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Maryssa Kucskar
University of Nevada, Las Vegas

Jennifer Buchter
University of Nevada, Las Vegas

Conrad Oh-Young
University of Nevada, Las Vegas, ohyoung@unlv.nevada.edu

Jenna Welgarz-Ward
University of Nevada, Las Vegas, jenna.weglarz-ward@unlv.edu

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Maryssa Kucskar, M.Ed.
Jennifer Buchter, M.Ed., M.S.W., L.S.W.
Conrad Oh-Young, Ph.D.
Jenna Weglarz-Ward, Ph.D.

Early Childhood Education (ECE) professionals, who provide services to children aged 0-5 in a variety of settings, have proven to be a valuable resource because of their ability to establish a solid foundation for children's cognitive development, academic readiness and social emotional skills. Every dollar invested in ECE has been shown to produce a minimum 13 percent return after accounting for the public costs of such programs. However, recruiting, training and retaining these professionals has proven to be a significant challenge, resulting in a shortage of ECE personnel both nationally and within the state. The turnover rate at Nevada's ECE centers is nearly three times greater than for K-12 teachers. A lack of continuity, coupled with inconsistent education/training requirements, threatens to undermine an approach that has demonstrated significant societal and economic benefits.

High-quality preschool is the key ingredient for the future success of schools and children. In order to support Nevada's youngest learners, we need to invest in high-quality preschools and the educators who work there. Children who attend high-quality childcare and ECE programs have greater life stability, employment rates, individual employment earnings, and higher IQs, as well as reduced rates of poverty, reduced crime, and reduced arrest rates. Attendance also results in less government dependence and better health outcomes.

Nevada Facts & Statistics

- As of 2013, there were approximately 176,000 children under 5 years of age in Nevada, with more than three-quarters requiring some form of ECE care.
- In 2014, the turnover rate at Nevada's ECE providers was 22 percent.
- The state's ECE providers report that nearly two-thirds of their staff were employed in their current workplace for between one and three years, a high degree of transiency.
- Only 12 percent of Nevada's center-based childcare programs and 2 percent of family childcare homes are nationally accredited.
- Quantitative research in Nevada revealed that 74.8 percent of respondents ranked access to quality ECE as "very important" in building a foundation for K-12 success.

U.S. Facts & Statistics

- National guidelines recommend that ECE costs comprise no more than 10 percent of a family's budget; in Nevada, the percentage ranges from 18.3 to nearly 23 percent.
- Only half of ECE personnel nationwide have a post-secondary degree of any kind, with only one-quarter having a four-year degree.
- ECE employees earn a salary on par with food preparation and dry-cleaning workers, with only a 1 percent increase in wages from 1997 to 2013.

Recent Actions in Nevada

- Using grant funding, Nevada has increased its investment in ECE from approximately $6 million to $12.4 million.
- Nevada SB 515 provides all-day public kindergarten to Nevada's children.
- The state's "Read by 3" initiative invested $27 million in K-3rd grade reading initiatives.
- Nevada's DHHS Division of Welfare and Supportive Services provides childcare subsidies to low-income families, as well as funding to improve ECE facilities.

Considerations for Future Actions

Nevada has demonstrated an understanding of the importance of ECE, dedicating additional resources to ECE professional development and cost reduction measures for families. However, particularly within rural areas, available resources are inadequate to meet communities' needs. Additionally, while efforts to reduce the costs to families have been beneficial, they have done nothing to

address the issue of ECE staff retention. With that in mind, the following recommendations warrant consideration:

- Adopt more stringent educational/training requirements for ECE personnel, which benefits both the children under their care due to increased competence, and the staff members themselves through the ability of educated personnel to command higher wages.
- Provide tuition assistance to students in two- and four-year programs related to ECE disciplines, as has been effectively implemented in other states.
- Actively promote utilization of the Nevada Registry and other state resources as a professional development resource for ECE personnel.
- Develop and publish ECE learning standards for infant/toddler and 3-year-old children (Nevada has published Pre-K standards for 4-year-olds).

