduate coursework costs nearly \$14,000 for in-state residents, and graduate coursework is nearly \$20,000 (University of Hawai'i at Mānoa Catalog, 2018-2019). This does not include required fees, books, and transportation. These costs represent one-half to three-quarters (for undergraduate and graduate coursework respectively) of childcare workers' median income (Figure 8). For many of the nannies, before- and after-school workers, and family childcare providers, this is simply beyond their reach. For those fortunate enough to work in one of the 53% of childcare centers that reimburses employees the cost of tuition, or the 22% of centers that provide paid leave

Figure 8. The price of higher education for childcare workers.



to attend college courses, such supports may be the only way they will ever be able to access higher education.

In addition to supports for higher education, Hawai'i's early learning system provides varying degrees of access to professional development (PD) opportunities that range from periodic workshops and conferences to regular and ongoing coaching and mentoring. According to the *Hawai'i Early Learning Needs Assessment* (DeBaryshe et al. 2017), the most common PD supports offered by center-based providers to their employees are in-house training (87% of centers) and reimbursement for conferences, workshops, and non-credit classes (90%), followed by paid time off to attend PD trainings (69%) and college tuition reimbursement (53%). Peer mentoring is available to approximately 40% of center-

based educators. For family childcare providers, PD is often self-directed and self-financed. The most common form reported by these educators (90%) is searching out information via internet, video, books, articles, and the like, followed by attending a workshop, conference, or informal class (80%) and talking with peers in the field (60%). In contrast, only 8% reported taking a college class within the last year and 6% met with a coach or consultant.

The Department of Human Services which licenses and regulates childcare providers in the state also directs federal and state dollars to create professional development opportunities. ECE providers can access free and low-cost PD workshops offered by the state's childcare resource and referral agency, PATCH (People Attentive to Children). The Learning to Grow program housed at Windward Community College includes outreach programs for license-exempt caregivers (e.g., family, friends, and neighbors) and family childcare providers to connect them with information about child development and care.

Lead teachers in the Executive Office on Early Learning (EOEL) Public Pre-kindergarten Program are required to attend a series of PD training sessions, led by EOEL staff, when they begin working in the program. Attendance is optional for teaching assistants, principals, and other school and district staff. Beyond this initial training, teachers also receive ongoing coaching and mentoring.

There is much that we still do not know about professional development in Hawai'i's ECE workforce. From the worker's perspective, improving one's wages may be the most salient and immediate priority motivating the decision to seek additional credentials via higher education. Yet there is no evidence that raising the education level of the ECE workforce raises wages across the industry. Additional credentials and degrees do appear to increase wages for some educators, but this may be creating a stratified and unequal workforce that disproportionately favors those who begin with more money, education, and access to information and resources. From the child's and family's perspective, improving the quality of care is likely to be the highest priority. There is a notable absence of research in Hawai'i that assesses the effectiveness of various professional development opportunities to raise the quality of care and education. Moreover, there is no known source of data that tells how many and who are and are not accessing opportunities for higher education and professional development.

Such data would allow a better understanding of the sorts of support are needed to build and strengthen the ECE workforce.

References

- 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. Available at http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf.
- Good Beginnings Alliance. 2004. *Who Cares for Hawai'i's Keiki in Centers? The Hawai'i Early Childhood Workforce Study*. Honolulu, HI: Good Beginnings Alliance.
- U.S. Bureau of Labor Statistics. 2018. "May 2018 State Occupational Employment and Wage Estimates, Hawaii." Washington, DC: U.S. Department of Labor. Accessed at https://www.bls.gov/oes/current/oes_hi.htm.
- U.S. Bureau of Labor Statistics. 2019a. "Occupational Outlook Handbook, Childcare Workers." Washington, DC: U.S. Department of Labor. Available at <https://www.bls.gov/ooh/personal-care-and-service/childcare-workers.htm>.
- U.S. Bureau of Labor Statistics. 2019b. "Occupational Outlook Handbook, Preschool Teachers." Washington, DC: U.S. Department of Labor. Available at <https://www.bls.gov/ooh/education-training-and-library/preschool-teachers.htm>.
- U.S. Bureau of Labor Statistics. 2019c. "Occupational Outlook Handbook, Preschool and Childcare Center Directors." Washington, DC: U.S. Department of Labor. Available at <https://www.bls.gov/ooh/management/preschool-and-childcare-center-directors.htm>.
- Whitebook, M., McLean, C., Austin, L.J.E., & Edwards, B. (2018). *Early Childhood Workforce Index – 2018*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from <http://csce.berkeley.edu/topic/early-childhood-workforce-index/2018/>.