Statewide Benefits of Future Action

- Reducing costs of ECE programs relative to household income would improve residents' quality of life and increase participation of women in the labor force by at least 1 percent.
- A high-quality ECE network provides communities a competitive advantage in attracting businesses and employees.
- Longitudinal research has demonstrated that ECE is correlated with increased cognitive abilities, better test scores in the K-12 system, and higher graduation rates.
- Access to ECE is associated with decreased absenteeism and tardiness among employed parents, as well as increased productivity**.**

Implications of Maintaining Status Quo

- Issues related to high school graduation rates, which are positively correlated with ECE participation, will remain persistent without this demonstrated mitigation measure.
- While Nevada's Pre-K investment is a positive step, research has shown that the return on investment during early childhood is higher than efforts later in childhood, specifically among children living in poverty.
- The economic vitality of Nevada's rural communities will continue to be inhibited by the absence of accessible, high-quality ECE programs.
- As of 2013, only 14 percent of Nevada's 4-year-olds were enrolled in preschool, compared to 41 percent nationally, demonstrating a significant supply/demand gap.
- If left unresolved, the ECE gap will remain an issue of concern to Nevadans, 96.6 percent of whom agreed that ECE has an impact on a child's success later in life.

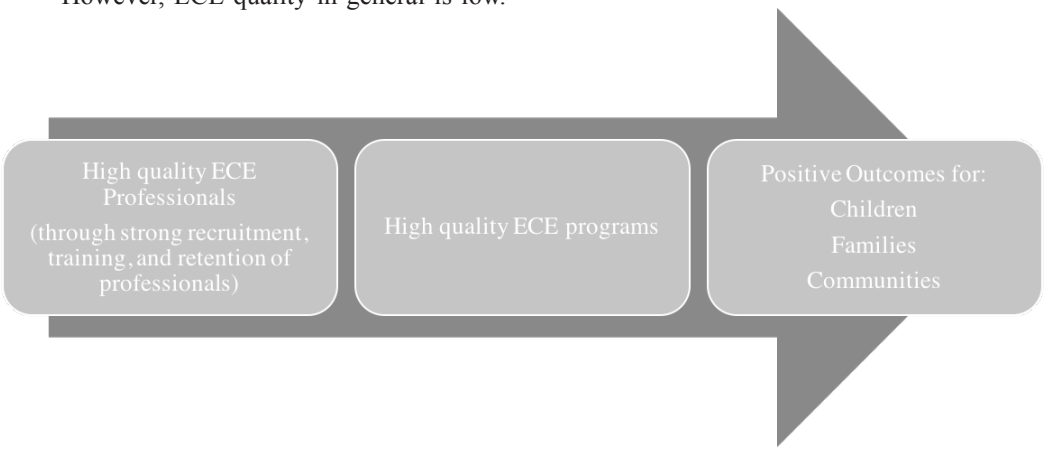
Introduction

There is a critical need for quality early childhood personnel in the State of Nevada. Early childhood professionals include those who provide services to children under 5 years old in public or private preschools, home and center-based child care, Early/Head Start programs, home visiting, Individuals with Disabilities Education Act (IDEA) Part B 619 programs and Part C early intervention, and other related services (U.S. Departments of Health and Human Services & Education [DHHS/DOE], 2015). Depending on families' needs, children spend anywhere from 10 to over 40 hours per week in early childhood education (ECE) programs (U.S. Census Bureau, 2013). ECE builds a solid foundation for cognitive development, academic readiness, and social emotional skills that are necessary for success in K-12 education.

High-quality ECE is the key ingredient for the future success of our school, community, and state outcomes (see Figure 1). In order for Nevada to support its youngest learners, we need to invest in the professionals who work in ECE settings. In addition to benefits for developing children, ECE benefits the economy in distinct ways. In the long term, children who attend high-quality ECE programs are more likely to attend college, have greater life stability, employment rates, and individual employment earnings as well as providing care so parents can seek out employment and education, (Campbell et al., 2012). Attendance also results in less government dependence and better health outcomes. Quality ECE programs prevent challenging behavior and the need for remedial education thus reducing special education, child welfare, and criminal costs, and reduces rates of long-term poverty (Bivens, Garcia, Gould, Weiss, & Wilson, 2016).

Figure 1.

However, ECE quality in general is low.



High-quality ECE is possible with using experienced and educated ECE professionals (Heckman, 2000), however ECE professionals commonly lack appropriate education, experience, inadequate respect and compensation for professionals, and produce high turnover rates. In order to attain quality and positive child and family outcomes, a progressive and intentional ECE personnel pipeline is necessary to produce an ECE workforce that is properly recruited, trained, and retained.

With the signing of Every Student Succeeds Act (2015), Nevada has more power in making educational and early learning decisions. Moreover, as Nevada increases the number of state-funded pre-kindergarten classes, there is a need for more ECE professionals. The purpose of this paper is to present the current state of ECE and ways to support the ECE professional pipeline in Nevada. We will discuss what decisions other states are making regarding the ECE pipeline as well as recommendations for the Nevada Legislature.

Present State of ECE in the State of Nevada

In 2013, there were approximately 176,000 children ages birth to 4 years living in Nevada, with approximately 78 percent of them needing some kind of ECE care (U.S. Census Bureau, 2013). In 2013, 14 percent of Nevada's four year olds were enrolled in preschool, compared to 41 percent nationally (USDOE, 2015). Although there are many ECE programs across the State, currently only 12 percent of Nevada's center-based childcare programs and 2 percent of family childcare homes are nationally accredited through entities such as the National Association for the Education of Young Children (NAEYC; U.S. Census Bureau, 2013). Nevada has begun using a Quality Improvement Rating System (QRIS) to assess, improve, and communicate quality in ECE programs. In 2014, 15 percent of Nevada's centers participating in QRIS program with only 3 centers scoring within 1-2 stars while 45 centers obtained 1 star (5 stars equaling Highest Quality and 1 star equaling Rising Star). Quality programs include thoughtful physical environments, developmentally and culturally appropriate practices, and positive relationships between children and adults (Copple & Bredekamp, 2009). These components can not only enhance child development but also prevent toxic stress. Stress and anxiety prevent children from developing the appropriate neural pathways necessary for executive functioning, academic development, and ability to form positive relationships (Shonkoff & Phillips, 2000).

Due to what we know about the growth and development of infants, toddlers, and young children, if Nevadans want to capitalize on education, there should be an emphasis on investing in ECE in addition to K-12 education. Not only does research support investing in quality ECE through building pipeline of qualified ECE professionals, Nevadans themselves show support for this platform. The Nevada Institute for Children's Research and Policy (NICRP, 2015) conducted an opinion poll with a representative sample of 384 adults living across Nevada. On a rated scale, Nevadans expressed quality teachers as their highest priority (30.5 percent) as well as funding for education (22.4 percent). Of the Nevadans surveyed, 74.8

percent stated that access to quality ECE is "very important" in building a foundation for K-12 success. At an even higher rate, 96.6 percent agreed that ECE has an impact on a child's success later in life (NICRP, 2015).

Various funding systems are currently in place to support professional development for ECE professionals. The Child Care and Development Fund subsidy grants are available through Nevada's DHHS Division of Welfare and Supportive Services (2016). In addition to childcare subsidies to low income families, ECE facilities can also receive state funds to improve their quality of care through professional development. However, the currently available resources do not meet the needs within our communities, particularly in rural areas, due to lack of resources, funding, and coordination among systems.

Nevada was chosen to receive intensive technical assistance from the Early Childhood Personnel Center (ECPC, 2016) through funding from the Office of Special Education Programs and through the Office of Early Learning and Development to assist states in developing an integrated comprehensive systems of personnel development (CSPD) for the ECE workforce. These two systems look to support an integrated professional development pipeline for all ECE professionals across special education, childcare, Head Start, early childhood mental health, child care, and others. Members of this committee work closely with the Nevada Interagency Coordinating Council (ICC) and Nevada Early Childhood Advisory (ECAC) Committee which are both designated by the governor to strengthen ECE state-level coordination and collaboration, conduct statewide needs assessment, and identify barriers and solutions related to childcare, home visiting, ECE, and special education. Additionally, Nevada has received assistance from the Technical Assistance Center on Social Emotional Intervention (TACSEI, 2016) and has 10 sites developing programs to support children's social-emotional development.

Nevada increased its funding from approximately $6 million to $12.4 million across 90 programs with the High-Quality Preschool Development Grants from the Office of Early Learning and Development in the Nevada Department of Education (NDE, 2015). This means that from 2015 to 2019, approximately 1,560 preschool aged children will have the opportunity to go to preschool in Nevada. Nevada Senate Bill 515 passed in order to provide all-day public kindergarten to Nevada's children in the 2015-2017 biennium (Nevada Legislature, 2015). The "Read by 3" initiative in Nevada (SB 391) is an investment of $27 million in the academic success of students in kindergarten through third grade in reading.

Although children 3 and 4 years old have benefited from legislation in the past, Nevada's youngest learners (i.e., infants and toddlers) have not profited from these efforts. Additionally, many communities have not participated in grant or technical assistant opportunities. The expansion of Nevada's bills and future legislation would allow all children ages birth to five years of age to strive and be better-equipped entering Nevada's K-12 education system.

Economic Benefits of Early Childhood

One thing we know is that starting high quality ECE earlier is better. The return on investment during early childhood are much higher than efforts later in childhood, specifically for children living in poverty (Lipsey, Farran, & Hofer, 2015; Whitebrook et al., 2014). For every dollar spent on ECE, there is a minimum 13 percent return on investment after accounting for public costs of programs (Garcia, Heckman, Leaf, & Prados, 2016; Heckman, 2000; NevAEYC, 2015). Similarly, an investment in universal, high-quality pre-kindergarten (i.e., pre-kindergarten for all eligible 3 and 4 year olds) from 2016 to 2050 is estimated to result in a $10 billion benefit per year of investment (Lynch & Vaghul, 2015). Increasing these efforts to children beginning at birth would further benefit society. The benefits of ECE programs far exceed the initial investment costs (Barnett & Nores, 2015; Duncan & Magnuson, 2013).

Longitudinal research consistently boasts benefits of high quality ECE. In the Abecedarian Project of 1972 and High/Scope Perry Preschool Study from 1962-1967 (Schweinhart et al., 2005), children from low-income backgrounds were provided full-time high-quality education from infancy until age 5. Long-lasting outcomes included higher cognitive scores on math and reading tests, higher IQs, higher graduation rates, and college attendance for its participants. Participants' incomes were over 60 percent more than the control group and demonstrated positive lasting effects on employment rates, reduced rates of poverty, and crim-

inal activity through age 40 (Campbell et al., 2012; Schweinhart et al., 2005). High-quality ECE also boosts social-emotional skills, which are key to long-term outcomes (Garcia et al., 2016).

In a survey, 87.2 percent Nevada residents reported it was important for parents with young children to be able to work. Investment in ECE stimulates the economy by providing comfort for employees in knowing their children are receiving reliable, quality care and education. There are decreased rates of absenteeism and tardiness, and increased levels of productivity and positivity within businesses with established high-quality ECE programs (Whitebrook et al., 2014). Employment opportunities for families, especially those living in poverty, allow them to financially provide for their families, obtain health insurance, and gain respite from caregiving (Shonkoff & Phillips, 2000). Furthermore, a community's ECE system has the ability to recruit businesses and employees to a community by providing high-quality ECE with positive outcomes for children, families, and the community overall.

While there is national support for pre-kindergarten and early learning initiatives for children ages birth to 5 year olds, there is also statewide support. Eighty-eight percent of Nevadans state there should be increased funding for ECE in order to improve the quality of ECE programs and to provide equal access to ECE for low-income families (NICRP, 2015).

Costs of Early Childhood Education

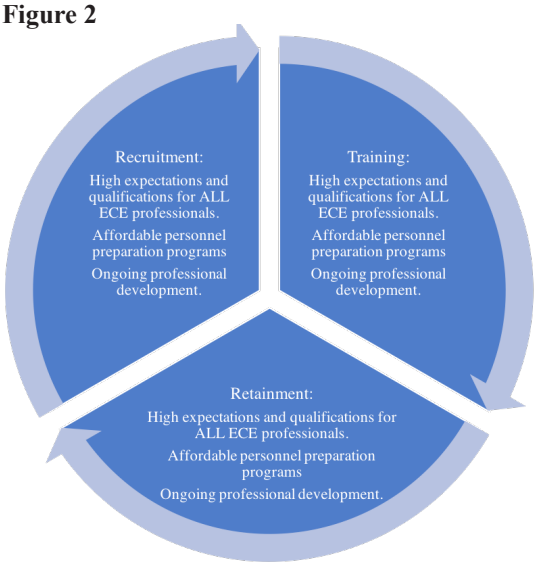
One of the biggest costs for families during their children's first years is ECE. Although the USDHHS (2015) states that ECE should make up no more than 10 percent of a family's budget, most ECE exceeds this amount. The annual average cost of childcare for infants in Nevada is $9,852 or 18.3 percent of a median family's annual income (Economic Policy Institute, 2016) or upwards of $12,078 for an accredited center (Weiss & Brandon, 2010). The annual average cost of care for 4 year olds in Nevada is $8,118 or as much as $10,013 at an accredited center (Weiss & Brandon, 2010). Nationally, Nevada ranks fourth most expensive ECE for four year olds and eighth most expensive for infants (The Children's Cabinet, 2015). A person earning minimum wage would need to work full time for 30 weeks out of the year just to earn enough money to pay for infant care. For a family with one infant and one 4-year-old, a common occurrence, ECE costs $17,970 or 50.4 percent more than the average rent in Nevada or 33.3 percent of a typical family's income. In Nevada, infant care is more expensive than attending a 4-year public university (Economic Policy Institute, 2016). This leads to many parents selecting affordability and availability (i.e., location to work or house, open spots) over quality, or choosing to stay home to care for their children and not re-entering the workforce.

Universal pre-kindergarten has made ECE available to many children regardless of family income, a child's ability levels or test scores, and other factors (Colker, 2009). If universal pre-kindergarten was implemented for all Nevada's 3 and 4 year olds, more parents would be able to seek employment. Currently, 43.7 percent of surveyed Nevadans stated cost as the biggest barrier to quality ECE, with 94.5 percent saying ECE should be more affordable in the state of Nevada. Providing free or low-cost ECE would stimulate the economy while investing in Nevada's future—with more generous subsidies and cost caps, parents would save money that was previously spent on ECE , improving families' quality of life. Simultaneously, if ECE expenses were limited, the average rate of growth of women's participation in the labor force would be 0.5 percent nationally, with higher outcomes in Nevada at approximately 1 percent (Herbst, 2010).

The ECE Professional Pipeline

Creating a strong ECE professional pipeline will allow Nevada to reap the many benefits of high quality ECE systems. This pipelines includes recruiting motivated, diverse individuals, training them appropriately at the beginning and throughout their careers, and retaining them by providing professional respect and compensation (see Figure 2). These factors interact and influence each other in continuous cycle. For example, the lack of professional respect and potential income impacts people's investments in energy and money into ECE training programs. Additionally, as university programs focus heavily on school-based programs, those with formal ECE training often seek employment outside of ECE programs. These factors impact the quality of programs across the state and thus child, family, and societal outcomes.

Figure 2



A concerted effort to respecting ECE professionals across all early childhood settings is a major step to strengthening the ECE pipeline. By recruiting and supporting quality professionals to work with infants and toddlers, children with disabilities, in family homes, and in ECE centers, we strengthen the all children, families, and citizens.

Recruiting and Training ECE Professionals

Early childhood education is a unique occupation with an unparalleled demographic makeup. Nationally, 95 percent of ECE professionals are women. Overall, 39 percent of ECE professionals are non-white minorities, compared to 33 percent of other occupations. Typically, to enter the ECE workforce, only a high school diploma is required (U.S. Department of Labor, 2016). In 2011, 66 percent of Nevada's early childhood providers earned a high school diploma or less (Nevada Senate Bill 522, 2015). Overall 53 percent of ECE personnel (i.e., teachers, assistants) had some level of college degree, 26 percent having a four-year degree, and 9 percent attaining a graduate degree (National Survey of Early Care and Education Project Team, 2013).

In Nevada, there are different state licensure requirements to work in childcare settings (e.g., private center-based programs, faith-based programs, family home care, Head Start/Acelero) compared to Department of Education licensure requirements to work in public ECE programs (e.g., state preschool, ZOOM programs, Title 1 pre-K, IDEA Part B 619, IDEA Part C early intervention programs). Child care licensure is administered through the Nevada Registry. It was adopted in April 2009 by the Nevada Legislature (R112-06 and R001-09) and fully implemented in December 2012. Child care licensure requirements include health and safety courses within 90 days of hire and ongoing continuing education. NDOE funded program teachers must hold an ECE Birth - Second grade license through the NDOE (NAC 391.089) or an Exceptional Pupils 0-7 Endorsement for Early Childhood Developmentally Delayed (NAC 391.363). Both these licenses require a bachelor's degree or higher.

In general, professionals who work with older children are likely to have higher levels of education. Our ECE professionals who are caring for our youngest citizens are just as important as those professionals working in K-12. In a survey distributed to Nevadans, 92.5 percent of residents believe that it is very important that ECE teachers are supported in furthering their education (NICRP, 2015). Higher expectations for Nevada's ECE professionals would benefit students because of ECE professionals' increased knowledge and skills related to child development and education, and ECE professionals could be more equally compensated for their work. As stated by *Nevada Ready!*, aligning ECE with Nevada Common Core Standards aides in creating a more continuous educator pipeline (NDE, 2015); however, we need to ensure that the pipeline includes all ECE professionals and not just those working in pre-kindergarten programs. Nevada can ensure that ECE professionals have the knowledge, skills, and dispositions in order to address the need of learners ages birth to 5 (Copple & Bredekamp, 2009).

There are many vacancies at early learning centers nationally and in the state of Nevada. In settings in which teachers work directly with children, 48 percent of early learning centers reported one or more vacancies (Whitebrook & Sakai, 2003). This shortage in ECE professionals should receive similar attention to our K-12 professional shortage including similar accelerated training programs, ongoing professional development, and financial incentive and loan forgiveness.

The two main pathways for qualified ECE professionals are traditional 2- and 4-year university preparation programs within the Nevada System of Higher Education (e.g., UNLV, UNR, Nevada

State) and alternative routes to licensure programs (ARL). In the 2016-2017 school year, UNLV's graduate programs had 112 ECE students and 61 early childhood special education (ECSE) students (University of Nevada, Las Vegas, 2017). The U.S. and Nevada are still experiencing ECE professional shortages and high turnover rates.

ECE professionals need to be recruited to the field and supported throughout their training. The Nevada Association for the Education of Young Children's (NevAEYC, 2016) recommends increasing funding, wages, and resources dedicated to training and education in order to assist in retention of ECE professionals. In Indiana, former Governor Pence allotted $7,500 in tuition per year for students performing in the top 20 percent in education majors. New Mexico's Governor Martinez proposed $15,000 scholarships for students enrolling in education. Sixteen other governors called for increased awareness and action plans regarding compensation and retention funding in education (Education Commission of the States, 2016). The Chicago Child-Parent Program calls for higher ECE professionals pay support towards obtaining bachelor's degrees or ECE certifications and ongoing staff development to increase the retention of ECE teachers (Reynolds, Temple, White, Ou, & Robertson, 2011).

Retaining ECE Professionals

Even if professionals are actively recruited and trained, retaining them in the ECE field remains difficult. Low wages, high turnover rates, and lack of professional support encourage professionals to leave ECE settings, particularly in child care and infant/toddler programs.

Wages of ECE Personnel

The largest predictor of instability among ECE professionals continues to be wages (Phillips, Mekos, Scarr, McCartney, & Abbott-Shin, 2000). There are wage gaps between employees with varying education levels as well as program type (i.e., public pre-K, home visiting, infant/toddler care, private childcare, Head Start). Furthermore, community-based ECE professionals (e.g., child care, Head Start) earned between 60 to 67 percent of what public preschool teachers earned (see Table 1). Nationally, ECE professionals are more than twice as likely to live in poverty as other families in different occupations (Jiang, Ekono, & Skinner, 2016). Many of these professionals cannot afford ECE for their own children and are likely to rely on federal programs such as Medicaid, Supplemental Nutrition Assistance Program (SNAP), or Temporary Assistance for Needy Families (TANF). Minimal salary changes have taken place between 1997 and 2013. Childcare workers continued to be in the 2nd to 3rd percentile for mean annual salary on par with food preparation workers and laundry/dry-cleaning workers, with only a 1 percent increase in wages from 1997 to 2013 (U.S. Bureau of Labor Statistics, 2016).

Table 1: *ECE Wages Across Professionals*

ECE Position	Median Yearly Salary	Hourly Wage
Elementary	$53,010	$25.49
Kindergarten	$48,700	$23.41
Public PK	$24,640	$13.74
Head Start	$28,434	$13.67
Community-Based ECE	$21,120	$10.15
Federal Poverty Level	$20,160	$9.69

Source: *U.S. Department of Labor, 2016*

There are differences in compensation and opportunity for promotion and leadership in ECE. Public school teachers earn more income with additional educational attainment as well as administrative positioning. However, in infant/toddler programs (e.g., home visiting, IDEA Part C) and community-based programs specifically, there is little incentive for obtaining advanced degrees and or taking on administrative or leadership positions. ECE centers that paid above a region's median wage were 51 percent more likely to employ professionals with higher educational levels (Whitebrook & Sakai, 2003). Unfortunately, low salaries have resulted in educators leaving the field (Wisconsin Early Childhood Association [WECA], 2016) and do not attract highly qualified professionals. Furthermore, often those who leave the profession are often more highly qualified than those who remain in the profession (Barnett, 2003). With research supporting the importance of early learning, Nevada should place emphasis on the pay

and benefits for those with our youngest and most vulnerable citizens.

ECE Personnel Turnover

In order for children to have the highest benefit during their early years, they need interaction with consistent providers and educators upon entering kindergarten (Barrett, 2008). The national turnover rate of preschool teachers ranges from 25-50 percent per year, a higher turnover rate than many other occupations including K-12 teachers who report an 8 percent turnover rate (Miller & Bogatova, 2009; National Center for Education Statistics & U.S. Department of Education, 2014). In Nevada's ECE centers, the reported annual turnover was approximately 22 percent. Nevada's ECE center (i.e., childcare) providers reported that 63 percent of their employees were employed at their current workplace for between one and three years (The Children's Cabinet, 2015). Turnover creates imbalanced child-to-adult ratio, additional stress on remaining employees, disrupts child-caregiver attachment, and impacts childcare quality, child outcomes, and safety (Whitebrook & Sakai, 2003).

Furthermore, the rate of job turnover appears to be a strong indicator of program quality (Cassidy, Lower, Kintner-Duffy, Hegde, & Shim, 2011). Teaching and working in ECE can be described as having, "high demands, low control, and low support" (Whitaker, Dearth-Wesley, & Gooze, 2012, p. 1). Educators are more likely to leave the profession when they experience more issues related to relationships with coworkers and supervisors, overall job satisfaction, wages, stress, health insurance, hours, sick leave and/or paid time off, professional development opportunities, education level, opportunities for promotions, and training opportunities (Bullough Jr., Hall-Kenyon, & MacKay, 2012). Not only does heightened stress negatively impact young children's emotional responses and development but it also effects educators. The consequences of poor stress management impacts teachers' mental and physical heath, lowering their capacity to support young children in ECE programs (Whitebrook et al., 2014).

Ongoing Professional Support

If a teacher works within a school district (i.e. P-12), there are professional organizations, such as teachers' unions who represent them for the budget, salary scale, health and retirement benefits, mediation sessions, and so forth. However, most of those working in ECE programs are not employed by a school district. Therefore, they lack organized representation that can advocate for positive work conditions, increased wages, and changes to professional standards.

Additionally, professionals should have access to affordable and time-sensitive professional development. By staying up to date on evidence-based practices as well as policy and practice recommendations, professionals can provide high quality education and care. Nevada has many professional development opportunities available to professionals including the Nevada Registry and Children's Cabinet.

The Nevada Registry (http://www.nevadaregistry.org) is Nevada's professional development registry for ECE. It disseminates information such as early childhood personnel career opportunities, professional development opportunities, and state training opportunities. All continuing education units (CEUs) must be approved through the registry in order to ensure quality. The Registry also provides career guidance through professional development plans to support EC professionals with their education and career ladders, as well as a requirement for T.E.A.C.H. EC professionals tuition grants and the QRIS.

The Children's Cabinet (http://www.childrenscabinet.org) provides multiple supports for children and families including Nevada's Child Care Resource and Referral (CCR&R) Department Supporting Early Education and Development (SEED). The Children's Cabinet also provides data, ECE training opportunities, scholarship and grant opportunities, and information for individuals interested in becoming an EC provider.

The Early Childhood Special Education Information Hub (http://www.doe.nv.gov/Special_Education/Early_Childhood/) provides information for those working with young children with disabilities in ECE settings.

It is important to note that ECE professionals often work long and non-traditional hours making meaningful professional development challenging. Additionally, researchers indicate that integrated methods such as coaching and consultation as the most effective forms of professional development (Dunst, Trivette, & Hamby, 2010).

Suggested Solutions

In order to maximize learning opportunities, young children need access to high-quality professionals (Barnett, 2003; NAEYC, 2013). Although Nevada has many structures in place to support the ECE pipeline, there are many potential solutions that the Nevada Legislature could consider to maximize outcomes of children, families, professionals, and other citizens.

Certification Requirements and Stipends

Professional qualifications. First and foremost, we need to have high expectations of all our ECE professionals to provide the highest quality of education and care. Nevada could require all ECE professionals to obtain a license, certification, or credential. In particular, those caring for infants and toddlers should be required to have adequate education to promote crucial development during this sensitive period. Many states, such as Illinois, are implementing this process within their QRIS systems. These professional qualifications would ensure that professionals have a high level of education and experience upon entering the field, as well as continual education to maintain their quality. In order to achieve this, the State, with support from Nevada System of Higher Education (NSHE), QRIS, and CCRR agencies, could develop programs such as alternate route to licensure (ARL), similar to opportunities for school-based professionals.

Financial support. Additionally, allocating funding for stipends for professionals to enroll in additional college courses, attend conferences, and participate in professional development coaching would be beneficial. For example, California made available $11 million to be used by teachers, ECE site supervisors, and directors to pay for tuition and to purchase books (CDOE, 2013). The CDOE suggests that these stipends not only improved retention, but also ended up saving money because fewer funds were used for ECE professional recruitment and training. Although stipends increase the likelihood of ECE professionals advancing their education, they may need additional support (e.g., funding, scholarships, grants) to be able to afford the cost of tuition and books to meet certification requirements (Nevada System of Higher Education, 2016).

Nine states have developed plans to increase funding for early learning in order to improve the quality of early learning. For example, Georgia Governor Deal proposed a $358 million Pre-K budget including $26.2 million for salary increases for teachers, and a 3 percent merit pay increase for teachers. Missouri Governor Jay Nixon requested that the education funding formula be expanded to include ECE (Education Commission of the States, 2016).

Professional knowledge. ECE programs should be aligned with current recommendations in the field including NAEYC and Division for Early Childhood (DEC) practices as well as state standards. Currently, the State has approved and published Pre-K (4-year-old) Standards. Infant/Toddler Early Learning Guidelines for the State of Nevada remain in draft form. Furthermore, there are no published standards that include recommendations for 3-year-old children. A multidisciplinary committee of diverse professionals should approve, publish and disseminate these standards. Providing professional development and including standards in personnel preparation programs could ensure appropriate professional knowledge. Assessing professionals fidelity in implementing these standards and recommendations would further the overall quality for ECE. As Nevada is one of the most diverse states with a growing population of dual language learners as well as children with disabilities, ECE professionals must be trained to appropriately nurture the development of all learners.

ECE Professional Recruitment

Early Head Start and Head Start employs a family-centered recruitment model that may remedy pipeline challenges. Parents who have taken part in the program work towards appropriate licensure and certification to serve as assistant teachers. Nevada could recruit more professionals by "growing" professionals from within the community. Parents and family members could be recruited to become ECE professionals as teaching assistants or lead teachers based on their interests, opportunities for education, and career goals. This model could be replicated for IDEA Part C early intervention, home visiting, family home childcare, and preschool programs. This model could be particularly effective in rural areas in which professional recruitment is especially challenging.

Connecting Systems of State Support

Integrating existing systems would better coordinate professional recruitment and training. Similar to other states, ECE programs are spread across Departments of Human Services and Education including many different offices as well as community partners (e.g., Nevada Registry, CCRR, United Way, QRIS, child welfare, Nevada Ready!, home visiting, Part B 619, Part C, Title I, Early Head Start, Head Start, private ECE centers). It is necessary to coordinate across these systems as recommended by the USDHHS, DOE, NAEYC, and the DEC. Blending and braiding support, funding, and communication systems would be beneficial by providing professional growth plans, professional development, and additional support to ECE providers. Additionally, professional collaboration is beneficial to child and families' outcomes particularly for children living in poverty and children with disabilities.

Nevada System of Higher Education Support

An alternative solution would be allotting funds to NSHE to develop ECE program coordinator positions for each university with an ECE or ARL program. It is difficult for faculty members and tenure-track faculty to effectively coordinate effective ECE programs in addition to existing research, writing, teaching, advising, and service responsibilities. Having dedicated faculty to ECE program coordination will allow for better student recruitment, fieldwork placement and supervision, and federal personnel preparation grant opportunities. This designated role could increase the accountability of ECE programs, could increase the number of qualified applicants in ECE programs, and in turn would increase the number of qualified and educated professionals transitioning into the ECE workforce. Additionally, encouraging collaboration among early childhood, special education, and English language learning departments is vital to meeting the needs of all children and families in Nevada.

Conclusion

There is a critical need for quality early childhood personnel in the State of Nevada. The returns on investment during early childhood are much higher than later childhood, specifically for children living in poverty (Garcia et al., 2016; Whitebrook et al., 2014). Children who attend high-quality ECE programs experience life long benefits and are likely to avoid costly consequences (Bivens et al., 2016; Schweinhart et al., 2005). By investing in the ECE pipeline, Nevada will increase positive child, family, state, and community outcomes.

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